Holding On: Forty Years of Bighorn Sheep Habitat Mitigation Along Koocanusa Reservoir in Northwest Montana

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ABSTRACT: In 1972, the Libby Dam, in northwest Montana, was completed, resulting in the flooding of 175 kilometers of the Kootenai River and the formation of the transboundary Lake Koocanusa. Having historically occupied the eastern slopes of the Kootenai River Valley, the native Ural-Tweed population of bighorn sheep (*Ovis canadensis*), lost approximately 1,761 ha of low-elevation winter and spring habitat during inundation. In 1984, a joint agreement between the Bonneville Power Association (BPA), Montana Fish, Wildlife and Parks (MFWP), and the Unites States Forest Service (USFS) was initiated with the purpose of improving the remaining habitat to ensure the persistence of the Ural-Tweed population. Since then, the USFS has treated and retreated approximately 11,330 ha of forest with various silvicultural prescriptions and prescribed fire. Despite this effort, the Ural-Tweed population declined from an estimated 150–200 animals in 1990, to a contemporary estimate of less than 40. In 2018, GPS data from 2 collared females indicated that seasonal use of historic range had greatly been reduced, prompting FWP and the USFS to begin evaluating the effects of past treatments and the factors limiting population growth. Included as part of a 2022 statewide adaptive management research project, efforts have been directed towards capturing bighorn sheep within the Ural-Tweed population for demographic and space use monitoring concurrent with ongoing habitat treatments. Results of this work will be used to focus habitat treatments, improve population monitoring, and revise the collaborative mitigation strategy along Lake Koocanusa.

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