

## Instream Flow

# Clearing the Air on Water Part Four

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## Dams and Instream Flow

As long as there has been talk of instream flow, there have been comments that the only way to get an instream flow is to build a new dam.

While it's true that many fine trout fisheries in Wyoming are found below dams, the fact is that building dams for instream flow isn't always needed or appropriate, and this solution definitely isn't as simple as it might seem on the surface.

The logic behind the idea that building dams is necessary to get instream flows probably comes from the fact that some portions of many streams in Wyoming can get pretty low at times of the year. In some situations, this is normal and not a problem. However, the reason flows are low in these segments isn't always due to a natural shortage of water. More often the shortage is a result of water being diverted out of the stream channel for other uses.

By far the majority of stream segments that experience water shortages are on private property and it's logical to think that if there's a goal to increase instream flows in these stream segments, it's more desirable to build new dams than to consider other water management strategies. This is due at least in part to the fact that our water laws don't offer much flexibility for managing water in streams differently than we do now to achieve better flow conditions.

The real question here is a fairly simple one: "Do people in Wyoming want to restore instream flows to de-watered streams just for the sake of fisheries?" Though popular opinion (especially in a drought) might see such action as offering something for everyone, there are serious issues to consider.

To begin, dams don't come cheap or easy. The recently completed High Savery Dam south of Rawlins took over 30 years of planning and well over \$30 million dollars of public funds. Given these facts and limited budgets, the state will never build many dams. As a consequence, if all instream flows must come from dams, this strategy would yield a pretty small number that probably would leave most Wyoming anglers disappointed.

In addition, most of the best sites for new dams are on streams flowing through public lands that typically have adequate instream flows and good fisheries. Once flooded, these would be lost forever. The stream segments with restored flow generally are on private land. So the net effect could be the loss of a natural, flowing stream with public access in exchange for a restored stream where water is provided by man, not nature, on private land with less public access. Whenever new dams are built, it's absolutely essential that adequate instream flows be provided to mitigate the loss of the formerly flowing stream. But there are no situations where building a dam just for instream flow is economically or ecologically justified, and our department has not identified one stream where a new dam is needed to restore stream flows.

Some dams do provide good public stream fisheries, like the North Platte below Kortez Dam and the Green River below Fontenelle, but they all don't. Stream fisheries in the North Platte below Glendo and Guernsey dams are severely limited by low flows for almost six months each year. And the Greybull River below the Upper Sunshine Reservoir diversion is essentially dry at times of year, which seriously impacts that native cutthroat trout fishery.

What's more, while dams sometimes provide popular stream fisheries, they also can change the



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physical character of some rivers to the detriment of native fishes. The North Platte below Grey Reef Dam, for example, is about 25 percent smaller than it was before dams were built due to narrowing and straightening caused by changes in sediment movement by the river. The loss of island habitat and side channels has resulted in the loss of native fishes like sauger and shovelnose sturgeon and significantly reduced populations of less-noticed species like central stonerollers. Spawning habitat for channel catfish has essentially been eliminated, and this once abundant native species is no longer found above Dave Johnson Power Plant. Those that are found below there mostly are stocked fish. While it's hard to argue with a popular trout fishery, it's also a fact nationwide that dams often turn formerly unimportant minnows into highly valued endangered species, and there are rumblings that sauger and shovelnose sturgeon may one day find themselves on that list.

In addition to the philosophical aspects of building dams for instream flows, there are some legal issues that are perhaps more important. Just because an entity builds a dam and decides to use storage space for instream flow doesn't mean they would get to use their water in that way. The town of Pinedale attempted to do just that with a portion of their water rights in Fremont Lake only to discover that the state's water law doesn't allow them this particular use.

The newest reservoir in the state, High Savery Reservoir south of Rawlins, will provide instream flows, but this is an exception because the state of Wyoming will own and operate this dam. The bottom line from a legal perspective is that if we're going to get instream flow rights from new dams, either the state will have to own them all or we'll need to change our water laws to allow other entities to use their storage rights for instream flow.

There are lots of places to get instream flows where there's still unappropriated, natural flowing water and healthy ecological processes that warrant protection—places like the Middle Fork of the Powder, the Greys River and others like them. Most of these are on public land where the threat of losing water to some other use seems minor today. But it's important to secure protection now to give the public a voice when demands for water do creep farther up the hill and pose potential threats to our valuable fisheries. These are the kinds of places where we've made almost all of the filings to date and they serve as a clear example that building dams isn't the only way to have instream flows.

So sure, there's a bit of truth to the argument that "if we want instream flows they have to come from dams." But, as in most things, there's a lot more to it than that. And it's in everyone's interest to understand as much as we can about this issue before lumping all instream flow solutions into one simple fix.

For more information about instream flows, visit the Game and Fish Department's instream flow Web page at <http://gf.state.wy.us/fish/watermangtISF/index.asp>.

There are lots of places where filing for instream flow water rights is possible without building new dam, such as this segment of the Wood River on U.S. Forest Service land near Meeteetse.

