

Cottonwood Creek Fish Passage Project

Project Objective: Restore a migratory corridor for populations of native trout by upgrading an undersized and perched culvert on upper Cottonwood Creek that created a barrier to aquatic organism passage and caused channel impairments.

Project Details: Cottonwood Creek is a third-order tributary to the Big Blackfoot River entering near river-mile 43. The stream is a bull trout core area, designated critical bull trout habitat and supports populations of genetically pure fluvial westslope cutthroat trout. The project involved replacing a severely undersized, perched culvert at stream mile 15.5 with a concrete bridge following stream simulation guidelines and principles, allowing for aquatic organism passage, adequate hydrologic capacity for at least a 100-year flood event, and stream channel function. As the existing channel in the impacted reach had severely down-cut, we also constructed instream grade control structures to help restore and stabilize a channel gradient that allows for fish passage yet minimizes future channel adjustment and cutting. Fill slopes and stream banks were reclaimed using transplants, mulch and native grass seed.

Accomplishments: Restored fish passage to ~1.0 mile of instream habitat & corrected channel incision and erosion problems in the project area.

Project Partners: United States Forest Service, Chutney Foundation, Montana Fish, Wildlife & Parks, DEQ 319 Program, Blackfoot Challenge, Embrace-a-Stream, & Big Blackfoot Chapter of Trout Unlimited.



Historic undersized culvert on Cottonwood Creek near stream-mile 15.5 replaced with a free-span concrete bridge in 2007. Note the instream grade control step-pool structures post-project.