KOOTENAI RIVER OPERATIONAL LOSS ASSESSMENT METHODOLOGY AND ITS APPLICATION TO HABITAT RESTORATION

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Libby dam regulates in-stream flow of the Kootenai River through Montana, Idaho, and into Canada. The floodplain and associated biotic communities are strongly influenced by riverine system alterations. In order to assist with habitat restoration work, an assessment tool was developed that defines ecologically functional impacts to the Kootenai River floodplain and its vegetative, aquatic, and wildlife communities. This assessment tool includes; hydrologic models for historic flows, anthropomorphic floodplain alterations, post-dam flows, and sturgeon flow releases; an Index of Biological Integrity for insect and avian communities; vegetative cover estimates within sample plots; and an index of human disturbance. In addition, summary indices of ecological integrity were compiled. This assessment tool is being used to identify areas on the Kootenai River for habitat restoration and/or protection. Some of the tool's uses and implications are identified.