



water lines

SUMMER 2022



Rising to the Challenge

Dear Friends,

Few experiences match the liberation of drifting along an uncrowded, lazy river. Lately, however, it seems that feeling has become more elusive. During the last decade, the stunning vistas, great fishing, and ample wildlife of the Teton River have attracted ever-increasing numbers of visitors, mirroring a recreational trend seen across much of the Mountain West.

Our county commissioners recognize the need to address the burgeoning demand for river recreation. Citing the county's 2012 Comprehensive Plan, which prioritizes preservation of wildlife, natural resources, and outdoor recreation opportunities for local citizens, they assigned me to spearhead a public outreach and river management initiative.

Over the last year, in collaboration with our partners at Idaho Fish & Game and Friends of the Teton River, we organized meetings with landowners, fishing outfitters, watercraft rental/shuttle businesses, and multiple state agencies. We collected river-visitation data, which indicated as many as 65,000 user-days during the summer of 2021, a 28% increase from 2018. We published an online river-user survey last fall, receiving more than 1,400 responses. Survey results revealed deep community concern over increasing recreational impacts and broad support for management action. The county also hosted two professionally facilitated planning charrettes, funded by FTR donors, to further solicit public concerns and refine management ideas.

Emerging from this process is a new county waterways recreation ordinance that will phase in new river management policies. It includes a limit on float-group size, caps on rental/shuttle commercial operations, pet control requirements, and rules prohibiting wildlife harassment. In two years, the county intends to implement a paid parking pass system, in order to moderate visitor numbers and fund enforcement and management efforts. Meanwhile, FTR will support the county with a public education campaign to help develop a local culture of river stewardship.

Our mutual goal is to preserve not only the river environment and its wild inhabitants, but also a rewarding experience for all river enthusiasts—that magical sense of freedom. With community support, I sincerely believe we can rise to the challenge.

Rob Marin

Formerly a whitewater guide, river ranger, and restless seasonal traveler, **Rob Marin** has served as Teton County's GIS Manager since 2011. His position recently expanded to include the title of "Community Projects Coordinator." A 25-year resident of Teton Valley, he lives in Driggs with his wife, Sabine, and Louis the adventure dog, who loves boating, but is not too keen on swimming.

Friends of the Teton River

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Andrea Flores joined our team as the office manager in February. She has lived in Teton Valley for more than twenty years. She enjoys volunteering for the Hispanic Resource Center and sharing her Mexican heritage with her community. She also likes to spend time outdoors, snowboarding, camping, rockhounding, floating the river, or enjoying live music with her family.

Rising to the Challenge



ROBERT WARREN

We have an unknown distance yet to run, an unknown river to explore. What falls there are, we know not; what rocks beset the channel, we know not; what walls ride over the river, we know not."

– John Wesley Powell



Much like John Wesley Powell's intrepid trip down the Colorado River, there are unknown obstacles up ahead for our beloved valley. None of us could have foreseen that a global pandemic would ultimately lead to another development boom in our region. We had no idea that this boom would be coupled with rapidly expanding outdoor recreation pressure. Nor could we have known that we would also be facing record drought conditions, and the challenges this brings for farmers and fish.

We do know that, thanks to the extraordinary support of our donors, members, and partners, Friends of the Teton River (FTR) is poised to rise to the challenge. Because of supporters like you, FTR has continued to build our financial, technical, and human capacity. In the upcoming year, we will be embarking on our biggest, most complicated, and most expensive stream channel, fish passage, and flow restoration projects to date, permanently re-opening vital spawning ground for native trout, while providing a sustainable source of water for irrigators. We are taking on new roles in responsible recreation education to ensure our valley's most precious resource exists for future generations to enjoy. We are engaging in leading-edge fisheries and genetics research to better understand the threats to our native trout populations.

Your generosity and participation in our mission helps provides crucial funding and support for these efforts. Together, with our community, we will face these challenges head on. Despite the obstacles, we will continue working to ensure a legacy of healthy streams, clean water, and a thriving wild fishery. Thank you for the vital role you play in this ongoing work.

Amy Verbeten
Executive Director

Innovative Fisheries S

Teton River Trout Densities

South Bates to Bates Bridge

 2003  2021



Yellowstone Cutthroat Trout (YCT) are native to the Teton River.

The State of the Fishery

Historically, Yellowstone Cutthroat Trout (YCT) flourished in the Teton River. Between 1999 and 2003, numbers plummeted by 95% due to natural and human causes. Much of FTR's early fisheries research focused on understanding the causes of this decline and how to improve conditions for native trout. Over the last 15 years, monitoring has indicated an unprecedented rebounding of YCT populations in stream reaches where FTR has targeted our restoration efforts. While this is great news for cutthroat, non-native trout species, like Rainbow Trout, Eastern Brook Trout, and an increasing number of Brown Trout, compete with native trout for space and resources in tributaries and main stem Teton River.

FTR uses many data collection methods to research and monitor trout species in the Teton River, such as electrofishing to assess population numbers, tagging fish (with an implanted transponder) to track their migration throughout the watershed, and through observational data such as redd surveys and angler feedback.

2021 Fisheries Survey Updates:

- The Nickerson reach (from Teton Creek to Buxton Bridge) has historically had the highest concentration of Yellowstone Cutthroat Trout in the upper watershed. The current population estimate for this reach is 370 YCT/mile, just slightly fewer than the ten-year average for of 383 YCT/mile.
- During fifteen years of monitoring tributary streams, across all sites for all species, there is an annual 2% decrease in overall trout abundance, however, over time YCT have stayed stable at 45% of trout captured.
- Rainbow and Brook Trout abundance are also on par with the ten-year average.

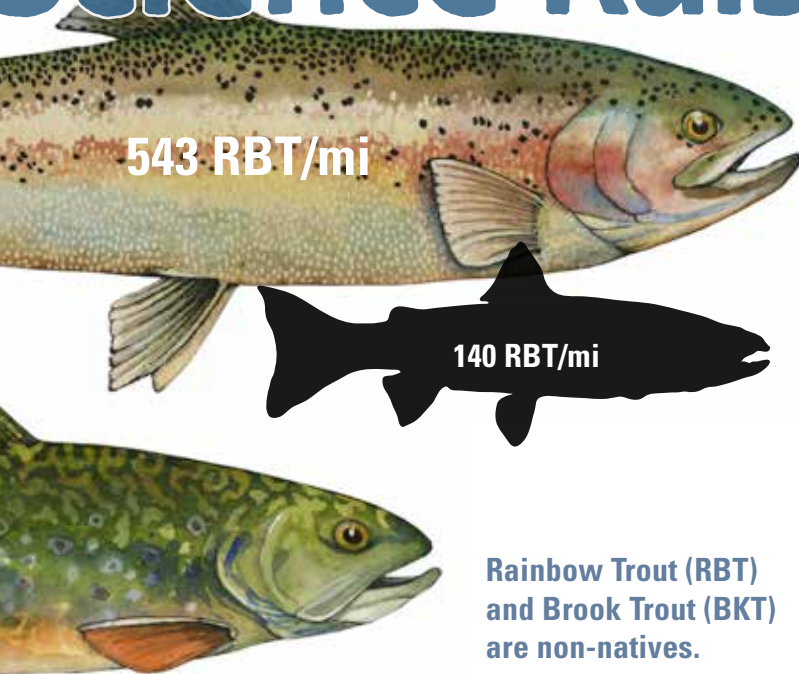
➤ The number of Brown Trout (BNT) captured during electrofishing surveys has increased in the past decade, from a few dozen fish to 165 individuals of all age classes (juvenile to adult) in 2021. The eDNA study (see story, at right) will help answer fisheries biologist's questions about the extent of BNT occupation in the watershed

Success story! Over the past decade, FTR has worked with landowners in Canyon Creek, a tributary to the Teton River Canyon. The stream flow and fish passage restoration work that FTR has completed there has increased YCT's access to important spawning habitat. During that time, IDFG has documented a 215% increase in estimated YCT abundance per mile near the confluence with the Teton River.

Redd surveys: FTR continued to monitor long-established sites in the Six Springs sub-watershed, a complex of spring creek tributaries to Teton Creek on the Teton Regional Land Trust property southwest of Driggs. Numbers of spawning trout in the Six Springs system were high, indicating a strong spawning run. FTR found 30 Redds, the greatest number of Redds observed in the past five years.

Temperature Monitoring: FTR started installing remote temperature loggers throughout the Teton River Watershed in 2011. In 2021, FTR collected temperature data at the 36 temperature loggers located in all the major tributaries and the mainstem Teton River. Native YCT require clean, cold water for survival. Although daytime water temperatures were up to 8 degrees higher at some sites than previously recorded during June and July, nighttime temps provided cooling relief and remained below the lethal limits for salmonid species (77 degrees).

Science Raises the Bar



Rainbow Trout (RBT)
and Brook Trout (BKT)
are non-natives.

eDNA Research Begins

Starting this summer, FTR is planning to use a new, but well-established tool used by fisheries managers around the world called “environmental DNA.” eDNA is derived from genetic material that was shed by an organism into a natural environment such as soil, water, or air. This tool can detect species that occur at a low density, and will be exceptionally accurate at determining the extent of non-native trout in the Teton River.

FTR will collect eDNA by taking filtered water samples from the headwaters near Victor, Idaho, downstream to the old Teton Dam site, from July through October 2022. Samples will be processed in the winter of 2023, and FTR plans to share our findings next spring. This data will provide crucial information to state and federal fisheries managers, as well as FTR, as we work together to protect and restore native trout and their habitat in the Teton River Watershed.

This project is the result of coordinated interagency involvement, support, and input from experts in the field, including Idaho Fish and Game, the U.S. Geological Survey, and the U.S. Forest Service.

FTR is seeking \$15,000 in funding to support the lab processing and genetic analysis of 300 eDNA samples. Thanks to the support of WorldCast Anglers and individuals, we have raised \$8,500 toward this research. Help FTR respond quickly to this emergent opportunity by supporting this campaign with your gift. Contribute online at tetonwater.org/give.

SUPPORT E-NOVATIVE RESEARCH

Scan the code with your phone or tablet to support eDNA research.



Hot tips for anglers

The 2021-2022 winter season brought the third-lowest snowpack in the past thirty years. As the fishing season heats up for the summer, FTR will be keeping close tabs on stream temperatures. Anglers can help do their part to minimize their impact on fish, especially during the hottest parts of the day, by safely and thoughtfully handling trout. Follow the below tips:



Keep a water temperature thermometer in your fishing vest and get in the habit of using it. If the water temp is 67 degrees F or more, you may want to stop fishing. At this point, conditions are becoming stressful, and trout are less active while they deal with the warm conditions. You may also choose to move higher in the drainage to cooler waters.



Keep the fish wet. Keeping the fish in or very near the water will reduce the amount of time they are without oxygen to breathe and reduce the chance that they are dropped on the bank or deck of your boat.



If you choose to photograph the fish, do it quickly and keep the fish in the water if possible.



Limit your fight time. Using heavier tackle (like stronger tippet) will allow you to land a fish quickly and without overplaying the fish.



Use barbless hooks and rubber nets. Both will reduce harm and make it easier and more efficient to release the fish once landed. Rubber nets are less abusive to the fish's skin, fins, and gills.

Teton River Re

NEW Teton County Waterways Ordinance Goes Into Effect

The new Teton County Waterways Recreation Ordinance was approved May 9, 2022. As a river recreationist, you should be aware of new rules and regulations.

Where?

The ordinance applies to the Upper Teton River, from White's Bridge to Harrop's Bridge, and includes the tributaries of Fox Creek and Teton Creek where they join the Teton River.

Who?

The ordinance applies to the public using the river, Commercial Operators (defined as businesses that provide rental equipment and shuttle services) and Outfitters, who provide guided services on the river and are regulated by the Idaho outfitters and Guides Licensing Board.

What?

Rules and regulations in the ordinance will be enforced by the Teton County Sheriff's Office or designated Teton County personnel and violations may constitute infractions subject to a fine or a misdemeanor offense.

Some key features of the ordinance include:

- For all waterways in Teton County, unlawful noise (disturbing the peace) and dumping of waste (littering) is prohibited.
- Group size on the water is limited to 15 individuals. Groups larger than 15 must obtain a special use permit.
- Parking passes will be required for all river adjacent parking lots as of May 1st, 2024. Until then, parking will be limited to designated parking spots at available river access points. Parking alongside county roads within ½ mile of the river access sites is prohibited.
- To protect the sensitive ecosystem of the Teton River, dogs must be on a leash or under effective voice control at all times. Dogs and river users shall not harass or disturb wildlife.
- Solid dog waste and human waste must be removed/packed out and properly disposed of.

Teton County will form a Teton Waterways Recreation Advisory Committee to advise on implementation and necessary revision of the Ordinance.

To read the Teton County Waterways Ordinance in its entirety visit tetoncountyidaho.gov.

RESPONSIBLE RECREATION BEHAVIORS



Be Ready

- Organize gear before approaching the ramp. Smaller craft should stage to one side and leave the ramp for boats with trailers. Clear the way for the next party.
- Use existing restrooms at river access points and be prepared to pack out human waste.
- Expect afternoon thunderstorms and conditions that can change quickly.



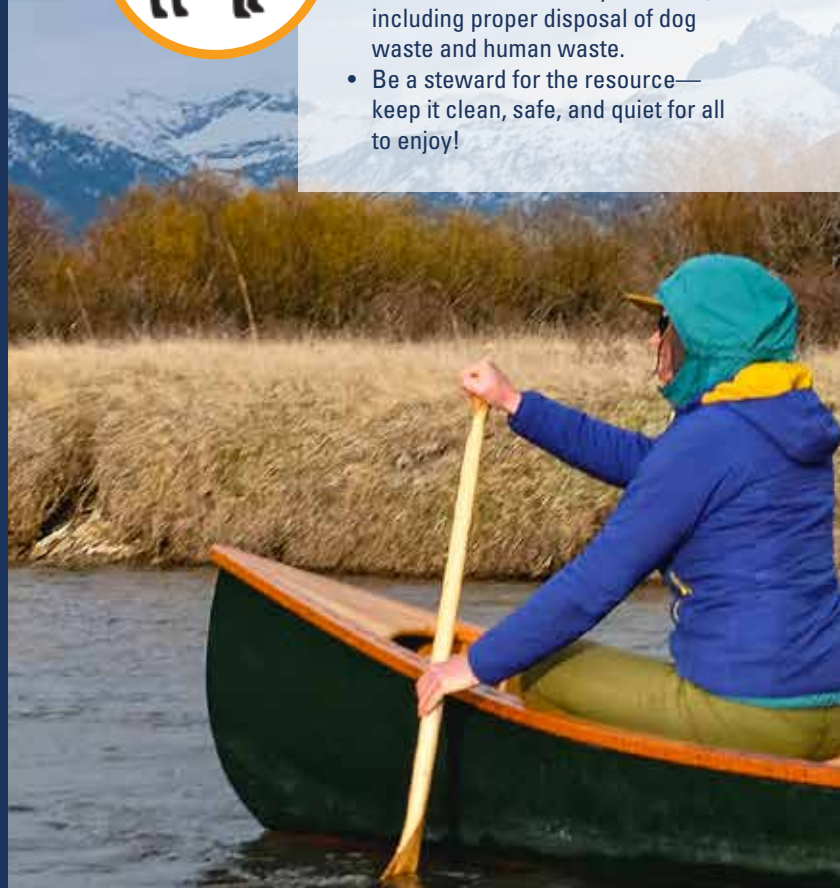
Be Respectful

- Give ample space to other boaters, anglers, and wildlife when on the water. Be courteous when you encounter others and don't create excessive or unnecessary noise.
- Most of the land adjacent to the river is privately owned. Stay below the high-water mark and off private property.



Be Responsible

- Always keep dogs under control. Dogs harassing wildlife are a threat to the Teton River ecosystem.
- Pack out all trash that you create, including proper disposal of dog waste and human waste.
- Be a steward for the resource—keep it clean, safe, and quiet for all to enjoy!



creation RIVER ORDINANCE UPDATE

GET A RECREATION FUND STICKER FOR YOUR CAR

You may notice cars around Teton Valley sporting a new sticker this summer. These voluntary vehicle stickers give river users the opportunity to support Teton County's river recreation management efforts during the summer of 2022. A voluntary vehicle sticker program was a recommendation that came out of the public charettes. The goal is to raise funds in support of a shared community asset, similar to that of other local efforts like Teton Valley Trails & Pathway's voluntary Trail Sticker program.

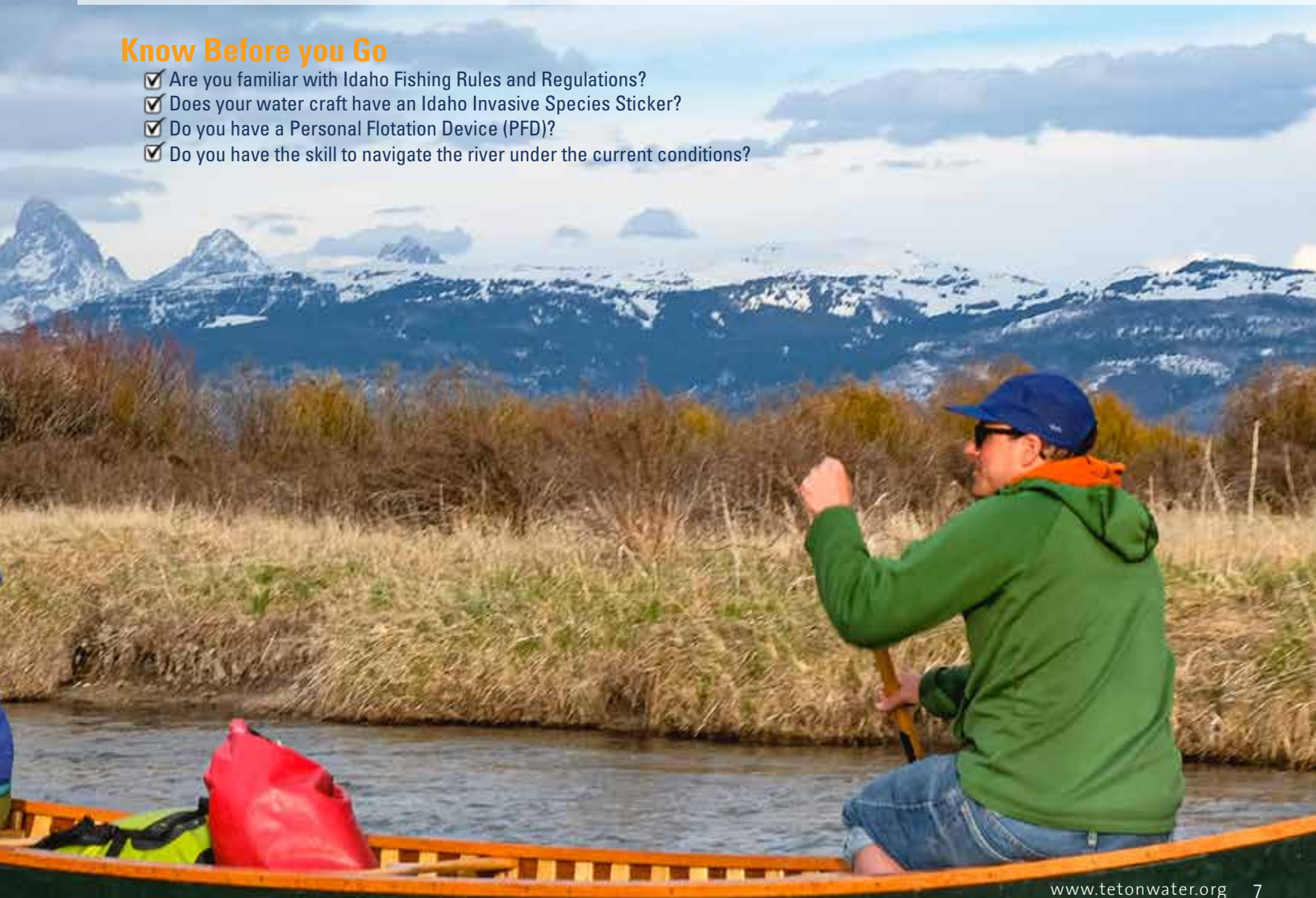
This annual parking sticker, good for the 2022 summer season, will cost \$40 per sticker. Two stickers can be purchased for \$55 (if purchased in the same transaction). For less frequent river users, a \$5 daily donation is recommended (no sticker). River users can purchase these stickers online at tetonwater.org. Funds raised through the sticker program will go directly to Teton County to support recreation management efforts as they work to secure more permanent funding mechanisms and staffing for recreation management on the Teton River. However, when you purchase your sticker, we hope you'll consider a donation to Friends of the Teton River, as well.



This program will support implementation of the new Teton County Waterways Recreation Ordinance, approved this spring after extensive public input.

Know Before you Go

- ☒ Are you familiar with Idaho Fishing Rules and Regulations?
- ☒ Does your water craft have an Idaho Invasive Species Sticker?
- ☒ Do you have a Personal Flotation Device (PFD)?
- ☒ Do you have the skill to navigate the river under the current conditions?



WIN-WIN SOLUTIONS FOR PEOPLE & FISH

Friends of the Teton River is proud of our work in partnership with agricultural leaders who believe that well-managed family farms and conservation can, and should, go hand-in-hand.

The Farms & Fish Initiative builds upon the relationships cultivated with our farming community and twenty-one years of watershed science and research. Since 2017, FTR has been working alongside agency partners, agricultural producers, and water managers to develop locally-based solutions for maintaining the viability and health of working lands, open spaces, and stream corridors, while improving water resources for people, fish, and wildlife.

We have seen a remarkable impact in only five years. FTR has worked with farmers to implement regenerative practices on nearly 2,000 acres, recharged over 30,000-acre feet of water to the Teton Valley aquifer, and completed three major restoration projects on streambanks and riparian areas.

Environmental stressors such as drought, extreme temperature, non-native fish introductions, and development pressure continues to test our watershed's adaptability. Through collaborative problem-solving, and with your support, we will continue to find win-win solutions that improve the health of our watershed and our community.



DONATE TO THE CAMPAIGN

Donate to the Campaign online using the QR code or visit tetonwater.org/give.

For other ways to give, see the back page. For more information, please reach out to our Philanthropy Director hannah@tetonwater.org.



Farms & Fish

Collaborating with agricultural partners on projects that aim to sustain working lands and a wild Teton River fishery. We will undertake in 2022 and 2023. **The Farms & Fish Campaign** projects listed below, now and into the future.

Canyon Creek



Improving water management and restoring flow

Canyon Creek supports a core conservation population of Yellowstone Cutthroat Trout and is a vital resource for the local farming and ranching community.

Desert Canal Fish Screen



Upgrading headgates and installing fish screens

Installation of a corrugated fish screen and passage return pipe will help protect a priority spawning population of Yellowstone Cutthroat Trout from entrapment and mortality in the Desert Canal, the last remaining unscreened irrigation diversion on upper South Leigh Creek.

Farms

Exam

Proj

Boosting soil and water health

With the continuing trend of extreme variability in our weather patterns and water supply, FTR is working with farmers and ranchers to build up the organic matter percentage of soils and pursue markets for high-quality products grown with conservation in mind.

sh Initiative

at address water availability are of the highest priority
This priority underpins much of the work FTR will
n will support new and ongoing work like the example

& Fish
mple
ects

Upper Teton River Restoration



Restoring rivers and ranches

This spring, FTR completed a project restoring 1,700 feet of streambank just north of the Bates Bridge public river access and looks forward to more projects to prevent erosion, improve water quality, and restore habitat.

Aquifer Recharge



Expanding water availability

Despite drought conditions throughout the West, FTR and partners were able to recharge over 10,000-acre-feet of water during the 2021 water year.

Regenerative Farming



**Farms & Fish
Campaign Goal
\$500,000**

Funding Needed
\$229,065

Gifts Received
\$20,935

Lead Gifts
\$250,000

Federal, State,
and Private
Foundation
Grants
\$4,500,000

**\$5 million
total project
budget**

Improving Water Availability through Aquifer Recharge

As we face a future where variability and uncertainty is the norm for water resources and water users, FTR looks to our local community for creative solutions to meet the challenge of managing drought conditions. FTR helped to convene the Teton Water Users Association (TWUA), a group led by agricultural producers, conservation groups, municipal and county leaders, and experts in hydrology that are working together to develop a more stable water supply through incidental aquifer recharge.

What is Recharge?

Incidental recharge occurs when water sinks into the groundwater aquifer as a result of human activities incidental to irrigation, such as when water sinks into the ground when farmers flood irrigate fields or when water is conveyed through unlined irrigation canals. Early in the spring (March-May), this technique can be used to augment, or recharge, the local aquifer. Slowing down water in the natural “sponge” of the aquifer delays delivery into tributaries and the Teton River by one to three months, providing additional return flows June through August.

How much water?

Despite drought conditions last year, 10,262 acre-feet of water was added to groundwater by irrigators participating in the Teton Valley Aquifer Recharge Program. This water was recharged by agricultural water managers through modified irrigation practices in Darby Creek, Fox Creek, North Leigh, South Leigh, and Trail Creek sub watersheds. Model projections indicate that, for 10,000 acre-feet of recharge, there is a response of an additional 10-15 cubic feet per second in the main stem of the Teton River between June 15 and October 31. This added water helps to meet water demand for downstream water users in Teton Valley. Fish, wildlife, and recreationists also benefit from added streamflow.



The public tours aquifer recharge on the Trail Creek system in May.

“By sharing what we learn through community education, we are not only getting local producers to buy-in to recharge, but the community is also understanding the importance of what it is and the benefits to the farmer, the aquifer, and our Basin.”

—Lynn Bagley,

Teton Soil Conservation District President and
Friends of the Teton River Board Member



During the winter of 2021/2022, we slipped further into an extended drought with some areas of the Teton Watershed classified in extreme drought. We experienced a reduced snowpack at 76% of average peak, and February set a record for lowest observed precipitation in a 40-year period. While April brought average precipitation, it was only one of 7 months since June 2020 to do so.

The Future of Water Supply

Multiple human and environmental factors create uncertainty for the water supply of Teton Valley. As the demands on our water resources grow and the supply becomes more uncertain, how can we ensure that these resources will be available for future generations of homeowners, farmers, ranchers, as well as the fish and wildlife that make their home here? The willing participation of the irrigators in aquifer recharge will be an important part of the solution for water management for seasons to come. However, in-

creased development in Teton Valley is creating challenges for incidental recharge through land use change that impacts canal infrastructure, creates turnover in landownership, and added uncertainty for water managers on the ground. Educating residential water users and the community about water supply challenges, the benefits of recharge to residential water supply, and the importance of canal infrastructure for water delivery will be essential as we rise to the challenges of drought together.

FTR 2022 Summer Events & Tours*

June 10

10

11

30

FTR at the Farmers Market

Visit our booth at the Teton Valley Farmers Market! Chat with FTR staff, learn about our work, and get your FTR merchandise for friends and family.



Fish Screen Tour

Visit an automated fish screen on South Leigh Creek and learn how improved water delivery and fish passage benefit cutthroat trout.



Idaho Free Fishing Day



Fisheries Science Field Tour

Explore spawning Cutthroat redds, fisheries monitoring infrastructure, stream restoration, and managed grazing at Six Springs Creek with FTR and the Teton Regional Land Trust.

July 8

13

16

20

FTR Valley Voices @ High Point Cider

Highpoint Cider hosts an evening of river storytelling with proceeds benefitting FTR.



River Clean-up with Teton River Supply

Float with commercial operator Teton River Supply to learn more about the Recreational Education Campaign, while cleaning up the river corridor.

Tin Cup Event Day!



Canyon Creek Tour

Tour Canyon Creek to learn about this vast drainage, unique partnerships, and a \$3 million dollar project to restore this cutthroat spawning tributary.



August 5

11

16

FTR at the Farmers Market



Teton Valley Farm Tour

A multi-stop tour will feature soil health education, management intensive cattle grazing, streambank restoration along the Teton River, and a farm equipment demonstration.



People's Choice

What do you want to learn about or see in the Teton River Watershed? Reach out to give us your suggestions!

September 8

10

River Clean-up with Wai Mauna Paddleboard Rentals

Float with commercial operator Wai Mauna Paddleboard Rentals to learn more about the Recreational Education Campaign while cleaning up the river corridor.



Block party at Grand Teton Brewery

Celebrate our valley's hardworking local businesses and nonprofits with an afternoon of good food, tasty brews, and great company!

*For More Info:

Visit the FTR website, tetonwater.org, for more information, including specific times and locations for tours and events. Note that some events require sign-up and participation is limited. Email our community education director, Will Stubblefield, at will@tetonwater.org to connect about upcoming education opportunities.

CONTACT US:

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www.tetonwater.org

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"We choose to support FTR because they are true stewards of this incredible resource. What impresses us most about FTR is the care and thought the entire organization brings to their conservation efforts, from community outreach to habitat restoration, and partnering with a variety of other organizations in unique and meaningful ways." - Astrid & Todd Warden

"With its science-based approach, FTR is our best insurance policy for sustaining the quality of our valley's most important resource. Ensuring clean, healthy water is essential for every valley resident, humans and others, and FTR is doing just that, for all of us." - Judy & Tom Fauntleroy

TIMOTHY CUSHMAN

GIVE BACK



ONLINE

Make your one-time or recurring donation to any ongoing campaign online at tetonwater.org/give.



BY MAIL

Friends of the Teton River
PO Box 768, Driggs, ID 83422



FOR TAX BENEFIT

Receive a tax deduction or avoid penalties while supporting our work by making a charitable gift of appreciated securities or a required minimum distribution from a retirement account.



LEGACY PLANNING

Designate FTR as a recipient of a planned gift to ensure a bright future for the Teton River. Contact our Philanthropy Director at Hannah@tetonwater.org and your financial advisor or tax professional to start.

SUPPORT FTR THROUGH TIN CUP

From June 1 – July 22, your gift to FTR through the Tin Cup Challenge will be matched by generous community donors. Visit the Community Foundation of Teton Valley website at www.cftetonvalley.org and select Friends of the Teton River as the recipient of your donation.

MAKE AN ANNUAL FUND DONATION

Scan the code with your phone or tablet to give now.

