



# Water People Fish

**TEN YEARS OF PARTNERSHIP AND  
INNOVATION FOR WESTERN RIVERS**

A Report by Trout Unlimited's  
Western Water Project

August 2008



1998 1999 2000 2001 2002 2003 2004 2005 20

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# Trout Unlimited's Western Water Project

006 2007 2008 **THE FIRST 10 YEARS**

Fish need water every day. For fish to have that water, rivers and streams must flow. Yet in the mid-19th Century, as miners and trappers moved west into a region where average rainfall was less than half of that in the East, few worried about the limits of the region's water supply. They adopted a water management system, the hallmark of which was the prior appropriation doctrine of "first in time; first in right." The earliest or most senior person to divert water to "beneficial use"—which at the time meant mining, irrigation or domestic use—had the most valuable water right. A senior user's right would be completely satisfied before a junior water user could take a single drop.

The US government encouraged settlement by offering land for free to those who would farm it. Because average rainfall was not enough to grow crops, these settlers dug irrigation ditches to get water to their lands. During the mid-20th century, the federal government expended vast resources building ever larger and more complex dam and diversion systems that moved water long distances and stored vast quantities for use mostly by irrigators. By the latter half of the 20th century, many western rivers were "over-appropriated," meaning that every drop of water was spoken for—often several times over. Yet cities grew, slowly at first and then rapidly as people flocked to the West and made the region the fastest growing area of the country in the 1990s.

All of this activity—and the diversions of water that accompanied it—led to declining fisheries and rivers drying up. It became apparent that the western states' peculiar system of water allocation was itself a roadblock to protecting or restoring flowing rivers for healthy fisheries and other instream benefits. States had not recognized leaving water in rivers as a beneficial use until the 1970s or later—long after many rivers' water was already fully allocated. While states adopted limited instream flow protection programs starting in the 1970s, these programs were just that—limited. Although some states (Oregon, Montana and California) established minimum base flows for some rivers, no state allowed individuals to hold instream flow water rights; only state agencies had that authority.

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The national environmental movement recognized what was happening as a threat and responded by using the strategies with which they had had success elsewhere. They advocated before Congress, federal administrative agencies and the courts based on federal laws and federal permitting requirements. These efforts found limited success. Some dams weren't built—notably the Peripheral Canal in California and Two Forks on the South Platte River in Colorado. Some stretches of river were protected as Wild and Scenic. Others started the road toward restoration, pursuant to legal opportunities and funding made available, for example, through the California Central Valley Project. Yet, the broader decline of rivers and fisheries across the region continued. Why? Because water law in the West is state-based and the states have an abiding distrust for federal entities engaging in water policy matters.







**I**t fell to a small, state-based, non-profit environmental organization in Oregon, WaterWatch, to demonstrate that there was another, potentially stronger way to force changes to the system. WaterWatch entered the fray at the state level, using state court review of state agency water allocation to make Oregon pay attention to its responsibility to protect fish and river resources. The WaterWatch model had its own limits, however. Without members continually advocating for rivers to the leaders and representatives of their local communities, WaterWatch's court and administrative victories could be, and occasionally were, overturned in the state's legislature.

Trout Unlimited (TU) recognized the potential of WaterWatch's approach and entered a partnership with them to create what became known as the Western Water Project (WWP.) TU wanted to extend the state-based approach to water law reform beyond Oregon and to engage its grassroots members in the effort. TU envisioned tapping the grassroots to lobby state legislatures and agencies, participate in educational campaigns, monitor stream flows, and help complete on-the-ground flow and habitat restoration projects. TU members could help give TU's professional staff credibility into

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the communities where they lived. TU's staff scientists could help frame arguments in favor of river restoration, and pinpoint the best places to work while TU's lawyers could advocate for change and then use the new tools to restore and protect rivers.

Starting with offices in Colorado and Montana in 1998, over the next four years, the WWP expanded to California, Idaho, Utah, and Wyoming. Now TU's almost 20 staff with science, legal and technical expertise, along with TU's grassroots members, the WWP

and its partners, have compiled a long list of successes. (See pp. 22–26.) Slowly but surely, the politics of water in the West is changing, and new partnerships are forming among conservationists, sportsmen, government agency staff, landowners and water suppliers.

Thanks in large part to the WWP, several states have adopted laws making it easier for water right holders to lease water that benefits rivers and fish. TU has

worked with landowners to use these new laws to help restore stream flows. The WWP's legal challenges have resulted in the demise of proposed new water diversion projects that would have dried up important trout and salmon waters. Today TU reaches out to irrigators and dam owners throughout the region





to change diversion and release practices, thereby enhancing healthy flows without diminishing other water uses. TU's educational campaigns have helped change the character of the debate and the understanding of the benefits that flowing streams bring not only to fish, but to the region's economic vitality. Perhaps most importantly, the WWP has helped to give conservationists a seat at the table on decisions related to how water in the West is and will be used.

Through the WWP, TU and its members have made headway in terms of making the West's water allocation system more flexible and able to protect water instream. While more needs to happen, the larger challenge may be for TU to build a broader, stronger coalition to advocate in favor of major public-private financial commitment to protect and restore stream flows and healthy rivers before it's too late.

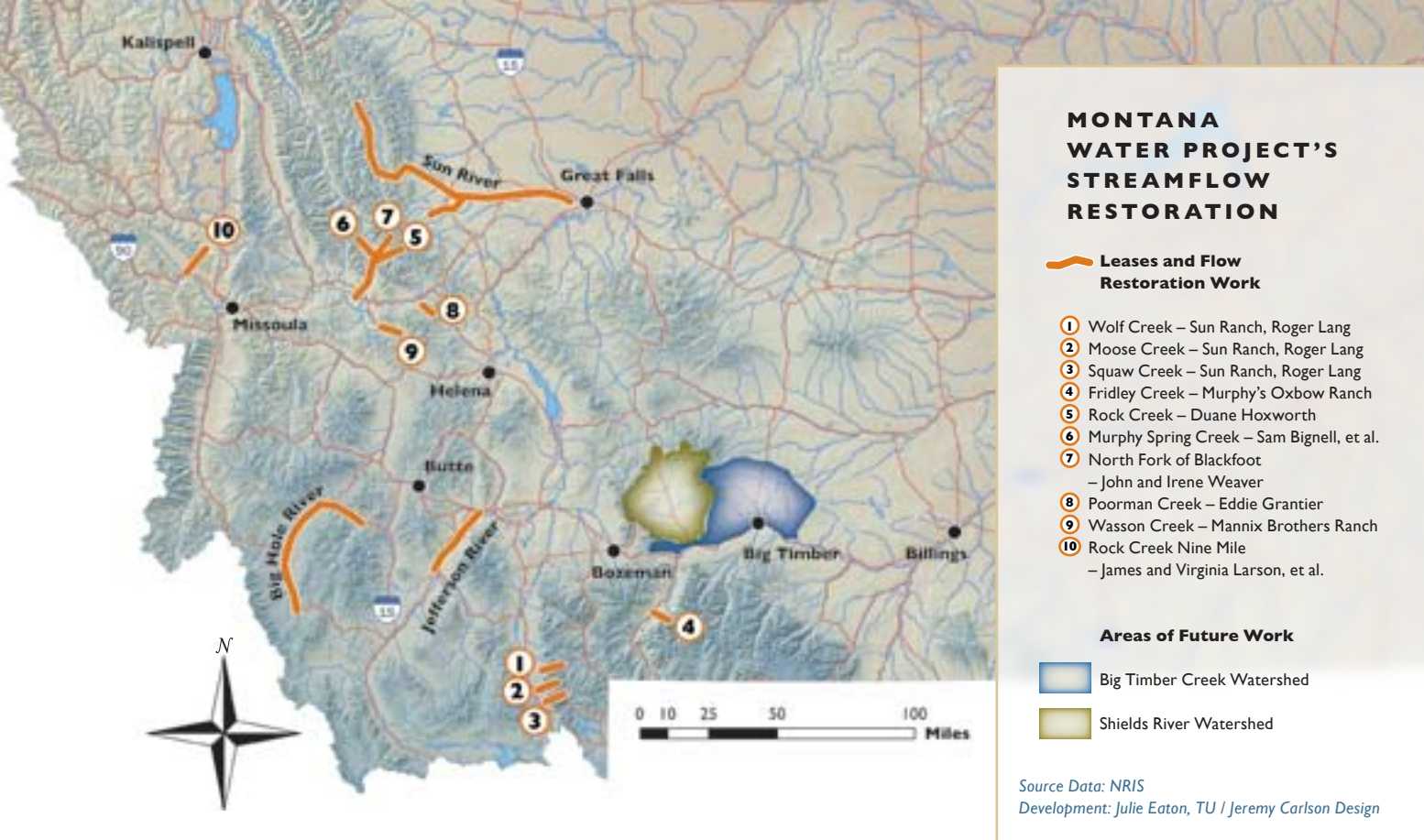
## TROUT UNLIMITED'S WESTERN WATER PROJECT AREA

**TU's Western Water Project currently works in California, Colorado, Idaho, Montana, Utah, and Wyoming. The rivers in these states shelter many conservation populations of the region's native cold water fish. At the same time these rivers offer some of the country's best fishing and other destination river-based recreation.**

*Source Data: USGS / TU; Development: Jeremy Carlson Design*







## Changing the System

State water law systems emerged in the mid-19th century during western settlement. Because water rights are property rights, these systems are deeply embedded in western states' culture and political systems, making wholesale change—for any reason—highly unlikely. Rather, with the WWP and cooperative partnerships on the ground, TU has demonstrated that incremental reforms, won before state legislatures, agencies and courts, as well as at the ballot box, have resulted both in more water in streams that benefit fisheries and in the elimination of concrete threats to these resources.

### *Leasing Instream Flow Water Rights*

Within the prior appropriation system, second only to the principles of beneficial use and seniority, is the “use it or lose it” restriction. If water users do not put their full water right to beneficial use over time by taking it out of the stream, they lose the right to divert the unused portion. This provision provides a major disincentive to conserve, increase efficiency, or leave water instream for any purpose. So long as diverters are penalized under “use it or lose it” provisions, few landowners will risk devaluing their property by not diverting water to their fields, regardless of the

ecological or recreational and economic benefits of leaving that water in the stream.

In 1993, Oregon became the first state to allow non-profit organizations to lease water for instream flow purposes and the Oregon Water Trust began operations. In 1995, TU's Montana Council, in partnership with the Montana Wildlife Federation and the Montana Farm Bureau, convinced state legislators to establish a 10-year pilot program to allow landowners to lease water rights to non-profit organizations to improve streamflows for the benefit of trout fisheries. To make such leases attractive to landowners, TU and organizations like the Montana Water Trust raised money to procure water-conserving irrigation systems for the landowners in exchange for instream flow leases. By 2005, the program was popular enough with both conservationists and irrigators that they went together to advocate, successfully, before the Montana legislature to make the program permanent.

The results in Montana are real. Rather than focusing on mainstem rivers, leasing work has centered on tributaries, where smaller amounts of water can result in reconnecting many miles of fishery habitat. Across Montana there are now more than forty completed transactions. TU's focus in the fabled Blackfoot River drainage has allowed native westslope cutthroat and bull trout to access five hundred miles of previously inaccessible stream habitat for spawning and

rearing. In addition, the leasing is coupled with habitat restoration projects that are often spearheaded by local TU members as well as other community partners. As early as 1999, TU partnered with the local TU chapter, the Blackfoot Challenge, a group of local landowners, such as John and Irene Weaver, and government agencies to put in place a voluntary drought management plan. A testament to the power of community engagement, the agreement kept as much as 200 cubic feet per second (cfs) more water in the river than would otherwise have been the case, during one of the worst recorded local droughts.

## *Legislative Reform*

The success of the leasing program in Montana has rippled across the Rockies. In 2007, a TU volunteer and state legislator in Nevada, with help from WWP staff, shepherded a private instream flow leasing bill through that state's legislature. The next year, the Utah Legislature approved legislation that TU spearheaded allowing irrigators to lease water for native trout fisheries, including Bonneville cutthroat trout, the state fish. Also in 2008, the Colorado General Assembly approved legislation to remove the "use it or lose it" penalty from water rights holders who lease water to the state for instream flow protection. This improvement to Colorado's law followed a 2002 expansion of the state's instream flow program, also championed by the WWP, to allow the state to acquire or receive water rights for instream flow protection. The change not only preserved existing healthy flows, but also improved a degraded flow regime.

But the work of the WWP to reform state water law goes beyond reforming the "use it or lose it" provision of water law. For example, in California, although that state has been at the forefront of dealing with water scarcity and competing demands, in northern coastal areas there are thousands of small illegal water diversions. Building on 15 years of volunteer advocacy, TU successfully secured legislation in 2004 directing the California Water Board to adopt an Instream Flow Policy for the North Coast. The innovative statute requires a comprehensive system for protecting streamflows as the agency administers water rights in 5,900 stream miles from San Francisco Bay to the Mattole River in Humboldt County.

With this statute in hand, TU has worked with the Water Board, other governmental agencies and influential irrigators to develop a whole new model for administering water rights. Traditionally, water diverters have been regulated individually, if at all, and with little regard to how their actions relate to nearby diversions or how they contribute to cumulative impacts on a stream. California's revolutionary approach will replace permit-by-permit regulation with a system that sets performance measures for streamflows and other habitat conditions and then allows groups of water users the flexibility to coordinate diversions in the most effective way they see fit. TU is now developing pilot projects in Wine Country and along several coastal streams to test the new program and demonstrate a better way to improve streamflows and water supply reliability.

## **NONTRADITIONAL PARTNERSHIPS REFORM WATER LAW**

**In Utah, the political establishment views environment groups with suspicion. Yet in 2008, TU succeeded in changing state law to allow leasing of irrigation water to benefit native fisheries.**

**The bill's passage was the result of several years' worth of effort to reach out to potential stakeholders and interest groups and craft a bill that protects existing water users while opening the door to solutions that benefit both anglers and rural communities. In the end, the bill passed with strong support from a broad coalition including rural, conservative legislators; the State Division of Wildlife Resources; numerous sportsmen's groups; the Utah Farm Bureau; and the Foundation for Quality Resource Management, a large ranching group in Northern Utah. TU's Utah Council played a critical role in helping to educate decision makers as to the benefits of changing the law.**

**As is true in other states, historically, only Utah state agencies could hold instream flow rights of any kind. Allowing "fishing groups" like TU to lease water to improve streamflows marks the first substantive change to Utah's instream flow law in over 20 years. TU is now mapping native and wild fisheries threatened by low flows to help prioritize leasing and other restoration efforts.**



Utah Governor, Jon Huntsman, signs House Bill 117, Instream Flow to Protect Trout Habitat as TU Council member Paul Dremann (far left) looks on. Photo: Utah Governor's Office.



## *Persuading the Courts*

The western water system is buttressed by a complex set of laws dating back to the 1800s that are closely guarded by the water user community. These laws, however, also provide opportunities for flow restoration and protection. A key component to any successful stream flow restoration strategy must include a commitment to engage systematically in the political and administrative processes, and, if necessary, a willingness to litigate to ensure that the laws are enforced.

There are several examples of TU's successful use of litigation and administrative law proceedings since the inception of the WWP. TU filed a formal "Petition for Timely and Effective Regulation" of water diversions on California's North Coast with the state regulatory agencies. The petition documented the widespread practice of unauthorized water diversions and the agencies' failure to protect fish and wildlife and ultimately led to statutory reform.

In 2007, TU won a decision in Colorado limiting how much water a city can claim for future growth. The Dry Gulch project, planned to serve a community with a current population of 10,000 people, would have diverted and stored enough water from the San Juan River to serve almost 200,000 a century from now. TU first opposed the proposal at the trial court level. After failing to negotiate a settlement, the WWP eventually landed before the Colorado Supreme Court. The Court voided the water right for Dry Gulch and in the process established tough, new standards, including an expectation for more rigorous urban water conservation for water suppliers claiming water rights for a speculative, future population. Already as a result, one water supplier has withdrawn an application for large new water rights, including some in a wilderness area.

In Montana, TU brought a legal challenge that resulted in a 2002 Montana Supreme Court decision that adopted TU's arguments nearly in their entirety. The decision held that a water right for fish, wildlife, and recreation purposes could be valid without diverting water from the stream. Prior to this "Bean Lake" decision, with a few exceptions, water rights, even for fish and wildlife, required a diversion of water from the stream.

And in 2005, in Colorado's state water courts, TU defeated a proposal known as the AB Lateral Hydropower Project. This project would have diverted enormous quantities of water from the Gunnison River to a new hydropower plant to be built in the Uncompahgre River basin. The project would have decimated both rivers, inundating the Uncompahgre and draining the Gunnison just above the Black Canyon National Park and its gold medal trout fishery. TU was able to demonstrate to the French energy company underwriting the project that even though its local partners owned water rights for the project, due to the relative junior standing of those rights, water would not be available every year to run the project turbines, thus substantially decreasing the value of the hydropower.



### **COLORADO: USING THE COURTS TO PROTECT A NATIONAL TREASURE**

**Under federal law, when the United States government sets aside a parcel of land, it becomes entitled to water rights sufficient to satisfy the purposes for which it reserved the lands, with the date of reservation as the priority date for the water rights. After several years of study, in 2001, the Department of the Interior (DOI) applied for a water right in Colorado for the Black Canyon of the Gunnison National Park. The water right would have guaranteed ecologically significant flows for one of the Nation's most remote, yet spectacular, national parks and its world famous trout fishery.**

**In 2003, behind closed doors, DOI and the State of Colorado reached an agreement regarding flows in the Black Canyon of the Gunnison. This agreement required DOI to waive the federal government's water right for spring flows, which could have been as high as 10,000 cfs during wet years, leaving the park with only a base flow of 300 cfs. The agreement flew in the face of DOI's own science, which demonstrated that seasonal peak flows are critical to the park's natural resources.**

**Because DOI had previously applied for the higher flows in Colorado's state water courts, Interior needed**





Left: Carved over the millennia by the Gunnison River, the Black Canyon is recognized as a national treasure for its spectacular gorges, wildlife habitat, unique scientific value and is home to a world-class trout fishery. Photo by Mark Lance.

## Using the System

**L**egal and policy reforms are critical, but conservationists must also use those reforms to restore stream flows and fisheries on the ground. Such work involves voluntary partnerships to keep water instream during droughts, restoration projects that restore flows and/or improve fish passage, and re-operation of dams for environmental benefit.

### *Drought Management Plans*

As noted above, TU helped to develop and implement a drought management plan on Montana's Blackfoot River that has been in effect since 1999. Similar drought response plans are used now also in the Jefferson and Big Hole basins. The plans are voluntary, and each involves a commitment by irrigators to reduce withdrawals when summer flows drop below certain thresholds, at which point angling restrictions also apply. In Idaho, TU worked with the Henry's Fork Foundation and the Fremont Madison Irrigation District to develop a drought management plan that improved critical winter flows to the famed Henry's Fork River, a plan ultimately codified by Congress in 2002.

### *On the Ground Restoration*

Flow is often one component in a much larger watershed restoration effort that includes instream and riparian restoration, improving fish migration and changing upland habitat management practices. For example, in Wyoming, TU is reconnecting Grade Creek to the Smiths Fork of the Bear River, a key Bonneville cutthroat trout tributary in the southwest part of the state. TU partnered with a landowner to re-design his ditch and delivery system to use less water, leaving more in Grade Creek so that the native trout can access historic spawning and rearing habitat on Bridger-Teton National Forest lands in the Wyoming Range. Other project components include the reconstruction of approximately 4,000 feet of channel running through private lands. A similar project was completed on Garden Creek, a tributary of Idaho's South Fork of the Snake, in 2006. The next spring, mainstem Yellowstone cutthroat trout were spawning in the stream for the first time in half a century.

to amend its application. Fearing that the state water court would accept the amended application, making it impossible to recover a right for the higher flows, TU and its local, regional and national conservation partners challenged the agreement in federal court. They argued, among other things, that the agreement constituted both a violation of Interior's obligation to preserve the natural resources of the Black Canyon National Park and an illegal give-away of federal property (the water rights.)

**In 2006, the court sided with TU and its partners, ruling that the agreement would impair the environment of the Black Canyon and that Interior's decision was an "abuse of discretion" and "nonsensical." The New York Times noted that the agreement would have left nothing of the Black Canyon but "dramatic cliffs with a dying river between." The court's ruling brought all the parties, including the local irrigators and TU, to the table in the state court process. The negotiated water right will provide the meaningful high and low stream flows that the Black Canyon and its fisheries need.**



*Left: Badger Creek diversion structure removed all flow from the lower stream reaches during the summer, effectively dewatering the natural channel and cutting off access to spawning and rearing areas for fluvial fish.*

*Below Left: With the completion of the diversion replacements and removal, bull trout and other fish species have unimpeded passage in the critical area from the mouth of Badger Creek to the headwaters of the Little Lost River.*

*Photos by Jim Gregory.*

## PARTNERSHIPS RESTORE FISHERIES

**In a region where battles between landowners, agencies and conservationists often dominate the landscape, community partnerships make a difference. Irrigators, federal and state agencies and TU in Idaho have worked together on the Little Lost River in a manner that highlights how collaboration can benefit each partner's interests.**

**In 2007, TU completed a three-year restoration project on Badger Creek, a tributary to the Little Lost River. Landowners, like the Pancheris, along the creek historically diverted all the water for agricultural operations. TU secured funding from several federal programs and coordinated the conversion of several ranch operations from flood to sprinkler irrigation. The result: less water diverted from the creek while ranch productivity increased. TU also negotiated a 30-year non-diversion agreement with the Andreasons to transfer their point of diversion from Badger Creek to the Little Lost River. The agreement protects the full natural flow of Badger Creek year-round and reconnects 6.4 miles of bull trout spawning habitat on the creek to the mainstem of the river. Just one week after TU completed the Badger Creek project, the U.S. Forest Service confirmed trout spawning in the re-connected habitat.**

**The Little Lost River Basin bull trout recovery efforts are an excellent example of how watershed restoration activities coupled with revised land management practices can benefit species recovery at multiple scales. While creating partnerships with diverse stakeholders can take years to build trust and understand each other's interests, ultimately the effort can result in healthier fisheries, more productive landowners and stronger communities.**



## Re-operating Dams

Dams on rivers can block fish passage, separating fish from the spawning and rearing habitat they need to flourish. In addition, storage reservoirs can significantly alter the natural hydrograph of a river, changing the timing of when and how rivers flow, shaving off important seasonal peaks, eliminating large flows that scour and clean the river below of sediment, and/or moving high flows to a point in the native fishery's life cycle where young fish are washed downstream and unable to survive. While dams in the Columbia River Basin have received much press because of their adverse effects on the region's salmon runs, dams throughout the West pose threats to native and sport fisheries. A major challenge for conservationists is to work with the agencies that operate the dams and with the water providers who benefit from the stored water to mitigate these adverse effects.

Dam re-licensing has been a major focus of the WWP since its inception, and the case of PacifiCorp's Bear River hydroelectric projects in Idaho is illustrative of the broad environmental benefits that this work can have. After several years of negotiations, in 2003 the new license for the multi-dam facility established a water acquisition and leasing provision that dedicates over \$300,000 per year for 30 years to native Bonneville cutthroat trout restoration. TU has since participated in the post-settlement Environmental Coordination Committee that addresses project identification and development, thus ensuring that funds dedicated to stream flow restoration are spent on priority activities. In addition, as follow-up to dam removal studies authorized by the original settlement, in 2005 TU represented several environmental and conservation groups in negotiations with PacifiCorp. These negotiations successfully led to the removal of Cove Dam on the Bear River, opening up additional miles of mainstem and tributary habitat for the restoration of native trout.

An earlier project of the Idaho Water Project involved collaboration with the Bureau of Reclamation and several major irrigation districts to re-operate Palisades Dam and other dams on the South Fork of the Snake River for the benefit of Yellowstone cutthroat trout. At TU's urging, as part of a multi-faceted effort to recover the species and avoid its listing under the Endangered Species Act, the Bureau performed ground-breaking environmental studies and modeled the complexities of this multi-dam system. With this



## CALIFORNIA: USING THE HYDROPOWER LICENSING PROCESS TO PROTECT RIVERS

In the next 15 years, the licenses for 50 of California's hydropower generating projects will expire. These licenses affect 150 dams and hundreds of stream miles, more than in any other state. Hydropower licenses are important not only because the projects include invaluable habitat, but also because a hydro dam often diverts 95% or more of a river's summer flow. More than in any other state in the West, TU's water work in California has focused on this opportunity.

*Irongate Dam, the lowest dam on the Klamath River. The Klamath River dams block salmon from reaching over 300 miles of historic habitat. Photo by Thomas Dunklin.*



For example, TU and several other groups (organized as the California Hydropower Reform Coalition) reached an agreement with PG&E on the Pit River that provides for an increase of minimum stream flows, a flow regime that mimics natural river processes, enhancement of recreational opportunities, a long-term monitoring program, and additional resources for the famous Hat Creek wild trout fishery. They also reached agreements to protect instream flows and restore habitat in the South Fork of the American River and in the Middle and South Forks of the Stanislaus River, including the Spring Gap area. Currently, the coalition is engaged in re-licensing projects for both the McCloud River, one of California's great fishing destinations, and a sprawling complex of dams in and around the Yuba River system, where several inter-related licenses control the operation of 40 dams and 200 river miles.

TU is also leading the charge for re-licensing the four lowermost Klamath River dams. With agricultural groups, commercial fishers, conservationists and federal, state, tribal, and county governments, TU is working toward a comprehensive restoration agreement for the Klamath Basin. Parallel discussions are exploring removal of the four dams. Together, dam removal and community-supported restorations should recover and sustain the natural production of salmon and steelhead, establish reliable water and power supplies, contribute to the sustainability of all Klamath Basin communities, and resolve longstanding disputes related to the allocation of water resources.

information, the Bureau was able to identify ways to re-operate its dams so that irrigators did not lose water and fish got more of the flows they needed. In place since 2001, the new management strategy provides a spring flow mimicking natural spring floods, which improves mainstem habitat and signals to the cutthroats the time to spawn. Since 2001, the South Fork's cutthroat populations have increased and non-native rainbow populations have decreased.

In Utah, dam removal became the impetus for a much more ambitious habitat restoration project on the American Fork River. First, TU brokered an agreement among PacifiCorp, the U.S. Forest Service, and other interested parties that removed two small dams, restored two sections of the creek to a natural state, and permanently protected stream flows in that section of the canyon. Then TU launched a multi-year effort to rehabilitate abandoned mines in the headwaters of the American Fork with funding from the Tiffany Jewelry Company, Snowbird Ski Resort, and the U.S. Forest Service. All together, these projects have enhanced the aesthetic and recreational experi-

ence for the nearly one million visitors to American Fork Canyon each year.

The opportunities provided during hydropower re-licensing proceedings are both big and small. In 2006, as part of the re-licensing process associated with a small hydropower dam on Utah's Boulder Creek, TU staff negotiated a new, small bypass flow through the project. This modest license condition, which the U.S. Forest Service and Utah state wildlife agency also supported, should allow restoration of several miles of stream habitat for native Colorado River cutthroat trout.

After eight years of conversations and negotiations with Montana's Department of Fish Wildlife and Parks and Department of Natural Resources, TU finally inked a deal for the Painted Rock Dam on the Bitterroot River to release water below the dam for fisheries protection. TU raised almost \$1 million to finance this 2004 agreement, which guarantees a minimum flow in the Bitterroot in perpetuity. The water behind the dam had historically been stored and released for irrigation purposes.

# Western Water Project Reports and Studies

**Dry Legacy** (Colorado)

**2002**

**Dry Legacy II** (Colorado)

**What the Current Drought Means for  
the Future of Water Management in  
Colorado** (Luecke et al with Colorado  
Environmental Coalition)

**2003**

**Montana's Private Water Leasing**

A Montana Approach

**Idaho Crossroads** the Challenge  
for Idaho's Rivers and Streams  
in the 21st Century

**2004**

**Economic Value of Healthy  
Fisheries in Wyoming**

**Facing Our Future** (with Western  
Resource Advocates and the Colorado  
Environmental Coalition) (Colorado)

**2005**

**The Economic Value of Recreational  
Fishing & Boating to Visitors &  
Communities along the Upper Snake  
River**, Dr. John Loomis (with the  
Henry's Fork Foundation)

**Bull Trout Recovery in the Little  
Lost Basin** Proving Partnerships  
Can Make the Difference

**A Buyers Guide to  
Montana Water Rights**

**2007**

**Gone to the Well Once Too Often**  
The Importance of Ground  
Water to Rivers in the West

**Water and Wine** Partners in  
Wine Country Stewardship

**Have Your Salmon and Eat it Too**  
Recipes for a Sustainable Future  
from California Wine and  
Salmon Country

**2008**

## Public Education and Communications

The public at large cares about rivers, fisheries and clean water coming from their taps, as well as about family farms and "working landscapes," lush city parks and water-based recreation. They are, however, mostly unschooled in the arcane world of western water law allocation and administration. Raising public awareness of how antiquated water management and legal systems might affect them is a tough job, even though convincing decision-makers of the importance of changing or using the existing system to benefit fisheries is necessary for long-term conservation.

After the record-breaking 2002 drought, polling showed that at a rate of 3 to 1, Coloradans would vote to pay for new water projects. This led the Governor and many water development interests to propose \$2 billion in state bonds to build new, unidentified water supply projects. In response, TU and its conservation organization allies carefully crafted an opposition campaign that recruited family farmers and West Slope community leaders as its spokespeople. The campaign led with an economic, not environmental, message, thereby ensuring its broadest possible appeal. The bond measure lost in every county and overall by a 2 to 1 margin. Following up on the win, TU and several of its conservation partners released *Facing Our Future*, a report outlining how Colorado can address the future water needs of Denver and the surrounding area through measures such as conservation, water reuse and water facilities sharing arrangements. The report opened up a dialogue with water suppliers, and Colorado's new Governor adopted its principles as his water platform during the 2006 election campaign.

In Idaho, when a power company proposed building a new hydroelectric facility on the Bear River at Oneida, in the middle of an important recreational area and in critical habitat for native Bonneville cut-throat trout, TU worked with local community leaders on a local referendum that opposed the facility. The referendum passed. With that directive, TU has become a party to the federal licensing process, fighting alongside locals and even other power companies to stop this dam from being built.

**After the record-breaking 2002  
drought, Colorado's Governor and  
many water development interests  
proposed \$2 billion in state bonds for  
new water supply projects.**



## *Federal Handles*


While most water allocation decisions in the West are made at the state level, there are also federal legal requirements that can help conservationists accomplish stream protection and restoration goals. One of the most powerful tools for federal agencies is their permitting authority. Under the Clean Water Act, both state and federal agencies have permitting authority and the states are required to set water quality standards. The Federal Energy Resources Commission licenses hydropower plants. The U.S. Forest Service and Bureau of Land Management give permits for activities such as construction of water facilities on public lands. TU has used each of these authorities to stop or force mitigation for projects.

**BYPASS FLOWS.** For decades, a dam dried up Colorado's La Poudre Pass Creek for six months of the year (the non-irrigation season.) La Poudre Pass Creek borders Rocky Mountain National Park and is a tributary to Colorado's sole Wild and Scenic River, the Cache La Poudre. When the dam owners sought to expand the dam, they needed a U.S. Forest Service permit. Forest Service biologists found that the only way to mitigate the adverse effects of expanding the facility was to require a bypass flow, whereby the dam owner would release some water from the dam year round even when it was not needed for irrigation. The owners, along with the State of Colorado, argued that bypass flows were inconsistent with Colorado's water allocation authority, while the Forest Service argued that it had discretion under the law not to require this form of mitigation. To protect the creek, TU sued the agency. The federal court agreed with TU, finding that the Forest Service in fact had an obligation to mitigate and that imposing a bypass flow did not undermine Colorado water law. Thanks to this ruling, TU, the diverter and the agency are working on a major reintroduction of native greenback cutthroat trout in the watershed.


**THE CLEAN WATER ACT.** The Clean Water Act regulates water quality. While the Act does not expressly address situations where low flows cause stream degradation, there are many instances where pollution occurs because of low flows. TU has used this relationship to force state agencies to protect or restore rivers and streams. In Colorado, TU attorneys and scientists, along with the state wildlife agency, convinced the state water quality agency to adopt the strictest temperature standards in the region. High temperatures frequently occur because of low flows and trout, as a cold water fish, are adversely affected. In Montana, TU took high temperature data from the Sun River to the state environmental agency and convinced them to adopt a strategy under another Clean Water Act program that will add flows to the river to avoid the lethal high temperatures.

Finally, when Arapahoe Basin, a small ski area in Colorado, proposed to add snowmaking by diverting water from the North Fork of the Snake River, TU worked with other conservation interests and the EPA. This coalition got the state to acknowledge that the likelihood of lower flows resulting from the diversion would adversely affect the fishery and result in higher levels of toxic metals downstream because of low dilution flows. While TU had to go to court to get the state's attention, ultimately the state modified its water quality certification process to require the ski area not only to conduct fisheries studies, but also to mitigate the increased metals loading by contributing funds to the clean up of a toxic hot spot in the basin.

**FEDERAL RESERVED RIGHTS.** As noted before, federal properties such as national parks, forests and wildlife refuges need water rights to protect the rivers running through them. The manner by which the federal agencies claim these rights has proven divisive across the West because federal lands agencies must use the states' water allocation processes to obtain their rights, and states have been uniformly hostile to federal claims. After years of negotiation in Montana between the U.S. Forest Service and the state, TU helped broker a deal that resulted in state legislation. The new law directed a rulemaking process in which the Forest Service would demonstrate a methodology to quantify its water rights, prioritize streams and ultimately establish rights to protect base flows in the rivers flowing through Montana's National Forests.



**TU and its allies recruited family farmers and West Slope community leaders to speak out in opposition. The measure lost in every county and overall by a 2 to 1 margin.**



## Helping to Fund Flows

**F**unding instream flow transactions is a major challenge, and this challenge is likely to grow in the years ahead. Ironically, part of the challenge results from TU's and others' successes in changing state laws to provide more incentives for instream flows, which has increased the need for funding to support the incentives. Thus, any conservation strategy for the region must include federal, state and local funding strategies.

**FEDERAL FUNDING.** While one province in Australia allocates \$25 million yearly for instream flow protection, the largest single pot of money available for protecting or restoring instream flows in the United States is the Columbia Basin Water Transactions Program. This program provides up to \$5 million annually for use in the four northwest states within that basin. Both the Montana and Idaho Water Project offices have used this money to work with irrigators on instream flow restoration projects, including the purchase of stored water on the Bitterroot River.

By far the largest source of potential federal funding is the Farm Bill. The Montana Water Project pioneered an approach with that state's Soil Conservationist to make it attractive to farmers seeking Farm Bill funds for irrigation system improvements to use some of the water saved for instream flow protection. After having demonstrating the efficacy of this system, TU succeeded in securing a national requirement for a similar incentive program in the 2008 Farm Bill.

**STATE FUNDING.** TU worked closely with other conservation interests in 2005 to help pass legislation creating the Wyoming Wildlife and Natural Resource Trust Account, which funds on-the-ground fish and wildlife projects. The account, made up of interest earned by the account and annual legislative appropriations, currently contains approximately \$60 million with an ultimate goal of \$200 million. Since the inception of the fund, over \$1 million annually has been allocated to projects, including TU and private landowner sponsored efforts designed to benefit Wyoming fisheries.

On a more modest scale, in 2008, TU worked closely with Colorado Water Conservation Board Instream Flow Program staff and other conservationists to convince the state legislature to appropriate \$1 million for state instream flow water rights acquisitions. The legislature also directed \$500,000 from the endangered species trust fund for the same purpose. It is likely that these appropriations will be renewed annually in the future. For Colorado, which has had an instream flow protection program since 1973, this allocation is the first that allows the state to spend state funds on buying or leasing water rights for instream flow protection.

**LOCAL FUNDING.** Officials from the city of Pocatello, Idaho approached TU in 2006 to discuss the city's growing need for water, as well as ways to improve habitat on the Portneuf River in and around the city. The city proposed a ballot measure for a water revenue bond, which would be used, in part, to buy senior upstream water rights on the Portneuf River and run them down the river through town to the city's water treatment plant, thereby increasing both the city's water supply and river flows. At the city's request, TU led the campaign to educate the voters of Pocatello about the benefits of the measure. TU also played a lead role in expanding the decision makers and community leaders involved in the campaign, securing the support of labor unions, members of the business community and other conservation groups. As a result, an overwhelming 73 percent of voters supported the water bond.









## The Ground Water Connection

Starting in the 1950s with efficient new pump technology, growing cities and junior irrigators began to tap groundwater sources to supplement inadequate surface water supplies. Using groundwater often kept pumpers out of state priority systems for water allocation, which favors more senior, established water users over newer ones. Drought, increased demand for water, and the benefit of avoiding the “priority” basis of water rights administration has led to increased ground water development across the region. Today, states like Montana pump more than 70% of their drinking water from ground water sources. Because ground and surface water are connected to each other, pumping groundwater can and in many cases does negatively affect river flows. In some states—such as Idaho and Utah—the problem has become so critical that bans have been implemented on new groundwater developments in certain regions. Fish and wildlife resources and senior surface water right holders are bearing the brunt of the problem.

TU is working aggressively throughout the West not only to reduce the potential impacts of groundwater pumping, often by partnering with senior water right holders, but also to educate the public as to the environmental and economic threats associated with that pumping. In 2007, TU released a report entitled, *Gone to the Well Once Too Often: The Importance of Ground Water to Rivers in the West*. The report, which received broad regional media coverage, focuses on the problems associated with an increased reliance on groundwater pumping. It includes detailed case studies of affected rivers throughout the region and offers strategies for state decision makers to consider as they reflect on the how to protect surface water flows—solutions which will allow for sustainable use of the ground water resource.

*Gone to the Well*, along with the collaborative work that TU had done with farmers in Idaho, led water users to support TU’s appointment to serve as the sole environmental representative to the Governor’s Advisory Committee developing a Comprehensive Aquifer Management Plan (CAMP.) The CAMP process is necessary because Idaho’s massive Eastern Snake Plain Aquifer is seeing dramatic drops due to unsustainable pumping. Rivers that flow into the aquifer have lost miles of functioning habitat as a result, and there is a pitched battle between ground water pumpers and senior irrigators and fish farmers, both of which rely on surface flows and springs. Each interest, of course, proposes a solution that helps its water users at the expense of others. TU has been opposing solutions that further harm the state’s fisheries and has proposed new ideas, such as modifying Idaho’s water bank to allow aquifer recharge in a way that also benefits native fisheries.





## MONTANA'S ALLIANCE PROTECTS FLOWS, FISH AND FARMS

**A dry river is rarely the catalyst for a strong alliance between anglers and irrigators, especially during an extended drought. But that's just what happened on southwestern Montana's Smith River, a river so renowned as a trout fishing destination that permits to float are doled out by lottery.**

**Drought cycles have been a part of the Smith River for thousands of years, and the recent drought lasted from 2000 through 2007. By itself, drought poses challenges to the fishery. Paradoxically, a drive for greater irrigation efficiency, popularly touted as the answer to the water shortage woes, exacerbated the drought's effects. Pumping ground water through center pivot irrigation systems resulted in a rapid expansion of irrigated acreage in the Smith River basin that harmed Smith River flows and senior water rights like those of the McGuire's South Fork Ranch, a fourth-generation cattle ranch that had gotten enough water to get by even in the dust bowl years—until the ground water pumps went in. The McGuires, ten other landowners, and TU took their case all the way to Montana's Supreme Court to change the state's practice of viewing ground and surface water as separate resources. In concert with ranchers, the state hydro-electric utility and the Department of Fish Wildlife, and Parks, TU also filed objections to proposed water right changes that would, if unimpeded, increase the stresses on the Smith by depleting river flows even further.**

**TU's leadership changed the tenor of the discussion, the practices of state and federal agencies, and ultimately, the law. For example, TU was able to settle one of the objections by getting the Galt Ranch to commit to instream leases with TU on two key tributaries in the drainage. Senior irrigators now recognize TU as an ally in protecting Smith River flows for both irrigation and fish. Finally, and perhaps most importantly in the aftermath of the successful court case, TU and its allies went to the state legislature in 2007 and convinced that body to overhaul the way in which the state permits ground water withdrawals. Going forward, new pumping will not be allowed to harm senior irrigators or river base flows.**

*Top Left: The Smith River near Eden Bridge, August 2001. Photo by Doug O'looney.  
Above Left: Pumping ground water through center pivot irrigation systems resulted in a rapid expansion of irrigated acreage in the Smith River basin. Photo by Doug Wilson, U.S. Department of Agriculture.*

*Left: Instream leases with TU on key tributaries help to keep Montana rivers flowing. Photo by Tim Hawkes.*

## WYOMING'S GROS VENTRE COLLABORATIVE

Home to native Snake River fine-spotted cutthroat trout, the Gros Ventre River is a locally and regionally significant fishery close to Jackson, WY and partially within Grand Teton National Park. For decades, during dry and even average years, the lower Gros Ventre dries up near the Highway 89 Bridge. While such conditions have generated historic hostility between community members and in the press, there is now potential to move beyond confrontation toward conciliation. Since 2005, TU has partnered with the Park, the National Park Service's Water Resources Division (NPS), Wyoming Game & Fish Department (WGFD), the University of Montana and the Teton Science School to craft and implement a research plan that will lead to a better understanding of the River's hydrology and fisheries.

Through generous funding from national, regional and local foundations, as well as the local TU chapter and individual donors, TU and its partners have

collected important data. NPS has installed gages to measure natural flows and water use in key ditches. Once analyzed, these data will provide a clearer hydrologic picture for the Gros Ventre below Lower Slide Lake and will help establish a water budget and stream flow "goals" to guide future stream flow restoration efforts for the lower river.

The partners are also collecting fishery information. University of Montana researchers are looking at fish presence and survival in the ditches that branch off the north and south sides of the lower river. TU and the WGFD are engaged in telemetry research—installing radio tags in adult cutthroat and non-native rainbow and hybrid (cuttbow) trout—to verify spawning areas and fish movement patterns. The fisheries studies will compliment the hydrologic research, allow assessment of overall ecological health and inform future decision-making such as potential stream flow restoration alternatives.

*Right: Lower Gros Ventre River floodplain just above the downstream boundary of Grand Teton National Park. Photo by Scott Yates.*

## The Role of Science

Like all TU initiatives, the WWP's success is tied to taking positions with strong scientific underpinning. Not only does the WWP have strong internal staff scientists who can evaluate proposals in terms of likely impacts on water flows and fisheries, it has a cadre of outside consultants with whom WWP staff have long term relationships and who help with field evaluations and restoration projects. The WWP's restoration projects benefit from this technical assistance, and its legal challenges would not be possible without the scientific and technical testimony these experts provide.

In addition, TU's increasing scientific capacity is a critical component of being able to choose where TU works and to craft goals for protecting or restoring stream flows so that TU's small staff can make the biggest impacts on the land. In 2005, the WWP surveyed its states and discovered that, with the exception of Montana, states did not have good maps showing where low flows were adversely affecting fishery health. WWP staff decided to work on correcting this gap. For example, in preparation for Utah's new leasing era, the

WWP contracted with a retired state biologist to create maps that overlay native fisheries with diversion records, and this provided a picture of where low flows are the foremost problem to address to restore habitat in critical watersheds. Meanwhile, in Colorado, TU successfully inserted a provision in a new statute that requires a "non-consumptive water needs assessment" be done on a basin-by-basin basis. This assessment will produce, by July 2009, maps of priority streams for environmental flows, as well as at least some quantifications of how much flow these streams need for protection or to be restored.

Finally, TU has developed a powerful GIS-based tool to assess fishery habitat called the Conservation Success Index, or CSI. The WWP is piloting how to use the CSI, along with other available data on climate change, energy development and population growth, to make strategic choices about where we have the greatest opportunities to protect fisheries by correcting low flow problems.





## TU's Strategic Plan

*Trout Unlimited's strategic plan requires four sets of actions to assure that the organization can meet its vision of fishable waters within the next generation.*

**PROTECT.** It is vital to protect the remaining critical habitat areas for salmon and trout, their home rivers and streams. Well-protected headwaters streams and lakes that provide high quality, cold water flows will be integral both to maintaining refugia for fish from and downstream and to supplying the cold water necessary to for useable downstream habitat during periods of warming or other disturbances.

**RE-CONNECT.** The WWP must reconnect high quality habitats that are currently physically disconnected due to seasonal water diversions, dams or culverts. Trout and salmon need to be able to access a wide variety of habitats, from small headwaters streams to deep river pools. These waterways are most valuable when they are connected to one another. Barriers that restrict fish from moving throughout a watershed can reduce overall fish populations and weaken their genetic integrity.

**RESTORE.** Restoring individual streams is good, but it will be even better to take a broad geographical approach and identify watersheds to improve water quality, streamside vegetation and instream habitat. These features are critical to restoring the overall health of streams and rivers. By restoring streams and floodplains to a healthy, more natural state, fish will be better able to withstand the impacts of rising temperatures, floods, fires, droughts, and the increased pressures that come with population growth.

**SUSTAIN.** In little more than a generation, the US moved from a majority rural to a majority urban-suburban existence. This lifestyle change diminished people's connection to nature, especially with children now turning more to electronics than the outdoors as a source of enjoyment. People need to appreciate natural systems to protect them. So TU and others must engage youth and adults in restoration projects and fishing. Reestablishing the vital link between person and river will ensure that our restoration legacy endures.





## The Western Water Project

THE NEXT 10 YEARS 2008 2009 2010

**F**or all the progress TU's Western Water Project and its conservation allies have made over the past decade, much work remains. The challenges that existed a decade ago continue and in many cases have been amplified by a number of factors, old and new.

Population growth continues to accelerate throughout the West. Colorado alone is expected to increase to 5.2 million people by 2025, up from 3.7 million from when the Water Project began in 1998. From 2000–2006, Salt Lake City's population grew by 10 percent, and by 2025 it is projected to grow by another 50 percent. These expanding populations will continue to place pressure on the West's limited water resources and will require innovative water policies implemented at the state and federal level.

Global warming and climate change pose one of the greatest challenges both for people and fish. Increased air temperatures are likely to reduce snow and increase evaporation, both of which will result in lower flows in the rivers absent an increase in precipitation, which the models show may—or may not—occur. For cold water fisheries already under stress due to altered habitat, low flows, dams and pollution, the additional impacts from higher temperatures and even lower flows could be dire. Both growing cities and biologists look to what's left in the rivers as water they will need in the future. While solutions that protect rivers and fisheries will have to involve conservation, they may also include moving some water out of existing uses such as agriculture, a prospect that irrigators obviously find alarming.

With more people in the West comes the need not just for more water for cities, but also for more energy. It turns out that the delivery and treatment of water can require significant energy resources; the California state water project is also the state's largest energy consumer. In addition, development of most energy resources, with the glaring exception of renewables like wind and solar, requires large quantities of water. In an arid region, whether the energy source is nuclear power, hydropower, corn-based ethanol or oil-shale, the water requirements for these sources must be met from existing supplies, most of which are already allocated elsewhere. As a result, one sees Shell Oil buying ranches in northwest Colorado with an eye towards using the water from those ranches for oil shale production. Thus, energy development in the region becomes another source of competition for the water that fish need flowing in the rivers.

**One sees Shell Oil buying ranches in northwest Colorado with an eye towards using the water from those ranches for oil shale production.**

To meet these and other challenges, the WWP and its partners will work to continue to increase the ability of western states' water management systems to protect flowing rivers. They will also seek out and create opportunities for transactions with senior water right holders to put water back instream and will use TU's state-based grassroots networks to oppose unwise and environmentally destructive projects on the ground, as well as in the courts when necessary. The WWP must grow to meet these and other challenges. Fortunately, thanks to a decade's worth of accomplishments, TU is equipped to assure that the West's coldwater resources have a respected place at the table.



10 2011 2012 2013 2014 2015 2016 2017 2018

## THE NEXT 10 YEARS

- Expand the flexibility of every state's water law systems to accommodate and encourage protection and restoration of healthy instream flows.
- Oppose unwise and environmentally destructive water storage and diversion projects.
- Advocate for increases to federal, state, local and private funding for instream water projects.
- Ensure that responsible state agencies enforce existing and new laws related to instream flows.
- Develop long-term state-based and regional responses to potential impacts of global warming on coldwater fish.
- Work with cities to provide water for growing populations while also conserving, protecting or even restoring rivers and fisheries.
- Continue to develop agricultural partnerships to improve stream flows for important fisheries.
- Ensure that each state has the legal tools to regulate ground water pumping in order to protect rivers and fisheries and senior water rights holders.
- Protect the existing high quality fishery river habitats, especially on public lands, by opposing irresponsible development activities and ensuring that federal water rights are recognized and respected.
- Develop cooperative habitat and flow restoration projects in every priority basin in the West.

## A NEW ERA OF DAM BUILDING?

While once thought to be an idea associated almost exclusively with the mid- 20th Century, the West is experiencing a resurgence in proposals for building new dams. Dam building proponents, including the Bureau of Reclamation, argue that the construction of new pipelines and dams is one of the answers to the negative environmental impacts global warming will cause in the West. They claim that dams have multiple benefits including the production of carbon neutral hydropower and the ability to store water to confront lingering drought and disappearing snowpack. In-state water developers argue that the construction of dams will help states to retain and use more of the water that belongs to them, rather than see it flow out-of-state. As a result, there are proposals to pipe 200,000 acre feet of water from Wyoming, Utah or the northwest corner of Colorado hundreds of miles east (and thousands of feet up in elevation) to Colorado's Front Range, at a cost of billions of dollars, for storage and use by cities and irrigators. In another example of drastic water proposals, the Colorado River Basin states recently considered options to augment that river's supply which include looking at the feasibility of bringing water from as far away as Alaska.

Photo by Mrs. Eunice Olson.



The collapse of the Teton Dam on June 5, 1976 released nearly 300,000 acre feet of water, killed eleven people and caused nearly a billion dollars in damages to the farmland and towns downstream.

But the most dramatic yet serious proposal is the effort to rebuild Teton Dam in Idaho. Originally built in the 1970s despite considered opposition from TU and others, the dam collapsed on June 5, 1976, killing eleven people and causing nearly a billion dollars in damage. Regardless of the fact that the dam's location remains geologically unsuitable and the devastating impacts its construction would have on the region's fisheries, in 2008 the State of Idaho approved \$400,000 to study its rebuilding. The Idaho Water Project is now mustering the opposition, which this time around includes many of the traditional irrigators from the area immediately below the dam site.

# Selected Accomplishments for TU's Western Water Project and Partners

## Protect

CA	McCloud River	<ul style="list-style-type: none"> <li>Stopped Nestlé from building nation's largest spring water bottling plant on key tributary to the McCloud River. With allies McCloud Watershed Council and California Trout, convinced Nestlé to conduct two years of environmental studies, prepare a new environmental impact report, eliminate the potential to use groundwater, and scale back the size of the proposed plant by 60%.</li> </ul>
	Rivers throughout Sierra Nevada and Cascades	<ul style="list-style-type: none"> <li>Intervened in the PG&amp;E bankruptcy proceeding, which reached a historic agreement to protect 140,000 acres of watershed land in the Sierras and the Cascades. The resulting Stewardship Council, has become the largest provider of grant funds for youth outdoors activities in California</li> </ul>
CO	North Fork Snake River	<ul style="list-style-type: none"> <li>401 Certification for Arapahoe Basin established that state couldn't ignore adverse impacts of diversions, limited winter diversion for snowmaking and required ski area to pay to clean up abandoned mine hot spot and monitor effects of diversion in paired stream study for five year period.</li> </ul>
	Gunnison River	<ul style="list-style-type: none"> <li>Teamed with local, regional &amp; national conservation groups to convince National Park Service (NPS) to file for instream flow right for Black Canyon. When NPS tried to abandon it later, gained court order prohibiting NPS from doing so. Negotiated instream flow protection for Canyon acceptable to all parties.</li> <li>In separate case, stopped AB Lateral hydropower project that would have depleted Gunnison and flooded Uncompahgre Rivers.</li> </ul>
	San Juan River	<ul style="list-style-type: none"> <li>Convinced CO Supreme Court to limit how much water a city can claim for future growth and to deny a water right for large dam that would have depleted San Juan River for speculative growth.</li> </ul>
	La Poudre Pass Creek	<ul style="list-style-type: none"> <li>Challenged U.S. Forest Service (USFS) refusal to require reservoir owner to bypass water to protect creek after expansion. Federal court held that the law requires USFS to impose or find another way to protect the creek. USFS then agreed to restore native trout to drainage.</li> </ul>

Photos, Left to Right: Tim Hawkes, Mark Lance, Sebastien Burel / iStock, TU Archives.





<b>CO</b> cont.	<b>State-wide</b>	<ul style="list-style-type: none"> <li>• Facilitated passage of statutes that authorize consideration of water quality impacts in applications to change water rights and require cities to consider source and adequacy of water for new land use development.</li> <li>• Helped defeat of post-drought \$2M bond for new water projects.</li> <li>• Helped pass state-wide water quality temperature standard to protect cold-water fishes.</li> <li>• Filed briefs in cases that protected cities' right to obtain instream flow water right for recreation;</li> <li>• Filed brief to support state supreme court ruling that Instream flow water rights can place a call within a call.</li> <li>• Awarded seat on new water committee that will produce state's first instream water needs assessment.</li> </ul>
<b>ID</b>	<b>Henry's Fork River</b>	<ul style="list-style-type: none"> <li>• Negotiated Drought Management Plan with Henry's Fork Foundation and water users.</li> </ul>
<b>MT</b>	<b>Gallatin River Basin</b>	<ul style="list-style-type: none"> <li>• Blocked new housing developments' ground water diversions that would have lowered river flows.</li> </ul>
	<b>Smith River</b>	<ul style="list-style-type: none"> <li>• Won case at MT Supreme Court, thus establishing that ground and surface waters are hydrologically connected.</li> </ul>
	<b>Bitterroot Basin</b>	<ul style="list-style-type: none"> <li>• With local allies, convinced legislature to close Basin to additional water development.</li> </ul>
	<b>Big Hole, Jefferson &amp; Blackfoot Rivers</b>	<ul style="list-style-type: none"> <li>• Negotiated Drought Management Plans with water users and helped with enforcement.</li> </ul>
	<b>State-wide</b>	<ul style="list-style-type: none"> <li>• Helped pass statutory framework to allow USFS to obtain instream flow water rights.</li> </ul>
<b>WY</b>	<b>Bear River</b>	<ul style="list-style-type: none"> <li>• Stopped federal funding for proposed Cokeville dam on Smiths' Fork.</li> </ul>

## Re-Connect

<b>CA</b>	<b>Coastal Rivers from San Francisco Bay to Mattole River in Humboldt County (5,900 stream miles and 3.1 million watershed acres)</b>	<ul style="list-style-type: none"> <li>• Petitioned for regulation of unauthorized water diversions, which led to passage of A.B. 2121, a bill that directed state Water Board to adopt Instream Flow Policy for comprehensive water management.</li> <li>• Implementing "Water &amp; Wine" program with winegrape growers to improve stream flows, supply reliability. New plan revolutionizes water administration by setting flow performance measures for all users to meet cooperatively, expands beyond A.B. 2121 area to entire coast.</li> </ul>
	<b>Lagunitas Creek</b>	<ul style="list-style-type: none"> <li>• Reached agreement with North Marin Water District that allows district to meet its customers' needs and dedicates a portion of the District's water rights to instream use in Lagunitas Creek, which is home to nearly 10% of the state's native Central Coast Coho salmon.</li> </ul>

<b>CO</b>	<b>State-wide</b>	<ul style="list-style-type: none"> <li>• With allies, gained statutes authorizing state to acquire instream flow water rights to improve stream flows. Later statutory improvements include removal of penalties for water rights holders leasing water for ISF, \$1M for ISF acquisition fund, &amp; \$500K for species recovery.</li> </ul>
<b>ID</b>	<b>Little Lost River tributaries</b>	<ul style="list-style-type: none"> <li>• With agency support and funding, identified and completed several projects on Badger Creek with local irrigators that together resulted in opening bull trout spawning habitat. Project won award from National Fish Habitat Board.</li> </ul>
	<b>Garden Creek, tributary to South Fork Snake</b>	<ul style="list-style-type: none"> <li>• Partnered with landowner (water use efficiency project), NRCS and USFS to reconnect native Yellowstone cutthroat tributary.</li> </ul>
	<b>Rainey Creek, tributary to South Fork Snake</b>	<ul style="list-style-type: none"> <li>• Worked with irrigators to obtain first water donation to ID Water Supply Bank for instream flow protection.</li> </ul>
	<b>Eastern Snake Plain Aquifer</b>	<ul style="list-style-type: none"> <li>• Participated in Idaho's Farm Bill proposal for CREP to ensure moneys could be used for instream flows.</li> <li>• Secured sole seat for conservation representative on Governor's Advisory Committee making recommendations regarding the state's Comprehensive Aquifer Management Plan.</li> </ul>
	<b>Bear River</b>	<ul style="list-style-type: none"> <li>• Negotiated removal of Cove Dam.</li> </ul>
<b>MT</b>	<b>Blackfoot River</b>	<ul style="list-style-type: none"> <li>• Negotiated, executed and continue to be key partner in Drought Management Plan.</li> <li>• Leased instream flow water rights in several tributaries from landowners.</li> <li>• Partnered with Blackfoot Challenge and local TU chapter on habitat restoration projects.</li> </ul>
	<b>State-wide</b>	<ul style="list-style-type: none"> <li>• Expanded and made leasing program permanent. TU now leasing in Yellowstone, Upper Clark Fork, Madison River Basins, in addition to Blackfoot.</li> <li>• Convinced MT Supreme Court that instream flow water rights are legal even without diversion.</li> </ul>
	<b>Bitterroot River</b>	<ul style="list-style-type: none"> <li>• Brokered deal with state agencies to put 10,000 acre feet of stored water into river to maintain flows in perpetuity.</li> </ul>
	<b>Warm Spring Creek, tributary to Upper Clark Fork</b>	<ul style="list-style-type: none"> <li>• Negotiated agreement to release stored water so that creek no longer dries up.</li> </ul>
	<b>State-wide</b>	<ul style="list-style-type: none"> <li>• Instream flow leasing bill passed in 2008</li> </ul>
<b>UT</b>	<b>Boulder Creek, tributary to East Fork River</b>	<ul style="list-style-type: none"> <li>• Negotiated modest bypass flow from hydropower dam in FERC re-licensing proceeding.</li> </ul>
	<b>Blacksmith Fork River</b>	<ul style="list-style-type: none"> <li>• Negotiated bypass flow and agreed to raise money for new fish ladder for city hydropower facility.</li> </ul>
<b>WY</b>	<b>State-wide</b>	<ul style="list-style-type: none"> <li>• Gained Governor's endorsement for instream flow protection statute.</li> </ul>
	<b>Grade Creek, tributary to Bear River</b>	<ul style="list-style-type: none"> <li>• Worked with irrigator and neighbors to change point of diversion to reconnect stream.</li> </ul>
	<b>Gros Ventre River</b>	<ul style="list-style-type: none"> <li>• Partnering with Grand Teton National Park to track fish movement and determine where to restore instream flows for native fish. Involving local volunteers in study.</li> </ul>





Photos, Left to Right: Mark Lance, Tim Hawkes, Tim Hawkes, Rob Dickerson.

## Restore

CA	<b>Pit River, including Hat Creek; Middle and South Forks of the Stanislaus, including the Spring Gap area; South Fork of the American River; South Cow Creek</b>	<ul style="list-style-type: none"> <li>Used multiple FERC relicensing proceedings to improve stream flows and aquatic habitat.</li> </ul>
	<b>Lower Yuba River</b>	<ul style="list-style-type: none"> <li>Helped broker “Yuba Accord” with 16 parties to resolve a long-running water war and to optimize operations and water use, thus significantly increase instream flows for salmon.</li> </ul>
ID	<b>Portneuf River</b>	<ul style="list-style-type: none"> <li>Helped City of Pocatello pass \$5M bond, half of which will go to buy water for flows through town.</li> </ul>
	<b>Henry’s Fork Snake River</b>	<ul style="list-style-type: none"> <li>Negotiated settlement with agencies, operator and other conservation groups to provide better flows and money for fish passage around Chester Dam.</li> </ul>
	<b>South Fork Snake</b>	<ul style="list-style-type: none"> <li>Worked with Bureau of Reclamation to re-operate Palisades Dam using principle of environmentally sustainable water management to benefit native fish without jeopardizing water users’ water yield.</li> </ul>
	<b>Bear River</b>	<ul style="list-style-type: none"> <li>Used FERC re-licensing for PacifiCorps’ hydropower dams on River to secure better flows for fish.</li> </ul>
MT	<b>State-wide</b>	<ul style="list-style-type: none"> <li>Advancing the Smith River Supreme Court victory, convinced state legislature to reform ground water law in a way that protects river base flows in over-appropriated basins.</li> </ul>
	<b>State-wide</b>	<ul style="list-style-type: none"> <li>With Montana Natural Resources and Conservation Service, piloted prioritizing federal funding for irrigation projects that improve stream flows.</li> <li>Helped build agricultural-conservation coalition to secure national program in 2008 Farm Bill.</li> </ul>
	<b>Sun River</b>	<ul style="list-style-type: none"> <li>Used Clean Water Act impaired waters process to force Bureau of Reclamation (BOR) to consider re-operation of reservoir system to benefit fishery.</li> </ul>
	<b>Clark Canyon Dam, Beaverhead River</b>	<ul style="list-style-type: none"> <li>Negotiated BOR contract renewal requiring consideration of instream flows and water quality.</li> </ul>
UT	<b>American Fork River</b>	<ul style="list-style-type: none"> <li>Negotiated removal of dam on river through FERC process. Dam is now gone.</li> </ul>
WY	<b>State-wide</b>	<ul style="list-style-type: none"> <li>Helped establish \$200M WY Wildlife Natural Resources Trust Fund for restoration on private lands.</li> </ul>

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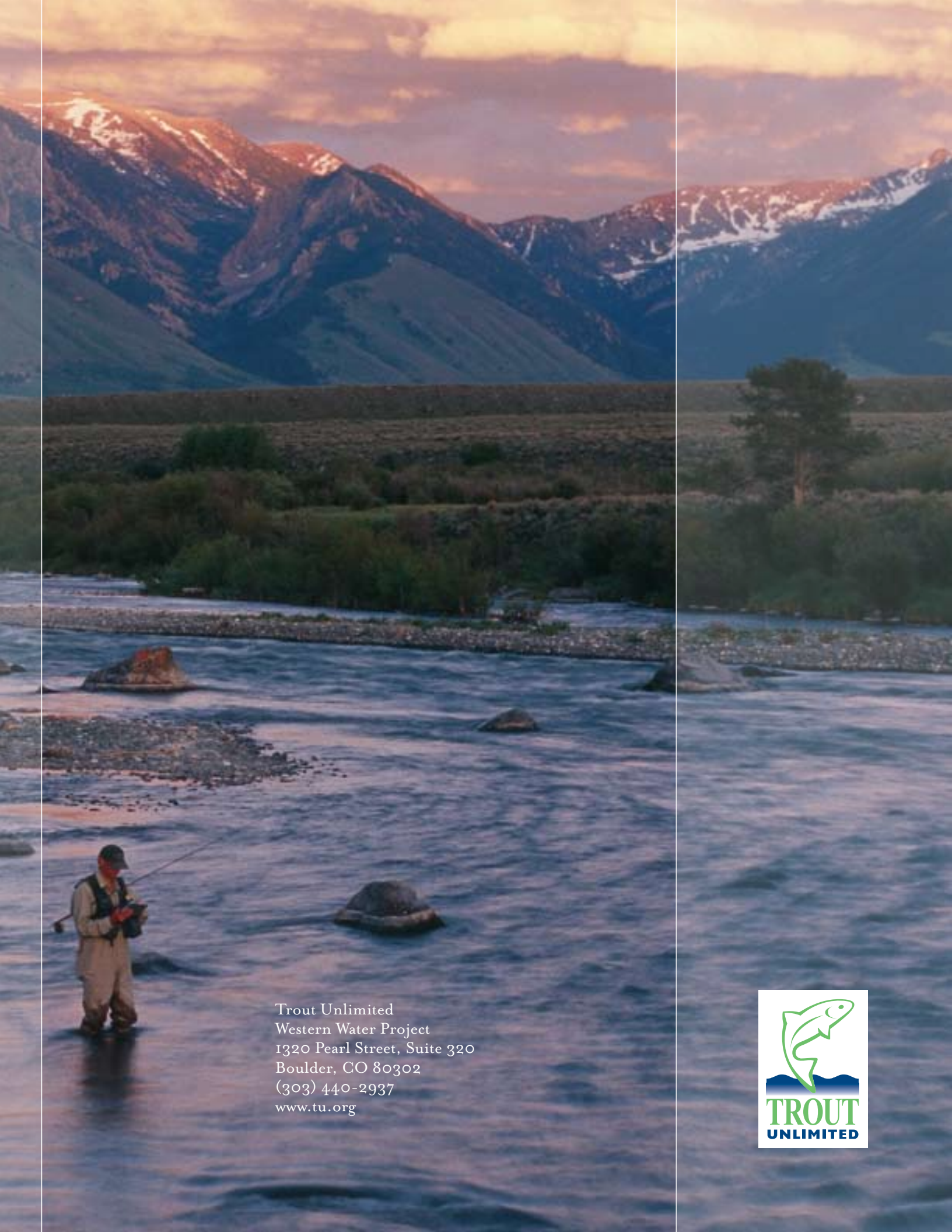
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For more information or to request copies please contact:  
Melinda Kassen, Western Water Project Director, [mkassen@tu.org](mailto:mkassen@tu.org)  
David Stillwell, Office and Internal Communications Manager, [dstillwell@tu.org](mailto:dstillwell@tu.org)



Trout Unlimited  
Western Water Project  
1320 Pearl Street, Suite 320  
Boulder, CO 80302  
(303) 440-2937  
[www.tu.org](http://www.tu.org)

