

DETERMINING THE APPROPRIATE LOCATION FOR A FISH PASSAGE FACILITY AT A COMPLEX TAILRACE AT A WESTERN MONTANA HYDROELECTRIC FACILITY

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Thompson Falls Dam located on the lower Clark Fork River, MT, is owned and operated by Pennsylvania Power and Light, Montana (PPL Montana). The dam consists of a complex arrangement of two separate powerhouses and dams. Due to presence of bull trout (*Salvelinus confluentus*) and westslope cutthroat trout (*Oncorhynchus clarki lewisi*) in the project area, PPLM is currently studying the feasibility of a fish passage facility at the project. We used radio telemetry to understand the ideal location for a permanent fish passage facility. In all, over 60 salmonids were tagged with coded radio telemetry transmitters between 2004 and 2005. Preliminary results indicate that even with many attraction flows in project area, migratory fish tend to travel to the most upstream area that they can navigate. Therefore, we believe that the main channel dam (the most upstream area) is the best alternative for a permanent fish passage facility. Studies in 2006 should lend valuable information on the specific location to construct the entrance to the future fishway.