



United States Department of the Interior Fish and Wildlife Service

Eastern Idaho Field Office

4425 Burley Drive, Suite A
Chubbuck, Idaho 83202
Telephone (208) 237-6975
<http://www.fws.gov/idaho>



RECEIVED

APR 17 2014

Department of Water Resources
Eastern Region

APR 15 2014

Mr. James Cefelo
Idaho Department of Water Resources
900 North Skyline Drive, Suite A
Idaho Falls, Idaho 83402-1718

Subject: Review of Snake River Aquifer Recharge Permit Application (Peoples Canal & Irrigation Co and Snake River Valley Irrigation District), Bingham and Bonneville Counties, Idaho.

Dear Mr. Cefelo:

The U.S. Fish and Wildlife Service (Service) has reviewed the ground water recharge permit applications for the Peoples Canal & Irrigation Co and Snake River Valley Irrigation District in Bingham and Bonneville Counties, Idaho, respectively. The following comments provide technical assistance related to the important ecological significance of the Snake River where the proposed projects are located. These comments are provided in accordance with the Fish and Wildlife Coordination Act, as amended; the Endangered Species Act (ESA), as amended; the Migratory Bird Treaty Act (MBTA), as amended; the Bald and Golden Eagle Protection Act (BGEPA), as amended; and the National Environmental Policy Act, as amended.

The ground water recharge permit applications propose to draw a combined 935 cfs year-round from the Snake River, potentially resulting in dewatering of the Snake River, particularly during low winter flow. The cumulative effect of these actions, especially when factoring in the multiple small conduit exemptions also being proposed, could drastically reduce natural flows in the Snake River and reduce or eliminate existing habitat for aquatic, riparian, and terrestrial species. Specifically, the reduction in natural flows would likely impact the health of riparian woodland forests, diminish important fish habitat characteristics for salmonids, and reduce the quality of riparian habitat for species such as yellow-billed cuckoo and bald eagle.

In October 2013, the Service proposed to list the western yellow-billed cuckoo under the ESA. Yellow-billed cuckoo occur along the Snake River, from the South Fork and Henry's Fork downstream to American Falls Reservoir. Threats to yellow-billed cuckoo include, but are not limited to, loss of riparian habitat and dam and river flow management (Service 2013). It is estimated that more than 90 percent of yellow-billed cuckoo's riparian habitat in the west has been lost or degraded. Yellow-billed cuckoo inhabit riparian woodland habitats with dense cover made up of willows and cottonwoods. Yellow-billed cuckoo require large blocks of riparian habitat in a range of ages, including older, more structurally diverse areas for nesting. Projects that modify

the natural water regime, including water extraction, disrupt natural processes that allow good quality riparian habitat to grow in a mosaic of different ages. These impacts are likely to negatively influence yellow-billed cuckoo distribution and abundance.

Limiting natural flows to this portion of the Snake River during periods of winter and spring freshets will alter natural floodplain dynamics. Naturally-occurring high flow events are crucial to the long-term health of river and floodplain ecosystems because they put in motion a number of important stream ecosystem processes. For instance, bankfull streamflow initiates bedload transport and scouring of vegetation, which helps maintain channel morphology. Additionally, high flows inundate the floodplain, which sustains and regenerates important streambank and floodplain vegetation such as cottonwoods and willows. These altered flow regimes are likely to impact cottonwood regeneration and sustainability; habitats used extensively by yellow-billed cuckoo, but also as both nesting and wintering habitat for bald eagles which are afforded protection under the BGEPA.

Riparian habitat is critical for many migratory birds in the area which are afforded protection under the MBTA. Decreases in natural flows during winter and spring have the potential to impact migratory birds such as waterfowl and trumpeter swans. The stretch of the Snake River where the proposed water withdrawals would occur supports a large population of wintering trumpeter swans. Winter water withdrawals would likely decrease open water habitat and displace birds.

The stretch of Snake River where the water withdrawals are proposed provide important habitat for several important fish species, including Yellowstone cutthroat trout, a Service trust resource. High flows in the Snake River are critical for providing adequate fish habitat, as high flows recruit new woody material to the channel and rearrange existing woody debris, creating a mosaic of complex habitat important for fish. The high flows help flush spawning habitat for salmonids, cleaning fine sediment from the gravel beds where salmonids build redds to incubate their eggs. Consequently, the shape and function of the river channel, and therefore the habitat for fish and other aquatic organisms, is determined by the physical processes of moving water and sediment in the channel and between the channel and the floodplain (Poff et al. 1997).

Direct impacts to fish are also a concern as dewatering of the Snake River may result in fish stranding, resulting in mortality. Similarly, for certain species that spawn in the fall, winter flows in the Snake River are critical for incubation of eggs through the winter months. Eggs deposited in shallow portions of the River may be exposed when water is diverted out of the River, impacting survival rates for emerging juvenile fish (Elliott 1985).

If the subject ground water recharge applications are approved, it would be beneficial if the Idaho Department of Water Resources works with the applicants and Idaho Department of Fish and Game to develop conditions in the water right. Potential conditions may include those that allow for aquifer recharge in Idaho for the benefit of enhancing water resources and replenishing local aquifers; enhancing late season (summer) flows; promoting channel maintenance and cottonwood recruitment during

high flows; and protecting aquatic and waterfowl resources during winter. The ultimate goal of these conditions would ideally be aimed at preserving the peak of the hydrograph while allowing for water withdraws on the ascending and descending limb of the hydrograph, in addition to identifying a winter biological flow regime.

Thank you for the opportunity to comment. We hope this information is useful as you consider the importance of the Snake River in the conservation of Service trust resources, especially given the cumulative effects that may result when factoring in the multiple discharge permit applications being consider. Please contact Sandi Fisher at (208) 237-6975 x 102 if you have any questions or would like to further discuss the content presented in this letter.

Sincerely,



David Kampwerth
Field Supervisor

cc: IDFG, Boise (Poole)
IDFG, Idaho Falls (Bassista)

REFERENCES

Elliott, J. M. 1985. Population regulation for different life-stages of migratory trout *Salmo trutta* in a Lake District stream, 1966–83. *Journal of Animal Ecology* 54:617-638.

Poff, N. L., J. D. Allan, M. B. Bain, J. R. Karr, K. L. Prestegard, B. D. Richter, R. E. Sparks, and J. C. Stromberg. 1997. The Natural Flow Regime. *Bioscience* 47:769-784.

U.S. Fish and Wildlife Service (Service). 2013. Endangered and Threatened Wildlife and Plants; Proposed Threatened Status for the Western Distinct Population Segment of the Yellow-billed Cuckoo (*Coccyzus americanus*). Department of the Interior, Fish and Wildlife Service Federal Register Notice. Proposed Rule (RIN 1018-AY53).

