

2018 Q2
Quarterly
Impact
Report



The
Freshwater Trust®



DEAR FRIEND,

Earlier this month, you likely received a postcard from the river, either in your email or your mailbox. We are deep into “restoration season” right now, and 2018 will be our largest year of on-the-ground work yet.

In the Rogue, we’re building 61 new large wood structures and planting more than 26,000 native trees and shrubs. In Idaho, we’re replanting native trees and shrubs along the Weiser River and planning our second island development project on the Snake. In the John Day, we’re keeping thousands of gallons of water instream through deals with farmers and ranchers. For the Sandy, we’ll be adding spawning gravel, planting more than 1,000 plants, and building 33 large wood structures for native fish habitat.

All of this is equivalent to millions of dollars worth of restoration across three states. Donations from our community go to planning, design, implementation and equipment. You are not only integral to making these projects happen; you make them successful. In the following pages, you’ll read about the “tools of the trade” and the individuals who spend many hours between April and August up to their waists in rivers, ensuring the outcomes of our work are tangible and quantifiable.

While you’re out there enjoying your home river this summer, with your fly rod, kayak, boat, family and friends, know that we’re out here too, with backhoes, shovels and maps, doing our best to ensure what you love and enjoy is both restored and protected. Thank you for making all this possible.

MARK MCCOLLISTER
Habitat Restoration Director

*Front page: Photos by Bo Shindler, Mark Maxwell,
Andrew Roybal, and Chris Elder
This page: Snake River photo by Brett Dumas
Back page: Photo by Lynn Jarrett*

10 tools of the trade

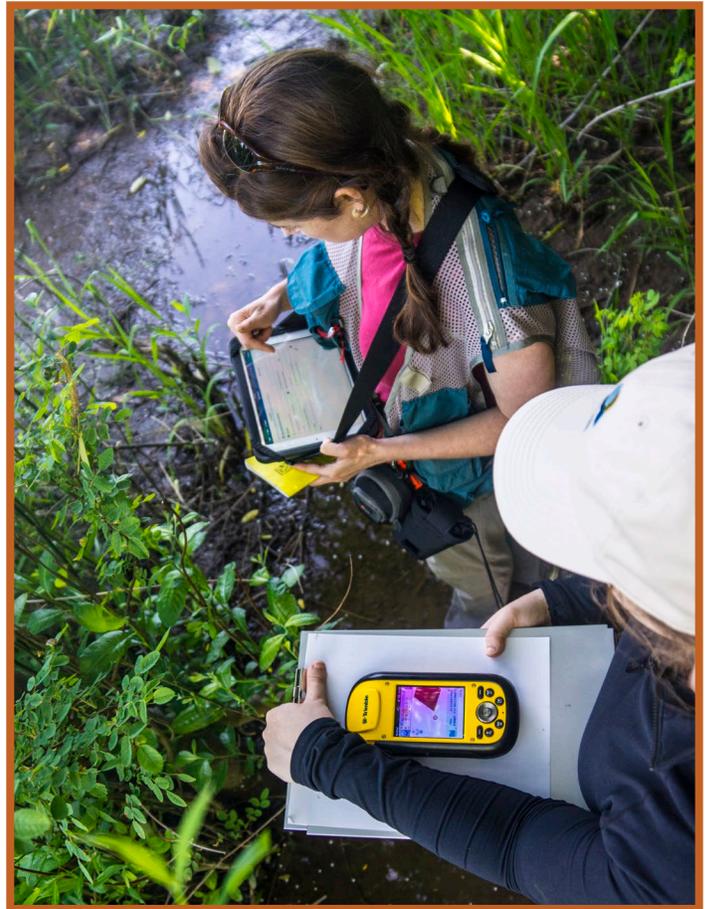
Sun's out. Staff's out. 'Tis the season when our offices are a little emptier and we're hanging up waders and washing boots at the end of the day.

Between April and August, staff in Oregon and Idaho take time to gather critical data on dozens of projects. We know that in the absence of monitoring and maintenance, restoration projects can and often do fail. So, our scientists head to the river with a bunch of gear and have a look at what's happening on the ground. What's used to capture the data varies widely—everything from a long wooden pole, which frequently doubles as a walking stick, to drones. Here are 10 behind-the-scenes tools we use to monitor our restoration sites.

The Stick: It's what it sounds like. A long wooden dowel that has measurements handwritten on it in permanent marker. It's used to measure widths and depths of areas. It also often doubles as a walking stick.

The Trimble: This is a high-accuracy GPS unit that allows us to mark and map key points, lines or polygons. It is used to map exact areas of ecological uplift for analysis and reporting as well as a navigation tool that helps field staff return to known points again and again for long-term status and trends monitoring.

The iPad: Gone are the days of graph paper and entries done by hand. All our monitoring is paperless, thanks to our StreamBank® Monitoring App, which is tablet-optimized and allows our staff to enter all the data they gather into one central repository. The App is custom built to follow TFT monitoring procedure workflows, saving time and decreasing the opportunity to make mistakes.



The Gravelometer: It's essentially a piece of plastic or metal with different sized squares cut into it. Pick up a piece of gravel at a project site and slide it through one of the squares for quick identification of size. Different fish species spawn in different sized gravel.

The Stream Gage: This is a sensor that's always at work. Gages are placed in strategic locations to measure streamflow and can take continuous readings (often every 15 minutes) for months to even years without needing a human there to check it. We have these for temperature too.

Continued



HILARY COSENTINO

Riparian Project Manager

Hilary brings several years of valuable monitoring experience to The Freshwater Trust. After receiving a degree in Environmental Science from Western Washington University, Hilary roamed from the Alaskan backcountry to the arid landscapes of eastern Oregon studying stream ecology. She joined The Freshwater Trust as a Habitat Monitoring Coordinator and previously worked with a variety of local tribes, consulting agencies, and nonprofits. In her current role, she manages riparian restoration projects in Idaho. Hilary also contributes to the ongoing development of The Freshwater Trust's StreamBank Monitoring App. When not next to a river for work, you can find Hilary high up in the mountains backpacking or way down in a stream fishing.

TOOLS

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The Boat: We became the proud owners of a boat last year to help transport our staff along the Snake River and access Bayha Island, where last year, in partnership with Idaho Power Company, we expanded the island's floodplain to improve water quality.

The Range Finder: We use these to measure long-distance habitat types (where the stick just isn't quite long enough), to estimate tree heights and other important project dimensions.

The Meter Board: This yellow board is a prominent feature in many of our monitoring photos. It's used for scale and provides a nice reference point to compare changes at our restoration sites year after year.

The Drone: In 2016, TFT began a partnership with Portland State University and Oregon State University to study how drones can be used to identify the height of vegetation along rivers, thus giving us a better idea of how our restoration sites are performing and to identify the area most in need of restoration.

Ourselves: We may use a lot of fancy tools, but a few of the most important are the lesser notorious. Our staff are human-powered, hiking miles along rivers every day. Many of our sites are inaccessible any other way. And the staff's unique knowledge and experience ends up being invaluable when it comes to monitoring and tracking our work.



A tribute to Roger Bachman

On my second day running Oregon Trout in 2001, a purposeful, white-haired man walked through the front door, up the stairs toward the flyfishing library, and then turned into my office. He plopped down a sheet of paper with a quote on it and said, "Read this."

It is not the critic who counts; not the man who points out how the strong man stumbles or where the doer of deeds could have done them better. The credit belongs to the man who is actually in the arena, whose face is marred by dust and sweat and blood; who strives valiantly; who errs, who comes short again and again, because there is no effort without error and shortcoming; but who does actually strive to do the deeds; who knows great enthusiasms, the great devotions; who spends himself in a worthy cause; who at the best knows in the end the triumph of high achievement, and who at the worst, if he fails, at least fails while daring greatly, so that his place shall never be with those cold and timid souls who neither know victory nor defeat.

—Theodore Roosevelt, 1910

The power of the words, combined with the intentionality of this guy I had never met, struck an earnest nerve and began a relationship that shaped how I looked at this work and the importance of going about it correctly. Roger Bachman was to me a great and kind sage. Someone who taught me how to row the tricky cross-current to his cabin on the Deschutes after I botched it so hard the first time, someone who always put me in the best water, someone who gave me honest and uncharged perspective when the organization was growing or we'd had a setback, someone who served as an enthusiastic (but critical) thought partner as I was brainstorming a new idea. During his lifetime, he introduced countless women and men to not just flyfishing, but the importance of engaging with that mystic enterprise correctly: with science, with timing, with patience, and of course with a strict observance of a conservation ethic. This organization is far better because of Roger.

"The Deschutes River is a shared treasure. Fishing reconnects me to the primitive things in life: Millions of years after evolving, the native Deschutes Redside Trout along with ospreys, ducks and other birds are still there."

—Roger Bachman, 2010



Roger Bachman fished the Deschutes River since the 1960s. In 1974, he and Lenox Dick purchased a property on the Deschutes' west bank, ten miles south of Maupin.



On March 9, 2018, he left for the river one final time. He will be missed.

LOOKING FORWARD

SNAKE RIVER BASIN, IDAHO

TFT is eagerly looking forward to getting back out on Bayha Island, a floodplain enhancement project built with Idaho Power Company last year to address high water temperatures in the Snake River. Over the next quarter, we will be busy irrigating plantings, removing noxious weeds, and documenting ecological changes within the project at the start of its second growing season.

SANDY RIVER BASIN, OREGON

After months of planning and preparing, staff will break ground on new projects on the Salmon River and Lost Creek. Scientists and project managers, along with the Sandy Basin Partners, will implement actions to improve spawning and rearing habitat for native fish, such as adding gravel to stream beds, planting trees, restoring flow to side channels, and building large wood structures.

ROGUE RIVER BASIN, OREGON

TFT and the U.S. Forest Service reached a new agreement to protect the Wild and Scenic reaches of the Rogue. We plan to begin the initiative by supporting an analysis that will lead to projects upstream of those areas. Additionally, 58 large wood structures will be installed to improve native fish habitat on Bear and Little Butte Creeks. Site

preparation will also begin for more restoration planned for this fall.

SACRAMENTO-SAN JOAQUIN RIVER BASIN, CALIFORNIA

Staff have made significant progress in the Golden State to improve surface and groundwater quality and quantity. To date, TFT has developed 160 agreements with farmers to support their water management use and tracking, which will be in effect in the coming months. The 19 Groundwater Sustainability Agencies TFT helped develop are now organizing into one agency for efficient management of groundwater resources.

JOHN DAY & GRANDE RONDE BASINS, OREGON

Select streams in eastern Oregon will flow higher over the next few months, thanks to TFT. Summer signals the beginning of the irrigation season, and therefore the beginning of TFT's flow restoration deals. Landowners voluntarily agree to curtail their diversions to leave more water instream for fish and are compensated for doing so. This year, flow deals will protect nearly 95 million gallons per day in 45 of Oregon's streams. Project managers have been busy installing gages for stream flow measurements and will return to sites several times this summer to collect data.

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