

RESTORATION PLAN FOR THE CLARK FORK RIVER AND BLACKFOOT RIVER NEAR MILLTOWN DAM

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In 2005, a consent decree set forth the terms and conditions for the removal of Milltown Dam near Bonner, Montana. Constructed in 1907 at the confluence of the Blackfoot and Clark Fork rivers, Milltown Dam is a fish passage barrier and impounds ~6.6 million cubic yards of contaminated sediments transported to Milltown Reservoir from upstream historical mining in Butte and Anaconda. The State of Montana, in consultation with the Confederated Salish and Kootenai Tribes and the USDI Fish and Wildlife Service, are developing a plan that will restore the Clark Fork and Blackfoot rivers to naturally functioning, free-flowing fluvial systems. Project goals include 1) maintaining water quality, 2) accommodating sediment transport and channel dynamics, 3) providing habitat for native fishes and other trout, 4) creating functional wetlands and riparian communities, 5) enhancing visual and aesthetic values, and 6) providing safe recreational opportunities compatible with other restoration goals. These approaches are process and form based and include stream classification, regional hydraulic geometry relationships, regime and tractive force equations, and one and two-dimensional flow and sediment transport computations. These approaches are being used to meet both ecological and stability objectives. Preliminary results indicate that the most probable state of the rivers is a slightly entrenched, meandering, gravel-dominated, riffle-pool channel transitioning to a moderately entrenched channel near the confluence with the Blackfoot River. Following restoration activities, fish passage will be restored resulting in the full expression of fluvial life histories for species that include bull trout, westslope cutthroat trout, and large-scale suckers.