



Feasibility Grant Applications

Study Summaries – October 2016



Background

Feasibility Study Grants provide match funding for project planning studies that evaluate the feasibility of developing a water conservation, reuse, or storage project. A feasibility study is an assessment of the practicality of a proposed project or plan and can be used to determine *if* and *how* a project should proceed to the implementation phase. This funding opportunity will cover up to 50% of the study cost.

Document Description

The following are study summaries for grant applications received by October 14, 2016 for the third funding cycle of the 2015-2017 biennium. The study summaries are adapted from submitted project applications. The application summaries are listed alphabetically by study name in the three project categories: conservation, reuse, and storage.

Next Steps

Feasibility Grant applications are currently being evaluated by the Application Review Team (ART). In February/March, applications and the associated ART recommendations will be posted on the Department's website and the public will have 30-days to comment. The Department will present funding recommendations to the Water Resources Commission at its meeting tentatively scheduled for May 2017. The funding recommendation will be based on the ART recommendations and public comments received. The Commission will then make final funding decisions.

More Information

Additional information about this funding opportunity is available at <http://bit.ly/owrdfsgrants>. Have questions? Please contact Becky Williams (fsgrants@wrд.state.or.us, 503.986.0928).

List of Applications Received

Study Name	Project Type	County	Funding Requested	Total Cost of Study ¹
Hood River Water Bank Feasibility Study	Conservation	Hood River	\$50,330	\$101,980
Baker Reuse Feasibility Study	Reuse	Baker	\$30,000	\$60,000
John Day Feasibility Study for Wastewater Reuse	Reuse	Grant	\$50,000	\$110,000
Applegate Reservoir Capacity Restoration Project	Above-Ground Storage	Jackson	\$93,935	\$188,742
Carlton Raw Water Storage Expansion Study	Above-Ground Storage	Yamhill	\$60,000	\$120,000
Ferry Creek Dam and Reservoir Analysis	Above-Ground Storage	Curry	\$72,500	\$145,000
Klamath Basin Feasibility Study to Identify Supplemental Storage	Above and Below-Ground Storage	Klamath	\$65,680	\$145,680
Milton-Freewater Aquifer Storage and Recovery (ASR) Assessment	Below-Ground Storage	Umatilla	\$42,297	\$127,520
Understanding Meadow Storage Capacity in the Upper John Day Basin	Other Storage	Grant	\$40,505	\$95,658
		Total	\$505,247	\$1,094,580

¹Studies require at least a dollar-for-dollar cost match.

WATER CONSERVATION

Hood River Water Bank Feasibility Study

Applicant: Hood River Soil & Water Conservation District and Hood River Watershed Group

Funding Requested: \$50,330

Total Study Cost: \$101,980

Project Type: Conservation

Proposal Summary: The study is designed to: 1) to assess the viability of a Hood River water bank to increase summer stream flows for fish and provide greater irrigation water reliability for perennial crops during dry or drought years, and 2) to determine the feasibility of implementing a water bank program in the Hood River Basin. This feasibility study would determine whether a Hood River Water Bank is a viable and feasible endeavor. If the project were implemented, water would come from landowners willing to forgo some or all of their irrigation water for a season, in exchange for financial compensation. The goal of the project would be to increase instream flows and irrigation water reliability for perennial crops during drought years.

REUSE

Baker City Reuse Feasibility Study

Applicant: City of Baker City

Funding Requested: \$50,330

Total Study Cost: \$101,980

Project Type: Reuse

Proposal Summary: This study seeks to research opportunities for reuse of treated wastewater effluent for agriculture. The study proposes to identify and evaluate potential storage and irrigation sites for the reused water and solicit public interest in using the water. The feasibility study will include meeting with landowners to obtain information that will help further develop cost estimates for potential agricultural reuse projects.

John Day Feasibility Study for Wastewater Reuse

Applicant: City of John Day

Funding Requested: \$50,000

Total Study Cost: \$110,000

Project Type: Reuse

Proposal Summary: The City of John Day, Oregon, operates a wastewater treatment facility that has treated wastewater available for reuse. The feasibility study will evaluate two options for reuse: 1) a commercial-scale water reclamation and reuse system to use treated wastewater for hydroponic horticulture, and 2) an irrigation system to reuse treated wastewater to irrigate commercial pasture. The feasibility study proposes to evaluate these options and recommend a preferred option and funding path to reuse the City of John Day's wastewater and possibly eliminate the need to indirectly discharge wastewater near the John Day River.

STORAGE

Applegate Reservoir Capacity Restoration Project

Applicant: Applegate Partnership and Watershed Council

Funding Requested: \$93,935

Total Study Cost: \$188,742

Project Type: Above-Ground Storage

Proposal Summary: The proposed study would assess the feasibility of restoring storage capacity to the Applegate Reservoir through the removal of sediment within the reservoir basin. It is estimated that sediment has reduced the storage capacity of the reservoir by an estimated 3,000-5,600 acre-feet, indirectly affecting the rate and duration of instream flows downstream of the dam.

Raw Water Storage Expansion Study

Applicant: City of Carlton

Funding Requested: \$60,000

Total Study Cost: \$120,000

Project Type: Above-Ground Storage

Proposal Summary: The proposed study would assess the feasibility of expanding the City of Carlton's raw water reservoir that is located on Panther Creek by raising the existing dam's height. The study is designed to identify any 'fatal flaws' and determine if raising the dam will provide sufficient storage for the City's current and future needs. This will include: coordination regarding dam safety requirements, a site investigation, a preliminary geotechnical evaluation, a preliminary hydrological analysis, a review of water right and land ownership, a review of permits that may be required, a review of ecological flows, a comparison of alternative means of water supply, an analysis of environmental impact and the need to augment instream flows, and an evaluation of the future municipal use.

Ferry Creek Dam and Reservoir Analysis

Applicant: City of Brookings

Funding Requested: \$72,500

Total Study Cost: \$145,000

Project Type: Above-Ground Storage

Proposal Summary: The study would assess the feasibility of a project to rehabilitate the existing dam and spillway associated with Ferry Creek Reservoir in the Chetco River basin. Recent analysis and inspection show that major rehabilitation is required to make the dam safe; the only other alternative is removal. The main goal of the project is to ensure the integrity of the dam. Additional goals are to utilize existing water rights to continue current uses of Ferry Creek Reservoir, including juvenile fish acclimation, and to maintain the ability to develop future planned uses of the reservoir and surrounding area. These future uses include the development of a backup and emergency drinking water supply and recreational development at the reservoir and surrounding property.

Klamath Basin Feasibility Study to Identify Supplemental Storage

Applicant: Landowner Entity and the Klamath Water Users Association

Funding Requested: \$65,680

Total Study Cost: \$120,000

Project Type: Above-Ground and Below-Ground Storage

Proposal Summary: The study would assess the options available in the Upper Klamath Basin for augmenting instream flows, primarily to support Federally Listed aquatic species. The goal of this study is to assess above- and below-ground storage options with the primary purpose of addressing instream needs and a secondary purpose of allowing more water to be available for out of stream uses (i.e. irrigation). Components of the study will include comparative analyses of alternative means of augmenting instream flows, not only for the purpose of increased instream flows at the local scale, but also to provide an instream flush of water to the lower Klamath River to improve water quality. The study will include a comparative analysis of the costs and benefits of above- and below-ground storage.

Milton-Freewater Aquifer Storage and Recovery (ASR) Assessment

Applicant: Walla Walla Basin Watershed Foundation

Funding Requested: \$42,297

Total Study Cost: \$127,520

Project Type: Below-Ground Storage

Proposal Summary: The Milton-Freewater ASR Assessment study would investigate the feasibility of utilizing existing basalt wells and municipal water rights to store winter/spring water from the Walla Walla River via aquifer storage and recovery (ASR). The goal of this study is to determine whether ASR can contribute to maintaining long-term water supplies for the basalt aquifers near Milton-Freewater, Oregon. This study will determine the feasibility of the proposed ASR project by investigating: 1) the existing infrastructure for ASR, 2) the diversion options for Walla Walla River water, 3) the water quality treatment requirements and options. In addition, the study would conduct an instream flow analysis and investigate conservation and reuse options to meet long-term water demands.

Understanding Meadow Storage Capacity in the Upper John Day Basin

Applicant: North Fork John Day Watershed Council

Funding Requested: \$40,505

Total Study Cost: \$95,658

Project Type: Other Storage

Proposal Summary: The proposed study will determine the feasibility of increasing natural water storage capacity through wet meadow restoration in the John Day Basin. The goal of the study is to determine the feasibility of increasing: 1) the volume of water stored in the meadow, 2) the distribution of water throughout the meadow, and 3) the duration for which the meadow can retain that water. These results will be evaluated using piezometers, vegetation analyses, and soil analyses. This study will inform regional resource management groups regarding the benefits of wet meadow restoration and the technical and financial feasibility of such restoration practices.