



# water lines

WINTER 2024



Show + Tell



# A message from the Executive Director

## STAFF

Amy Verbeten, Executive Director  
Anna Lindstedt, Grants Director  
Hannah Orcutt-Mook,  
Philanthropy Director  
Mike Lien, Stream Restoration &  
Research Director  
Brian Van Winkle, Watershed  
Monitoring Manager  
Sarah Lien, Water Resources &  
Policy Director  
Will Stubblefield, Community  
Education Director  
Daniel Wilcox, Farms & Fish  
Program Manager  
McKenzie Heras, Development &  
Program Associate  
Andrea Flores, Office Manager

## BOARD OF DIRECTORS

Mark Anderson, President  
Rick Richter, Vice President  
Rick Fogg, Treasurer  
Hayes Swinney, Secretary  
Lynn Bagley  
Kevin Bauer  
John Fisher  
Doc Frangos  
Hilary Hayes  
Madeline Johnson  
Chris Littauer  
Jen Pierce  
Gini Van Siclen  
Todd Warden



18 N. Main Street, Suite 310  
PO Box 768 | Driggs, ID 83422  
(208) 354-3871 | info@tetonwater.org |  
www.tetonwater.org

Cover: Thom Carroll  
Production: Powder Mountain Press



*“A community-generated approach to water education empowers individuals of all ages to take direct action...[and] is essential to ensuring healthy rivers and streams.”*

## DEAR FRIENDS,

When Friends of the Teton River was founded in 2000, community education was identified as a cornerstone of our work. Our diverse, founding board believed that a community-generated approach to water education that empowers individuals of all ages to take direct action is essential to ensuring that healthy rivers and streams will persist for future generations. Our watershed education program, which began as a field-based stream study program with a single 4th grade class in Tetonia, has evolved into a community-wide program that reaches people across ages, industries, and both political and watershed boundaries. We continue to offer watershed science field and classroom programs in partnership with schools in the Teton Watershed, and many of you have participated in watershed science workshops, classes, and events designed to engage watershed citizens, and provide opportunities to connect with FTR’s work. Advances in technology over the past two decades have allowed us to create and distribute media that reaches a much wider range of audiences and brings the watershed and its critical stewardship issues alive to people wherever and whenever they are able to engage. As a concrete example, each page in this newsletter has links, QR codes, and other suggested resources available to show and tell readers where they can get more info and delve deeper into topics and issues of interest.

As we look back over the past twenty-four years of watershed conservation, it is clear that a healthy Teton Watershed is dependent on mutual understanding, respect, and cooperation. Your willingness to engage with our mission, and to show and tell others about this work, has been a critical component of our success. Together, we have been able to enact practices and projects and support policies that protect and restore clean water, healthy streams, and a thriving wild fishery in the Teton River Watershed. As always, one of our greatest challenges is reaching new residents and river users, and reaching out to those who don’t yet know about FTR and the resources we provide. We have found that the most effective way to reach new people is with your help—please continue to share what you know with your neighbors, friends, and network. We hope to see you and your friends at an upcoming program or field tour, and in the meantime, please check out the many resources, [indicated by the magnifying glass](#) in this issue, to learn more!

*Amy Verbeten*  
Executive Director



## Wastewater Treatment Plant Update

After consistently failing to meet the ammonia discharge limits set by the Environmental Protection Agency, the City of Driggs hired an engineering contractor to update the Driggs Wastewater Treatment Plant (WWTP) facility plan and to determine how to bring the plant into compliance. This past fall, city staff and council members selected a preferred alternative for long-term and interim improvements to the WWTP. In 2024, the city will be working to approve the new facility plan and develop next steps for implementation.

Learn more about this issue and get the latest updates on the City of Driggs Wastewater Treatment Plant by visiting: [driggsidaho.org](http://driggsidaho.org).



## Stream Corridor Protection

Multiple stream corridors in our watershed were damaged by development activities this fall. Healthy and functioning floodplains and riparian areas are critical to protecting the public's health, safety, and welfare in our community. Alterations within riparian areas can increase the likelihood and impacts of flooding, leading to erosion, dangerous conditions, and damage to private and public infrastructure. It's critical to maintain healthy and functioning riparian corridors, and landowners can do their part by following the county permitting process to ensure that work can be completed in a way that will maintain the integrity of the stream and floodplain.

You can learn more about conservation of floodplains through FTR's guide, *Stream Corridors: A Conservation Guide for Private Landowners* and obtain floodplain protection ordinance and permitting information through Teton County, Idaho's website.



## Water Quality Awareness

Teton County, Idaho, residents generally enjoy very high-quality drinking water due to the county's low density, rural population, and its location high in the headwaters of the Teton River Watershed. It is important, however, to note that some areas of Teton County, ID, have elevated nitrate levels caused by improperly maintained septic systems, personal or commercial fertilizer use, animal waste, or a combination of those factors. FTR supports residents to monitor drinking water quality through well water testing. We are partnering with the Jackson Hole Clean Water Coalition ([jhcleanwater.org](http://jhcleanwater.org)) to bring the Trout Friendly Lawns Program to the west side of the Tetons in summer 2024. These programs are designed to identify and reduce non-point source pollution that can contaminate the underground aquifer in the Teton Watershed.

Check out these water quality protection programs:  
Well Water Testing - Friends of the Teton River ([tetomwater.org](http://tetomwater.org))





# Desert Canal Shows Success



In 2023, FTR completed a \$350,000 fish screen installation on South Leigh Creek. The Desert Canal diverts water from the creek to irrigate fields, water livestock, and help augment aquifer recharge efforts. FTR worked with irrigators and adjacent landowners for more than ten years on various aspects of the project to improve habitat and fish passage on the natural stream channel, replace the old headgate, and, finally, to complete the screening portion.

The screen design—a “corrugated” screen—is the first one of its kind installed in Teton Valley, and one that the irrigators helped choose based on their needs for a non-mechanized and maintenance-free screen that also suited the flows and site location. The fish screen is made up of eighteen perforated, corrugated stainless-steel panels placed horizontally in the screen bay. Most of the water flowing over the panels passes through the perforated holes and into the canal for irrigation purposes. Meanwhile, fish and insects are washed over the top of the screens and returned to South Leigh Creek through a bypass pipe.

As soon as the fish screen was operational in the spring of 2023, we saw immediate results!

South Leigh Creek is an important tributary to the Teton River and still has an intact fluvial Yellowstone Cutthroat Trout (YCT) spawning migration. The project goal was to help alleviate the entrapment (or entrainment) of YCT in the Desert Canal and return any fish that were swept through the canal headgate back to the creek, so that they can continue their up- and downstream migration to complete their life history. Fish screens were already in place at the two other main points of diversion upstream. This was the last significant downstream point of diversion on South Leigh Creek needing improvement.

At the end of July 2023, FTR electro-fished the canal downstream from the fish screen and did not find any entrained YCT, meaning that the fish screen kept them from being washed into the canal to end up stranded in fields—a real success story!

At the beginning of August, we observed sixty “young of the year” YCT in the fish screen bay, which

is the first definitive evidence of the timing of their out-migration to the Teton River. As the irrigation season ended and the irrigators shut down the headgate for the winter, we observed an additional seventy-five juvenile YCT of varying age classes between the headgate and the fish screen. We safely captured and transported these fish to the Teton River to complete their migration. It is highly likely that the 135 juvenile cutthroat we captured by hand represented a small percentage of the total number of juveniles that had been perishing in the canal annually for more than one hundred years. The Desert Canal fish screen is a big win for community partnerships and efforts to improve Cutthroat populations in the watershed!

**Watch a video of the Desert Canal Fish Screen in-action:**



# Fisheries Data Tells the Tale

Over the past two decades, FTR has worked with a myriad of state and federal agencies, universities, and private sector scientists to conduct innovative research and assemble arguably the most comprehensive data set of any western watershed and for any inland native trout species to-date. In addition to our fisheries data, other monitoring parameters such as stream flow and water quality, tell us a lot about the current conditions affecting the status of our native Yellowstone Cutthroat Trout, give us insight into the efficacy of our work, as well as show us the best alternatives for future conservation efforts (such as the Desert Canal project, featured at left).

## Tributary Trout Population Assessment

FTR uses a variety of methods to assess population trends for all species of fish in the watershed, which includes their capture to record information (via electrofishing or by “hook and line”) and their release back to the stream. Surveys occur at established sites on the mainstem Teton River every other year. FTR began assessing trout abundance in all major tributaries to the Teton River in 2005 and has repeated this survey once every five years. The fifth such survey will occur in the summer of 2025 and will provide valuable information about the efficacy of specific restoration efforts and provide the most up-to-date status of trout populations around the watershed. **Cost: \$100,000**

## Interrogation Sites

Spawning migration is tracked using a network of “interrogation” sites that log the movements of tagged trout past one of six monitoring locations around the watershed. FTR pioneered this technology in 2010. Since that time, the data we have collected has refined our understanding of when and why trout utilize specific habitats, which is critical to project prioritization.

In the next two years, we are working to upgrade these systems to continue this work, with the capability of accessing the data in real-time. **Cost to replace sites: \$60,000**

## Genetic Research

FTR is currently partnering with fisheries genetic experts from around the region, including IDFG, WYGF, USGS Northern Rocky Mountain Science Center, USFS National Genomics Lab, the University of Wyoming, the University of Idaho, and others to explore the powerful new genetic analysis tools available that can be used to monitor trends in fisheries populations. These new tools allow fisheries managers to assess gene flow between YCT populations, hybridization trends with non-native species (Rainbow Trout), and the distribution of non-natives. This research will allow us to quantify and predict the impacts that various conservation strategies may have on native trout populations. For example, if stream flow is restored on Teton Creek, would this affect YCT gene flow between upper Teton Creek and the Teton River? Would it impact non-native competition and invasion, or lead to more YCT spawning success?

Genetic Research has been funded by the Cross Charitable Foundation, Jackson Hole One Fly, USGS, and the USFS (BIL funding), with support from the University of Wyoming and private donors.

Research and monitoring are critical to implementing fisheries restoration and management strategies that work but are difficult to fund through grants alone. If you love fishing, science, and conservation (like we do), we invite you to support this work through volunteering and through your donations to the upcoming fisheries campaign (see back cover).





# Reconnecting Canyon Creek



**1** The old Canyon Creek lateral diversion point, near the historic Teton Dam, was taken out and reconstructed.

**2** This point of diversion will provide water to seven of the eleven Canyon Creek Canal Company members and required a complete rebuild to sufficiently increase pumping capacity.

**3** 10,460 feet of 36-inch steel mainline pipe was installed, allowing the water pumped at the Canyon Creek lateral point of diversion to be conveyed farther south, closer to the farms that will use it.

**4** 11,160 feet of on-farm conveyance line was installed, allowing water to be carried from the 36-inch mainline to the farm fields themselves.

In September of 2023, FTR and the Canyon Creek Canal Company broke ground on a \$4.6 million project that, once completed, will: (1) significantly improve stream flow conditions in Canyon Creek for the benefit of Yellowstone Cutthroat Trout (YCT) and other wildlife; (2) increase water availability and reliability for agriculture producers, including several world-renowned seed potato operations located near Newdale, ID; and (3) address fish entrainment issues at two large irrigation diversions, one located on Canyon Creek and the other located on the Teton River.

This kind of water project is commonly referred to as a “source switch” project, meaning that it will change the water source from which irrigators will withdraw their shares. In this case, the irrigation diversion improvements made through the project to three points of diversion located on the Teton River will allow the Canyon Creek Canal Company to stop diverting water from Canyon Creek (currently flow limited and critically important to Yellowstone Cutthroat Trout), and

instead divert water from the Teton River (which is not flow limited). As a result, water will be restored to Canyon Creek without impacting producers’ ability to secure water for their valuable farming operations.

This multi-faceted, multi-benefit project is being implemented over two years. Thanks to ideal construction weather this past fall, a great deal of work was completed in 2023 and will conclude in late 2024.

The partners involved in the project—the Canyon Creek Canal Company, FTR, and GoldenWest (the contractor performing the work) as well as funding partners the Bureau of Reclamation, National Fish and Wildlife Foundation and the USFS through the America the Beautiful Challenge Grant, the US Fish and Wildlife Service and others—realize the long-term benefit this will have in the Teton River Watershed and the overall impact. And for good reason. This is the largest conservation-oriented flow project in the Pacific Northwest, making it a legacy project by any measure.



- 5 Starting in spring 2024, work will continue with replacing about 8,000 more feet of mainline, demolition, and construction of another large Teton River point of diversion, and installation of fish screens.

*“This project isn’t something we thought possible, even a few years ago. FTR has proved itself a strong partner, helping us sustain our farming operations, while ensuring that the wild places we all love are here for our children and grandchildren.”*

**Dave Schwendiman,**  
Canyon Creek Canal Company President

**FTR will host a public Canyon Creek field tour in summer 2024.** Please look for announcements in our e-newsletter and join us to learn more about the project and celebrate this special achievement. Scan the QR code to sign up for the FTR e-newsletter.



## Canyon Creek Numbers

**5.6** MILES OF NEW PIPE



**10,680** ACRE-FEET OF WATER RESTORED ANNUALLY.

(Enough water to fill 5,340 Olympic-size swimming pools!)

**13** YEARS IN THE MAKING



**10.2** MILES OF HABITAT IMPROVED

**35** MILES OF STREAM RECONNECTED IN THE CANYON CREEK DRAINAGE





# Watershed Education

## Field Science for Fifth Graders

The Stream Study Program empowers students to draw their own conclusions about water quality in the Teton River Watershed. After introduction to materials in the classroom, students take their new skills to Trail Creek where they work with peers to investigate stream health in their own backyard. This program offers hands-on learning about water quality and a connection to water resources through field science exploration. Stream Study has been part of the FTR Education Program for twenty years!



### Stream Study 101

The Stream Study Program begins in the Driggs City Park. FTR staff meet teachers and students from Rendezvous Upper Elementary School and introduce water quality testing and macro invertebrate identification, setting students up for success to collect data and work independently during their field trip to Trail Creek.



### Collecting Data

Students use the skills they practiced in the Driggs City Park to work in teams collecting water quality data on water temperature, dissolved oxygen, pH, nitrate, phosphate, and turbidity.



### Getting Our Feet Wet

A highlight of this program is completing kick net surveys for macroinvertebrates in Trail Creek. FTR staff, teachers, and volunteers help students to collect macroinvertebrates. Everyone loves getting their feet wet in the creek and discovering living organisms in the stream.



### Macroinvertebrate Identification

Sorting and identifying macroinvertebrates takes attention to detail and teamwork. Documenting the variety of species and abundance of macroinvertebrates found in the stream gives the students a water quality score based on pollution tolerance of different macros. With real time data from water quality samples and macroinvertebrate surveys, students make a final assessment of the health of the stream in their home watershed.





# For All Ages

## Teton Valley Farm Tour

FTR works with agricultural producers to implement best management practices that benefit water quality and soil health. Each summer, the Teton Valley Farm Tour is an opportunity for these producers to share their work with the community. The tour typically hosts more than fifty attendees each summer.



### It's not the Cow, it's the How

Todd Tibbits represented the Idaho Farm Bureau and led a demonstration of equipment used to reduce stress when working cattle. This Bud Box is designed to apply pressure in a way that calms the animal when ranchers are performing health checks, administering medicine, or other hands on activities.

### Celebrating Agriculture

The Farm Tour starts at the Teton County Fair before traveling to farms across the watershed. AJ Woolstenhulme and family demonstrated pioneering agriculture equipment at the fairgrounds, and even engaged the crowd with a tug of war with their horse team. This set the stage to get the tour participants engaged with producers asking questions and learning about the history of agriculture in the valley.



### Soil Health Reduces Erosion

FTR's Farms and Fish program manager Daniel Wilcox led soil health demonstrations with volunteers from the tour. The Soil Slake test shows that soils with higher organic matter are stronger and less susceptible to erosion.



### Healthy Soils Protect and Conserve Water

We are proud to partner with the Teton Soil Conservation District, Idaho, and the Idaho Farm Bureau to co-host an event that celebrates agriculture in the Teton River Watershed and showcases the work of local agricultural producers.



### Cutting Edge Agriculture

The last stop on this year's Farm tour was Arnold Farms in Felt, ID. Farmers showed potato and barley crops, described best practices for ensuring disease free crops, and demonstrated state of the art farm equipment.

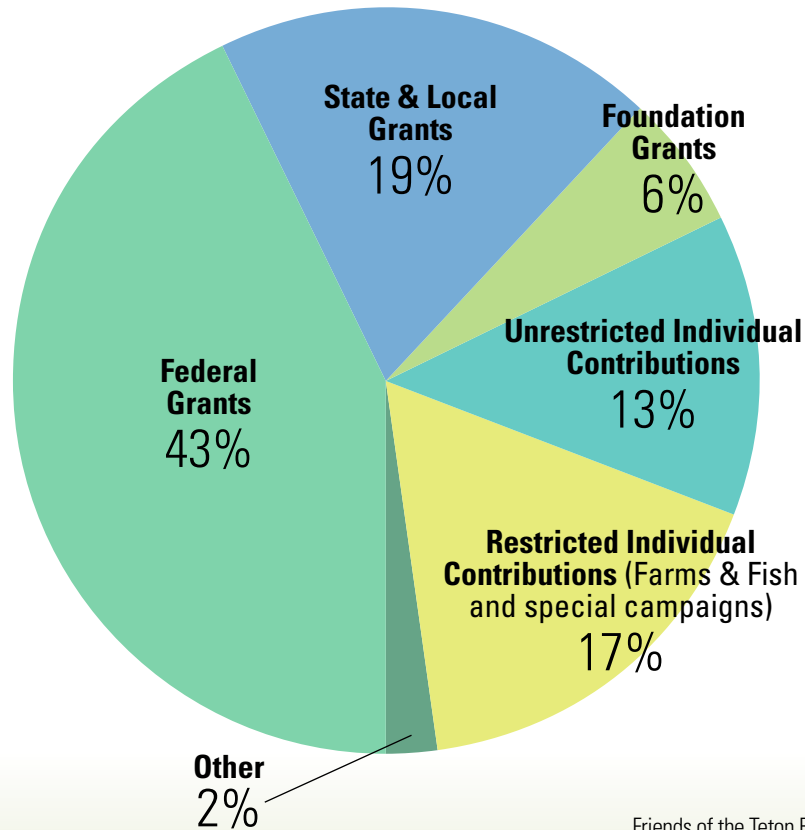


Join us for these events and other show + tell opportunities in 2024. Check out our events page for more info.

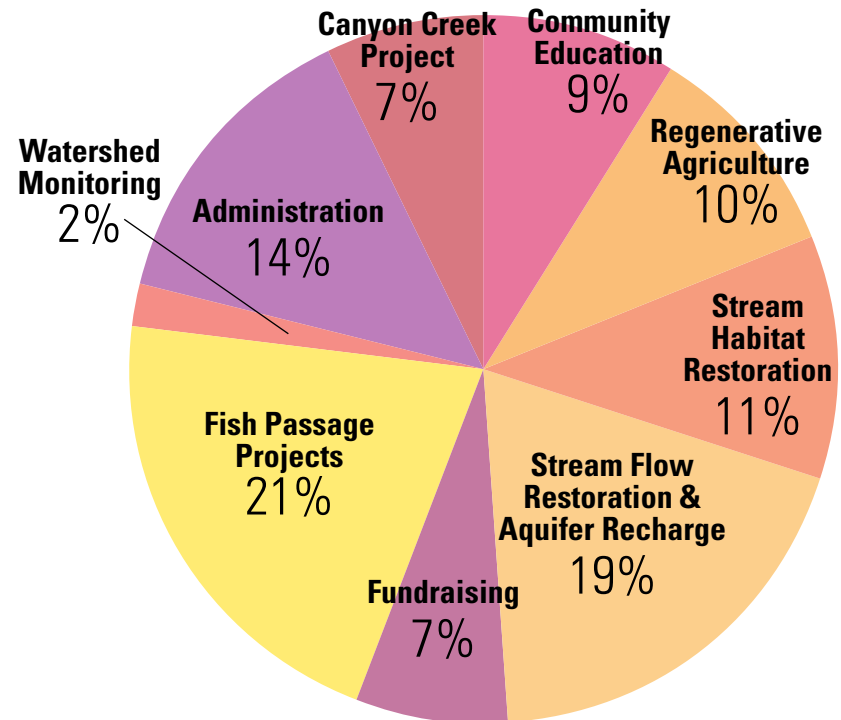


# FY23 Financial Report: July 2022-June 2023

## INCOME - \$1,609,526



## EXPENSE - \$1,477,744



### REVENUE AND SUPPORT:

Federal Grants	\$688,493	43%
State & Local Grants	\$305,566	19%
Foundation Grants	\$96,850	6%
Unrestricted Individual Contributions	\$217,443	13%
Restricted Individual Contributions	\$266,000	17%
Other (Interest, merchandise sales, etc.)	\$35,174	2%
<b>Total Revenue and Support</b>	<b>\$1,609,526</b>	

Friends of the Teton River raised \$1,609,526 in total revenue and support in FY 2023, to fund on-the-ground projects and programs including stream restoration and habitat improvement projects, aquifer recharge and stream flow augmentation, agricultural best management practices and incentives, watershed monitoring and research, community education and outreach efforts, and organizational operations.

### EXPENSES:

Community Education	\$127,018	9%
Regenerative Agriculture	\$146,649	10%
Stream Habitat Restoration	\$165,967	11%
Stream Flow Restoration & Aquifer Recharge	\$280,074	19%
Canyon Creek Project	\$98,137	7%
Fish Passage Projects	\$311,071	21%
Watershed Monitoring	\$26,338	2%
Administrative	\$210,636	14%
Fundraising	\$111,854	7%
<b>Total Expenses</b>	<b>\$1,477,744</b>	

FTR had \$841,702 in restricted net assets at the end of FY 2023 (e.g. multi-year grants), which will be spent on programs and projects in future years for which they have been designated by the grantor.

This report illustrates FTR's unaudited financial position for the fiscal year that ended June 30, 2023. Audited financial statements will be posted on our website: [tetonwater.org](http://tetonwater.org) when they become available



# FY 2023 BY THE NUMBERS

Find full donor lists on our website [tetonwater.org/give](http://tetonwater.org/give)

# 510

## Donors

(9% increase over last year!)

# 322

## Tin Cup Donors

# 35%

## FTR donors in the Leadership Circle\*

# \$100

## Median Gift Size

\*The Leadership Circle recognizes donors who have supported FTR for five consecutive years or more. Like water droplets, each gift has an impact. We are grateful for these dedicated supporters and their unwavering commitment to the Teton River Watershed.

Dear FTR Supporter,

There are many ways to show you care about the Teton River Watershed: spending quality time floating or walking the banks, volunteering to clean up trash at boat ramps and along the river, or spreading awareness about responsible recreation. Contributing to Friends of the Teton River is one option to show you care.

To make a gift, visit our website at [www.tetonwater.org/give](http://www.tetonwater.org/give), send a check to the address on the back page, or scan the QR code with your phone or tablet.

FTR is dedicated to restoring and protecting this beloved watershed. Regardless of the amount, your donation plays a vital role in conserving the Teton River and surrounding tributaries for years to come.

With Gratitude,

Hannah Orcutt Mook  
Philanthropy Director



"In honor of your wedding - love y'all!"  
"Thank you for being awesome partners."  
"Merry watershed!"  
"Thanks for hosting us for a wonderful week in Driggs."  
"In honor of your 70th Birthday!"

**There are so many reasons to**

*give a gift*

**of clean water,  
healthy streams, and  
a vibrant wild**

**fishery.** "Happy Hanukkah!  
Love you!"

"Congrats!"

"Much love"

"Happy Birthday!"

"Congratulations on your wedding!"



"Merry Christmas to you all and the river you love!"

## MEMORIAL GIFTS

In memory of those who cherished the Teton River, we gratefully accept gifts made to honor these individuals, ensuring their legacy continues to thrive in the watershed they held dear.

- GARY ALARI
- HUNTER BLATTMANN
- MIKE BOYD
- KIRA ("K-JET")
- ANDREA PETERSON
- JACQUETTE THEIS



## CONTACT US:

Friends of the Teton River  
PO Box 768  
Driggs, ID 83422  
208.354.3871  
donate by mail or online:  
[www.tetonwater.org](http://www.tetonwater.org)

Non-Profit  
Organization  
US Postage  
PAID  
Driggs, ID  
Permit #8

Support Yellowstone Cutthroat Trout research as FTR continues to pave the way in fisheries science for:

# A THRIVING NATIVE FISHERY

FTR is raising \$250,000 to support YCT research and data collection. With a generous lead gift of \$150,000, we're now looking for dedicated supporters to help us raise the remaining \$100,000 by the end of the year.

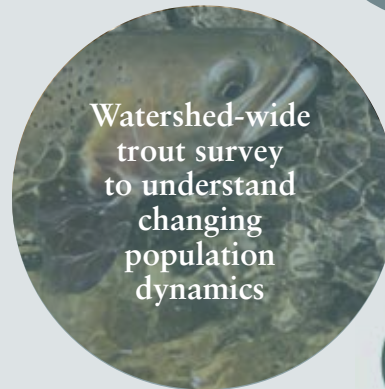
You can easily contribute or learn more by scanning the code or visiting [tetomwater.org](http://tetomwater.org) to make a gift today!



Genetic studies to detect native and non-native trout



Upgrade temperature loggers to collect data



Watershed-wide trout survey to understand changing population dynamics



Upgrade technology to track trout movement across the watershed



Support for our hardworking fisheries team



Habitat improvement projects throughout the Teton River Watershed



Fish passage and irrigation diversion improvements