IDAWRA Brownbag: Wed. May 8, 2013; 11:30 - 1:00 pm YANKEE FORK PS3 SIDE CHANNEL HABITAT IMPROVEMENT PROJECT Speaker: Steve Clayton Ph.D. P.E. (Co-authors: Paul Drury, Mike Edmondson, Evelyn Galloway, and Jim Gregory) Wednesday, May 8, 11:30 - 1 pm (talk will start at 11:45) Location: Washington Group Plaza Executive Dining Room 720 Park Blvd Boise, ID 83712 Cost: Free Lunch available in the Washington Group cafeteria, next to the Executive Dining Room

IDAWRA thanks the Corps of Engineers for providing the venue.

Land uses in the Yankee Fork watershed during the past 150 years have negatively affected physical and ecological processes and subsequently native fish populations. The channel in a 6-mile reach of the lower subwatershed is impacted by dredge piles and disconnected from some tributaries. Regardless this tributary to the Salmon River in central Idaho continues to support spring/summer Chinook salmon (Onchorynchus tshawytscha) steelhead (O. mykiss) westslope cutthroat (O. clarkii lewisi) and bull trout (Salvelinus confluentus) and provides late-summer flow and cold water temperature two factors frequently absent in anadromous fish restoration projects. Strategic habitat improvement actions in the Yankee Fork watershed are needed to address limiting factors including riparian condition large woody material (LWM) floodplain condition bed form channel complexity and sediment quantity.

Building upon CH2M HILL's 2008 Yankee Fork Floodplain Restoration Project: Alternatives Analysis and Evaluation and the Bureau of Reclamation's 2012 Yankee Fork Tributary Assessment CH2M HILL worked in collaboration with the Bureau of Reclamation Idaho Governor's Office of Species Conservation Shoshone-Bannock Tribes United States Forest Service Trout Unlimited and J.R. Simplot Company to design permit and construct the PS3 Side Channel project in fall 2012. By converting a series of remnant dredge ponds to a perennial side channel the project increases habitat available to juvenile salmonids and helps re-establish physical and ecological processes.

The PS3 Side Channel project was designed and permitted in ten months and constructed in two months. The 0.7-mile-long perennial side channel will convey up to 10-percent of the mainstem flow provide velocities and depths desirable to juvenile salmonids and transport fine sediment annually during high flows. Eight LWM structures were constructed in the side channel and more than 200 pieces of wood were placed on the floodplain to provide habitat complexity and floodplain roughness. Re-grading of 25,000 cubic yards of tailings created 4.5 acres of floodplain. Groundwater channels and wetlands were constructed to provide additional high-flow refugia. Approximately 16 400 live cuttings were planted in fall 2012 and 3,600 container plants will be planted in spring 2013. The project partners anticipate the project will provide immediate and sustainable habitat for ESA-listed juvenile salmonids.

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