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 North Lobe Creek, located in Water Division 4.

Location and Land Status. North Lobe Creek originates in an area known as "The Glade" on Pinon Mesa approximately 15 miles northeast of the community of Gateway. This recommendation addresses the portion of North Lobe Creek that starts at the headwaters and extends downstream to the headgate of the Highline Ditch, a distance of approximately 7.81 miles. The BLM manages approximately 1.51 miles of this reach, the U.S. Forest Service manages 0.57 miles, and 5.73 miles are in private ownership.

Biological Summary. North Lobe Creek is a cold water, high gradient stream. It begins in a broad, open valley on Pinon Mesa, descends through a narrow, steep, and forested canyon on the north side of Unaweep Canyon, then merges with West Creek on the floor of Unaweep Canyon. Channel size varies substantially in the lower portion of the creek as it traverses the alluvium on the north side of Unaweep Canyon. Substrate size is generally smaller in diameter in the upper portions of the stream and larger in the portion of the stream within Unaweep Canyon, where substrate size ranges from 4-inch cobbles to 3-foot boulders. Bank stability appears to be excellent.

The lower portion of the creek is generally a step pool environment, with numerous small pools and extensive vegetative cover. Limited riffle habitat and low flows are the primary limiting factors likely affecting the resident fish populations. Water quality is excellent for supporting cold water species.

Fish surveys have documented self-supporting populations of Rainbow Trout and Brown Trout. Spot surveys have revealed populations of stonefly, caddisfly, and mayfly. The creek supports a healthy riparian community comprised of narrow leaf cottonwood, alder, willow, dogwood, and hawthorn.

R2Cross Analysis. The BLM collected the following R2Cross data from North Lobe Creek:

Cross Section Date	Discharge Rate	Top Width	Winter Flow Recommendation (Meets 2 of 3 hydraulic criteria)	Summer Flow Recommendation (Meets 3 of 3 hydraulic criteria)
5/25/2022 #1	4.57 cfs	15.97 feet	0.43 cfs	6.34 cfs
5/25/2022 #2	4.08 cfs	9.87 feet	0.275 cfs	7.64 cfs
Averages			0.35 cfs	6.99 cfs

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

> 7.00 cubic feet per second is recommended during the snowmelt runoff period from April 1 through June 30. This recommendation is driven by the average velocity criteria. This flow rate will ensure that the limited pool and riffle habitat can be fully utilized during this high growth period.
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> 1.0 cubic feet per second is recommended during summer, from July 1 through September 30. This recommendation is limited water availability. This flow rate should maintain full and sufficiently cool pools during the summer when stream temperatures can still be high and provide sufficient water for passage between pools.
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> 0.35 cubic feet per second is recommended during the cold weather period from October 1 through March 31. This flow rate meets two of three instream flow criteria. This flow rate should prevent pools from completely icing during winter, allowing the fish population to successfully overwinter.

Water Availability. BLM recommends using a variety of data sources to confirm water availability, because BLM is not aware of any historical gage data on this creek. Use of the CSUFlow18 regression model can provide an estimate of natural hydrology. Water availability during the irrigation season can be partially confirmed by consulting diversion records for downstream ditches, including the Highline Ditch and Loba Ditches 1 through 5.

BLM is not aware of any water rights that authorize diversion of water upstream from the Highline Ditch. However, the creek may supply water to small diversion and storage structures that are presently undecreed.

Relationship to Land Management Plans. BLM's management plan calls for actions to maintain and enhance habitat that supports fish species. Specifically, the BLM plan calls for making instream flow recommendations to the Colorado Water Conservation Board to meet minimum instream flow requirements to maintain fisheries. Finally, the plan calls for maintaining and improving the function of riparian areas to achieve advanced ecological stage for the riparian community, and it also calls for protecting riparian and wetland systems from

activities that could degrade those habitats. Establishing an instream flow water right would assist in meeting these objectives.

Data sheets, R2Cross output, fishery survey information, and photographs of the cross section were included with BLM's draft recommendation in February 2023a. BLM thanks both Colorado Parks and 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,

Deputy State Director
Resources

Cc: Kevin Hyatt, Grand Junction Field Office
Greg Wolfgang, Grand Junction Field Office
Greg Larson, Colorado River Valley District Office