# Walla Walla County Conservation District

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Fall 2013

Published regularly to provide information to land users

Volume 15, Issue 3



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#### NEED A FISH SCREEN **ON YOUR PUMP?**

All stream diversions for *irrigation water must, by* law, have NOAA approved fish screens. If you still need a screen and want *cost-share assistance, get* on the WWCCD project list as soon as possible.. Call Greg at 509-522-6340, Ext. 109.

# McCAW FISH HABITAT **RESTORATION PROJECT** FINALLY ON THE GROUND

After over five years of planning and design, the McCaw Fish Habitat Restoration project on the Touchet River above Bolles Bridge has been installed. The need for the project was first identified by site visits with the landowner shortly after the 1996 floods and further defined by the Touchet River Assessment & Design project funded by the WA Salmon Recovery Funding Board and started in Jan 2007

Due to the extent of the river reaches needing treatment, the McCaw Project was broken into three phases to spread out the installation costs over several years. Recently constructed was Phase A-the uppermost segment of the McCaw property needing treatment.

In the 17-years since the major flooding event. the Touchet



LARGE ENGINEERED LOG JAMS POSITIONED IN AN OVER EXTENDED MEANDER. THIS STRUCTURE WILL CAPTURE ADDITIONAL WOODY DEBRIS RESULTING IN IMPROVED FISH HABITAT AND IMPROVED WATER QUALITY

River has continued to degrade its channel below Waitsburg, WA. The assessment found there was a notable lack of large wood in the channel and that pools were few and far between. The river was characterized by long riffle-runs and over-extended meanders where the river was almost doubling back upon itself. The long shallow reaches and lack of pools resulted in warmer water temperatures and the bank-cutting of the sharp meanders were a detriment to water quality.

After a false start in 2010, the Walla Walla County Conservation District (WWCCD) began seeking funding to carry out needed restoration work for McCaw—Phase A in the spring and summer of 2011.

Finally, in the winter of 2011, the project was awarded a grant of approximately \$130,000 to design and construct the project. Working closely with the Snake River Salmon Recovery Board's Regional Technical Team (RTT) and with WA Salmon Recovery Fund Board's technical review panel members, the WWCCD's engineers and planners were able to develop a restoration plan that was acceptable to the technical experts of the RTT and would also meet the grant guidelines of the WA Salmon Recovery Funding Board. When panel experts voiced doubts that the proposed budget could handle the construction needed, the WWCCD secured additional funding from the WA Dept. of Ecology (\$20,000) and from the WA State Conservation Commission (\$50,000).



A MAJOR OBJECTIVE OF THE MCCAW PROJECT WAS TO ACTIVATE SIDE CHANNELS AND TO INCREASE OVERALL STREAM LENGTH AS SHOWN ABOVE.

After all the many permit hoops had been jumped through, construction started on Monday, September 16<sup>th</sup>. Except for some minor upland re-seeding and fence repair, Phase A of the McCaw Project has been completed and is on the ground well in advance of the close of the instream work window identified by permitting authorities.

What was accomplished with the implementation of this project? Instream and riparian restoration was completed on approximately 2,100 feet of the Touchet River. Channel roughness was improved by the strategic placement of large wood structures such as apex log jams which also encouraged the activation of several side channels valuable as high water refugia and rearing

areas for small fish. In addition, the placement of the engineered log jams will encourage the development of pools, promote sediment storage and increase deposition of gravel bars.

One additional fact is worth mention. At the McCaw Phase A site, the river has moved its channel about 125 feet to the south since 1996. Given the fact that the river bank at the site is 10-12 feet high, this represents over 28,000 tons of sediment lost to the river.

The WWCCD recognizes that completion of the McCaw Phase A project represents only the tip of the iceberg in terms of restoration needs on the Touchet River. There are dozens of similar sites needing instream fish habitat restorative treatment and there are plenty of willing landowners who would like to see their reach of this beautiful river improved. It is the hope and desire of the WWCCD that the McCaw project serve as a demonstration as to restoration techniques that can be used to meet land-owner objectives and the goals of fisheries experts striving to improve habitat in our region. *By: Larry Hooker, WWCCD Agricultural Projects Coordinator* 

### NEED A SPEAKER FOR YOUR MEETING?

As part of the WWCCD Outreach & Education effort, we are available to speak regarding who the Walla Walla County Conservation District is and what we do!

## SaveWater/SaveEnergy Practices Can Reduce Operating Costs

As the Walla Walla County Conservation District (WWCCD) SaveWater/SaveEnergy Team (Kay Mead & Lisa Stearns) started to look for examples of SW/SE success stories, they began seeing where the WWCCD had implemented projects for *other* purposes i.e. instream flows or fish passage, that realized significant energy savings. For instance, the WWCCD knew there would be less water diverted from the Walla Walla River when the District took on the Gardena Farms Irrigation District #13 North Lateral Piping Project. The engineering calculations showed what the pressure increases would be at pump stations by converting to a closed (piped) system versus an open canal. It wasn't until the irrigation season got into full swing that the magnitude of the changes were realized!

At the very end of the North Lateral, an irrigator asked to not have a pump on his design. He went over the pressure calculations with the WWCCD project engineer and the WA-State Conservation Commission Irrigation Efficiencies Coordinator. They both confirmed that irrigating with gravity pressure should work if he was willing to take the chance. Without a pump or even 110-volt power at his station, the farmer is getting 40 pounds of pressure and running a pivot when most of the upstream users are operating. While this success was really of no surprise, another irrigator up the pipeline reported not needing to turn on their new Variable Frequency Drive pump in order to irrigate! Even though the SW/SE Team hasn't spoken with all of the irrigators on the North Lateral, those they have visited with are happy about the saved enerqy. Energy saved equals saved dollars as well as saved resources.



PUMPING STATION BEFORE MODIFICATION



WWCCD Civil Engineering Technician Lisa Stearns reported that one morning after the North Lateral construction was substantially completed and the pipeline was up and running that the third leg of power went down in Gardena for about three hours. Normally this would mean dumping all of the water that would not fit in the canal back to the Little Grand Canyon overflow channel. Even with the power loss, a significant portion of the water was still being irrigated through the pumps even with the power outage! Yes, there was a lot less pressure but the message got across loud and clear. *Piping open irrigation canals not only saves water that can be left in the river for fish and riparian habitat but will also result in significant energy savings.* 

As farmers continue to learn how to adjust their respective pumping operations to meet their actual irrigation needs, the energy savings will continue to increase.

The SW/SE Team has checked out what is available from our local electrical providers. Both of the providers in our service area are offering rebates and incentives for irrigation upgrades, Variable Frequency Drive (VFD) pump conversions, rebuilding or replacement of sprinkler heads (nozzles), etc. Copies of the application forms are available in the WWCCD office or they can be downloaded from the internet at the following web sites (http://www.columbiarea.com/content/rebate-offers OR http://www.pacificpower.net/bus/se/epi/washington/agricultural/wd.html).

By: Lisa Stearns, WWCCD Civil Engineering Technician

## BURN PROGRAM - FRANK'S HOT SPOT!

**REMEMBER:** All permit holders who have completed their field burns need to complete their blue cards and mail them in to DOE. If desired, field burn completion can be reported via DOE's website as per the permit transmittal letter. If a permitted burn was not completed, be sure to turn in a "Request for Refund" to avoid the Christmas rush!

ALSO REMEMBER: Frank is in on Tuesday, Wednesday, & Thursday as needed from 8:00 to 12:00 & from 1:00 to 4:00 BY APPOINTMENT at 509-522-6340.

	Walla Walla County Conservation Dist	rict
<b>Board of Supervisors</b>	District Staff	NRCS Staff
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	CREP Maintenance Technician	www.wwccd.net
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