Background

Feasibility Study Grants provide funding for qualifying costs of project planning studies that evaluate the feasibility of developing a water conservation, reuse, or storage project. A feasibility study is an evaluation 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 17, 2018 for the current funding cycle. The study summaries are adapted from submitted applications. The application summaries are listed below in alphabetical order.

Next Steps

Feasibility Grant applications are currently being evaluated by the Application Review Team (ART). In 2019, applications and the associated ART recommendations will be posted on the Department’s website for a public comment period. The Department will present funding recommendations and the comments received to the Water Resources Commission at its meeting tentatively scheduled for June 2019. 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 the Water Resources Development Program website. If you have questions please contact Grant Program Coordinator, Becky Williams, at 503.986.0869 or WRD_DL_feasibilitystudygrants@oregon.gov.
## List of Applications Received

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<th>Study Name</th>
<th>Project Type</th>
<th>County</th>
<th>Funding Requested</th>
<th>Total Cost of Study¹</th>
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<td>City of Umatilla Hydraulically Connected Wells</td>
<td>Conservation</td>
<td>Umatilla</td>
<td>$364,000</td>
<td>$728,387</td>
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<tr>
<td>Enhancing the Reliability of the Alluvial Groundwater Supply in the Walla Walla Basin</td>
<td>Below-ground Storage</td>
<td>Umatilla</td>
<td>$77,715</td>
<td>$155,799</td>
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<td>Lundy Ditch Irrigation Efficiency Feasibility Study</td>
<td>Conservation</td>
<td>Deschutes</td>
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<td>Talent Irrigation District Water Conservation Study</td>
<td>Conservation</td>
<td>Jackson</td>
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<td>Tower Ditch Sleeving Feasibility Study</td>
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<td>Upper John Day Irrigation Water Conservation Feasibility Study</td>
<td>Conservation</td>
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<td>$151,758</td>
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<td>Water &amp; Energy Conservation with Variable Speed Drives on the Rogue River</td>
<td>Conservation</td>
<td>Josephine</td>
<td>$43,264</td>
<td>$86,527</td>
</tr>
<tr>
<td>White Ditch Sucker Creek Water Conservation Study</td>
<td>Conservation</td>
<td>Josephine</td>
<td>$64,000</td>
<td>$129,400</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>$810,773</strong></td>
<td><strong>$1,679,538</strong></td>
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¹Studies require at least a dollar-for-dollar cost match.

## 2018 Applications

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Water & Energy Conservation with Variable Speed Drives on the Rogue River ...................... 6
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City of Umatilla Hydraulically Connected Wells

Applicant Name: City of Umatilla
County: Umatilla
Funding Requested: $364,000
Total Project Cost: $728,387

Study Summary: The City of Umatilla provides a supply of groundwater which industrial facilities currently use in non-contact cooling tower systems. Because the City’s groundwater has a high silica content and salinity, the same water continuously passing through the system results in clogging. Based upon the increased water replacement rate and demand, higher volumes of water are required to avoid fouling the system. The City has identified the possibility of developing a low silica content hydraulically connected well to utilize the City’s unused surface water right, but the feasibility of this solution must be determined. The evaluation would include drilling exploratory boreholes, testing and monitoring the water quality to determine hydraulic connection, constructing a single test well, and regulatory coordination regarding the results to determine project feasibility. Determining if water, lower in Total Dissolved Solids, is available would result in lowering the water demand for the industrial processes.

Enhancing the Reliability of the Alluvial Groundwater Supply in the Walla Walla Basin

Applicant Name: Walla Walla Basin Watershed Council
County: Umatilla
Funding Requested: $77,715
Total Project Cost: $155,799

Study Summary: The purpose of the study is to evaluate the feasibility of three alternative methods to recharge the alluvial aquifer in the Oregon portion of Walla Walla Basin and to compare the three alternatives against recharge methods used for the last 14 years by Walla Walla Basin Watershed Council, landowners, irrigation districts and other cooperators. The three alternatives include: (1) increasing irrigation-induced infiltration to the shallow aquifer by increasing the number of acres to which irrigation water is applied during the winter; (2) increasing natural seepage losses in the Little Walla Walla River by not shutting off all flows to the Little Walla Walla River at the headgate during the winter; and (3) developing larger-scale managed aquifer recharge sites to be located on private properties purchased for the purpose of providing reliable recharge. Technical, political, regulatory, and economic feasibility would be assessed.
Lundy Ditch Irrigation Efficiency Feasibility Study

Study Information (adapted from application)

**Applicant Name:** Deschutes Soil and Water Conservation District and Arnold Irrigation District  
**County:** Deschutes  
**Funding Requested:** $44,070  
**Total Project Cost:** $189,870

**Study Summary:** The proposed study would comprehensively examine the feasibility of converting a private open lateral (Lundy Ditch) to pipe. In addition, the study would examine the potential to consolidate other private laterals into the Lundy Ditch and improve on-farm irrigation water efficiency and management. The study would assess the potential water and energy savings, technical feasibility, and estimated costs with the goal of future on-demand pressurized irrigation water. The potential water savings would contribute to the goal of maintaining and sustaining Spotted Frog habitat in the upper Deschutes River system as addressed in the Upper Deschutes Basin Study.

Talent Irrigation District Water Conservation Study

Study Information (adapted from application)

**Applicant Name:** Farmers Conservation Alliance  
**County:** Jackson  
**Funding Requested:** $49,000  
**Total Project Cost:** $153,000

**Study Summary:** The proposed study would analyze the District’s existing water delivery infrastructure and evaluate one or more alternatives for modernization. The proposed study would identify and evaluate modernization opportunities that benefit agriculture, the environment, and the community. The result of the study would be a comprehensive plan for improving the District’s infrastructure with associated high-level engineering designs, cost estimates, projected water savings, projected hydroelectric power generation and energy conservation potentials, and fish screening and passage opportunities. The technical components would be combined with an engineering cost assessment to develop a comprehensive System Improvement Plan and determine project feasibility by quantifying the effect of piping on water conservation, operations, and maintenance costs.
Tower Ditch Slewing Feasibility Study

Study Information (adapted from application)

Applicant Name: Deschutes Soil and Water Conservation District and Swalley Irrigation District
County: Deschutes
Funding Requested: $17,180
Total Project Cost: $35,196

Study Summary: The proposed study would determine the technical feasibility of sleeving (lining) a segment of the Tower Ditch private lateral pipeline with high pressure, high density polyurethane pipe to avoid excavation and costly replacement of infrastructure. In addition, the study would examine estimated costs with the goal of future on-demand pressurized irrigation water that will reduce water usage, and increase on-farm irrigation water efficiency and management. The potential water savings would contribute to the goal of improving aquatic habitat in the upper Deschutes River system as addressed in the Upper Deschutes Basin Study.

Upper John Day Irrigation Water Conservation Feasibility Study

Study Information (adapted from application)

Applicant Name: The Freshwater Trust
County: Grant
Funding Requested: $151,758
Total Project Cost: $303,516

Study Summary: The Upper John Day River basin is home to two icons of Oregon culture: a strong agricultural community and important runs of salmon and steelhead. As climate change progresses in the 21st century, both agricultural producers and native fish will be impacted. This proposed study is intended to identify potential water-saving infrastructure upgrades that will allow agricultural producers to prosper while ensuring adequate instream flows are maintained for the region’s federally listed fish species in the face of climate change. Current irrigation methods in the region are based almost entirely on flood irrigation (91% of surveyed fields) via unlined earthen canals and show significant potential for water conservation. The proposed study would develop a prioritized list of potential on-farm irrigation efficiency and conveyance upgrade projects in the Upper John Day River basin. Potential projects would be prioritized based on cost, instream and on-farm benefit, and landowner interest. The highest priority project(s) would have 50% design(s) completed.
Water & Energy Conservation with Variable Speed Drives on the Rogue River

Applicant Name: Grants Pass Irrigation District
County: Josephine
Funding Requested: $43,264
Total Project Cost: $86,527

Study Summary: In an effort to conserve water, reduce the District’s electrical carbon footprint, and ensure the sustainability of the local economic and cultural benefits of irrigation in the Rogue Valley, this proposed study would evaluate the potential replacement of medium voltage electrical systems with more efficient variable speed drive of pumps. The study would assess the water conservation, technical considerations, potential energy savings, as well as short and long-term financial feasibilities of a variable speed drive system. These outcomes would be evaluated within the framework of long-term sustainability for the District and the continuation of our work with agencies to improve in-stream water flows at critical times in the life cycle of protected species.

White Ditch Sucker Creek Water Conservation Study

Applicant Name: Illinois Valley Soil and Water Conservation District
County: Josephine
Funding Requested: $64,000
Total Project Cost: $129,400

Study Summary: The proposed study area is the White Ditch, which diverts water from Sucker Creek, a tributary to the Illinois River in the Rogue Basin. The goal of this study is to determine the quantity of water that could be conserved to enhance instream flows in Sucker Creek. To achieve this goal, the project proposes to investigate options for implementing ditch and on-farm improvements to increase instream flow for Endangered Species Act Coho salmon and benefit agricultural producers. The proposed study would seek to clarify water rights, evaluate current infrastructure and system efficiency, assess improvement alternatives, as well as result in preliminary design and construction cost estimates for the preferred alternative.