

Management

Flow on the Beaverhead results from a tightly regulated system, managed by a partnership of local irrigators and Bureau of Reclamation (Reclamation), with input from Montana FWP, and guided by a drought plan (created through an Environmental Assessment process). The reservoir was built primarily to supply irrigation water, but is managed as a multiple-use facility. In addition to supplying water for nearly 60,000 acres of land, the reservoir is a tool for the US Army Corps of Engineers and Reclamation to manage flood risk. Managing CCR is a balance, maximizing storage of available water, while leaving space for heavy rain or spring snow runoff.

A drought in the early 2000's resulted in no water delivery for some irrigators in 2004. Partners created the drought plan in response, which is now part of the contract between Reclamation and irrigators. This plan determines releases from CCR when triggered by drought.

The river fishery is managed by FWP for large numbers of wild trophy rainbow and brown trout - roughly 1/4 of them are over 18".

Flushing Flow

Major sources of excess sediment in the Beaverhead are Clark Canyon and Grasshopper Creeks. When these drainages get heavy rain or snowmelt, they send massive amounts of sediment into the Beaverhead (sediment events), clogging the gravel habitat fish and insects need. Partners took on the problem and found sending a large "flush" of water from the dam, down the Beaverhead, could clear sediment from gravels and restore fish & insect habitat. Local irrigators agreed to store extra water when available for this purpose.

2011 – Partners look for solutions
2013 – Report says 600 cfs flush needed
2017 – First flushing flow

Effects

The impact of CCR on the Beaverhead can't be overstated. Before its construction, the Beaverhead could be dry along some reaches in the summer. CCR provides a reliable water supply to irrigators, and created the fishery we see today on the Beaverhead. While

the reservoir and irrigation have a major effect on the entire Beaverhead fishery, the most pronounced is the "tailwater". Reservoir tailwaters, the length of river below a dam, are known for creating productive fisheries. This effect on the Beaverhead extends from CCR to Barretts diversion, a few miles upstream of Dillon.

A healthy community requires a diverse economy, and Dillon needs both the agricultural and fishing industries, along with other local business, to thrive.

Residents are used to very stable flow on the Beaverhead. CCR stores flood water and keeps releases below flood levels. A river without a dam, while highly valued as a "wild" river, will see boom and bust, sometimes flooding, sometimes dry. We don't see this on the Beaverhead.

Drought

Drought causes conflict. When there's plenty of water, all needs are met. Irrigators get full allotments, fish aren't stressed, and water can be stored for a flushing flow. During low water years and long-term drought, managers make compromises that no one, including irrigators, like.

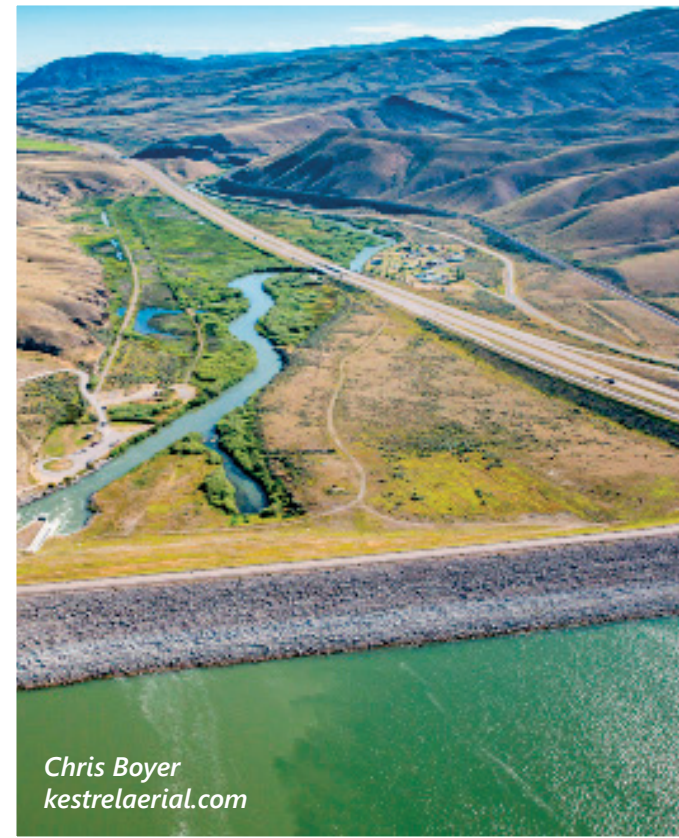
The drought plan has triggers based on reservoir levels. At these levels, releases are reduced, lowering flow on the Beaverhead and reducing water available for irrigation. This conserves water in the reservoir for the next irrigation season.

Because the reservoir was built for irrigation, those needs are prioritized in the drought plan, and determine flow, though they are balanced with fish, wildlife and recreation needs. Low flows and associated fishing closures are frustrating for local anglers and fishing businesses, but rivers without reservoirs can have lower flow and less productive fisheries.

Opportunities

The top priority for local water managers and irrigators is a consistent, reliable amount of water. Local anglers and others in the community would like to see higher minimum flows. Changes in climate and precipitation are outside the control of water users in Beaverhead County. How we make the best use of this limited resource is within our control when local interests come together around shared solutions.

Beaverhead River Flow Management



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The Beaverhead River is the life blood of Beaverhead County, supplying water for the agricultural industry, and habitat for a world-class trout fishery and its businesses. It begins at the outlet of Clark Canyon Reservoir (CCR).

Releases from CCR, and the resulting flow on the Beaverhead, are determined by irrigation needs, with considerations for fish and wildlife. Maximum flows are set to prevent flooding, minimum flows to protect fish habitat.





Beaverhead River Fish Species
Brown Trout
Rainbow Trout
Mountain Whitefish

TWIN BRIDGES

Serves 6,800 acres irrigated land

West Side Canal

Beaverhead River

East Bench Canal

DILLON

Poindexter Slough

Barretts Diversion Dam

Grasshopper Creek

Sediment Source

Supplies ~50,000 irrigated acres

Tailwater

Clark Canyon Creek

Major sediment source

Clark Canyon Reservoir

- Clark Canyon Reservoir construction completed 1964
- Local irrigators pay yearly Operation & Maintenance costs, in addition to repaying part of initial construction cost

FLOW QUICK FACTS

Max Flows

- 1500 cfs above Barretts
- 900 cfs in Dillon

Min Flows

- 25 cfs released from CCR

Reservoir Level

- Below 30% triggers drought plan

*cfs = cubic feet per second

5

Miles

