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***Hydraulic Rating of Functional Fish Barriers***

Weirs or screens are used as fish barriers in Montana streams to prevent fish from passing into irrigation or power generation canals, prevent invasive species from migrating, or even as part of structures built to help count or manage fishery resources. Studies of fish behavior relative to barriers are ongoing; however the hydraulics of fish barriers has been less studied, and as a result the design and analysis of fish barriers has tended to be trial-and-error in the field setting. In this project, several different functional barriers similar to those that have been used in the field will be tested for hydraulic performance under systematically varied hydraulic conditions (water velocity and flow depth) to determine rating curves so that designs of fish barriers may be made with confidence.