

United States Department of the Interior 111 Garryowen Road

Bureau of Land Management

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OPERATION: TREES FOR FISH

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MILES CITY – The grapple skidder slowly chugged up the dirt road---its scarred pincher-like jaws clutched a bristly prize that swung side to side with each bump in the trail. Negotiating its way like a monstrous, single-clawed crab, the operator swung the skidder's mottled mast and dropped a 2,000-pound root-wad onto a flatbed trailer with a dusty crunch. Mission complete: Another one for the fish.

Forest fires are often considered a detriment to fish habitat, but in the case of the 2003 Swain Coulee burn, it is producing a bonus. Root-wads; the leftover byproducts of salvage logging—are being collected to enhance fish habitat in eastern Montana's Bureau of Land Management (BLM) reservoirs.

Later this winter, the wads will be trucked to several fish-bearing locations administered by the BLM Miles City Field Office. Winter ice will facilitate positioning of the wads, which will later sink into place with the spring thaw and provide new habitat for the reservoir's aquatic residents.

The concept is not new. Agencies around the U.S. have employed a variety of methods to provide a little extra underwater structure for fish stocks. Everything from Christmas trees, concrete blocks, junk cars --and in coastal areas, truck tires and old ships, have been sunk to create artificial

reefs designed to encourage fish production. By sinking root wads, the BLM hopes to give variety to some otherwise barren, local underwater landscapes.

The number of wads per reservoir will depend on water body size. Some will be scattered in deeper water for larger fish, others will be placed at shallow depths for fry-friendly habitat. The nooks and crannies of the twisted, tangled tree roots will give aquatic organisms a chance to flourish, thereby producing more fish food and fish. Everything: from Daphnia to Plains Minnows to Northern Pike.

BLM Fishery Biologist Joe Platz is heading the project and hopes root wads will translate well into more fish.

"Many of these spots are not producing fish as well as they have in the past," said Platz.

"This is one of many strategies we can employ to increase production in BLM reservoirs."

Platz hopes that in spite of other factors --such as the ongoing drought, fluctuating reservoir water levels and leaking dams, the root wads will be an asset to reduce predation. A featureless, bare bottom, plus shallow water--- equals easy pickings for predators. Add a root wad or two and you provide the equivalent of aquatic apartment buildings. Crawl-space included.

BLM Forester Ray Smith facilitated the project and has been a steady presence on the Swain operation from the beginning. Smith explained that the root wads are a by product of the temporary roads built for timber extraction operations. Tree stumps and their root wads are left on the hillsides and other erosion prone areas, both to reduce top soil run-off and to decompose back into the forest floor.

However, since the stumps in the temporary roadways are both an impediment to equipment and a hazard, they are removed and put to use. The result is a weighty clump of wood and soil that is an effective way to stop erosion in reclaimed skid trails and head cuts, or in this case-- grow more fish.

Timber salvage operations are wrapping up in the Swain Coulee area. Smith explained that this was the largest timber sale to date for the Miles City Field Office. Approximately 600 acres of both the burned zone and sections of surrounding live growth have been treated.

The objective of the harvest was to reduce the hazard fuel levels of woody debris and recover the economic value of the timber, said Smith. By doing so, the threat of future fires with high fire severity levels will be reduced in the immediate area.

Wildfire is nothing new to eastern Montana residents. However, perhaps a brighter future has presented itself from the ashes of uncertain circumstance.

"A goal of ours is to provide and improve fishing opportunities for the public," said BLM's Joe Platz. "This is one way we can do this."

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