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Jesse Creek/Pollard Canyon Creek Confluence Area

This memo serves to document two field trips that I have taken to review the area of the Jesse Creek/Pollard Creek confluence and a review of what is currently mapped as Jesse Creek below the City of Salmon water treatment plant.

Since the Salmon-Challis National Forest took the lead on watershed delineation for the Middle Salmon-Panther Subbasin, the Forest Service has an interest in the correct representation of the streams and watershed boundaries in the Jesse and Pollard Canyon drainages.

I have conducted several field reviews of this area one with Bob Blackadar, local citizen and irrigator, on December 7, 2007 and one with Monica Van Bussum, Senior Water Resource Agent from Idaho Department of Water Resources, on August 29, 2008.

Current topographic maps depict Pollard Canyon and Jesse Creek as separate channels that do not intersect but come close in the SWNW of Section 1 just below the water treatment plant. In reality these streams intersect at a diversion structure located below the road that goes to the Forest Service storage area located south of the water treatment plant. At this structure water can be diverted into what is mapped as Jesse Creek or into Pollard Canyon Creek.

A debate is currently underway in the Snake River Adjudication as to whether the stream course that is mapped as Jesse Creek is a natural channel or an irrigation ditch. From the Roosevelt Street stream crossing downstream the channel is located in a topographic low and appears to be a natural channel, though highly modified as it flows through the residential areas on the upper bar. However, from the diversion structure at the Jesse/Pollard confluence to the Roosevelt Street crossing the channel that is mapped as Jesse Creek is a perched channel that has been bermed to keep the water in the channel. If the water breached this channel it would flow south towards what is mapped as Pollard Canyon Creek.

This stream reach from the diversion structure to the road crossing is not a natural channel. However, remnants of a natural channel can be observed below the existing water treatment plant. It is possible that the natural Jesse Creek channel was moved to the south to its current location when the water treatment plant was constructed.

I have lived and worked as a hydrologist in the Salmon, Idaho area since 1977. Until recent maps were produced the stream channel flowing down the bar hill into the Salmon River adjacent to the Idaho Adventures office has been known as Jesse Creek. Locals still call this channel Jesse Creek. Old maps have variously called both Pollard Canyon and Jesse Creek as forks of Jesse Creek, or called the southern stream Pollard Canyon down to the confluence with Jesse Creek then Jesse Creek below that point. Recent maps

have shown the northern channel as Jesse Creek and the southern channel as Pollard Canyon Creek all the way to the Salmon River.

An overview of the confluence area shows evidence of debris berms and various active and inactive channels, particularly along Pollard Canyon Creek above the confluence. It is probable that over geologic time these streams have connected and disconnected with flood events and the deposition of bedload associated with the flood events. Currently these streams are connected at the diversion structure though it is probable that Jesse Creek was moved to its current location south of the water treatment plant during plant construction. The current topographic maps incorrectly depict the location of these streams in this area.

Betsy Rieffenberger
Forest Hydrologist
Salmon-Challis National Forest

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