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Potholes Supplemental Feed Route

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Reclamation designed the Columbia Basin Project (CBP) to collect return flows from irrigation of land in the north half of the CBP for delivery to the south half. This return flow is stored in Potholes Reservoir. The CBP diverts approximately 2.65 million acre-feet from the Columbia River at Grand Coulee Dam and delivers approximately 3.4 million acre-feet to project farmers. Since the Project is proportionally more developed in the southern half, return flows must be supplemented with direct feed to ensure an adequate supply in Potholes Reservoir. Historically, Reclamation feeds water to the reservoir mainly through an East Low Canal. Expanded operation of the CBP has placed more demand on the East Low and Potholes canal systems. To relieve this demand, a supplemental route to Potholes Reservoir has been established in the natural channel of Crab Creek. To allow for operational flexibility at Crab Creek, the Frenchman Hills Wasteway was also modified to convey flows to Potholes Reservoir.

Since 2005, Washington State Department of Ecology has partnered with Reclamation and invested \$2.1 million in study and \$10 million in capital cost for a supplemental feed route. In August 2007, Reclamation issued a final Environmental Assessment (EA) and Finding of No Significant Impact for the Potholes Reservoir Supplemental Feed Route (PSFR).

The PSFR project consists of modifying existing facilities to allow water to be routed from Pinto Dam to Potholes Reservoir. In April 2009, the PSFR was named an American Recovery and Reinvestment Act of 2009 (ARRA) project and received \$5 million in funding. These funds have been used to complete the portions of the project's construction phase. The ARRA funding was used to construct four features:

- Road 16 crossing of Crab Creek (completed 2010)
- Energy dissipater on Pinto Dam Outlet (completed 2011)
- Outlet weir on Brook Lake (completed 2010)
- Modify the 4X4 gate on Pinto Dam (completed 2011)

Acquisition of Right-of-Way along Crab Creek is ongoing. Land and easement work will likely continue until final operational flows are reached and any further impacts are realized.

Additional right-of-way along the Frenchman Hills Wasteway has been acquired, and the Road C crossing was reconstructed in 2008-2009 increasing the culvert size to allow for the higher flows.



PSFR is currently being operated with a test diversion of approximately 100 cfs from Billy Clapp Reservoir into Upper Crab Creek. This water is flowing both into Crab Creek and via groundwater into the nearby Rocky Ford Creek. While water was predicted to flow into Rocky Ford Creek, the volume was uncertain. When the additional water reached Rocky Ford the summer of 2015, water levels rose significantly and caused flooding at both the headwaters near the Troutlodge Fish Hatchery and privately owned land downstream. Washington Department of Fish and Wildlife (WDFW) constructed emergency relief measures at the hatchery on WDFW property, but other mitigation measures may need to be addressed downstream. Reclamation is in the process of collecting data for hydraulic modeling to identify the reaches of channel that may need modified to reducing flooding impact if additional PSFR water leads to increased flows at Rocky Ford. The current EA document will need to be supplemented to address any additional modifications or acquisition of land in the Rocky Ford Creek drainage.

Reclamation is working to address both current channel and structural capacity as well as needs along the feed route in both Crab Creek and Rocky Ford Creek prior to beginning fulltime operation of the PSFR. The Ephrata Field Office is currently working with the Grant County Public Works Department on a new Stratford road alignment. Diversions will be temporarily halted during the planned construction of the new crossing and the removal of the existing road.