

Touchet River

Floodplain & Flow Restoration Project Tour

October 15, 2019

North Fork Touchet River Floodplain Restoration Project

Led by Anton Chiono, Ethan Green, and Morgan Clay, Confederated Tribes of the Umatilla Indian Reservation (CTUIR)

The North Fork Touchet Floodplain Restoration Project will return a three-mile, privately owned reach of the North Fork Touchet River to a more naturally functioning floodplain. This work will reduce flood risk to adjacent landowners and downstream communities, including the City of Dayton, while restoring instream flows and the quantity and quality of fish habitat. Key elements in achieving these benefits include: increased channel complexity and floodplain connectivity, enhanced habitat diversity suitable for both spawning and rearing, improved sediment sorting, enhanced stream velocity and thermal diversity, and the promotion of natural riparian function.

While this project was designed to achieve its goals without unduly impacting current land use or landowner needs, the private landowners must be recognized for their great contributions to this work. Bill Warren is committing to an approximately 15-acre, permanent conservation easement that will include instream flow through an irrigation efficiency upgrade and fallowing of acreage. Nolan Empey also has agreed to a conservation easement of roughly 15 acres, and is contributing roughly 8 acres of apple orchard to be restored to floodplain. Nancy Breithaupt has agreed to the removal of several levees on her property, which will return parts of her acreage to the active floodplain and seasonal inundation that comes with a properly functioning riverine system. There also are several smaller landowners, including Jennie Dickenson, who have agreed to return some of their land to the floodplain. Without the cooperation of these landowners, this project would not be possible.

City of Dayton Green Infrastructure Project

Led by Mayor Weatherford and Trina Cole, City of Dayton; Jake Hollopeter, Anderson Perry & Associates, and Kristina Ribellia, Washington Water Trust (WWT)

The City of Dayton's wastewater treatment plant is currently failing to meet the waste load allocations for its effluent as established by the TMDLs of the Touchet River. When treated to a safe standard, these discharges are an important part of summer baseflows in the Touchet River. However, to date, the City has been unable to find a financially and technologically feasible solution for continuing to discharge the water into the Touchet River while complying with the water quality regulations. The City had been considering treating the wastewater to comply with standards for land application to 100-170 acres of non-human consumptive crops. This solution has not been promising, however, given the limited supply of available acreage and the loss of 0.5 cubic feet per second (cfs) of stream flows that would result if discharge is land applied.

Since May 2019, WWT has been facilitating a collaborative effort with the City of Dayton and their engineers, Anderson Perry & Associates, Department of Ecology, and CTUIR to develop a water quality solution that would adequately treat the City's effluent to allow it to continue contributing to summer flows in the Touchet River. We are currently analyzing the financial, technical, and regulatory feasibility of a mixed green-grey infrastructure solution, specifically including floodplain restoration and

a constructed treatment wetland project. This would both protect stream flows while improving floodplain habitat and river function.

Touchet Valley Golf Course Floodplain Restoration

Led by Sean Thurston, Project Coordinator

The Touchet Valley Golf Course has partnered with WWT and CTUIR to develop a combined golf course renovation and floodplain restoration plan. The initial idea was to remove underutilized areas on the golf course, condensing the playable area and allowing a levee setback within the current course. Since then, the plan has expanded to reconfigure the course using additional property, turn undeveloped areas into a recreational park with trails, and integrate the river throughout. The levee setback has the potential to restore between 6-10 acres of floodplain, as well as mitigate erosion and flooding downstream of the Dayton levee system. The Touchet Valley Golf Course currently lacks underground irrigation, but is hoping to allocate land for floodplain restoration to assist in financing irrigation upgrades.

Instream Flow Restoration & Sprouting Streamflows Pilot Project

Led by Kristina Ribellia, WWT; Gene Warren, Warren Farms; and Phil Neumann, Mainstem Malt

Washington Water Trust has been developing flow restoration projects on the Touchet River for nearly 15 years. As a result of three leases and two acquisitions, there are currently 1,100 acre-feet (af) of consumptive use (CU) water protected in the Touchet River, including 6.2 cfs in the spring and summer, and 8.65 cfs in the fall and winter. All of the water right holders continue to grow dryland wheat on land that was formerly irrigated for wheat and other crops.

New in 2020, WWT and Mainstem Malt (MM) are partnering with Gene Warren, Warren Farms on the Touchet River to launch the first Sprouting Streamflows project. This innovative, conservation incentive was developed by MM and we couldn't be more thrilled to pilot the project with them and Warren Farms. It's fairly straightforward: A farmer enters into a water lease agreement with WWT and into a high-value, barley crop contract with MM. As a result, we get water instream and the farmer gets a water lease payment and crop premium while MM malts the barley and markets the final product as a conservation engine. Together, we're Sprouting Streamflows.

Touchet Eastside-Westside Irrigation District

Led by Steve Ames, Mike Buckley and Alan Hamada, Touchet Eastside-Westside Irrigation District; Kristina Ribellia, WWT; Renee Hadley, Walla Walla Conservation District; Jonathan Kohr, Dept. of Fish & Wildlife; and Eric Hartwig, Dept. of Ecology

With support from CTUIR and Ecology's Eastern Region, WWT is in the process of facilitating a multi-phased effort with the Touchet Eastside-Westside Irrigation District (TEWID), CTUIR, and agency partners. This work will address multiple issues that have arisen since the completion of TEWID's irrigation efficiency projects in 2009. While tremendous water savings occurred as a result of these projects, including 3,324 acre-feet protected in the Trust Water Rights Program (TWRP), there also have been subsequent issues that we are currently working to address. These include: 1) Protecting an additional 5 cfs of saved water in the TWRP that wasn't originally accounted for; 2) Retiming when trust water is instream to better reflect the actual timing of TEWID's water use, and therefore conserved water savings; and 3) Addressing diversion complications and fish passage issues at Hofer Dam. Project partners, including TEWID, are now considering a partial or full source switch from their Touchet River diversion to the Walla Walla River. This source switch could provide up to 30 cfs in the lower four miles of the Touchet River and would avoid the additional significant investments at Hofer Dam that would be needed to address current fish passage and diversion issues.