ABSTRACT

TITLE:	Reservoir Bypass Design Group
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ABSTRACT: The United States Forest Service is seeking designs for outlet works or bypass structures for small stock pond reservoirs to aid in their acquisition of water rights for these reservoirs. Rather than select a single design, a system of three uniquely applicable designs was developed in conjunction with a decision matrix worksheet to aid the USFS in selection of a retrofit for a specific location. The options include a reservoir bypass consisting of an inlet diversion structure and transport via pipe or channel, a siphon system that passes water up and over the dam, and a partial excavation and reconstruction of the existing dam with appropriately installed outlet works. System installation costs are site specific, and the decision matrix provides detailed estimates from data obtained from area surveys. Typical costs depending on the reservoir size range from about $1,000 to upwards of $100,000. Butler, Travis; Dettmer, Lance; Halley, Brandon; Alexander, Garret; Dr. Don May, Department of Physics & Engineering