

MIGRATORY RESPONSE OF BULL TROUT IN THE CLARK FORK RIVER DRAINAGE FOLLOWING UPSTREAM TRANSPORT

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Electrofishing and a fish ladder/trap were used to capture 129 adult bull trout (*Salvelinus confluentus*) in the Clark Fork River downstream of Cabinet Gorge Dam, from 2001 through 2004. A portion of these fish were presumed to have migrated downstream as juveniles from Montana tributaries through or over the dam and reared in Lake Pend Orielle, Idaho. Captured adult bull trout were radio tagged, transported upstream, and released in Cabinet Gorge Reservoir, Montana. Of the 129 bull trout released in Montana 78 were detected in tributaries to Cabinet Gorge Reservoir during the spawning season. Forty of the 129 bull trout were detected at Noxon Rapids Dam, the second dam on the Clark Fork River, with 70 percent (28) of these fish now known to have originated upstream of Noxon Rapids Dam. In 2004, a “Rapid Response Genetic Analysis” was employed to determine natal tributary of origin of captured fish prior to transport above Cabinet Gorge Dam. Genetic assignments to tributaries of origin were accomplished for most fish captured over the 4-year study period, with fish movements of transported fish now correlated to genetic assignment. Of the 112 viable

genetic samples collected below Cabinet Gorge Dam, 90 percent were assigned to upstream tributaries.