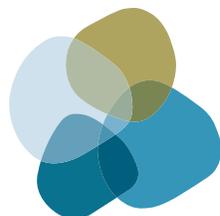


# 2016 Q4 Quarterly Impact Report

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The  
Freshwater Trust®



## FRIENDS,

Water doesn't take sides — it connects them.

It threads together communities and people — regardless of age, geography, job, political party, race or income. We stand united in the freshwater problems in this country. And we all have a stake in the solutions. Championing unification at a time of divisiveness is a role we're proud to fill.

But we aren't just talk. Over three decades, we've brought all kinds of people together to clearly understand and reduce their impacts on watersheds while improving their bottom lines. By breaking down long-established barriers between sectors, we've proven that working lands and healthy rivers can coexist. **The impacts we have are thanks to you.**

And we will keep on doing this, regardless of any election outcome. Because persistence matters.

The coming years will present hefty challenges. Yet we will meet them with cooperative solutions that preserve and restore the greatest human connector of them all.

Thanks for being with us,

**JOE WHITWORTH**  
*President*

*Front cover: Deploying temperature loggers on the Applegate River  
This page: Trillium Lake, Mt. Hood National Forest by Marlynn Rust*

# A lab for forging new freshwater futures

Ambition is an inherent part of this organization. Beyond the on-the-ground work of fixing rivers, we know a fundamentally new frontier of freshwater conservation is needed, and we're forging it.

Our charge is summarized in our tagline: Changing the course of conservation. We want to make problems impacting our freshwater resources more visible, open dialogues in communities about shared waterways, enable water professionals to work more efficiently and effectively with new tools, and direct conservation and restoration funding more strategically. These are big goals. Yet they're attainable with supporters investing in research and development efforts to keep us on the cutting edge.

We received a donation of temperature loggers from Onset Computer Corporation, a company that develops data loggers and other monitoring devices. With this donation and dollars from individual donors, we were able to deploy the loggers on Oregon's Applegate River a few months ago.

Over the last three years, The Freshwater Trust has planted more than 25,000 trees and shrubs along this tributary of the Rogue River. As the vegetation grows, it produces shade and reduces the impacts of warm water discharged from the city of Medford's wastewater treatment plant.

For 15 weeks, the loggers sat underwater and collected critical data — data that will bring unprecedented clarity to how our projects impact

**Want to know more? Read the full story about the Applegate River here.**

## HIGHLIGHTS

- The Applegate is a 51-mile tributary of Oregon's Rogue River.
- 14 donated temperature loggers deployed.
- 15 weeks spent logging data.

the temperature of the river over time. Then, on a rainy, fall afternoon, our Science Director and other staff waded into the river and pulled them out, one by one. The data was downloaded and loggers stored for when they'll go back out to the Applegate in the spring.

"When analyzed, we'll know where the river is the warmest and coldest and how the temperature varies across the day," said Julia Bond, science director. "We'll also be able to compare the conditions year-over-year as the trees continue to grow. We'll know how we're having an impact and then use the information to improve the way we do restoration."

Thanks to donors, we are also studying how restoration is impacting macroinvertebrates

*Continued on next page*



**JULIA BOND**

*Science Director*

Julia brings a wealth of knowledge in watershed assessment to The Freshwater Trust. As the Science Director, Julia plays a key role in providing analytical support for The Freshwater Trust’s water quality trading programs by directing technical analyses to evaluate program feasibility and ecological priorities. Julia’s work focuses on quantifying the environmental benefits of conservation actions, including large-scale, active restoration projects and agricultural best management practices. Outside the office, she enjoys hiking, spending time in the garden, or reading a good book.

**HOME RIVER:** River Thames, UK

**FRESHWATER FUTURES**

*Continued from page 3*

— bugs, snails, beetles and flies — in the Applegate. Consider them the chirping canaries of a healthy freshwater ecosystem. With improved understanding of their presence in this system, we’ll discover how to support the creatures in other waters as well.

Research like this is difficult to fund through traditional grants or contracts. Yet without additional funding, we would be forced maintain the status quo and hope our efforts are making a difference. That doesn’t sound like us. We push the envelope because that’s what it’s going to take to address the pace and scale of freshwater issues impacting communities and wildlife nationwide.

“In a way, the Applegate is like a lab,” said Bond. “What’s learned from this one small tributary in Oregon will be applied to other projects and shared with others. This is about creating new freshwater futures for all.”

**SALMON SPOTTED** | *Fish are returning to many of our restored project sites throughout Oregon.*



## LOOKING FORWARD

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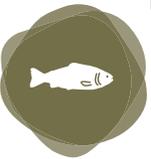
### RESEARCH & TECHNOLOGY

Notable improvements have been made to our StreamBank Monitoring App. This tool analyzes streamside vegetation data and reports high-quality results to project managers immediately upon completion of monitoring. It was used to collect data at dozens of project sites this year, saving at least 3.5 weeks of staff time in data entry and analysis. Detailed reports can now also be viewed and exported through a web-based interface. Staff look forward to ongoing testing to further refine the app's usability.



### WATER QUANTITY

Even as fall rains soak the Northwest, our flow team is already planning for the hot, dry months to come. We are finalizing contract terms and drafting funding proposals for approximately 40 water-use agreements with private landowners scheduled to begin in the summer of 2017. Meanwhile, work continues on watershed-scale analyses in the John Day, Grande Ronde, and Rogue River basins to prioritize future flow restoration projects.



### WATER QUALITY

With the close of another successful field season, our staff are hanging up their waders. Scientists spent three weeks on a 10-mile reach of the Salmon River, and they'll be digging into these data to evaluate our impact in the Sandy Basin. We've also retrieved all 14 temperature loggers deployed in the Applegate River. With nearly 150,000 water temperature measurements now collected, staff analysts will examine trends to better understand the benefits of streamside restoration projects.



### COMPLIANCE SOLUTIONS

Over the last quarter, we've worked with Idaho Power Company (IPC) to complete the first instream restoration project as part of the Snake River Stewardship Program, a natural infrastructure program for temperature compliance. In October, we narrowed and deepened a channel of the Snake River to enhance floodplains and wetlands and improve wildlife habitat. We will be working with IPC to carry out a suite of restoration projects for years to come.

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