

DRAFT INSTREAM FLOW RECOMMENDATION - SUBJECT TO CHANGE

Mr. Rob Viehl
Colorado Water Conservation Board
1313 Sherman Street, Room 721
Denver, Colorado 80203

Dear Mr. Viehl:

The Bureau of Land Management (BLM) is writing this letter to formally communicate its recommendation for an instream flow water right on Little Elk Creek, located in Water Division 5.

Location and Land Status. Little Elk Creek is tributary to Capitol Creek approximately seven miles south of Snowmass Village. This recommendation covers the stream reach from the headwaters to the headgate of the Elk Creek No. 1 Ditch, a distance of approximately 1.75 miles. Approximately 0.25 miles of the stream segment is located on lands managed by BLM, 0.5 miles is located on lands managed by the U.S. Forest Service, while the remaining 1.0 miles is located on privately owned lands.

Biological Summary. Little Elk Creek is a moderate gradient stream with small to medium-sized substrate. The upper part of the creek flows through gently sloping forested areas, and the lower portions of the creek flow through meadow habitat and grazed lands. The riparian community is composed of spruce, alder and multiple species of willow. The stream provides a good mixture of undercut banks, run, and riffles for fish habitat. Fishery surveys indicate that the stream supports a self-sustaining population of brook trout with a variety of age classes. Spot surveys have revealed populations of mayfly, caddisfly, stonefly, and beetles.

R2Cross Analysis. BLM collected the following R2Cross data from the creek:

Date	Discharge	Top Width	Winter (2 of 3 criteria hydraulic criteria)	Summer (3 of 3 criteria hydraulic criteria)
07/12/2021 #1	0.44 cfs	7.36 feet	0.60 cfs	1.22 cfs
07/12/2021 #2	0.47 cfs	6.88 feet	0.37 cfs	Out of range
Averages:			0.49 cfs	1.22 cfs

BLM's data analysis of this data indicates that the following flows are needed to protect the fishery and natural environment to a reasonable degree.

1.2 cfs is recommended for high temperature period, from May 1 through August 31. This recommendation is driven by the mean velocity criteria. BLM believes that providing this flow will ensure sufficient physical habitat availability in the creek for brook trout reproduction.

0.6 cfs is recommended from September 1 to October 31. This flow rate slightly

exceeds the mean depth criteria and wetted perimeter criteria and should provide sufficient physical habitat while trout are putting on weight to prepare themselves for the winter months.

0.3 cfs is recommended for the remainder of the year, from November 1 through April 30. This recommendation is driven by limited water availability. This flow rate should provide sufficient water circulation to prevent total icing in pools that are critical for overwintering fish.

Water Availability. BLM is not aware of any water rights within the proposed instream flow reach.

The BLM recommends using a variety of data sources to confirm water availability, because BLM is not aware of any historical gage data on Little Elk Creek. First, the use of Streamstats can provide an estimate of natural water availability. Second, an analysis of diversion records for the Elk Creek No. 1 Ditch and other downstream water rights can provide an estimate of streamflow with the caveat that the downstream ditches may not divert all of the water available in Little Elk Creek.

Relationship to Management Plans. BLM is very interested in instream flow protection for Little Elk Creek because it is one of the few fisheries managed by BLM in Pitkin County. BLM's segment along Little Elk Creek is managed for recreational use and livestock grazing. These activities have caused some localized degradation of stream banks, but BLM's management objective is to improve riparian conditions, which in turn will benefit the fishery. Appropriation of an instream flow water right will assist BLM in meeting aquatic and riparian habitat objectives.

Data sheets, R2Cross output, fishery survey information, and photographs of the cross section were included with BLM's draft recommendation in February 2022. BLM thanks both the Division of Wildlife and the Colorado Water Conservation Board for their cooperation in this effort.

If you have any questions regarding our instream flow recommendation, please contact Roy Smith at 303-239-3940.

Sincerely,

Alan Bittner
Deputy State Director
Resources and Fire

cc: Colin Brady, Colorado River Valley Field Office
Larry Sandoval, Colorado River Valley Field Office
Greg Larson, Northwest District Office