

Fish, Aquatic Ecosystem Response

Beyond the initial experiment: fish response and other long-term results at Mica Creek, Idaho

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As the longest continuous running experimental watershed focused on contemporary timber harvest management on private land in the western U.S., the Mica Creek Experimental Watershed in northern Idaho has moved beyond the initial experiment to a fully managed watershed. With much of the experimental watershed now harvested and transitioned from mature to young stands, what scientific understanding have we learned from these activities on water quality/quantity and associated aquatic biota? Focusing on fish response, annual density estimates of native westslope cutthroat and non-native brook trout have been collected since 1995. Within treated watersheds, fish densities increased following initial harvest and have remained elevated. In addition, salmonids are now observed occupying previously uninhabitable reaches upstream from pre-harvest extent of fish distribution. How do these fish observations relate to other responses found in macroinvertebrate communities, flow, and temperature? These long-term data provide a unique opportunity to provide longer term perspectives when evaluating effectiveness of Best Management Practices and Idaho Forest Practices Act regulations.