

TOUR OF DISTRICT PROJECTS

walla walla county conservation district



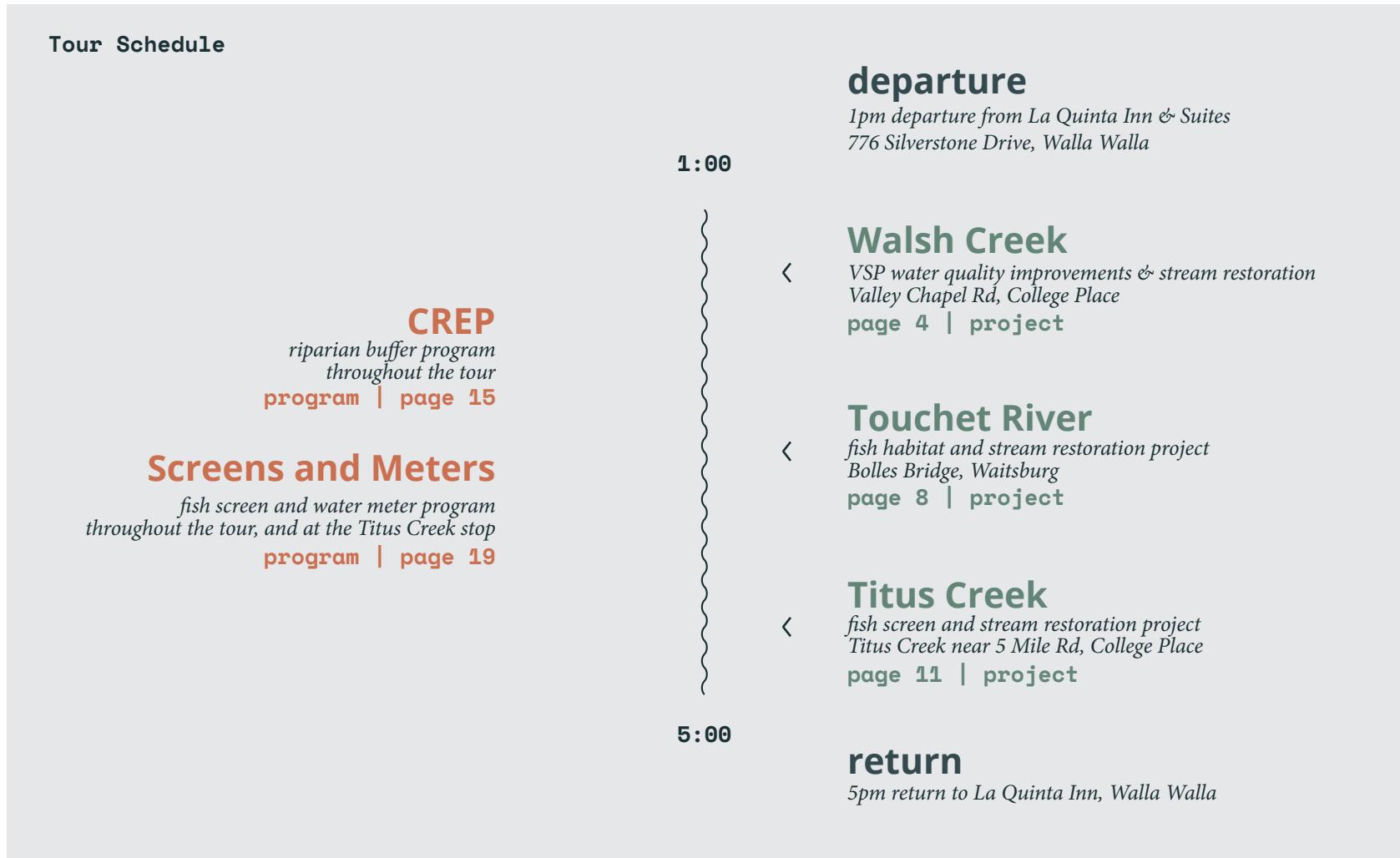
About the District

The Walla Walla County Conservation District (WWCCD) was established in 1961 when two previously organized conservation districts in the county merged. Conservation districts are considered a political subdivision of the state. They bridge the gap between local landowners and federal or state agencies. The District has seven employees and is directed and led by District Manager, Renee Hadley. We are directed and led by a board consisting of three elected and two appointed supervisors. Our board includes irrigators from the west end of the county and dryland farmers from the east side.

What does a conservation district do?

As a non-profit conservation district, we obtain grants to assist landowners in implementing conservation practices that protect natural resources. We offer technical assistance (professional advice) and cost share when possible. For example, if an irrigator is concerned about saving water, but can't afford expensive upgrades, he or she can come to the district for help. We can offer free technical assistance and, using grants, possibly help pay a portion of the cost of upgrading to a water saving system. This helps conserve our county's water resources. Other district programs help landowners reduce erosion, protect endangered fish species, improve water quality, and conserve their soil.

Tour Schedule



Sept 18

5:30



8:00

interactive dinner

Walla Walla Community College
500 Tausick Way, Walla Walla
doors open at 5:30 | buffet is served at 6:00

Walsh Creek

Voluntary Stewartship Program Restoration

2019



The Walsh Creek project replaced a deteriorated culvert, removed invasive species from the streambank, and replaced them with woody shrubs and trees.

Additional planned work on this site includes the installation of livestock exclusion fencing and the restoration of further creek segments. The project was completed with Voluntary Stewardship Program (VSP) funds. This important program was the only funding source for restoring this small creek because the site did not fit the criteria for CREP and was a poor fit for Ecology Water Quality grants.

before:



The Conservation Problem

Invasive species clogged the water channel causing the creek to flood. This flooding would wash pasture debris into the creek, resulting in water quality concerns.

Project Outcomes

The first phase of the Walsh Creek Project freed the channel of dense reed canary grass, installed a new 24" equivalent squash pipe for new no-slope culvert, and planted woody shrubs and trees soon after. As the new plantings grow, the site will emerge as new habitat for wildlife. In addition, better stream flow and increased shade improves the channels water quality by preventing harmful runoff and lowering water temperatures.

after:



Partners: Landowner

Funding: WA State Conservation Commission, Voluntary Stewardship Program

Touchet River

McCaw Reach Fish Restoration

phase a: 2013

phase b: 2015-2018

phase c: for completion 2020

A multi-phase project working to restore fish habitat to a section of the Touchet River.



A severe 1996 flood event damaged the Touchet River Corridor downstream of the City of Waitsburg. The section of river on the McCaw Farm property became a shallow channel with very little large woody debris, heavily eroding stream banks, and little vegetative cover. These conditions were detrimental to the area's endangered mid-Columbia Steelhead, Chinook Salmon, and Bull Trout.

The McCaw project re-establishes this fish habitat while also providing benefits for riparian wildlife, agriculture, water quality, floodplain connectivity, and more. The project was split into three phases in order to spread out the cost over several years. The first and second project have been completed, the third phase is currently in the funding stage.

Before:



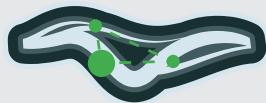
before: erosion along the Touchet River

The reach was characterized by an over straightened channel with minimal roughness and complexity. Severe erosion on the river bank where the river was cutting into the adjacent agricultural fields. The river in the McCaw reach was a single shallow channel that was over widened with few pools, low cover or resting areas, and with a minimal potential to recruit or hold large wood. The result was poor salmonid habitat and significant loss of productive farmland.

Project Outcomes



Added habitat for three species of fish: Steelhead, Bull Trout, and Chinook Salmon.



Restores floodplain connectivity and function, as well as increases stream length and sinuosity.

Habitat Factors Addressed

Large Woody Debris

Installation of log/rootwad stems over the length of both project sites to provide rearing habitat and passage conditions for Steelhead, Bull Trout, and Chinook Salmon.

Channel Confinement

Connects side channels and floodplain; some of the side channel will be active year-round while other parts will only be active during high flow events.

Temperature

Helped reduce water temperature by developing pools, offering localized shade from the woody debris, and accessing the floodplain with activation of the side-channels. Newly installed riparian plantings will continue to grow and shade the river.

PHASE A



installed large woody debris (LWD) structures. These protect the stream bank from further erosion and provide important fish habitat

Phase A Structures List

2 Apex log jams	2 secondary channels (1,000 f..)
2 Large Engineered log jams	1.2 acres of grass seeding
6 log sweeps	2,100 feet of stream treated

Partners: Landowner Jack McCaw, Washington Dept. of Fish and Wildlife, U.S. Army Corps of Engineers, and the Confederated Tribes of the Umatilla Indian Reservation

Funding: Washington Dept. of Ecology, Salmon Recovery Funding Board and the Washington State Conservation Commission

PHASE B



new large woody debris (LWD) structures after 2018 construction



side channel construction



willow cuttings

Phase B Structures List

1 Multi-Log LWD	1 Box ELJ	1 Channel Spanning
2 Bank LWD	10 Barb LWD	6 Tri-structures
2 Bank ELJ		

Partners: Landowner Jack McCaw, Landowners Randall Kromm, Washington Dept. of Fish and Wildlife, U.S. Army Corps of Engineers, and the Confederated Tribes of the Umatilla Indian Reservation.

Funding: Salmon Recovery Board and the WA State Conservation Commission.

Titus Creek

Titus Creek Fish Passage & Screening Project

2015



after: new diversion system

Fish are protected, habitat improved, and farmers can continue to irrigate. The Titus Creek Project is another great demonstration of landowners working as important partners in protecting endangered species and conserving natural resources.

When property owners along Titus Creek became aware of endangered juvenile fish being diverted and stranded in the creek, they consulted the conservation district to design a solution. The project installed a series of rock-sills, a head gate system, and fish screen at the head of Titus Creek. It also enhanced the Mill Creek side channel with large woody debris and willow planting that continue to provide shelter, shade and pools for fish.



before: barrier diversion dam diverts water away from mill creek.



fish screen construction

The Conservation Problem

In the past, a barrier diversion dam supplied irrigation water from a side channel of Mill Creek into Titus Creek. This barrier blocked migrating fish from continuing up the habitat-rich side channel and were instead directed into Titus Creek. When irrigation ended for the season, these juveniles were at risk for stranding.



large woody debris along the Mill Creek side channel

Project Outcomes

The screen prevents fish from entering Titus Creek and a step-pool fishway diverts them to the improved habitat on the Mill Creek side channel. A fish barrier prevents stranding by blocking fish from migrating up from lower Titus Creek. Fish are protected, habitat improved, and farmers can continue to irrigate.

Partners: WA Dept. Fish & Wildlife, Abeja Winery, Walla Walla University Student Volunteers

Funding: Salmon Recovery Board, WA Recreation & Conservation Office, WA State Conservation Commission

Screens & Meters

Reducing ESA listed salmon mortality

2001 - 2018
halted due to funding



The Screens and Meters program reduces fish mortality and increases flows for fish.

For 17 years the WWCCD implemented this Screens and Meters program for landowners to come into compliance with state and federal standards. Irrigators who withdraw water from rivers or creeks are required by law to monitor and record their water use and have a National Marine Fisheries approved fish screen on their diversion. Without a screen, juvenile fish are frequently pulled into the irrigation system. Together, fish screens and flow meters help reduce fish mortality and increase flows through great efficiency.

by the numbers:

Walla Walla
County:

377

fish screens
installed

529

flow meters in-
stalled on sur-
face subdivisions
and wells

67

data loggers in-
stalled with flow
meters

49

fish screens
designed or
installed for
other CD's



*left: wwccd staff reading a flow meter
top: newly installed flow meter
bottom: fish screen*

When the screens and meters program first started, some irrigation pump diversions were completely unscreened or many existing screens had fallen into disrepair. Early screen and meter projects were very simple, but today, projects require complex designs and may use specialized screens and/or screening methods.

Partners: Landowners & irrigators, WA State Conservation Commission, WA Department of Fish and Wildlife, Salmon Recovery Board, WA Department of Ecology, Bonneville Power Administration, Confederated Tribe of Umatilla Indian Reservation.



The Conservation Reserve Enhancement Program (CREP) is a multi-agency tool that improves riparian zones along streams in Walla Walla County.

CREP sites reduce soil erosion, stream pollution, provide habitat for wildlife and fish, as well as provide a sense of protection for farmers and ranchers from regulatory action. Walla Walla County land-owners embraced CREP with enthusiasm and this buffer program quickly became one of the cornerstones of ESA recovery efforts and TMDL improvements in the County.

by the numbers:

CREP in Walla Walla County

200

miles of stream
bank protected
by CREP buffers

1.5

million native
trees & shrubs
planted

190+

CREP contracts
in Walla Walla
County

3600

acres of habitat
buffered

*approximately

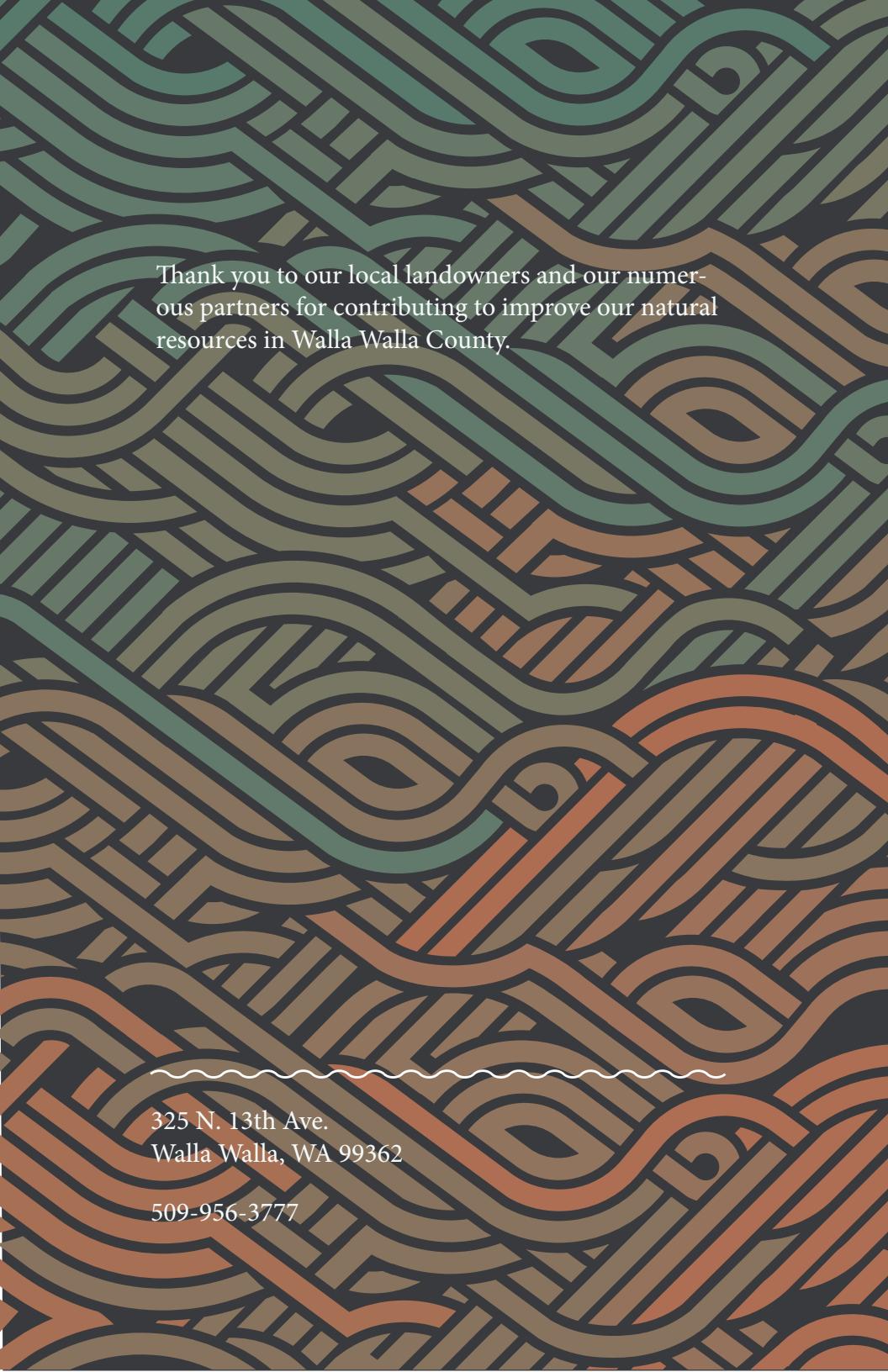
Habitat Factors Addressed

Critical Areas Impacted: Wetlands, Frequently Flooded Areas, Critical Aquifer Recharge areas: water quality, Geologically Hazardous Areas: erosion of soil, Fish & Wildlife Habitat including: ESA listed salmon and bull trout, hawks, owls, deer, moose, & more.



Partners: Landowners, Natural Resources Conservation Service

Funding: Farm Services Agency, WA State Conservation Commission, WA Dept. of Ecology.



Thank you to our local landowners and our numerous partners for contributing to improve our natural resources in Walla Walla County.

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