



**GRANT #200-188
WALLA WALLA IRRIGATION DISTRICT WATER CONSERVATION**

**MONITORING REPORT – YEAR 3 (of 4)
10/5/06**

Project Summary

The project included two main elements designed to conserve water and improve fish passage:

1. WWRID Eastside Ditch conversion to pipeline including consolidation of Schmidt Nursery diversion to eliminate annual push up dam.
2. Landowner conservation and irrigation efficiency projects on acreage within WWRID boundaries

Approximately 3.6 miles of the Eastside Ditch were converted to a piped, on-demand system. New fish screens, measurement devices and headgates were installed at the Eastside diversion point on the Walla Walla River improving fish passage and monitoring capability. A new magnetic flow meter was installed at the Point of Diversion to measure and monitor the amount of water used. Additional meters were placed on user turnouts over 2" in diameter to allow the district to better manage water rights and collect individual water use information. Irrigation efficiency improvements were made on 204 acres of land. This resulted in a water savings that has helped WWRID meet their agreement to bypass summer flows for fish. A conserved water application is being prepared to submit to OWRD to protect instream and estimated 4.7 CFS.

Pipeline flows are monitored by a radio telemetry system. WWRID personnel monitor individual on-farm water use by taking flow meter readings at regular intervals throughout the irrigation season. WWRID also performs visual inspections of the Eastside pipeline diversion facility on a daily basis. WWRID flushes the pipeline frequently during the irrigation season. At the end of each irrigation season all of the water is pumped out of the pipeline to prepare for freezing temperatures. The piping of the system has allowed WWRID water users to utilize the pressure generated by elevation differences in the pipeline to reduce their pumping requirements and save electricity. The end user on the system was able to convert to a gravity pressure system eliminating the need for a pump and electricity.

Grant #200-188 Walla Walla Irrigation District Water Conservation

2005 Monitoring Results

To date, there have been no major problems with the pipeline, only minor problems with intake filtering have been noticed. The on-farm improvements are also functioning as installed and continue to be maintained by the individual landowners. The Schmidt Nursery consolidation has resulted in the elimination of one push up dam on the Walla Walla River.

Stephanie Eaton, WWBWC's Water Rights Specialist, has drafted a comprehensive conserved water application for the pipeline and submitted several conserved water applications for Eastside on-farm projects to Oregon Water Resources Department. However, WWRID's 3201 remapping process is still pending and at best the conserved applications can only be submitted and put on administrative hold until that process is completed. In the meantime, the landowners are receiving water only up to the amount of the expected new water right (at 11.2gpm) and have adjusted their farming practices to meet the reduction. This on-farm water use is strictly monitored by WWRID staff as they comply with maintaining the bypass flows left in river for fish as part of the ESA flow agreement with USFWS. The pipeline and on farm conservation measures were essential to WWRID during the 2005 drought season lessening the effects of severe drought. The Conserved Water Application will be submitted to OWRD this October.

Monitoring of river flows has continued as described in the Agreement between the irrigation districts and USFWS. The flow bypass requirements have been met and at least 25 cfs has remained in the river with conserved water savings from this project being a significant source of the bypass water left in stream. These new flows in the river have led to passive restoration of riparian vegetation and salmonid use in the formally dewatered 2.5 miles of the river below Milton-Freewater.

2006 Maintenance & Costs

Costs associated with Eastside monitoring and meter readings include WWRID's time plus mileage for a total of \$2000.00 in 2005-2006. Individual landowners conducted regular maintenance to keep their systems running. Minor increases in operation resulted from debris entering the pipeline requiring cleaning of pump impellers and some slight increase in costs of diversion maintenance due to screened entrance to pipeline. An additional sediment filter was installed just before the Harshfield pump to trap sediment at a lower spot in the Eastside pipeline. Costs for WWBWC's time for flow monitoring were covered by other OWEB grants as the data is used for multiple purposes.

Attachments

Photos from 2006

**#200-188 Walla Walla Irrigation District Water Conservation
Year 3 Monitoring Report 10/2006**



Eastside Diversion – Head box



Eastside Diversion – Fish screens



Schmidt & Sons Nursery – Diversion pump



Brown & Sons – Feigners



Brown & Sons – Bulge



Brown & Sons – Waliser Winesap

**#200-188 Walla Walla Irrigation District Water Conservation
Year 3 Monitoring Report 10/2006**



Brown & Sons – Hooker Place



Brumbach – Pasture sprinkler



Burns – Orchard sprinkler



Larson – Orchard sprinkler



DeBeaumont – Orchard sprinkler



DeBeaumont – Flow meter

**#200-188 Walla Walla Irrigation District Water Conservation
Year 3 Monitoring Report 10/2006**



L & E partnership – Johnson-Waliser



LeFore – Packing Shed



LeFore – Fifty pumping station



LeFore –Fifty



LeFore – Stiles



Weis Farms – Orchard sprinkler