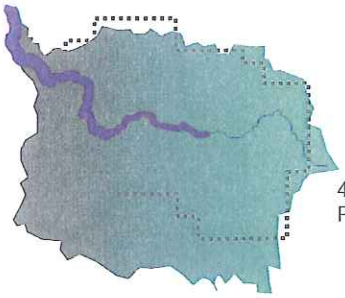


Crooked River Watershed Council
498 SE Lynn Boulevard, Prineville, OR 97754
Phone: (541) 447 8567, Fax: (541) 416 2115
Email: nick.crwc@oregonstate.edu
Web: www.crookedriver.deschutesriver.org

Crooked River Watershed Council Annual Progress Report 2009

COMPLETED PROJECTS

Lower Mill Creek - The project completes the efforts that began to restore the Mill Creek watershed nearly 15 years ago. Partners include agencies such as ODFW, USFS, and private landowners to restore stream function and riparian vegetation throughout Mill Creek and this project is the final piece of property to be treated. The goals of the project were to improve fish habitat, increase channel stability, and reduce sedimentation into the Ochoco Reservoir. The project is located just upstream from the reservoir and posed a dilemma to design with the backwatering of the reservoir during the high flows in spring. The final phase of the project was finished in Fall of 2008.

North Unit Irrigation District – Project located just upstream of Smith Rock State Park and entailed updating fish screens on the pumping system to meet state and federal regulations. The project was finished in the early Fall of 2008.

Low-Line Ditch Screening – The project is located at McAllister Slough on the Crooked River and was funded by ODFW. The design included a traveling vertical belt screen to keep fish from being entrained into the irrigation canal. The landowner worked with ODFW crews to complete the project in early winter 2008.

Crooked River Central – The Crooked River Central diversion dam was a high priority project identified by the Crooked River Watershed Council Passage and Protection Working Group. The antiquated diversion dam did not provide passage for fish species and required irrigators to install and remove flashboards to obtain the necessary head to supply irrigation water. The diversion dam was demolished and a new concrete dam was constructed with an automatic weir and fish ladder incorporated into the design. The project took 5 months to complete and was finished by April, 2009.

People's Irrigation District – People's Irrigation District was another high priority private diversion dam that prohibited migration of fish species. In contrast to Crooked River Central, the design called for a nature-like fishway that essentially mimics the riverine system. A bypass channel was constructed using native materials and was finished January, 2009.

South Fork Beaver Creek – This is a second phase to a project to restore over 25 miles of the South Fork Beaver Creek watershed. The firs phase focused on stream stability and riparian condition and the objectives of the second phase is to improve upland conditions by reducing juniper, developing springs for off-site water livestock, aspen improvements, and headcut repairs to benefit the instream portion of the project. The project is ongoing as components of it are yet to be completed.

South Prineville Reservoir & Ant Creek – The two projects are focused on drainages above the Prineville Reservoir and are aimed at increasing upland function to reduce overland erosion, increase forage, and increase ground infiltration of precipitation. In total, nearly 10,000 acres of juniper will be treated by the end of 2010.

UPCOMING PROJECTS TO BE CONSTRUCTED

Ochoco Lumber Company – Crooked River Watershed Council partnered with Ochoco Lumber Company to restore the 3/8 mile section of Ochoco Creek that runs through the old mill site property. The goals of the project were to increase floodplain capacity, restore stream function, enhance the riparian corridor to mimic historic conditions, and increase fish and wildlife habitat, while expanding the greenway currently existing within the City limits. Construction of the project is scheduled to begin in July and be completed by October, 2009.

City of Prineville Floodplain Enhancement – The City of Prineville owns approximately 2 miles of riverfront property along the Crooked River. This project is located next to the ODOT wetland mitigation bank and will compliment the work there by increasing flood storage, enhancing riparian and wetland function, increasing fish habitat quantity and complexity, and increasing channel stability. The Crooked River Watershed Council has partnered with the City of Prineville to implement the project in the early Fall of 2009.

PROJECTS IN THE FUTURE

McKay Passage – Four private diversions dams exist on McKay Creek the impede passage of resident and anadromous fish species. The Deschutes River Conservancy is working with stakeholders to provide irrigation water from OID, therefore eliminating the need to maintain the diversion dams. The Crooked River Watershed Council is working with the landowners to develop ways to provide passage for fish at each of the four diversion dams. Based on the success of the People's Irrigation District Fish Bypass, a similar nature-like fishway approach will be employed to improve channel function, prevent headcutting, provide passage, and improve habitat conditions. The project schedule is contingent upon funding and permitting but will likely begin in summer 2010.

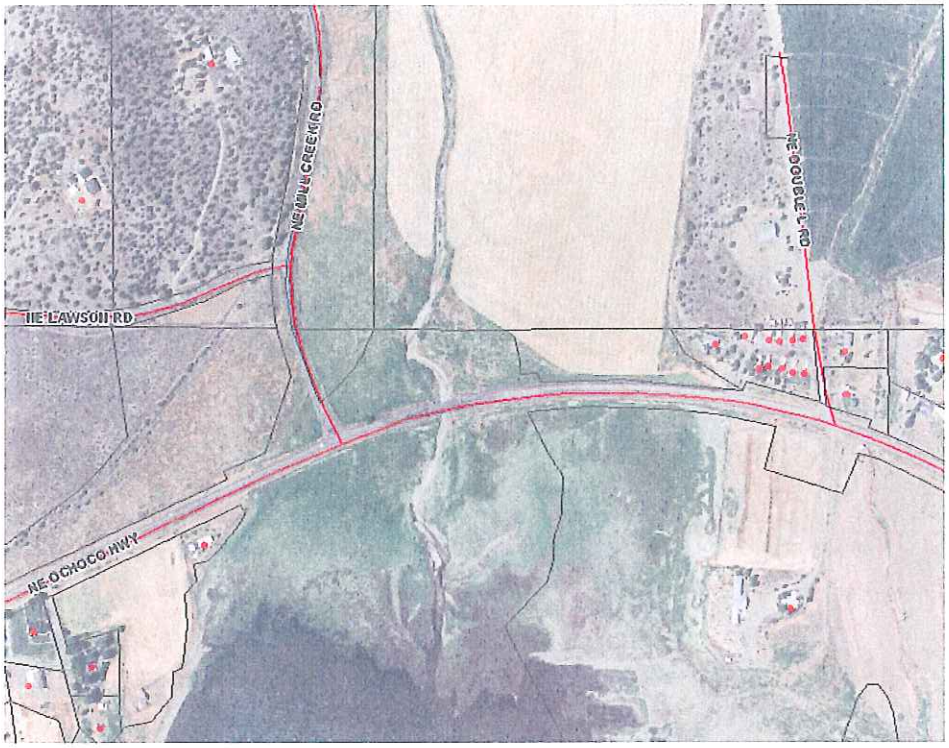
Opal Springs – Opal Springs is the bottleneck to the reintroduction of anadromous fish in the Crooked River as it lies 0.5 miles upstream of Lake Billy Chinook. Deschutes Valley Water District operates a FERC licensed power plant on the Crooked River and has a 32

foot tall dam that blocks passage of fish upstream. There is a multi-agency partnership that is putting the project budget, schedule, design, etc. to have passage at the facility before the return of the first adults in 2011.

Lower McKay Fish Habitat Enhancement – Crooked River Watershed Council is working with two landowners to increase habitat complexity and restore stream function on lower McKay Creek. At both locations, channel avulsion has lead to streambank instability and erosion. Coupled with the erosion occurring at both sites, there is a lack of deep pools and cover habitat for fish species. The project will attempt to address these issues while preserving important agricultural land from further losses. The project will likely be completed in 2010.

Project Photos

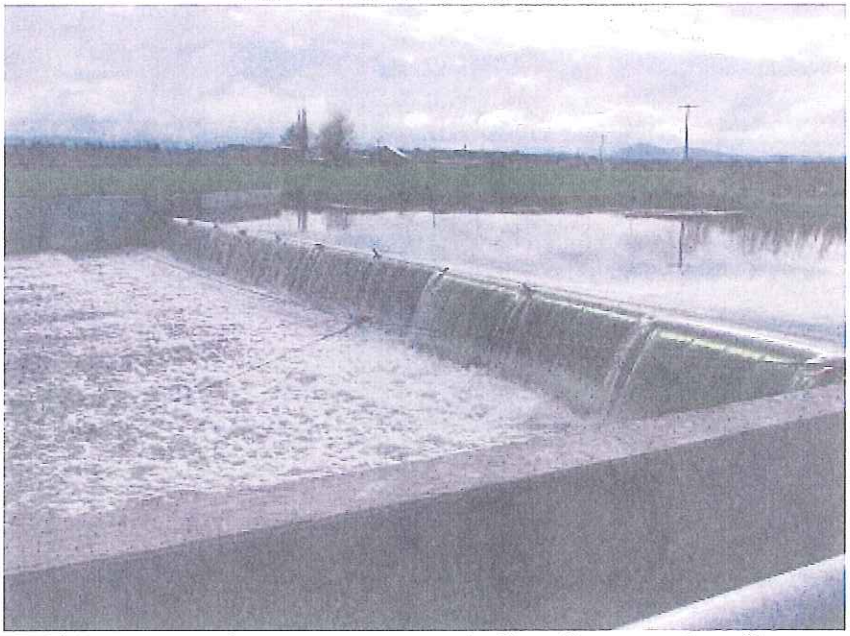
Lower Mill Creek



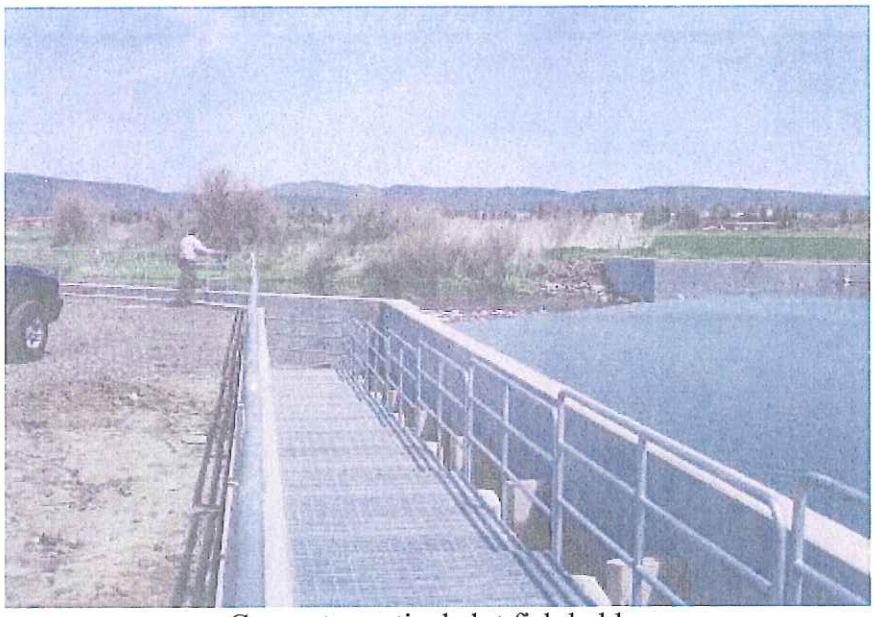
North Unit Irrigation with new screens

Low-Line Ditch screen

Crooked River Central

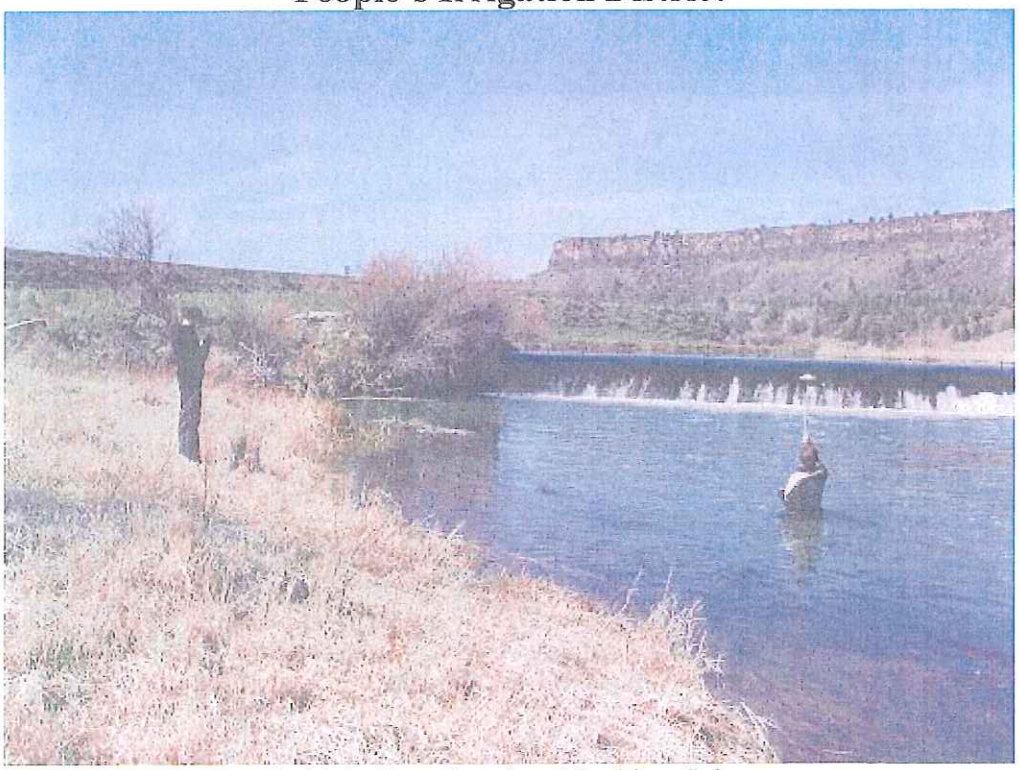


Obermeyer weir system, automatically adjusts to river flows



Concrete vertical slot fish ladder

People's Irrigation District



Seven ft. high diversion dam blocking fish passage

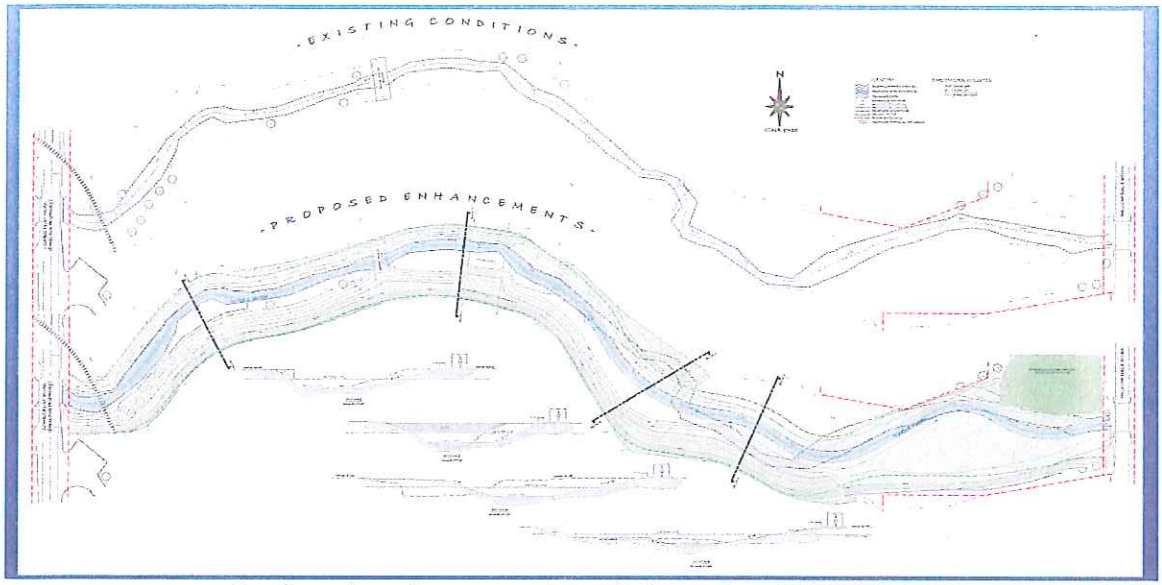
Fish bypass channel around diversion dam

South Fork Beaver Creek

Bank stability structures to reduce erosion

Riparian conditions prior to pre-project

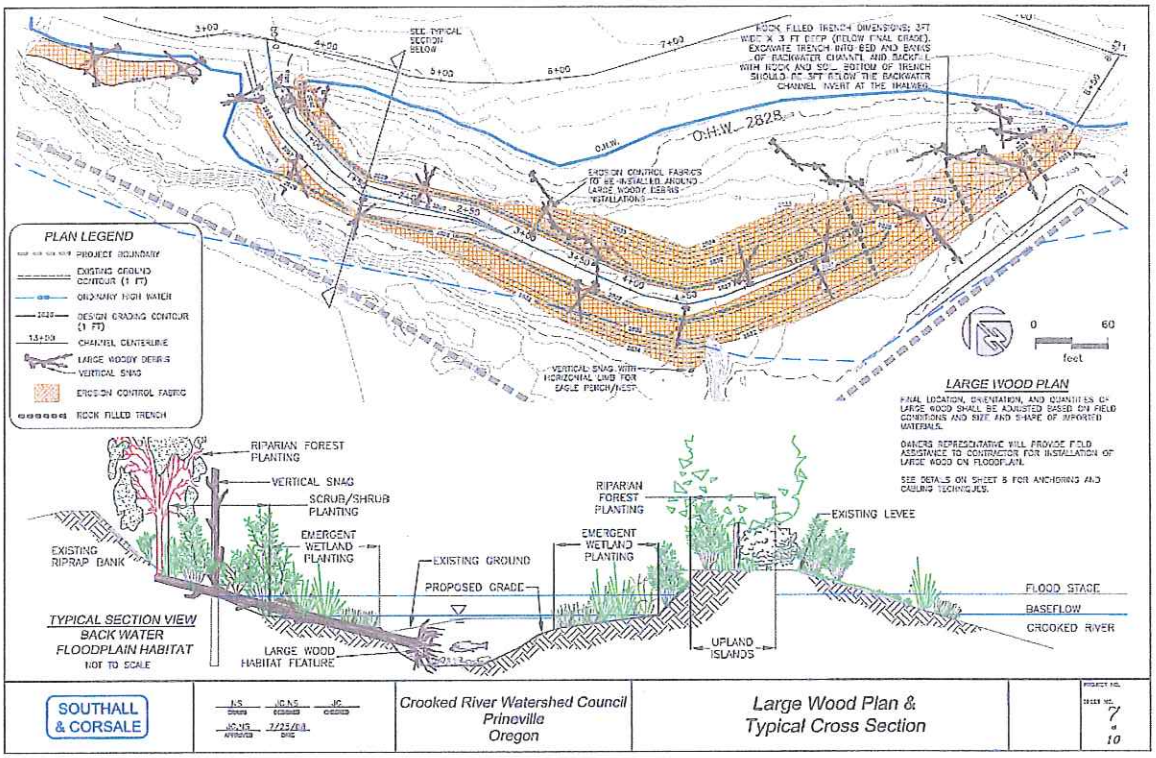
Begin of eroding banks and diminishing wetlands



Design plans for restoration of channel and floodplain.

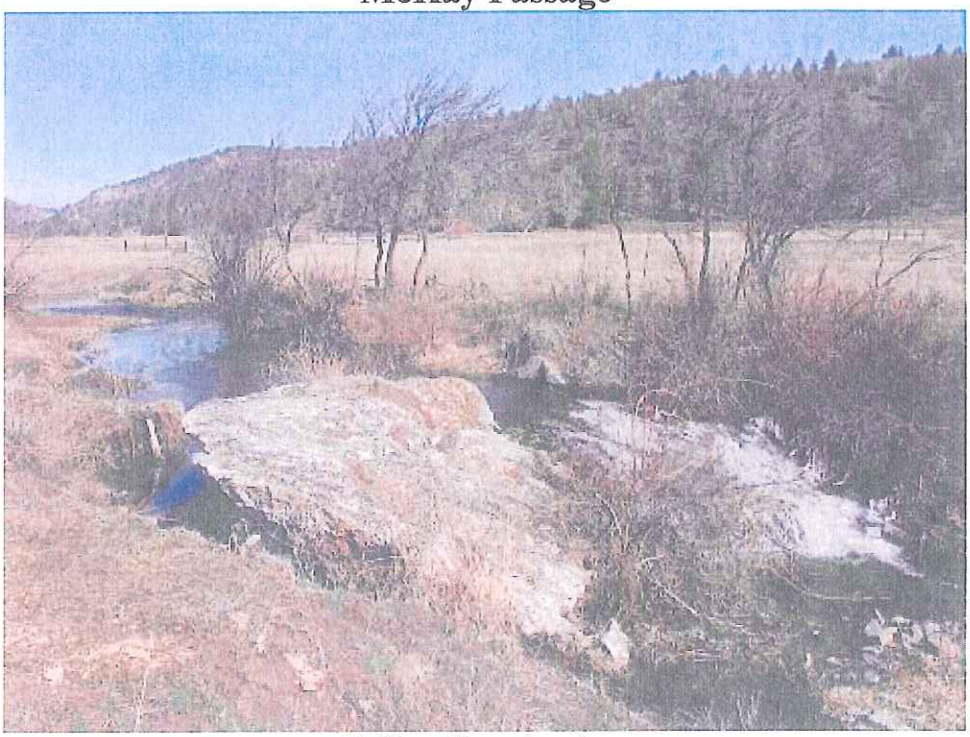
City of Prineville Floodplain

Wetland disconnected from river flow; lack of riparian trees and shrubs



Design plans for restoration of side-channel and floodplain.

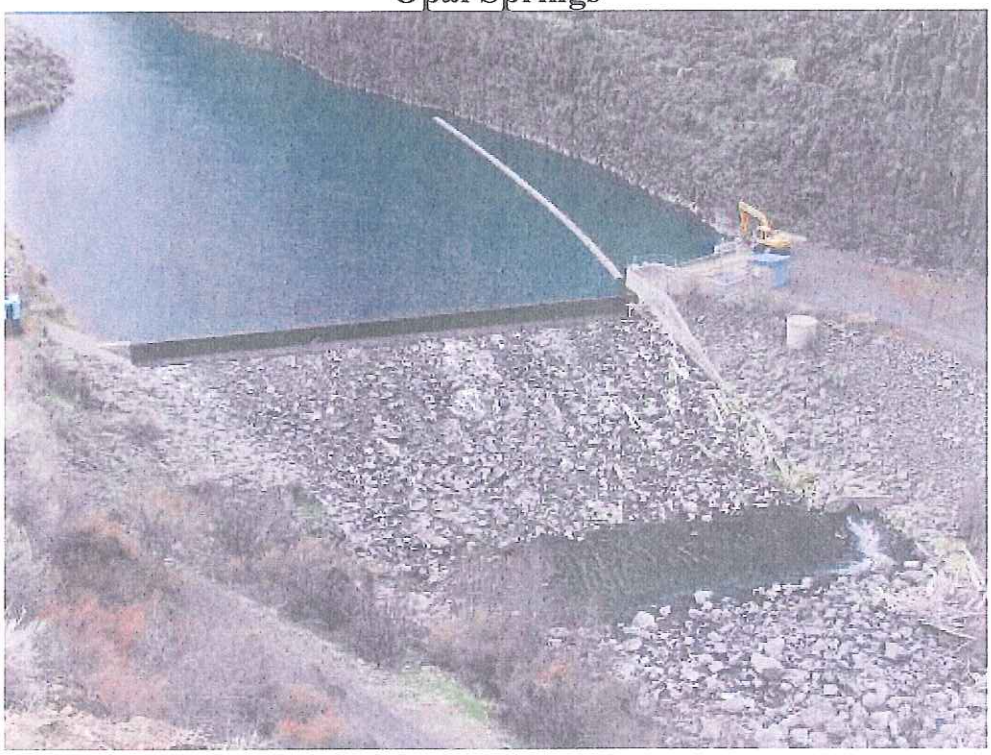
McKay Passage



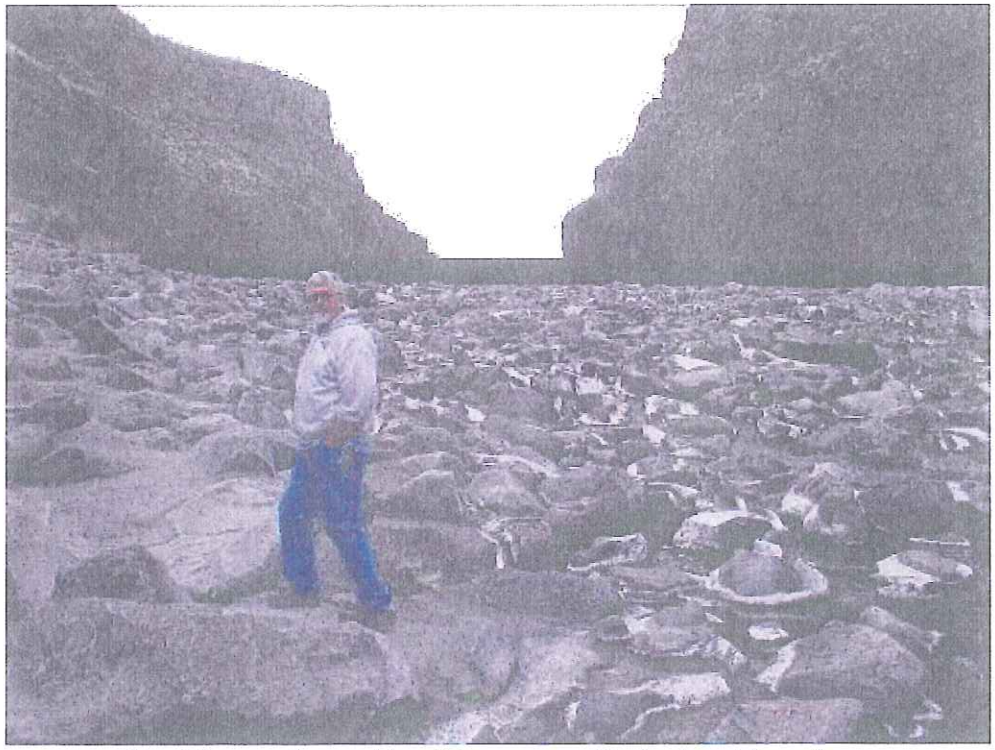
Failing diversion dam

Fish passage barrier to be removed.

Opal Springs



Overhead view.



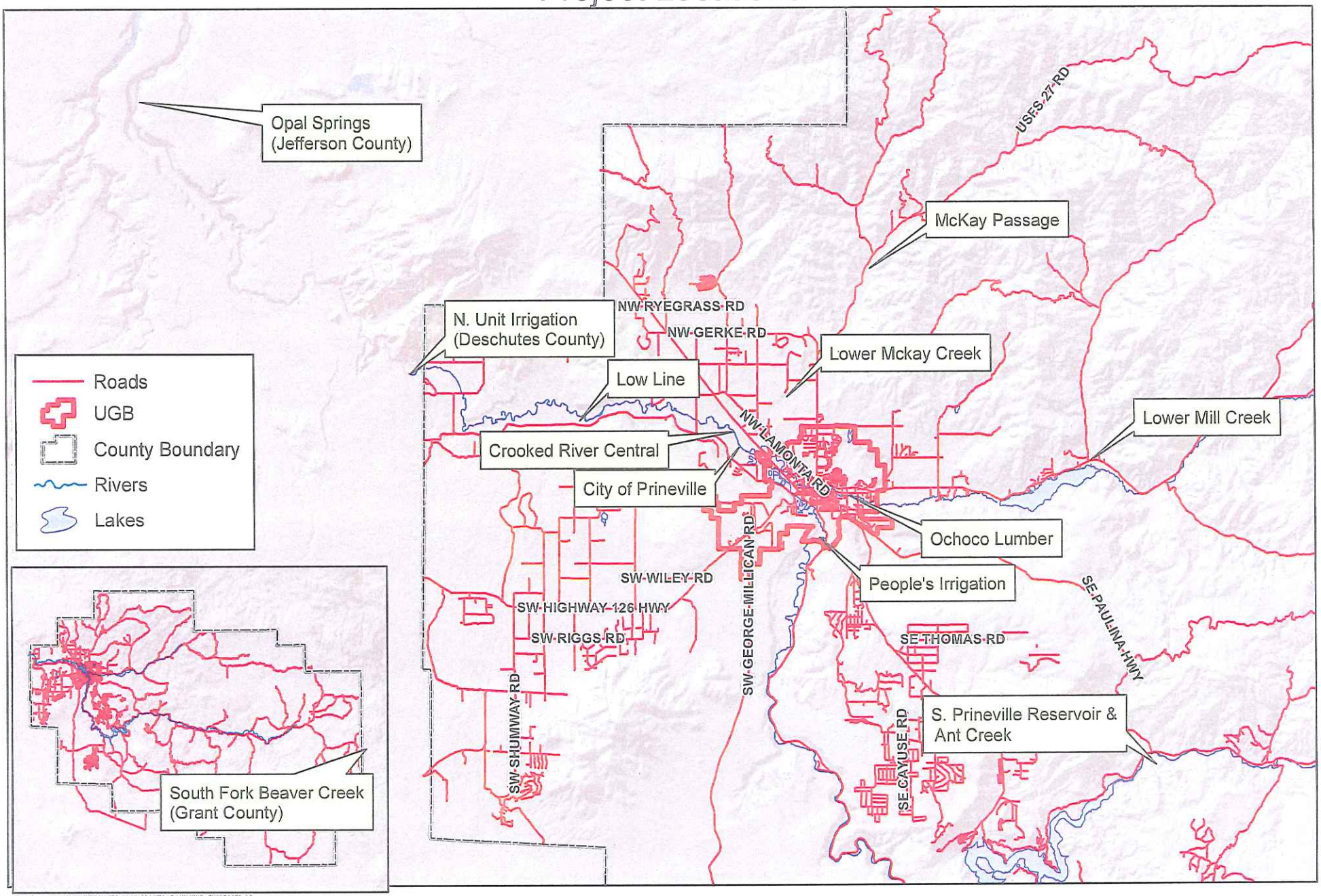
Looking upslope at boulder energy dissipater at low flow

Lower McKay Fish Habitat Enhancement

Property #1: with rip rap along bank and noxious weeds on opposing bank

Property #2: actively eroding bank; note farm field in background

Project Locations



(57)