

COLDWATER CONSERVATION FUND

A YEAR OF IMPACT

2020



COLDWATER CONSERVATION FUND (CCF) ACCOMPLISHMENTS

2020

12 TOTAL
PROJECTS

\$418,450

TOTAL CCF GRANTS
AWARDED

44 STREAM
MILES

PROTECTED, RESTORED
OR RECONNECTED

\$6.6M

LEVERAGED
FUNDING

9 HABITAT
MILES

OPENED FOR
FISH PASSAGE



1,062

TREES
PLANTED

PROTECTING
33,849

ACRES IN
HEADWATERS

52+ ACRES

RIPARIAN HABITAT
RESTORED

41,948

WATER QUALITY
OBSERVATIONS MADE IN
THE DRIFTLESS AREA



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FOUR WESTERN PROJECTS

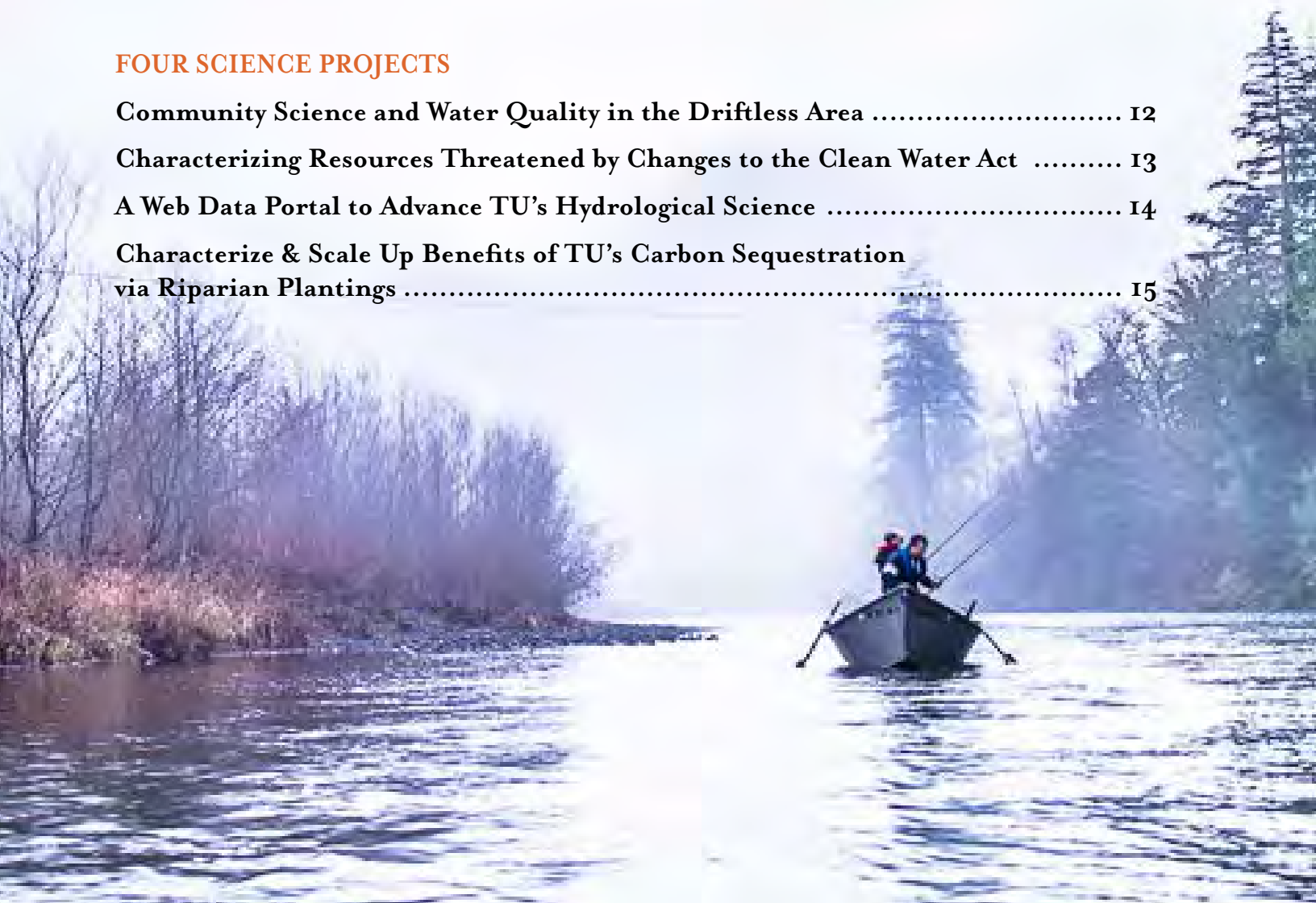
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Headwaters to Hometowns: Building Resiliency in the Upper Yellowstone Basin

CCF 2020 Grant: \$48,000

Leveraged Funds: \$438,000

- **Protected and restored 18 stream miles**

CORE FUNDING LEVERAGED

Empowered by the CCF's grant, TU initiated efforts to restore and protect the storied fishery of the Yellowstone River and its tributaries. CCF funding led to a two-year commitment of \$140,000 by the Arthur M. Blank (AMB) West Community Fund to support a TU project manager to identify and implement a suite of restoration projects. Ashley Brubaker was hired to lead habitat restoration, and our legal team focused on restoring instream flows. Two inaugural projects are underway, leveraging \$278,000 in project funds. TU's instream flow team took on the challenge of rewatering Mill Creek, which leveraged another \$20,000 in community donations.



Extreme annual dewatering on Mill Creek cripples Yellowstone cutthroat spawning.

Our goal is to reconnect key tributaries year-round, and protect and enhance the remnant Yellowstone cutthroat metapopulations in the basin. In 2020, our approach was threefold: (1) protect instream flows; (2) increase water supplies by restoring natural hydrologic processes; and (3) restore healthy habitats and fish passage. All of these actions are building resiliency in the Yellowstone basin and enabling wild trout to adapt to a changing climate.

IMPACT & OUTCOMES

- TU's project manager launched efforts to restore habitat and floodplain connectivity on the H Bar J Ranch, where Mill Creek, the largest tributary to the Yellowstone in Paradise Valley, was historically straightened and diked. Phase I is slated to begin in the fall of 2023, installing a series of log jams to create scour and gravel deposition and pulling down dikes allowing the floodplain to store water.
- Our legal team filed a series of objections to water rights abuses that were dewatering six miles of Mill Creek. A recent victory will limit a set of irrigators to the decreed high-water period, freeing up as much as 20 cfs after July 15 to keep it flowing over cutthroat trout redds through fry emergence.
- In Brackett Creek, a major tributary to the Shields River, TU envisioned a habitat restoration project with long-term supporter and water lessee to naturally stabilize eroding banks, enhance pool habitats and restore riparian vegetation beginning in the fall of 2023.
- Also in Brackett Creek, TU's water rights experts assisted a large ranch in settling a water dispute that led to an instream-flow lease for up to eight cfs to keep the stream connected from headwaters to confluence.



Bank erosion degrades habitat on 1 mile reach of Brackett Creek.

Raising the Speed Limit on the Salmon Superhighway

CCF 2020 Grant: \$35,000

Leveraged Funds: \$4,367,428

- **Reconnected 20 miles of habitat**
- **Opened 9 miles of habitat**

CORE FUNDING LEVERAGED

This CCF grant helped TU to expand our Salmon Superhighway (SSH) program with the hiring of a new staff person for the Tillamook Bay watershed (a primarily agricultural portion of the SSH geography), to conduct outreach and project development for fish passage projects. CCF funding provided vital match requirement funds to unlock a Natural Resources Conservation Service award through the Regional Conservation Partnership Program (RCPP) for \$1,237,428. In addition, our key partner in this project, Tillamook County, was able to secure \$2.5 million of congressionally-directed funds to support three projects at culverts associated with county road crossings. Other leveraged funds include \$100,000 from the U.S. Fish and Wildlife Service, \$500,000 over five years from the Tillamook County Creamery Association, and a private donation of \$30,000.

Importantly, this award also provided funding to update the fish passage barrier prioritization model, thereby providing solid scientific information to underpin and direct our fish passage investments towards the projects with the highest return on investment. Using the “OptiPass” model, the team determined the precise portfolio of projects to maximize habitat “bang-for-the buck,” fully 93 projects that will result in access for 6 species of ocean-going fish to 95% of the available habitat, at a fraction of the cost of a more traditional approach (an estimated \$34 million savings). Updating our decision support tools ensures that we provide the greatest possible access to habitat for migratory fish as a result of our work.



Senator Jeff Merkley on tour with SSH Project Coordinator Sarah Zwissler.

IMPACT & OUTCOMES

- In 2021, nine fish passage projects were completed, reconnecting 20 miles of habitat, and in 2022, four fish passage barriers were removed opening nine miles of habitat. For the life of the SSH program, 47 out of 93 priority projects have been completed, reconnecting over 124 miles. We are over two thirds of the way towards our goal of 180 miles.
- The SSH partnership was designed to be a strong collaboration between state and federal funding agencies, TU, Tillamook County, and local watershed councils. In 2019, the Tillamook Bay Watershed Council lost its state recognition, and as a result, lost its capacity and staff funding. This left a critical gap in the SSH program, since the watershed council was the entity charged with landowner outreach and project development in that portion of the watershed that is dominated by agriculture (mainly dairy farming). With the support of the CCF, Trout Unlimited has been able to step into this vacancy to sustain the program in this important watershed, assuring that we continue to make progress to return salmon, steelhead, and other species back to their historic habitats. TU has brought federal and state funding to the community to complete these projects, which not only benefit fish, but also benefit landowners by reducing chronic flooding that leads to road washouts that are not only dangerous but also prevent milk trucks from making it in and out of the dairies.

Eel River SONAR: Providing Essential Information for Watershed Restoration

CCF 2020 Grant: \$20,000

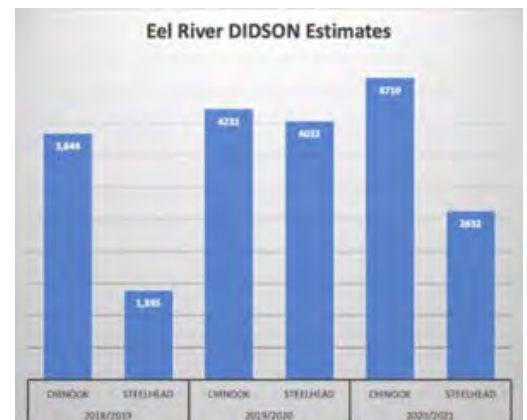
Leveraged Funds: \$316,000+

- Staffed sonar (“DIDSON”) site during the winter of 2020/2021
- Counted a total of 4,510 Chinook and 2,632 winter steelhead (provisional)
 - Summer steelhead data in process

CORE FUNDING LEVERAGED

This CCF grant made it possible for TU to support Pacific State Marine Fisheries Commission field staff in operating a Dual Array Identification Sonar (DIDSON) camera to accurately estimate adult Chinook salmon and steelhead returns on California’s Eel River during the winter of 2020-2021. CCF funding leveraged over \$316,000 from the National Oceanic and Atmospheric Administration, California Department of Fish and Wildlife, Round Valley Indian Tribes, Redwood Empire TU Chapter, and private donors.

Since 2018, TU and partners have pooled resources to maintain a sonar monitoring effort on the lower mainstem Eel River, just above the confluence with the South Fork. The winter of 2018/2019 marked the first attempt to quantify the total run size of ESA listed Chinook salmon and steelhead in the Eel River. Since that initial effort, TU and our partners have collaborated to maintain the mainstem sonar site, and have worked to expand monitoring efforts in other important Eel River tributaries.



IMPACT & OUTCOMES

- The Eel River watershed is large and rugged, with many stream miles inaccessible by road, and it has one of the highest recorded average suspended sediment yields of any river of its size in the U.S., making typical population monitoring techniques extremely difficult. CCF funding helped to fill a critical gap, and allowed the project to continue as field staff were able to operate the DIDSON nearly 24/7 from November 25th through the end of May. Without CCF funding, it is likely that the monitoring effort would not have continued past 2020. With the maintained momentum the CCF enabled, our partners were able to secure funding to: (1) operate the site later into 2021 to begin capturing the summer steelhead run; (2) fully fund the lower Eel monitoring site which continues to operate today; and (3) acquire additional funding to install a new DIDSON site on the Middle Fork Eel River, staffed by a member of Round Valley Indian Tribes. TU staff and volunteers provided technical expertise to build the power supply for the new DIDSON site, and we continue to work closely with partners on maintaining both sites.
- Data collected in this monitoring effort will: (1) develop a sound removal plan for two dams in the upper Eel watershed; (2) get accurate baseline information necessary to understand the impacts of dam removal and restoration; and (3) enable us to understand how Chinook and steelhead are responding to habitat restoration efforts that TU is heavily engaged in throughout the Eel River basin. Data collection has been ongoing for several years with the goal of collecting at least five consecutive years of data to capture all cohorts of the Chinook run. Future plans include expanding the DIDSON effort to the four major branches of the Eel River: the South Fork, VanDuzen River, mainstem, and Middle Fork, with the potential to have mobile stations move between sites to answer more specific population and restoration questions.

Fueling Hatchery Reform with Powerful Science

CCF 2016 Grant: \$27,000

Leveraged Funds: \$20,000

- Created a new public literature database of 209 peer-reviewed papers
- Submitted manuscript for peer-review and publication

CORE FUNDING LEVERAGED

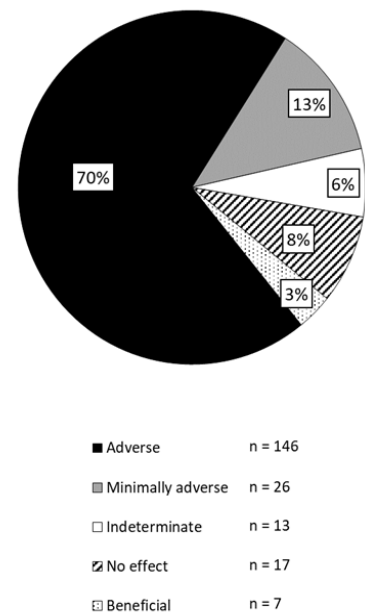
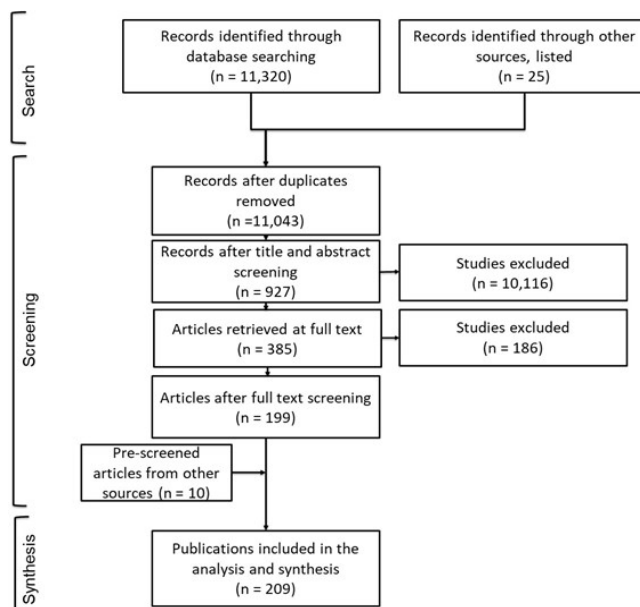
The CCF grant enabled us to: (1) expand a pilot effort into a credible, transparent, and repeatable literature search process; (2) review resulting papers and collate information into a database; (3) synthesize results into major conclusions; and (4) draft a manuscript for peer review that now includes additional high-profile and international co-authors. TU leveraged CCF core funding to secure \$20,000 in estimated in-kind time from non-TU co-authors to review database and manuscript for publication: Brian Morrison (independent scientist, Canada), Dr. Gregory Ruggerone (independent scientist, U.S.), Dr. Jack Stanford (Emeritus, University of Montana), and Dr. Louis Bernatchez (Université Laval, Quebec, Canada). We sought to provide the first global synthesis of literature evaluating how hatchery salmon impact wild salmon in nature, to provide an updatable public database of peer-reviewed papers (1970-2021), and to present conclusions from this synthesized body of work in a peer-reviewed publication. This effort will provide the science foundation for our deepening work on hatchery reform across the nation.

IMPACT & OUTCOMES

- Publicly accessible and updatable database of global peer-reviewed literature will provide standing resource for TU and partners.
- Once peer-reviewed and published, our paper will provide a powerful citation to advance hatchery reform, aquatic science, and salmonid conservation.

Left: Flow diagram outlining literature search process following guidance from the Collaboration for Environmental Evidence.

Right: Graphic of major conclusions showing that only 3% of studies demonstrate beneficial effects, and 83% point to adverse or minimally adverse impacts, by hatcheries on wild salmonids.



Increasing the Scale of Habitat Reconnection through FEMA Funding

CCF 2020 Grant: \$50,000

Leveraged Funds: \$359,000

- Reconnected 6 miles

CORE FUNDING LEVERAGED

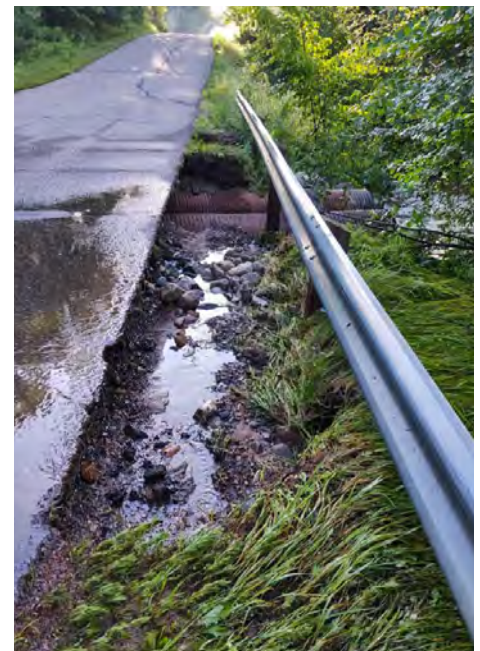
The CCF grant enabled TU to secure a \$300,000 grant from the Federal Emergency Management Agency (FEMA), and \$59,000 from the Brico Fund, for a significant culvert project. When the FEMA proposal was submitted, Congress had just made major changes to FEMA's programs to increase significantly funding for pre-disaster mitigation projects. The goal of the project was to work with communities to submit applications for disaster mitigation funding to FEMA, and open up a new revenue source for TU's restoration work. CCF funding enabled TU staff to work with communities to explore risks to their road infrastructure associated with undersized road-stream crossings that were prone to failure during a flood, and to provide them with the technical assistance needed to design projects and pursue funding through FEMA. Our goal was to advance TU's mission by bringing disaster resilience funding into the field of habitat restoration.



Lily River culvert project that received \$300,000 from FEMA.

IMPACT & OUTCOMES

- This was the first culvert replacement we have seen funded by FEMA. The project successfully tested out a new FEMA policy to allow ecosystem benefits to be included in the benefit-cost analysis, thus providing us with a valuable pilot.
- The county receiving the funding has an annual road budget of \$200,000 per year. The project would have been out of reach for this community without CCF enabling TU to leverage FEMA funds.
- One of the valuable lessons we learned through this project is that the FEMA application process is very demanding and time consuming to navigate. Before pursuing more projects, we shifted our efforts to working with FEMA to improve their program delivery, including bringing county partners from rural Wisconsin to Washington, D.C. to meet with FEMA leadership. FEMA is now working on major program reforms that will streamline projects like ours. These reforms, combined with the billions of dollars of additional funding for pre-disaster mitigation made available through the Bipartisan Infrastructure Law, create an even bigger opportunity for TU to work with FEMA in the future. We are currently in discussions with FEMA about a funding agreement to provide technical assistance to communities based on the model that the CCF enabled us to demonstrate through this grant. It would be the first time FEMA establishes this type of partnership with a nonprofit.



Another view of the Lily River culvert project.

Leveraging Public Funding for Restoration in the Upper Delaware

CCF 2020 Grant: \$50,000

Leveraged Funds: \$647,563

- Restored 1,200 linear feet of Little Beaver Kill and the Willowemoc
- Surveyed & designed 3,500 additional linear feet of Willowemoc

CORE FUNDING LEVERAGED

The CCF grant enabled us to secure \$647,563 in federal funding to complete small dam assessments in the Flatbrook watershed, as well as additional conservation portfolio analyses in priority watersheds of New Jersey, to help lay the foundation for future projects. In New York, CCF funds were used to secure funding in the Willowemoc watershed, where our initial project on the Little Beaver Kill was completed in 2021, with additional work completed in 2022. The CCF also enabled TU to work with the town of Rockland on a project along the Willowemoc, and additional planning is underway for three more restoration projects in the watershed in 2023. These restoration efforts will directly support our mission, and help improve water quality and restore instream, floodplain, and riparian habitat in priority watersheds of the Upper Delaware River. Funding from the CCF has jumpstarted our work in the Delaware River, leveraging private, state, and federal funds with a 1:13 leverage ratio.

IMPACT & OUTCOMES

- Increase floodplain connectivity to help reduce flooding and downstream community impacts.
- Increased support and momentum for our work in the watershed.
- Set the stage for more work through developed partnerships.



Little Beaver Kill Project site before restoration.



Little Beaver Kill Project site after restoration.

Developing In-House Expertise with Emerging Technologies to Map Coldwater Refugia

CCF 2020 Grant: \$52,450

Leveraged Funds: \$125,000+

- Conducted thermal imaging surveys on approximately 15 miles of stream in Michigan

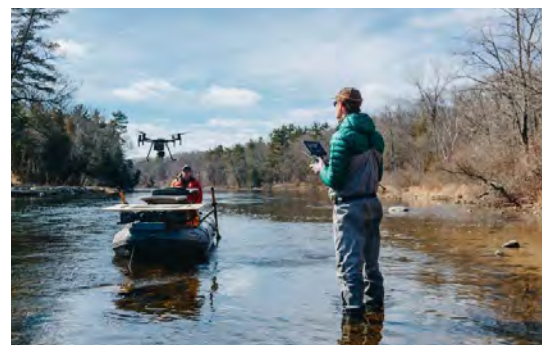
CORE FUNDING LEVERAGED

The CCF grant enabled TU staff to purchase the necessary hardware to conduct aerial thermal imaging surveys. In the Midwest region (and throughout the country) climate change poses a major threat to coldwater fisheries. However, coldwater inputs (e.g. seeps, springs, and headwater tributaries) both moderate the overall temperature within a stream system and create localized cold spots that function as thermal “refugia.” While traditional temperature monitoring methods are effective in understanding coldwater habitat suitability for a given point, they do not provide a holistic view of the available coldwater refugia within a stream system. This CCF grant enabled TU to address this challenge by using drone-mounted infrared (IR) sensor technology to map stream temperature in high resolution at a watershed scale.

CCF funding also helped enable TU staff to complete the necessary requirement to obtain FAA Commercial Drone Pilot Certification. TU then was able to submit a proposal to the U.S. Forest Service Geospatial Technology and Applications Center (GTAC) for technical support in developing data acquisition and image processing methodology, securing a grant of \$75,000. TU also leveraged CCF support to secure a \$50,000 grant from the Fremont Area Community Foundation, and partnered with the U.S. Forest Service, U.S. Fish and Wildlife Service, and the University of Minnesota to obtain funding for a pilot watershed-scale survey on the White River watershed in Michigan, which is providing \$246,573 to TU and partners.



Thermal imaging surveys are often conducted from our raft. The plywood panel serves as a landing pad when suitable landing zones are not available nearby.



Drone taking off on the Muskegon River. Photo by Flylords.

IMPACT & OUTCOMES

- Developed methodology for data acquisition and image processing for a knowledge transfer document to be released in 2023.
- Conducted thermal imaging surveys on approximately 15 miles of stream in Michigan.
- We are set to become a service provider for TU staff, chapters, and partners in the region, providing thermal imaging data for a fraction of the private industry cost.
- Supported TU staff in other regions to develop similar capacity.
- Ultimately, this data will support more informed conservation planning, and ensure that conservation dollars are providing the maximum benefit.

Protecting the Nation's Greatest Brook Trout Strongholds in Maine

CCF 2020 Grant: \$30,000

Leveraged Funds: \$18.5 million with Ranglely Lakes Heritage Trust

• Protected 33,849 acres

CORE FUNDING LEVERAGED

The CCF grant enabled TU to move quickly and take advantage of a rarely-occurring chance to protect native trout at a landscape scale. The CCF provided a dedicated source of funding that enabled our Maine Director to step in immediately and leverage our: (1) Conservation Portfolio and other data analysis tools to prioritize watersheds; (2) local knowledge to guide the design of these conservation projects; (3) proven ability to steer conservation land funding towards landscapes that fill important gaps in the existing network of conserved lands; and (4) the hard-earned respect that we enjoy in the state of Maine.



Pleasant River, Maine.

Passage of the Great American Outdoors Act permanently funded the U.S. Forest Service's Forest Legacy Program, which has completed 11 projects in Maine since 2009, permanently conserving 108,000 acres. The availability of these funds, combined with the success of TU's brook trout focus for the Cold Stream Forest project, has created an increase in interest in having TU help to identify priority lands for brook trout conservation, and design conservation plans that will maximize benefits to brook trout. We have been invited to participate in conservation planning in several regions that contain multiple stronghold populations of brook trout that are predicted to be resilient to climate change, to identify lands that can be protected from development, and to help ensure that fisheries-specific best management practices are incorporated into conservation easements or binding management plans.

IMPACT & OUTCOMES

- TU worked with the Rangeley Lakes Heritage Trust (RLHT) on their 10,000-acre Kennebago Headwaters Project, which aims to protect the headwaters of the Kennebago River and other tributaries to Big and Little Kennebago Lakes in northwestern Maine. Fee acquisitions and conservation easements were completed, and a conservation easement on "Tract I" is anticipated in 2023. We are working with RLHT and a major private funder of the project to develop a plan to implement protective riparian buffers on brook trout streams and lakes, restore fish passage at road crossings, and improve forest management on the conserved lands.
- TU worked with the Appalachian Mountain Club (AMC) to protect 27,000 acres in the headwaters of the Pleasant River through the \$18.5 million purchase of Pleasant River Headwaters Forest, which includes the entire seven-mile length of the Middle Branch Pleasant River, 14 miles of tributaries to the Middle Branch, two native brook trout ponds, and five miles of tributary streams on the West Branch Pleasant watershed.
- The Upper Kennebec project faced challenges related to potential transmission line development, but TU has had productive conversations with the state agency, land trust, and NGO partners about conservation priorities in the region.

Community Science and Water Quality in the Driftless Area

CCF 2020 Grant: \$20,000

Leveraged Funds: \$50,900

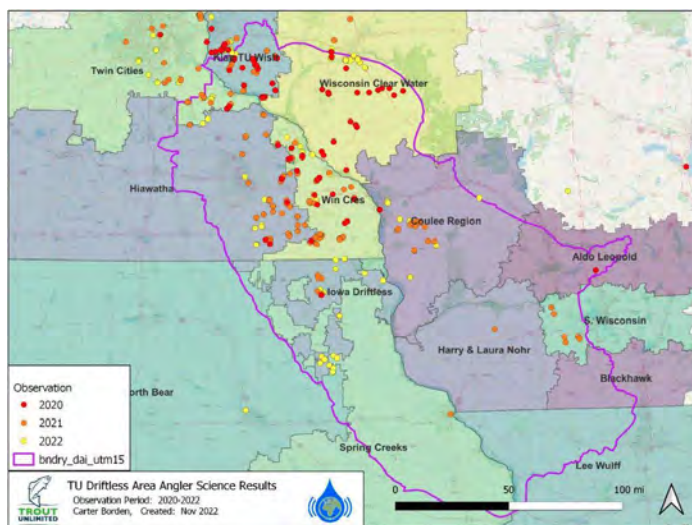
- Data will help to inform where stream protection and restoration are needed across the Driftless Area landscape of 600+ designated trout streams (6,000 miles)

CORE FUNDING LEVERAGED

The CCF grant enabled us to expand this community science project from a pilot project with the Kiap-TU-Wish chapter in Pierce County, Wisconsin, to the entire Driftless Area. The funding helped to provide training on the WiseH2O mobile app and to purchase supplies for chapters engaged in monitoring activities; the project uses volunteers to “crowd source” water quality information in trout streams in the Driftless Area using the WiseH2O mobile app. CCF funds leveraged \$30,000 from the Driftless Area Restoration Effort, \$5,000 from the National Fish and Wildlife Foundation, and a value of \$15,903 in TU volunteer observations and hours.

IMPACT & OUTCOMES

- 1,062 observations of water quality have been made throughout the Driftless Area.
- 212 unique observers have made a water quality observation.
- 9 of 15 area TU chapters, including one from Chicago, have participated.
- 3 chapters have formal monitoring plans ([Kiap-TU-Wish monitoring plan](#)).
- The WiseH2O app has been improved thanks to the experiences of volunteers involved with the project.
- This project was presented at several Driftless Symposia and other professional conferences.



1,062 WiseH2O water quality observations made in the Driftless Area from 2019 to 2022. TU chapter boundaries shown and labeled.

RESOURCES DEVELOPED

[Community Science Driftless Area Program webpage](#)

[Webmap of WiseH2O observations](#)

[2020 Driftless Data Report](#)

[2021 Activities Report](#)

[2022 Activities Report](#)

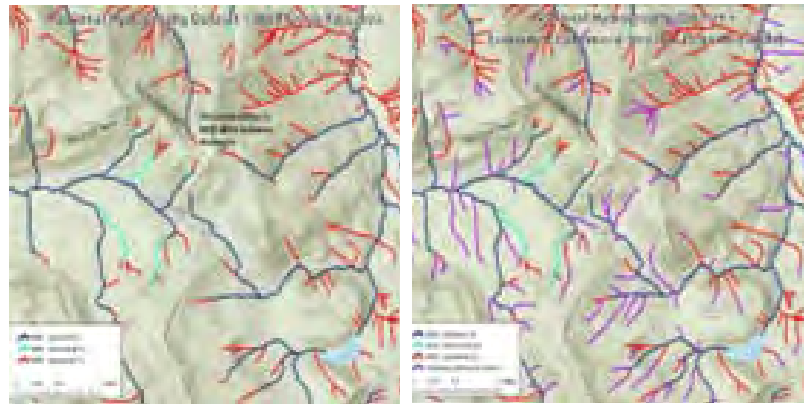
Characterizing Resources Threatened by Changes to the Clean Water Act

CCF 2020 Grant: \$15,000

- Estimated 7.9 million kilometers, or 48% of stream channels by length to be ephemeral streams

CORE FUNDING LEVERAGED

The CCF grant supported the publication, and subsequent case-study application, of our science analysis to estimate the extent of ephemeral streams at risk of losing protection under a new Clean Water Act (CWA) rule. Our final, peer-reviewed paper estimated 7.9 million kilometers, or 48% of stream channels by length, in the coterminous USA to be ephemeral, and that 1/2 of these features would no longer be protected. We then drew from this analysis, and the national Clean Water Act permitting database, to evaluate the impact of this sweeping loss of protection by applying it to various place-based assessments.



Local application of our published scientific analysis to estimate previously unmapped ephemeral streams in CO. Left: stream delineations from the National Hydrography Dataset. Right: TU-estimated additional ephemeral stream reaches, in purple.

Under the Clean Water Act, a 404 permit is required for construction activities that will dredge or fill any waters of the U.S., yet the 2020 Navigable Waters Protection Rule (NWPR) summarily removed ephemeral streams from CWA protection. CCF funding allowed us to shepherd a drafted manuscript through to peer-reviewed publication, to apply our published estimation approach to evaluate various case studies across the U.S., and to detail and contextualize the potential impacts of removing the need for permitting (and the loss of mitigation measures). In the East, we estimated the percentage of ephemeral streams in 13 specific watersheds. In a western amicus briefing, we reviewed jurisdictional determinations for projects associated with individual permit reviews before the NWPR as examples of potential impacts under the new rule. Our detailed analysis determined that at least 22% of projects may no longer be subject to Clean Water Act jurisdiction under the NWPR, and that projects would potentially no longer have to mitigate for the proposed loss of habitat; in other words, project applicants under the new rule could ignore potential damage and provide zero mitigation for losses to watershed health and function. Examples of watersheds for which we provided analysis are the Tongue and Flathead River basins in Montana, and various waters near Albuquerque, NM.

IMPACT & OUTCOMES

- Completed the first national, peer-reviewed estimate of the total extent of ephemeral streams in the coterminous U.S. as a standing resource for CWA related work, and a foundation for future scientific analysis.
- Completed a synthesis and case-study assessment used in amicus briefings and a District Court Declaration.
- The NPWR has been repealed.

A Web Data Portal to Advance TU's Hydrological Science

CCF 2020 Grant: \$30,000

Leveraged Funds: \$10,000 estimated value per individual user

- **Data from hundreds of TU gages now processed, visualized, and shared in automated fashion**

CORE FUNDING LEVERAGED

The CCF grant enabled TU's science team to expand our existing expertise in relational databases, data analytics, and interactive visualization, partnering with TU hydrologists to design, develop, and implement the new TU Hydro Data Portal web application.

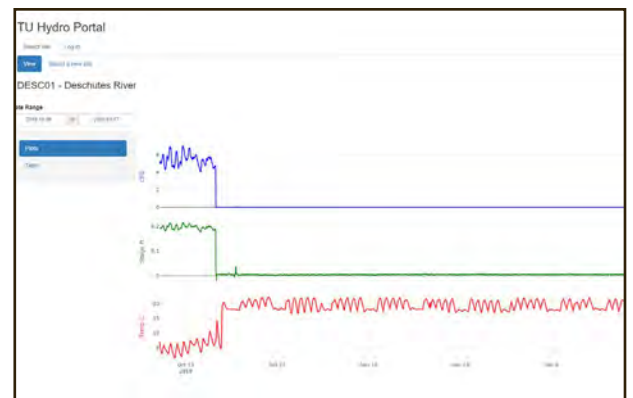
TU hydrologists maintain hundreds of stream gaging stations at monitoring sites nationwide, each generating thousands of data points per day. To interpret and analyze these data, our hydrologists also develop hydrographs—charts showing the relationship between stream depth and discharge. The goal of the Hydro Data Portal was to develop an interactive web-based tool backed by a centralized database that will replace the need for manually-generated hydrographs and time-intensive data management of individual spreadsheets. The Hydro Data Portal also automates and facilitates sharing these data with partners and the public.



IMPACT & OUTCOMES

TU's hydrologic scientists work to understand the interactions between streamflow, stream temperature, and habitats, how these dynamic systems change over time, and how fish and their ecosystems are affected. This work enables TU to develop impactful restoration projects, and to monitor and evaluate their effectiveness. TU's Hydro Data Portal, currently undergoing beta-testing, advances our hydrologic science and data management in the following ways:

- TU scientists can easily share hydrology data—stream depth, flow, and temperature—with partners and the public.
- Users can interactively locate a stream gage on a map, explore hydrology data based upon the date range that they choose, and download data in both graphical and tabular form.
- Our hydrology data now live in a centralized and secure cloud database, rather than individual files scattered across multiple hard drives.
- The Hydro Portal database establishes a platform into which data may be uploaded from gages in real time in the future.



Characterize & Scale Up Benefits of TU's Carbon Sequestration via Riparian Plantings

CCF 2020 Grant: \$41,000

Leveraged Funds: \$306,000 Total Value of Volunteer Hours, Trees Purchased & 3-Year Sponsorship

- Planted 41,948 trees
- Restored 52+ acres
- CO₂ storage equivalent to 150+ driving cars removed each year

CORE FUNDING LEVERAGED

Each year, Trout Unlimited staff and volunteers plant an unquantified but estimated 20,000–30,000 trees. Though we market this work as improving water quality and fish habitat, prior to 2020 we had yet to quantify and publicize the accompanying benefit we are providing for carbon sequestration. Thanks to CCF funding, we were able to quantify sequestration benefits for the first time. TU established a relationship with the U.S. Forest Service Forest Inventory and Analysis (FIA) program, including refining the iTree tool to improve its ability to calculate carbon sequestration of riparian plantings. We are also providing new guidance and tools to motivate and help chapters and staff to increase their efforts and to attract new, more diverse members (e.g., those interested in conservation if not necessarily fishing), as well as funders and partners seeking multiple benefits from their TU commitments.




We fueled a new initiative—“Plant for Our Future”—by creating resources and materials to expand our volunteer-based tree planting work, with a primary focus in the Connecticut/New York and the Michigan/Wisconsin pilot areas. Along with “how to” guides, special online trainings, and frequent communications to staff and TU chapters and councils, we connected the newly-hired Regional Engagement Manager to local chapter communities to host more plantings, and to invest in recruiting and engaging with diverse communities—including significant investments in school groups.

IMPACT & OUTCOMES

The Plant for our Future initiative secured a major corporate sponsorship from Tractor Supply Company, with a three-year, \$150,000 sponsorship that seeks to double the number of trees planted each year for three years, with store-based partnership planting events across the country.

- 71 tree planting events across 10 states.
- More than 980 volunteers engaged.
- Quantified CO₂ storage equivalent to 150+ driving cars removed each year.



An aerial photograph of two anglers in a river. They are wearing waders and hats, and are using yellow poles to manage a large school of trout. The water is clear, and the surrounding vegetation is lush green. A dark grey text box is overlaid on the upper left portion of the image.

The Coldwater Conservation Fund is a collaboration between a group of committed and generous supporters and Trout Unlimited's conservation leaders, that simultaneously provides annual support for critical needs and a forum for learning, discussion, and decision-making.

All donors who make a commitment of at least \$10,000/year for five years become members of the CCF Board which meets once a year to distribute that year's fund by vote.

THANK YOU

Together, we are working to protect, conserve, and restore wild and native trout and salmon. Your generous support helps to ensure that future generations will know the joy of fishing for trout and salmon, and be the beneficiaries of the healthy watersheds in which they live. Coldwater conservation is a legacy that matters to all of us living downstream.

If you are interested in learning more about the CCF Board, please contact:

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