

SNAPSHOTS OF SUCCESS

Protecting America's watersheds,
fish and wildlife, and the livelihoods
of sportsmen



Across the nation, a common theme is emerging from efforts to conserve and protect water resources: federally supported collaborative partnerships work. It turns out water isn't just for "fighting over," as the saying goes. Water can also be a catalyst for shared prosperity.

Throughout the country, the most successful conservation efforts are locally driven with a broad base of support, including federal financial and technical assistance. They honor and respect the traditions of hunting, fishing, farming and ranching-while protecting the resources we share.

But crises, like those we see in the drought-stricken West, remind us that we have failed to get ahead of the challenge of managing water resources for mutual benefit and multiple uses. If we are to get ahead of the curve, we must replicate and scale up the successes of collaborative partnerships.

In these pages, we travel the United States to showcase the importance of collaborative, sportsmen-led efforts and the importance of critical federal funding that fuels them. The lessons sportsmen have learned executing these projects tell a convincing story about the need for responsible resource management and adequate funding.

From California to New York, from Montana to Mississippi, important efforts are underway to improve the quality and quantity of our precious water, while protecting the species, livelihoods and people who share it with us.

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The nation behaves well if it treats the natural resources as assets which it must turn over to the next generation increased; and not impaired in value.

Theodore Roosevelt
August 29, 1910

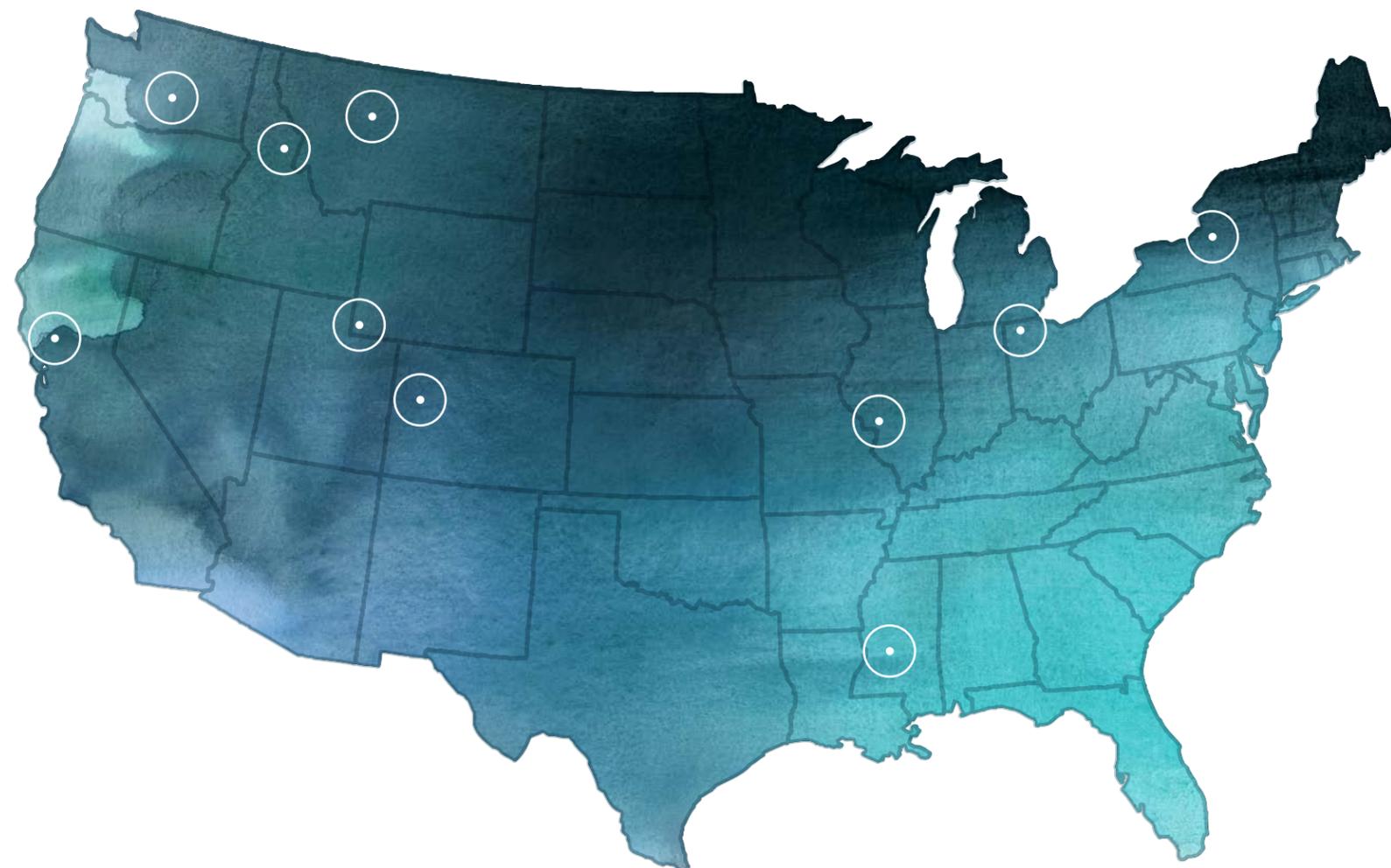


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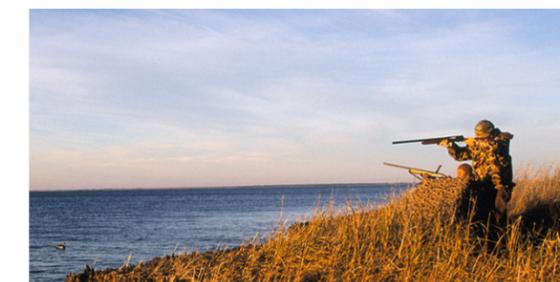
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SONOMA COUNTY CALIFORNIA



PROTECTING EVERY DROP IN THE RUSSIAN RIVER WATERSHED

THE RUSSIAN RIVER COHO WATER RESOURCES PARTNERSHIP

Partners expect the Russian River Coho Water Resources Partnership to be a catalyst for other projects all over the West Coast, starting conversations about the dire challenges facing California's economy and the species we are responsible for protecting.

THE PROBLEM

In California's fertile Sonoma County, the challenge of managing drought—and protecting every drop of water for fish, agriculture and people—has become a way of life.

"People are having to truck water in during the summer, just to live—to flush their toilets, wash their dishes and have a glass of water at night before bed," says Valerie Minton, the program director of the Sonoma Resource Conservation District.

The challenge in the Russian River watershed is to combat the scarcity of water without threatening Coho salmon, whose populations are suffering from low water levels—even dry riverbeds. It's a challenge that requires an effective and balanced solution from a dynamic partnership.

Trout Unlimited and other members of Russian River Coho Water Resources Partnership teamed up to use federal funding to redesign water use and efficiency across the watershed.

FINDING SOLUTIONS

To benefit both people and fish, multiple efforts are underway to improve water use and conserve water through diversions, habitat restoration, catchment systems, off-stream ponds and tanks, and frost protection systems.

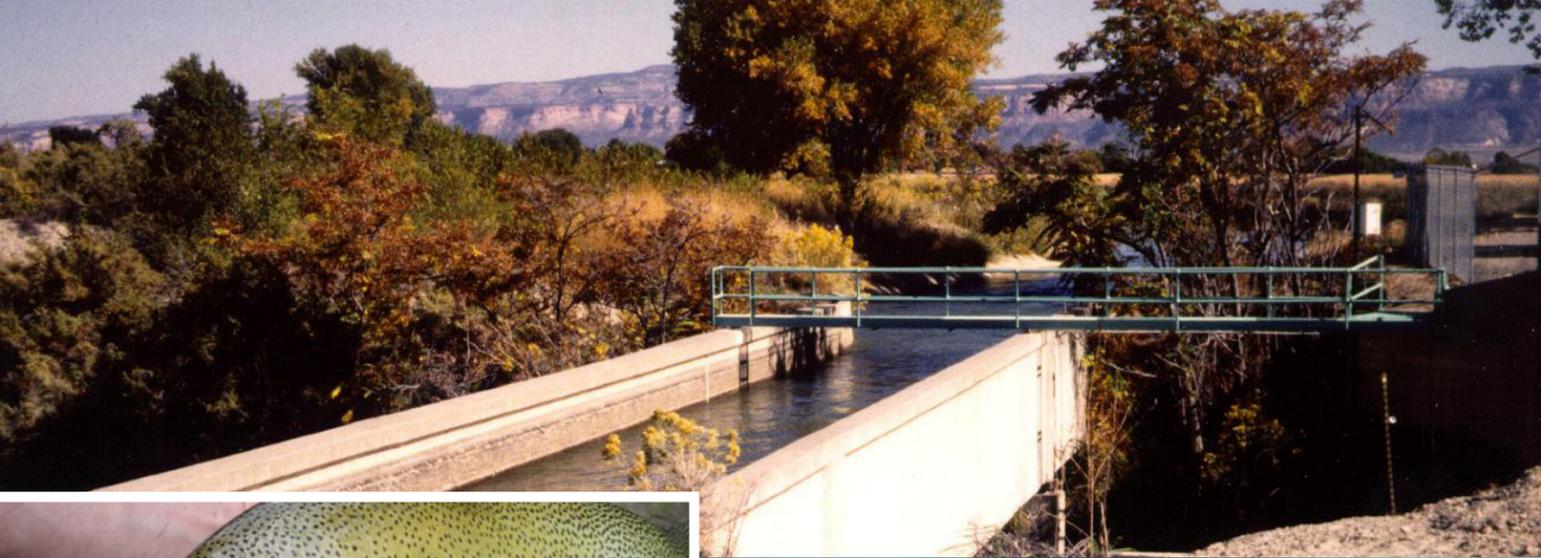
Critical funding from the National Oceanic and Atmospheric Administration and other federal sources helped fund cooperative projects with landowners to improve flow in tributaries to the Russian River and Dry Creek.

With the many creeks and tributaries of the Russian River drying up, smaller fish were not surviving to make it back to the ocean to grow as adults. In years past, the 110-mile long Russian River hosted thousands of spawning salmon. But between 2000 and 2009, fewer than 100 salmon returned. The low numbers resulted in their placement on the Endangered Species List. The Russian River project is helping farmers and landowners reduce diversions during the driest part of the season, improving streamflow. Juvenile fish will then be able to survive over the dry season and migrate out to the ocean.

THE RESULT

Trout Unlimited and other partners are taking full advantage of federal funding, and it's working. More adult salmon and steelhead are returning and spawning since restoration work began. More than 500 adult coho returned for the 2012-13 winter.





GRAND JUNCTION COLORADO

CRITICAL FEDERAL
FUNDING SOURCE

ENVIRONMENTAL QUALITY INCENTIVES
PROGRAM (NATURAL RESOURCES
CONSERVATION SERVICE)

UPPER COLORADO RIVER ENDANGERED
FISH RECOVERY PROGRAM (BUREAU OF
RECLAMATION AND U.S. FISH AND WILDLIFE
SERVICE)

LEAD CHAMPION
FOR SPORTSMEN



SWEET SUCCESS FROM A SALTY SITUATION

COLORADO RIVER SALINITY CONTROL & WATER FLOW RESTORATION

Thanks to federal funding, innovative water managers and organizations like The Nature Conservancy, both endangered fish and local farmers benefit in Colorado's Grand Valley, surrounding the city of Grand Junction.

Cities as far away as Los Angeles and farmers as far downstream as Yuma, Arizona, also benefit from salinity control in the Grand Valley made possible by federal grants coordinated with major state, power user, and irrigator cost sharing.

HOW DID IT HAPPEN?

As part of a comprehensive program to control the loading of more than half a million tons of salt every year into the Colorado River from irrigation in the Grand Valley, U.S. Bureau of Reclamation engineers began lining sections of the 100-year old Government Highline Canal in the 1980s. The Highline Canal can divert over 1600 cubic feet of water per second from the Colorado River northeast of Grand Junction, and feeds several other irrigation systems in the Grand Valley on both sides of the river, including the Orchard Mesa Canal. Many farmers, meantime, took advantage of Environmental Quality Incentives Program funding to make on-farm irrigation improvements (such as installing pipes between the canal and farms) to control salinity loading.

It didn't take long for all this cooperative salinity control to make irrigating in the valley much more efficient. But the combined diversions by the Government Highline Canal

and the Grand Valley Irrigation Company further downstream sometimes still de-watered a 15-mile stretch of the Colorado River that is critical habitat for two endangered fish species – the Colorado pikeminnow and razorback sucker.

Working with the Bureau of Reclamation, supportive water users and numerous other partners in the Upper Colorado River Endangered Fish Recovery Program, The Nature Conservancy secured even more improvements in the efficiency of the Highline Canal. With these water savings, the Highline Canal reduced its river diversions and stored the saved water upstream, restoring flows in the river—all without reducing farm deliveries.

These most recent improvements to the Highline Canal funded by the Bureau of Reclamation through the endangered fish program include state-of-the-art computerized monitoring equipment and check dams within the main canal. Before, the Government Highline Canal often carried up to 650 cubic feet per second. Now the canal can run at a rate of about 150 cubic feet per second late in the irrigation season.

WHAT'S NEXT

Today the long-term effort to keep salt out of the Colorado River runs parallel to the effort to restore the flow of water for endangered fish recovery—as water efficiency improvements near completion.

EQUIPED FOR CONSERVATION SUCCESS



THE ENVIRONMENTAL QUALITY INCENTIVES
PROGRAM [EQIP]
USDA NATURAL RESOURCES
CONSERVATION SERVICE

The Environmental Quality Incentives Program (EQIP) encourages voluntary conservation for individual farmers and ranchers, who can receive up to \$450,000 in technical and financial assistance to apply farming and other land use practices that maintain or improve the condition of soil, water, air and other natural resources.

The goal is to improve farmland, cropland, rangeland, and non-industrial forestland through better air and water quality, reduced soil erosion and sedimentation, water conservation and habitat improvement.

At over \$1.3 billion in annual funding, EQIP is one of the largest federal conservation programs. In addition, the 2014 Farm Bill requires that at least 5 percent of EQIP funding benefits wildlife, making it one of the most important federal programs for hunters and anglers.



LEMHI VALLEY
IDAHO



JOINING FORCES TO REJUVENATE THE LEMHI RIVER

LEMHI RIVER RESTORATION



I'm most proud of the trust and understanding we built between government agencies and locals," Beyeler says. "The best way to solve problems is working together.

Immediately after Idaho rancher Merrill Beyeler met with a state fish and game officer to discuss how best to keep grazing cattle away from the Lemhi River, he started getting calls from neighbors.

"My neighbors wanted to know if I was going to jail," Beyeler said. "That's how bad the mistrust was at the time."

That was more than 20 years ago. Funding was scarce. But Merrill Beyeler's initial conversation eventually brought together the Bureau of Land Management, the U.S. Forest Service and state agencies, which found funding to improve fencing on Beyeler's ranch. And a major conservation partnership began.

THE PROBLEM

Before the partnership, irrigation along the Lemhi resulted in polluted water, limited flow and increased water temperatures. Irrigators had also installed diversions that prevented traditional spawning migrations for Chinook salmon. Water quality and quantity suffered, and so did salmon populations.

But relationships improved. Local landowners and irrigators along the Lemhi eventually teamed up with The Nature Conservancy to use Bonneville Power Administration grant funding through the Columbia Basin Water Transactions Program (CBWTP) to restore the river and redevelop the natural habitat for salmon and many other fish, wildlife and vegetation.

HOW IT WORKED

With funding from the CBWTP, project leaders acquired a 630-acre conservation easement allowing local landowners to protect 7.5 miles of river habitat. The project allows ranchers and landowners to continue their long-term stewardship of their land while meeting the conservation needs of the ecosystem.

It's not just the fish that benefit from the project. With help from The Nature Conservancy, farmers and ranchers in the Lemhi Valley installed high-efficiency sprinkler systems, which means less demand for river water for irrigation—and more water for fish.



Rancher Merrill Beyeler (center) and his son Curtis chat with a neighbor in Idaho's Lemhi Valley.

PHOTO COURTESY BILL MULLINS

RANCHING & STEWARDSHIP

Merrill Beyeler, now a Republican state representative in Idaho, entered into a conservation easement with The Nature Conservancy. The agreement allowed him to purchase another ranch with an existing easement, almost doubling the size of his property. The expansion of the property provides more flexibility while adjusting to the conservation standards set forth by the easement. Grazing areas can be rested and rotated with greater frequency, and cattle have been kept off sensitive riverbanks without negatively impacting the ranch's bottom line.

In recent years, Beyeler has witnessed the Lemhi River rush back to life, rejuvenating the entire valley and the economy it supports. Fish and wildlife have reappeared, and local communities see children return to establish their own families and businesses. Merrill Beyeler sees conservation as a catalyst for economic opportunity, business diversity and community vitality.



ST. LOUIS METROPOLITAN AREA ILLINOIS/MISSOURI

THE MISSOURI RIVER CONFLUENCE: WHERE HUNTERS, LANDOWNERS & RIVERS MEET

THE MISSOURI CONFLUENCE COLLABORATION PARTNERSHIP

You could say the restoration of the Missouri River Confluence is for the birds. And it's a resounding success.

THE CHALLENGE

As St. Louis grew from a Midwestern frontier town to a city of 2.8 million, the area around the confluence of the Missouri and Mississippi Rivers (known as the Confluence Region) lost 90 percent of its natural wetland habitat.

But it wasn't the fear of growth—and its impact on the floodplain—that prompted the 14-year, multimillion-dollar success story of the Missouri Confluence Conservation Partnership. It was a passion for ducks. If local hunters and birders didn't sound the alarm, they knew the ducks would disappear.

The Confluence Region is now a revitalized wetland habitat in the heart of the St. Louis Metropolitan Area. The area is home to millions of migratory waterfowl and holds up to 260 billion gallons of water during the high flood season.

CRITICAL FEDERAL
FUNDING SOURCE

NORTH AMERICAN WETLANDS CONSERVATION
FUND (U.S. FISH & WILDLIFE SERVICE)

LEAD CHAMPION
FOR SPORTSMEN



"Building on and developing this floodplain has enormous impacts on wildlife habitat and neighboring communities," says Jim Blair, chairman of the Great Rivers Habitat Alliance. "Ill-fated attempts to continually manipulate rivers, solely for commercial interests, ignores the needs of wildlife and the cultural values sportsmen treasure greatly. As has always been the case, it is sportsmen who protect and work to preserve precious habitats and the species that rely on them. Sportsmen are important allies in protecting our resources, and we knew we had to get them involved to find a solution."

THE SOLUTION

In the early 2000s, a group of local landowners voted to take action, and it prompted a domino effect. Ducks Unlimited and the Missouri Confluence Collaboration Partnership used numerous private and federal grants, notably from the Doris Duke Foundation and the North American Wetlands Conservation Act (NAWCA) to leverage additional land protections in the area.

To date, thanks to the enthusiasm and momentum of local landowners and hunters, by early 2015, the Partnership expects to secure 9,194 acres of protected private property via 28 easements through Ducks Unlimited. Thanks to matching funding from NAWCA, the Partnership will ultimately protect and enhance a total of 43,000 acres of public lands in the region.

WHAT'S NEXT

The Missouri Confluence Conservation Partnership hopes to acquire an additional \$2.1 million to protect and enhance another 15,000 acres of habitat. If secured, the money will be used for easements on what is regarded as "highly expensive potential real estate."

THE NORTH AMERICAN WETLANDS CONSERVATION ACT (NAWCA)

Administered by the U.S. Fish and Wildlife Service, NAWCA grant funding encourages long-term protection of wetland and upland habitat for waterfowl, especially as they migrate across Mexico, Canada, and the United States. Projects that receive NAWCA funding help restore wetlands, enhance water availability and quality, reduce soil erosion, and prevent flooding.

Eligible projects must provide matching funds at no less than a 1:1 ratio.

NAWCA received just over \$34 million for 2015; however, this is less than half of the previously authorized amount for NAWCA and nearly 30 percent below the funding level of just five years ago.



COPIAH COUNTY MISSISSIPPI



CRITICAL FEDERAL FUNDING SOURCE

PARTNERS FOR FISH AND WILDLIFE PROGRAM (U.S. FISH & WILDLIFE SERVICE)

LEAD CHAMPION FOR SPORTSMEN



PRIVATE LANDOWNERS PROTECTING A THREATENED SPECIES

THE BAYOU PIERRE RIVER RESTORATION PROJECT

Mississippi's Bayou Pierre River is the only place on earth where you'll find the threatened Bayou darter, a fish no bigger than your little finger, zipping through shallow water along a fragile, gravelly riverbed. But history has taken its toll on the Bayou darter.

The Bayou darter was listed as threatened in 1975 because mining operations and poor agricultural practices were hurting the species.

Through a robust education campaign and federal investment from the U.S. Fish and Wildlife Service's (FWS) Partners for Fish and Wildlife Program, conservationists and landowners are rebuilding healthy habitats.



BAYOU DARTER *ETHEOSTOMA RUBRUM*

THE PROBLEM

Erosion along the Bayou Pierre River and high water create headcuts and steep riverbanks which collapse and crumble into the water, covering fragile darter spawning beds with suffocating topsoil and silt. The problem is compounded by decades of poor management decisions related to gravel mining and livestock raising along the river.

THE SOLUTION

That's where innovative leadership comes in. With federal funding, the American Sportfishing Association, through its FishAmerica Foundation, is working directly with people who own land next to the river.

"Federal investment in boots-on-the-ground work goes a long way in a project like this," says Robert Harris, a private landowner in Copiah County who is partnering with FWS to complete this project. "We are stewards of the land and water and we have a responsibility to the species that for too long have been overlooked. We're making good progress now and we will continue to rely on responsible federal investment."

A recent grant from the Partners for Fish and Wildlife Program will allow for the installation of water control structures, fencing to keep cattle away from spawning grounds, and even the planting of cottonwood trees along the riverbank—which help stabilize the fragile riparian habitat.

This work is paying off. The latest review by the U.S. Fish and Wildlife Service suggests populations of the Bayou darter appear to be stable in the lower part of the Bayou Pierre River. But biologists are still concerned about populations in the river's upper and middle stretches.

WHAT'S NEXT

Thanks to the Partners for Fish and Wildlife Program, the American Sportfishing Association and cooperative landowners, conservation work will be completed in the summer of 2015. Stakeholders will continue to monitor success.



CASCADE COUNTY MONTANA

CRITICAL FEDERAL FUNDING SOURCE

WATERSMART (BUREAU OF RECLAMATION)

LEAD CHAMPION FOR SPORTSMEN



BUILDING TRUST WITH A SMART SOLUTION IN MONTANA

IMPROVING FORT SHAW IRRIGATION DISTRICT WATER EFFICIENCY

The most valuable treasure in the famed Treasure State doesn't come from any mine.

"Water is liquid gold," says Laura Ziemer of Trout Unlimited in Montana. "It's a scarce resource we cannot live without, and we overcame our disagreements to protect it."

Ziemer is referring to a unique partnership that uses federal WaterSMART dollars to rehabilitate irrigation infrastructure and water use along the Sun River.

THE CHALLENGE

For years, agricultural pollution and erosion along the Sun River bred animosity and mistrust among local landowners, irrigators and ranchers. As tensions neared a tipping point, stakeholders instead turned their attention away from each other and toward a much more formidable enemy: water scarcity.

The new partnership to improve water usage along the Sun River began as the Muddy Creek Task Force. Members took on the challenge of restoring the polluted Muddy Creek, which dumped millions of tons of sediment into the Sun River. The Task Force eventually became the Sun River

Watershed Group, a group of locals who laid the foundation for dealing with water rights issues, improving fish habitat and restoring water flow. Today, the Sun River Watershed Group provides an open forum to discuss conservation, resources and information about land management and voluntary conservation projects.

With funding from the WaterSMART program and the Coca-Cola Company, Trout Unlimited and local ranchers and landowners worked together to successfully rebuild irrigation systems, increasing water flow and restoring native fish habitat in the Sun River.

HOW IT WORKED

Two WaterSMART grants awarded in 2012 and 2013, combined with state, local and private funding and in-kind contributions, funded the program to improve habitat for wild trout and improve irrigation—especially during times of drought. The grants helped pay for:

- A new bypass canal and pipe for water delivery
- 2,000 feet of new lined canal and 2,310 feet of PVC pipe
- Efficient new center-pivot irrigation systems

As a result, almost 10,000 acre-feet of conserved irrigation water will be protected and managed each year to restore flows to the Sun River for the life of the project.

WHAT'S NEXT?

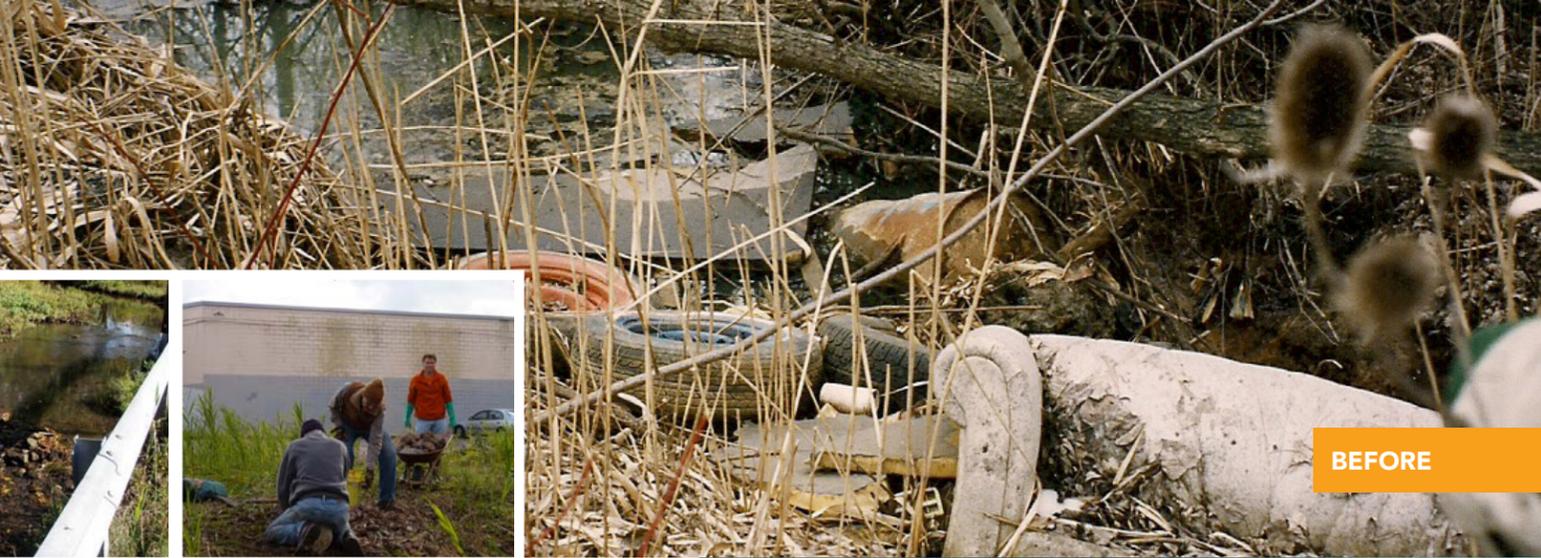
Project leaders hope the Sun River project will serve a model for the restoration of other river basins. The significant size of the project, which involved 177 individual users, will be used as a template for even larger multi-user areas.



Created by the U.S. Department of the Interior in 2010, WaterSMART (Sustain and Manage America's Resources for Tomorrow) supports a grant program administered by the Bureau of Reclamation. The program aims to provide "leadership and assistance on the efficient use of water, integrating water and energy policies to support the sustainable use of all natural resources."

Between 2013 and 2014, the Bureau of Reclamation awarded 80 WaterSMART grants. Combined, these projects will save an estimated 167,000 acre-feet of water per year. That's enough water to serve more than 650,000 people--more than the population of Wyoming.

Yet only one in five WaterSMART grant applications is approved for funding, indicating that there is significant untapped potential for additional water savings in the West.



BEFORE

AFTER



SYRACUSE NEW YORK



“FREAKS” BREATHE NEW LIFE INTO BEARTRAP CREEK

THE BEARTRAP CREEK RESTORATION PROJECT

Meet a man who takes pride in being called a freak of nature.



I guess you could call me the original creek freak.

-Les Monostory

It all started 25 years ago when retired chemist Les Monostory discovered an unusual problem in Syracuse’s Beartrap Creek. While testing water as a volunteer with the Central New York Chapter of the Izaak Walton League of America, Monostory found extreme levels of chemical glycol in the water. The glycol depleted the water’s oxygen and suffocated fish. In fact, the water quality was so bad only bacteria could survive. After months of regular testing, Monostory traced the glycol contamination to de-icing fluid runoff from the nearby Syracuse Hancock International Airport.

Monostory’s discovery turned into a passion to clean up the filthy Beartrap Creek, a critical tributary to Lake Onondaga that formerly supported a healthy trout population.

“It’s not just a matter of cleaning up an eyesore in our community, it’s a matter of doing our part to clean the river in order for fish to survive and use it,” Monostory says. “That’s our responsibility and we’re proud to live up to it.”

Joined by volunteers of self-described “creek freaks” and armed with federal grant funding from the Great Lakes Restoration Initiative, the Izaak Walton League created the Beartrap Creek Restoration Project. Volunteers from the local Izaak Walton Chapter decided to adopt Beartrap Creek as their primary stream restoration project, and cleaned out trash and debris by enlisting support from local town and county officials.

WHAT HAPPENED

Monostory’s discovery forced Hancock International Airport to install a facility to treat de-icing fluid runoff onsite. Still not satisfied with cleanup efforts, Monostory and his fellow Creek Freaks went to work rehabilitating the creek and its water. They stopped local snowplows from their practice of shoving dirty piles of snow into the creek, which littered the area with debris. They got volunteers with heavy equipment to rebuild entire sections of the creekbottom and trout spawning beds. Today, brown trout are migrating to Onondaga Lake through Beartrap Creek for the first time in more than two decades.

WHAT’S NEXT

The local Izaak Walton League plans to use what’s left of its original federal grant to begin the second phase of the project in the summer of 2015. This phase will add additional habitat improvement structures along the lower Mattydale section of Beartrap Creek.



Les Monostory (right), with fellow cleanup volunteers along New York’s Beartrap Creek.

PHOTO COURTESY BARB ELLIOTT



TOLEDO
OHIO

CRITICAL FEDERAL
FUNDING SOURCE

GREAT LAKES RESTORATION INITIATIVE

LEAD CHAMPION
FOR SPORTSMEN



HEALTHY WATER FROM HEALTHY WETLANDS

HOWARD FARMS OHIO COASTAL RESTORATION PROJECT



It's ambitious, but we know this is 100% doable and will have fantastic benefits.

Mistakes of the past reached a boiling point in the summer of 2014 in Toledo, Ohio, where residents were warned against drinking and even bathing in local tap water.

Bright green algae bloomed across Lake Erie, fed by phosphorous- and nitrogen-rich agricultural runoff—causing extremely high levels of microcystin (which can damage the liver) in the water supply. Toxins in the water supply were so bad that fish were dying.

The incident highlights the importance of the Howard Farms Coastal Restoration Project, which is transforming nearly 1,000 acres of farmland along Lake Erie back into its original wetland habitat. The efforts will result in restoring a natural filter for polluted water.

THE CHALLENGE

More than 75 years ago, in an effort to cultivate new cropland, the Howard Farms property was drained, ditched, and disconnected from Lake Erie by levees.

As a result, twenty-eight species of fish could no longer spawn there, an important creek channel disappeared, and hundreds of acres of wetland habitat vanished along with their natural ability to cleanse water before it reached Lake Erie.

THE SOLUTION

To tackle the problem, Ducks Unlimited and local stakeholders turned to grant funding from the Great Lakes Restoration Initiative to restore the property back to its former wetland habitat. Metroparks of the Toledo Area (the local parks agency) previously had bought Howard Farms with the idea of restoring habitat and transforming the agricultural land into a world-class metropark.

WHAT WILL RESTORATION LOOK LIKE?

The project will hydrologically reconnect the property to Lake Erie and restore several hundred acres of coastal emergent wetlands and nearly 7,500 feet of the historic Cedar Creek riverbed. The 28 species of fish now suffering from habitat loss will soon benefit from the restoration, which will make it possible for them to once again migrate from Lake Erie into the wetlands for spawning.

A key part of this project will be installing boardwalks around the land, opening up the wetlands to hunting, fishing and birding. The Toledo area is one of the most popular birding spots in the country, and the Howard Farms restoration project will bring back new opportunity for birders across the country.

WHAT'S NEXT

The project's \$2.8 million in grants from the Great Lakes Restoration Initiative will be pooled with \$1 million from the Ohio Division of Wildlife and an additional \$5 million from Metroparks. The plan is to finish designs and hire contractors in early 2015. Habitat restoration and installation of the recreational use amenities will run into 2016.

WETLANDS AS WATER FILTERS

Wetlands adjacent to bodies of water act as natural water cleansing systems, filtering out pollutants caused by livestock runoff, fertilizers, septic tanks, oil and other pollutants that are dangerous to lakes and their native plants and animals.

Wetland habitat traps pollutants, removes bacteria and slows the water's flow. In fact, one of the most important features of wetland habitat is the slow-moving water, which allows suspended sediment to settle to the wetland floor where they are absorbed by plants and soil before they ever reach the nearest lake.



YAKIMA VALLEY WASHINGTON

CRITICAL FEDERAL FUNDING SOURCE

FISH & WILDLIFE PROGRAM (BONNEVILLE POWER ADMINISTRATION)

LEAD CHAMPION FOR SPORTSMEN



REVITALIZING A CREEK, CREATING JOBS

COWICHE CREEK WATER USERS ASSOCIATION FISH SCREENING AND BARRIER REMOVAL PROJECT

In Washington's Yakima Valley, revitalizing a creek is helping to revitalize an entire community with jobs and economic activity.

Local stakeholders joined forces to restore Cowiche Creek in response to the major decline of endangered steelhead. A combination of low instream flows, unscreened irrigation diversions and physical habitat changes reduced the number of steelhead returning to the creek.

Today, thanks to Trout Unlimited and funding from the Bonneville Power Administration through the Columbia Basin Water Transactions Program (CBWTP), steelhead are now returning to Cowiche Creek and spawning naturally.

HOW IT WORKED

Trout Unlimited helped leverage federal funds through CBWTP and other sources to work with senior water rights holders to:

- Eliminate an unnecessary diversion dam;
- Renovate a diversion dam to increase its efficiency and allow fish passage;
- Consolidate creek irrigation diversions to provide an alternative water source and leave creek water instream; and
- Support partner efforts to remove approximately 1,400 feet of dikes and over 600 cubic yards of concrete to improve Cowiche Creek habitat.

WHAT THE COWICHE CREEK PROJECT MEANS FOR WATER USERS

This project helped irrigators and ranchers access and develop alternative water sources and use these sources more efficiently without affecting the productivity of their land. By connecting farmers and ranchers with alternative water sources, the project keeps creek water in Cowiche Creek and increases fish habitat without hurting agricultural productivity.

WHAT'S NEXT

While the project is complete today, Trout Unlimited and the other partners hope to use Cowiche Creek as a model to demonstrate the success of collaborative efforts between partners in the Yakima River Basin and across the West.

UNEXPECTED BENEFITS

A 2013 study by the Washington State Recreation and Conservation Office shows that funds used for watershed restoration are a huge economic boon for local communities they impact. Every \$1 million spent on restoration creates or sustains between 15-33 jobs and generates \$2.2 to \$2.5 million in total economic activity.

A 2014 University of Washington study shows that 80% of federal grants for watershed restoration projects are spent locally. This is no different in the Cowiche Creek watershed. Rather than implement a one-size-fits-all solution, local conservation groups, ranchers and landowners worked together to find a solution that works for the land and the people it supports.



EVANSTON WYOMING

PRESERVING FISH, PRESERVING LIVELIHOODS

THE UPPER BEAR RIVER STREAM RESTORATION AND IRRIGATION EFFICIENCY PROJECT

Traditional irrigation practices along the Upper Bear River near Evanston, Wyoming, have taken their toll on the Bonneville cutthroat trout.

That's why Trout Unlimited teamed up with the City of Evanston and other entities to use funding from the U.S. Fish and Wildlife Service's Aquatic Habitat and Species Conservation Program and the Natural Resources Conservation Service's Regional Conservation Partnership Program to revitalize the river, bring back the Bonneville cutthroat and restore cold-water fisheries—all while creating reliable, more efficient irrigation systems and preserving the livelihoods of the region's farmers and ranchers.

CRITICAL FEDERAL FUNDING SOURCE

REGIONAL CONSERVATION PARTNERSHIP PROGRAM (NATURAL RESOURCES CONSERVATION SERVICE)

AQUATIC HABITAT AND SPECIES CONSERVATION (U.S. FISH & WILDLIFE SERVICE)

LEAD CHAMPION FOR SPORTSMEN



THE CHALLENGE

Impassable irrigation diversions and dams dot the Upper Bear River, preventing fish from reaching their historic spawning grounds.

THE SOLUTION

By removing irrigation barriers and consolidating two dams, the Upper Bear River Project increased water flow, creating a higher quality habitat for fish and other wildlife and reducing the impacts of local irrigation systems. The partnership also installed fish screens to eliminate fish entrainment.

Today, thanks to federal funding from both the U.S. Fish and Wildlife Service and the Natural Resources Conservation Service, on-the-ground partners have restored and reconnected some 210 miles of migration corridors and stream habitat, benefitting Bonneville cutthroat and other native fish in the Bear River. The new infrastructure will also replenish the river with up to 1 billion gallons of water every year.

WHAT'S NEXT

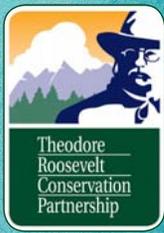
In 2015, the Partnership plans to remove six miles of canal. Members also expect higher than average flow along seven miles of the Upper Bear River. To do this, Trout Unlimited has applied for \$880,000 through the Natural Resources Conservation Service's new Regional Conservation Partnership program, which would come with a pledged \$630,000 from the U.S. Fish & Wildlife Service.

A FOCUS ON FISH ENTRAINMENT

After spawning inland, fish are often diverted from their natural habitat and into irrigation ditches, lakes or other unnatural and even harmful environments.

Conservationists have developed numerous solutions to rectify the entrainment challenges that come with traditional irrigation practices:

- **Fish Screens:** Fitting ditches, canals and other diversions with screens to prevent fish from leaving their natural migration routes
- **Fish-friendly Dams:** There are many different types of dam structures that allow fish to pass freely thanks to specially designed spillways, turbines, and fish ladders



WATER RESOURCES FOR SPORTSMEN

The federal government offers many resources for protecting water, fish, wildlife and habitat. The table below lists fifteen of the most important programs for sportsmen. For up-to-date information about federal funding of these programs, please visit the interactive Sportsmen's Water Budget at trcp.org/water-budget.

PROGRAM NAME	AGENCY	DESCRIPTION	ONLINE
Agricultural Conservation Easement Program	NRCS	Assists in protecting agricultural land by limiting non-agricultural land uses and provides technical assistance to landowners to protect and enhance wetlands	nrcs.usda.gov
Aquatic Habitat and Species Conservation	FWS	Monitors and assesses aquatic wildlife to inform resource management decisions and supports the National Fish Habitat Action Plan and the National Fish Passage Program.	fws.gov/fisheries
Clean Water State Revolving Fund	EPA	Provides funds to capitalize state revolving loan funds to improve wastewater systems and water quality	water.epa.gov/grants_funding
Conservation Stewardship Program	NRCS	Encourages conservation efforts on agricultural and forest lands through technical and financial assistance to producers	nrcs.usda.gov
Dingell-Johnson Sport Fish Restoration	FWS	Encompasses several grant programs to enhance sport fish resources	wsfrprograms.fws.gov
Environmental Quality Incentives Program	NRCS	Promotes voluntary farming and other land use practices that improve the condition of natural resources	nrcs.usda.gov
Fish and Wildlife	BPA	Supports projects to improve fish and wildlife in the Columbia River Basin	efw.bpa.gov
Great Lakes Restoration Initiative	EPA	Interagency process to restore the Great Lakes ecosystem, including wildlife and habitat restoration	epa.gov/greatlakes/glri
Habitat Conservation and Restoration	NOAA	Supports conservation efforts to rebuild fisheries and recover species	habitat.noaa.gov
Nonpoint Source (Section 319) Grants	EPA	Grants help states and tribes implement Nonpoint Source Management programs	water.epa.gov/grants_funding
North American Wetlands Conservation Fund	FWS	Provides grants to conserve habitat for waterfowl and other migratory birds	fws.gov/birdhabitat
Partners for Fish and Wildlife	FWS	Provides financial and technical assistance to implement voluntary habitat restoration projects on private land	fws.gov/partners
Regional Conservation Partnership Program	NRCS	Promotes collaborative partnerships to implement conservation activities	nrcs.usda.gov
State and Tribal Wildlife Grants Program	FWS	Provides cost-share grants to states and tribes to improve fish and wildlife habitat	wsfrprograms.fws.gov
WaterSMART	USBR	Provides federal support, including cost-share grants for water and energy improvement projects, in pursuit of a sustainable water supply	usbr.gov/WaterSMART

FOR MORE INFORMATION: TRCP.ORG/WATER-BUDGET