



# ENOUGH FOR ALL

**RIVER OF PLENTY** Where the Bitterroot ran low during the dry season, the river now flows bank to bank most years thanks to an agreement among irrigators, anglers, and state agencies.



**STORAGE FOR LATER** Completed in 1940, Painted Rocks Dam on the West Fork of the Bitterroot holds up to 32,000 acre-feet of water. A water commissioner ensures that leaseholders take only their fair share of water from the reservoir.

Cooperation among irrigators, anglers, and state agencies ensures that Painted Rocks Reservoir provides the Bitterroot River with enough water for both trout and crops each summer. **BY JOHN GRASSY**

**T**he Bitterroot River in midsummer is an aquatic paradise. Boats filled with happy anglers float past lush hayfields in the fertile valley, framed to the east by the Sapphire Range and to the west by the Bitterroot Mountains. Punctuating the sound of songbirds, honking geese, and whining fly reels is the *swish-swish-swish* of nearby pivot irrigators watering alfalfa fields.

What a change from a few decades ago. During mid- to late summers throughout much of the 1970s and early '80s, the stench of dead and dying vegetation and fish often hung heavily in the air. Tepid, brackish water crawled down the Bitterroot River channel,

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struggling to find a path through sun-bleached rocks covered with decaying moss. Though the river flowed strongly with deep, cold water each spring, by July little remained for trout and trout fishing.

The Bitterroot's depleted channel was nothing new. People had been struggling to manage and share the river's flows for more than a century. During the first decades of European settlement, when agriculture became the valley's primary enterprise, low late summer flows led to disputes over water rights and use. In 1940, as part of the federal Public Works Administration, the state finished construction of Painted Rocks Dam on the West Fork of the Bitterroot. The dam was built primarily to provide supplemental irrigation water to 30,000 acres of land in the Bitterroot Valley and reduce conflicts over water use.

Conservationists soon began to see that Painted Rocks could help the river's trout population too. In 1957, 5,000 acre-feet of the reservoir's 32,000 acre-feet of water was sold to the Montana Fish and Game Commission, the Ravalli County Fish and Wildlife Association, and the Western Montana Fish and Game Association. Agricultural users also purchased various amounts of water over the years, eventually leasing a total of 10,000 acre-feet.

Though some of the dam's output was intended to maintain adequate flows for trout survival, there was still insufficient water during drought years. In the 1970s and early '80s, "you could walk across the main channel and hardly get your feet wet in many stretches between Hamilton and Stevensville," says Chris Clancy, Montana Fish, Wildlife & Parks fisheries biologist in Hamilton.

To help solve the problem, local anglers, guides, and FWP staff explored the possibility of leasing even more stored water from the reservoir, owned and managed by the Montana Department of Natural Resources and Conservation (DNRC), to supplement natural flows. FWP contracted for another 10,000 acre-feet. And the DNRC agreed to conduct trial releases from the dam, which FWP biologists studied to learn about timing and flows on trout.

An informal management plan agreed to by anglers, irrigators, FWP, and DNRC in the 1980s calls for the dam to hold FWP's 15,000 acre-feet of stored water until stream flows on the Bitterroot diminish to a trigger level. Water is then released at a rate that fisheries biologists consider necessary to safeguard the fish population through the hottest, driest weeks of late summer and early fall.

As part of the agreement, FWP also pays most of the salary of Al Pernicelle, who

serves as both the Bitterroot River water commissioner and Painted Rocks Reservoir manager. "Al's main job is to shepherd the water down the river and make sure everyone is taking no more than their allocated amount, and also to make sure that FWP's water stays in the river," says Clancy. "He has a lot of credibility and has gained people's trust."

Over time, various interests who once competed bitterly for water started to recognize and understand each other's water uses and needs. "You see more cooperation on water management on the Bitterroot than on most rivers in the state," Clancy says. "We actually have a situation where some irrigators voluntarily don't take all the water they're entitled to. They have the earliest water rights on the river and need to keep water in their ditches well into September for stock watering and to minimize winter mortality of pasture grasses and hay. But

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they still leave water in the stream to benefit fisheries and recreation.”

Each year in mid-July, FWP asks the DNRC to begin releasing water from Painted Rocks Reservoir. The goal is to maintain a minimum flow of 400 cubic feet per second (cfs) at Bell's Crossing, a monitoring site on the middle Bitterroot near Victor that in the past ran partially dry. That

goal can be achieved except during years with low snowpack, when the reservoir holds insufficient water. "In a really dry year, we're happy just to maintain 300 or even 200 cfs," Clancy says.

In addition to benefiting agriculture, the combination of coordination and cooperation has been a boon to the Bitterroot fishery. During several drought years in the 2000s, steady flows allowed the Bitterroot to remain open for fishing throughout the summer, even while FWP was forced to close the Blackfoot and other western Montana rivers because of low water.

Larry Schock, DNRC regional water resources engineer in Missoula, says that during the drought of 2013, irrigators used approximately two-thirds of their legally entitled water, leaving the rest in the river. "The coordination between our office and FWP makes it possible to have sustained flows on the river when they're most needed."

The Bitterroot is one of the most heavily fished waters in Montana. The river and its fishery support guides, outfitters, fly shops, restaurants, and lodging establishments up and down the valley. Victor resident Jack Mauer has operated Wapiti Waters, a guiding and outfitting business, for nearly 40 years. Spending at least 100 days a year on the Bitterroot guiding clients, he understands as well as anyone the value of maintaining flows that keep trout populations healthy. "Without Painted Rocks, FWP, DNRC, and the others who care about this river, we'd be in a world of hurt," he says. "We've got conscientious irrigators. We've got FWP's 15,000 acre-feet to work with. There's cooperation, and it's a great thing." 🐾

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