

# Clear Creek flow benefits dam

## An up-close look at Wyoming's instream flow water rights and what they mean to anglers

On October 18, 1933, folks in Buffalo, Wyo., filed a water right for a new reservoir in the Big Horn Mountains west of town to store water for the town's use. Their original plan was to build the dam on Little Sourdough Creek. Over the years they looked at lots of other options on about every stream in the Clear Creek drainage.

The Wyoming Game and Fish Department first got involved in this process in 1982 when it looked at fishery issues on ten potential reservoir sites. After lots of other studies by lots of folks, and many meetings, the original water right filing was changed slightly to move the site of the dam downstream to the South Fork Clear Creek. In 1997 after more than six decades of planning, Tie Hack Reservoir was built to provide water for Buffalo and recreation for the state's citizens.

This 63-surface-acre lake flooded a Forest Service campground, several acres of important wetlands and a few miles of stream. As with all new dams, these losses were offset by a mitigation agreement that restored these public resources to conditions of comparable value. New camping facilities and new wetlands were created to replace those flooded by the new lake. Guaranteed instream flow releases from the dam were also required to replace the lost stream habitat and fishing opportunities that were destroyed by the reservoir.

Today this important mitigation feature provides an excellent stream fishery below the reservoir. We often hear people say that you have to have a dam to have instream flow, but that's seldom the case. In this situation, the dam was not needed to create or make a new fishery, because a healthy stream fishery already existed. In fact, the opposite was the case—a guaranteed instream flow release was actually one of several things that were needed to get all the permits so the dam could be built.

### The Fishery

The stretch of Clear Creek below Tie Hack Dam consists of diverse large cobbles and boulders that provide a good mix of deep (three- to four-foot) pools, undercut bank cover and swift runs. There are also lots of riffles with excellent gravel for trout to spawn in and to produce aquatic insects that trout need as a food supply.

Fish population studies we've done show an impressive number of trout and a range of species and sizes. The dominant fish found here are rainbow trout that maintain themselves naturally by spawning in the stream. There are also pretty good numbers of Snake River cutthroat trout that mostly originate from fish stocked in Tie Hack Reservoir and drift downstream.

This high mountain stream doesn't look like classic brown trout habitat, but there

are actually quite a few of those fish in this part of the stream, and we've seen some up to 20 inches or more.

The majority of rainbows and cutts average about 12 to 14 inches long. They will all readily take a fly or small spinner of your choice—if presented properly or persistently enough.

Statewide fishing regulations apply that allow you to keep up to six trout, only one of which may be more than 20 inches long.

### How to get there

Take Wyoming Highway 16 about twelve miles west of Buffalo. You'll see a small Forest Service sign directing you to turn left (east) to Tie Hack Campground and Reservoir. The Tie Hack Campground will be within about a quarter-mile of the highway, but continue on this well-graded gravel road another half mile or so and you'll come to a parking area on the edge of the reservoir. From the parking lot, hike over to the dam and then follow the foot trail down to the stream at the bottom of the hill. The stilling basin at the base of the dam is packed with smaller trout, but as you continue downstream to more natural habitats, you'll encounter some great fishing and few, if any, other anglers. The road from the highway to the dam is only open during the spring, summer and early fall and is closed once heavy winter snows begin to fall.

## The Instream Flow

**Permit Number:**  
Temporary Filing  
28-5/302

**Priority Date:**  
October 6, 1994

**Quantity:** 7.9 cubic feet per second (cfs) from October 1 to March 31, 40 cfs from April 1 to June 30, and 30 cfs from July 1 to September 30

**Location and length:** 4.9 miles

**Land ownership:**  
The entire segment is located on lands administered by the U.S. Forest Service.

**Rationale:** The instream flow water right in the stream below the dam was an essential part of the approval process for the dam. The specific flow recommendations were developed to provide enough water for trout to survive during the winter, maintain or improve spawning habitat for rainbow trout in the spring and ensure there was adequate water for trout growth during the summer.

**Status of the filing:**  
A public hearing was held in Buffalo on November 28, 2006. No one from the public attended the hearing, nor were any written comments in opposition to or support of the filing provided in the 30 day comment period after the hearing was held. The state engineer has not yet approved the water right as evidenced by its classification as a temporary filing. The final step in the process of securing this, or any other water right, is called adjudication. The Board of Control is responsible for that action, but it cannot occur until after the state engineer has approved the right.



You don't have to have a dam to have an instream flow, but if you have a dam, you need an instream flow. Instream flows provided as part of mitigation for Tie Hack Dam help maintain top-notch fishing for Wyoming anglers. Photo by Bud Stewart

To get more information about instream flow, visit the Wyoming Game and Fish Department's Web site at <http://gf.state.wy.us/fish/instreamflow>