Oregon
Kate Brown, Governor

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MEMORANDUM

TO: Water Resources Commission

FROM: Thomas M. Byler, Director

SUBJECT: Agenda Item F, June 3, 2021
Water Resources Commission Meeting

Feasibility Study Grants Funding Recommendations

I. Introduction

The Feasibility Study Grants (Water Conservation, Reuse and Storage Grant Program) supports studies to evaluate the feasibility of water conservation, reuse, and storage projects. This report describes the review process and Department recommendations for funding. The Commission will be asked to award funding.

II. Background

The Feasibility Study Grants funding opportunity was established by Senate Bill 1069 in 2008 to fund the qualifying costs of studies that evaluate the feasibility of developing water conservation, reuse, or storage projects. Grants require a dollar-for-dollar match. A feasibility study evaluates a proposed project to determine *if* and *how* the project should proceed to implementation. These studies typically take one to three years to complete.

The Department offered three grant cycles in the 2015-2017 biennium and funded 29 studies for a total of approximately $2.1 million. Due to limited staff resources, the Department did not award funds in 2018. Therefore, only one funding cycle was presented for the 2017-2019 biennium and $446,773 in grant funding was awarded. The Department awarded $1,059,194 to fund seven studies in 2020.

Applications for the 2020-2021 cycle were due on October 15, 2020. The Department received nine complete applications. A total of $988,127 in grant funds was requested. Individual grant requests ranged from $15,000 to $293,895. Per statute awards are capped at $500,000.

III. Grant Application Review Process

Applications are reviewed by an inter-agency Application Review Team (ART) which convened in February 2021 to evaluate the applications and provide funding recommendations to the Department. The ART consisted of representatives from the Oregon Department of Agriculture, Oregon Department of Environmental Quality, Oregon Department of Fish and Wildlife, Business Oregon, Oregon Health Authority, Oregon Department of State Lands, as well the Department. See Attachment 1 for evaluations of each application.

Based on the ART evaluations, at this time the Department does not recommend funding the Klamath Irrigation District C-G Drop Hydropower Feasibility Study. The ART evaluation determined that the application, as submitted, appears to focus primarily on an assessment of hydropower and, though conservation of water was discussed, the proposed tasks were not sufficient to demonstrate that the study would investigate water conservation.

The funding recommendations were posted on the agency website for a 30-day public comment period that closed on April 15, 2021. No comments were received.

Tribes were provided with the opportunity to comment on both the applications submitted and the funding recommendations. Comments were received from the Confederated Tribes of the Umatilla Indian Reservation on three study applications; 1) Upper Grand Ronde River Watershed Storage Feasibility Study, 2) Upper John Day Aquifer Storage and Recovery Feasibility Study, and 3) Walla Walla Irrigation District Water Conservation Study. These comments were provided to the Application Review Team for consideration.

IV. 2020-2021 Grant Award Recommendations

Based on the ART recommendations, public comments, and Department review, the Department recommends eight of the nine applications for grant funding. If approved by the Commission, Department staff will work with the grant recipients to develop grant agreements. Table 1 lists the funding recommendations for the proposed studies.

Table 1. Funding Recommendation

Study Name / Applicant Name	***Project Type***	***Funding Requested***	***Funding Recommendation***
Dry River Canyon Water Conservation Study	Conservation	$27,760	Recommended
Fifteenmile Watershed Managed Underground Storage Facilities Feasibility Study Phase II	Below-Ground Storage	$185,000	Recommended
Silverton / Mt. Angel ASR Feasibility Study	Below-Ground Storage	$15,000	Recommended
Smith Rock-King Way Water Conservation Feasibility Study	Conservation	$171,072	Recommended
Upper Grande Ronde River Watershed Storage Feasibility Study	Above-Ground Storage	$114,000	Recommended
Upper John Day ASR Feasibility Study	Below-Ground Storage	$293,895	Recommended
Upper Klamath Lake Water Storage	Above-Ground Storage	$26,400	Recommended
Walla Walla River Irrigation District Water Conservation Study	Conservation	$75,000	Recommended
Klamath Irrigation District C-G Drop Hydropower Feasibility Study	Conservation	$80,000	Not recommended at this time
	TOTAL REQUESTED	**$988,127**	

V. Summary

If approved, these funding recommendations will result in grant awards totaling $908,127. This would leave $274,279 available for future funding cycles.

VI. Alternatives

The Commission may consider the following alternatives:

1. Adopt the staff funding recommendations contained in Table 1, Section IV of this report.
2. Adopt modified funding recommendations.
3. Direct the Department to further evaluate the applications and return with a revised funding proposal.

VII. Recommendation

The Director recommends Alternative 1, to adopt the staff funding recommendations contained in Table 1, Section IV of this report.

Attachments:

1. Study Evaluation Summaries
2. Tribal Comments Received on Applications

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Feasibility Grant Applications

2020-2021 Cycle Evaluation Summaries and Review Team Funding Recommendations

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 evaluations summaries for complete grant applications received by the October 15, 2020 deadline for the current Feasibility Study Grant funding cycle. The evaluation summaries include a project summary, feedback from the Application Review Team (ART), and the ART's funding recommendations.

Next Steps

Applications and the ART recommendations will be posted on the Department's website for a 30-day public comment period from March 16, 2021 to April 15, 2021. The Department will present funding recommendations and the comments received to the Water Resources Commission at its meeting tentatively scheduled for June 3-4, 2021. The funding recommendations will be based on the ART recommendations and public comments received. The Commission will make the 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

Study Name	Project Type	County	Funding Requested	Total Cost of Study[1]
Dry River Canyon Water Conservation Study	Conservation	Deschutes Crook	$27,760	$55,520
Fifteenmile Watershed Managed Underground Storage Facilities Feasibility Study Phase II	Below-Ground Storage	Wasco	$185,000	$370,000
Klamath Irrigation District C-G Drop Hydropower Feasibility Study	Conservation	Klamath	$80,000	$160,000
Silverton / Mt. Angel ASR Feasibility Study	Below-ground Storage	Marion	$15,000	$30,000
Smith Rock-King Way Water Conservation Feasibility Study	Conservation	Deschutes Crook	$171,072	$375,712
Upper Grande Ronde River Watershed Storage Feasibility Study	Above-ground Storage	Union	$114,000	$228,000
Upper John Day ASR Feasibility Study	Below-ground Storage	Grant	$293,895	$589,645
Upper Klamath Lake Water Storage	Above-Ground Storage	Klamath	$26,400	$58,600
Walla Walla River Irrigation District Water Conservation Study	Conservation	Umatilla	$75,000	$170,000
		Total	**$988,127**	**$2,037,477**

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

2020 Applications

Dry River Canyon Water Conservation Study

Recommended for Funding

Study Information (adapted from application)

Applicant Name: Deschutes River Conservancy and the Central Oregon Irrigation District

County: Deschutes and Crook

Funding Requested: $27,760

Total Project Cost: $55,520

Study Summary:

The proposed study seeks to assess primary irrigation water runoff points into Dry River Canyon, a drainage to the Crooked River that runs parallel to Central Oregon Irrigation District's (COID) Central Oregon Canal (COC), to determine the feasibility of reducing water waste through the construction of a re-regulation system, implementation of targeted on-farm efficiency projects, and other strategies as identified through the course of this study. Specifically, the proposed study would review and evaluate existing data to predict primary points of discharge along COID's COC, collect data on these assumptions via a field investigation, and then evaluate the feasibility and efficacy of reducing these discharge points through the implementation of various strategies.

Evaluation Summary

The application outlined a detailed approach to investigate discharge points and options to reduce water waste that currently contributes to impaired water quality. The ultimate goal of the study is to see if water could be conserved and provide benefits to both water supply and water quality. The tasks proposed are appropriate for achieving the study goal of assessing whether conservation is feasible and where there is potential to reduce runoff. The study application provides confidence that the proposed approach will achieve information and successfully answer the study questions.

The work identified in this study proposal will investigate the potential for water conservation and elimination of runoff, leaving exploration of what to do with the water conserved for future work. The review team noted that since the application justified the need for the study based on potential benefits to the spotted frog and other ecological factors, the proposal would be improved by including tasks to investigate the intended use of the conserved water. If the project proceeds to implementation, the applicant should be aware of a wetland mitigation project in the study area and avoid impacts on that project.

Fifteenmile Watershed Managed Underground Storage Study - Phase II

Recommended for Funding

Study Information (adapted from application)

Applicant Name: Wasco County Soil Water Conservation District and the Fifteenmile Watershed Council

County: Wasco

Funding Requested: $185,000

Total Project Cost: $370,000

Study Summary:

Low stream flow is identified as a primary limiting factor in the Fifteenmile watershed and, in portions of the watershed, temperatures exceed thresholds for salmon and trout rearing, migration, and spawning. This specific study would address two key uncertainties for determining the feasibility of a subsurface storage project. The study would include (1) the feasibility of treating target volumes of source water from Fifteenmile Creek for subsurface storage using soil and aquifer treatment system methods, and (2) examining models for governing and operating a subsurface storage system that would ensure long-term sustainability. The results of the study would be used to design a below-ground water storage project that would augment late season stream flows with cool water, and to provide a more stable and ecologically beneficial water supply.

Evaluation Summary

The study proposal seeks to determine the feasibility of a potential Artificial Recharge project. The application outlines an approach to investigate permitting requirements, construct and conduct a pilot scale treatment basin to examine the effectiveness of this approach to treat source water and meet water quality standards. Additionally, the application seeks to engage stakeholders and identify, evaluate, and select a governance framework for long-term project operation and maintenance of a full-scale system. The review team noted the community support for the potential project.

The application proposes to access a reservation of water for below-ground storage for multipurpose use in both the testing proposed in this study and future project implementation. While the Department does not have a record of previous conversations regarding the use of reservation water for the project, there is potential for this approach. The Department has not previously authorized a permit to accesss a reservation of water for this type of project and as such there may be unknown factors the applicant and Department will need to navigate in the permitting process. Based on the application describing work to engage in conversations with the Department about water rights permitting, the ART recommends this study for funding despite this uncertainty. Since the issue of water availability is critical to the ability of the applicant to complete the study, the Department strongly encourages early discussions and a pre-application meeting regarding the water right permitting process prior to construction of an infiltration basin.

Klamath Irrigation District C-G Drop Hydropower Feasibility Study

Not Recommended for Funding at this time

Study Information (adapted from application)

Applicant Name: Klamath Irrigation District

County: Klamath

Funding Requested: $80,000

Total Project Cost: $160,000

Study Summary:

The goal of the feasibility study is to produce a hydropower structure design for the C-G Drop in Klamath Irrigation District, which is located in Klamath County. This site was identified by the United States Bureau of Reclamation, Irrigation Training Research Center, and Farmers Conservation Alliance as having potential for hydropower development as part of a larger modernization effort. This study proposes to identify and evaluate opportunities to modernize the District's infrastructure. Included in the study are plans to examine and develop high-level engineering designs, cost estimates, projected water savings, and projected hydroelectric power generation and energy conservation potentials for integration with a System Improvement Plan (which includes a Supervisory Control and Data Acquisition component, being examined by Farmers Conservation Alliance in partnership with Energy Trust). The study would determine project feasibility by quantifying the effect of water conservation, operations and maintenance costs, and energy conservation and generation potential.

Evaluation Summary

The application describes a proposal to develop a hydropower facility design and evaluate the potential to improve the Klamath Irrigation District's infrastructure. The Feasibility Study Grant program is structured to assess the feasibility of water conservation, reuse and storage projects. The review team's evaluation determined that the application, as submitted, appears to focus primarily on an assessment of hydropower. While conservation of water was discussed, the proposed tasks were not sufficient to demonstrate that the study would investigate water conservation. The proposal to assess water conservation opportunities would be improved by including an investigation into losses due to seepage and evaporation. Other components of the application, such as attached letters of support, appeared to be submitted in support of a different grant proposal. The review team supports investigating energy conservation potential and recommends that the applicant seek funding from a source focused on energy savings or revise the study to include more water conservation work and reapply in a later grant funding cycle.

Silverton / Mt. Angel Aquifer Storage and Recovery Feasibility Study

Recommended for Funding

Study Information (adapted from application)

Applicant Name: City of Silverton

County: Marion

Funding Requested: $15,000

Total Project Cost: $30,000

Study Summary:

The City of Silverton proposes to conduct a feasibility analysis framed as an initial effort to potentially locate a regional aquifer recharge and/or aquifer storage and recovery (ASR) site near the Cities of Silverton and Mt. Angel. The project would provide a high-level analysis to identify possible location(s) of a viable aquifer for ASR. The feasibility study would also help to determine compatibility of ASR with the Cities' respective water systems.

Evaluation Summary

The application describes an approach for the first phase of investigating potential locations for an ASR project. The study proposal appears to be at an appropriate level as a preliminary step and acknowledges future study would be required to pursue a project. The review team noted that should an ASR project be deemed feasible, it would have the potential to relieve pressure on the groundwater system and have benefits to the aquifer.

The application lacked detail and would be improved by providing an additional explanation of the work included in each task. The review team, however, determined that the information seemed sufficient to accomplish this initial effort. The review team advises the applicant to investigate applicable permitting requirements of the Oregon Health Authority if they proceed with additional project assessments.

Smith Rock-King Way Water Conservation Feasibility Study

Recommended for Funding

Study Information (adapted from application)

Applicant Name: Deschutes River Conservancy and the Central Oregon Irrigation District

County: Deschutes

Funding Requested: $171,072

Total Project Cost: $375,712

Study Summary:

Previous results from the Upper Deschutes River Basin Study identified the potential for various on-farm water conservation opportunities. This study would build a toolbox to assist with prioritization and implementation of on-farm water conservation projects in the Smith Rock-King Way Project Area which is currently being piped. The analysis would assist in understanding system-wide interactions between reduced demand on-farm, operational issues in private and district laterals, and potential water savings generated from combinations of actions. The toolbox would provide information about what projects and packages of projects are the most feasible to target with scarce resources in order to provide the greatest water conservation benefit. The feasibility study would add value to the Bureau of Reclamation WaterSmart Water Marketing Strategy Development underway and would prioritize projects for future implementation.

Evaluation Summary

The proposal seeks to build on previous assessments and investigate project feasibility by developing a toolbox to prioritize water conservation projects and target those most feasible for implementation. The application provided clear details of the study tasks to provide confidence that the proposed study would achieve the study goal. The application leverages federal funding and study outcomes may assist with future funding decisions.

While the proposed application contained information regarding the Oregon spotted frog's listing under the Endangered Species Act and the Habitat Conservation Plan, the connection to the proposed study was not clear. The review team noted that the presence of jurisdictional wetlands should be assessed prior to project implementation.

Upper Grande Ronde River Watershed Storage Feasibility Study

Recommended for Funding

Study Information (adapted from application)

Applicant Name: Union County

County: Union

Funding Requested: $114,000

Total Project Cost: $228,000

Study Summary:

The Upper Grande Ronde River Watershed (UGRRW) Partnership proposes to conduct a UGRRW-wide assessment of above-ground storage options. The feasibility study would include two components; (1) A review of the entire watershed to determine suitable locations for above-ground storage of winter runoff, and (2) an evaluation of the in-stream flow needs in the reaches most likely to be impacted by a storage project. The goal of the study would be to identify storage locations and assess site suitability by examining a variety of social, legal, environmental, economic, and technical factors, while simultaneously conducting large-scale In-stream Flow Incremental Methodology/Physical Habitat Simulation System studies to determine in-stream flow needs for fisheries. The study work would also inform how stored water could best be used to benefit both in-stream and out-of-stream needs as the basin prepares to implement any storage projects identified as a result of this feasibility study.

Evaluation Summary

The study proposal was exceptionally well-prepared both in detail and scope. The review team commented that the application provided comprehensive information on all study aspects. The application describes an approach which meets the criteria of the Storage Specific Study Requirements triggered by the study. The proposal was identified through a local integrated place-based water resource planning process. The Confederated Tribes of the Umatilla Indian Reservation participate in the place-based planning collaborative and support the proposal to investigate off-channel options to store winter water in a manner that does not further compromise aquatic environments.

The Oregon Department of Fish and Wildlife clarified that agency participation in flow studies is not intended to examine the feasibility of the storage project or determine peak, ecological and flushing flows. The review team advises that the Department of State Lands be contacted prior to conducting scientific measurements and survey work to determine if a permit would be required.

Upper John Day Aquifer Storage and Recovery Feasibility Study

Recommended for Funding

Study Information (adapted from application)

Applicant Name: Grant Soil and Water Conservation District

County: Grant

Funding Requested: $293,895

Total Project Cost: $589,645

Study Summary:

The purpose of this feasibility study is to assess, prioritize, and locate groundwater aquifer storage and recovery projects within the Upper Mainstem John Day River Basin to benefit summer stream flows. The study proposes to undertake the specific application of an Airborne Electromagnetic Method (AEM) survey to create a 3D hydrogeologic framework for the project area to supplement and correlate existing hydrogeologic and borehole data resources to forecast aquifer characteristics, groundwater flow paths, potential recharge areas, and calculate water storage capacity. The AEM findings would be incorporated into a weighted suitability analysis with existing applicable data sets and appraised for localized limiting factors to identify the most desirable groundwater recharge and recovery projects. Landowners of the sites with the best attributes would be contacted to assess their interest for project reconnaissance and development of conceptual design proposals. Once identified, potential projects would be ranked by feasibility for future action.

Evaluation Summary

The application proposes an innovative approach to use an Airborne Electromagnetic Method survey to identify potential locations for Artificial Recharge and/or Aquifer Storage and Recovery. Supporting information was provided to document the appropriateness of the method and its suitability for this study area. The proposal was detailed and tasks clearly described how the study would proceed. The application lays out a comprehensive technical approach to identify potential locations along with a landowner engagement process which would assist in selecting those locations which merit further study.

The review team commented that due to the Division 33 rules there are limitations to water availability not discussed in the application. A future water right application would require a Division 33 review and a pre-application conference with the Oregon Department of Fish and Wildlife is available.

The Confederated Tribes of the Umatilla Indian Reservation commented that if project(s) were to be implemented, it is unclear how instream flows would be protected and restored in a basin where many junior water right holders do not receive their full amount of water each year.

Upper Klamath Lake Water Storage Study

Recommended for Funding

Study Information (adapted from application)

Applicant Name: Modoc Irrigation District

County: Klamath

Funding Requested: $26,400

Total Project Cost: $58,600

Study Summary:

The proposed study would evaluate the feasibility of building one or more above-ground water storage reservoirs to store off-season runoff water from the Upper Klamath Lake Basin in order to augment the irrigation supply for Modoc Point Irrigation District irrigators, and provide supplemental water in the case of a call by the primary water right holder. The result of the study would be identification of potential sites and optimum sizes for the reservoir(s) in each potential location, as well as, costs, environmental impacts, regulatory compliance, and funding sources for constructing and implementing these potential reservoir sites. This study proposes to consider how to site and design the reservoir(s) to improve water quality for endangered fish by reducing phosphorus deposition in Klamath Lake, and whether the reservoir(s) can be designed to provide habitat for waterfowl.

Evaluation Summary

The feasibility study would evaluate the potential for above-ground storage of off season runoff water to supplement water for irrigation. A hydrologic analysis, reservoir siting assessment, and preliminary cost estimates are included in the proposed tasks. The application was detailed and tasks thoroughly prepared. The study proposal includes a provision to conduct the Storage Specific Study Requirements, if in the course of conducting the investigation, the findings determine that these requirements apply. The review team noted the complexities of determining water availability and the potential water rights needed should the project be implemented, and appreciated that the study tasks included both an assessment of current water rights and an investigation into the future water rights permitting.

In the study area, there is a potential concern of converting wetland to open water which may be considered a wetland impact by Department of State Lands (DSL). The review team advises against reliance on the National Wetland Inventory and future investigation in the study area should include a wetlands delineation by a wetland professional and the wetland delineation report submitted to the DSL for review and approval.

Walla Walla River Irrigation District Water Conservation Study

Recommended for Funding

Study Information (adapted from application)

Applicant Name: Farmers Conservation Alliance

County: Umatilla

Funding Requested: $75,000

Total Project Cost: $170,000

Study Summary:

The goal of the proposed feasibility study is to produce a System Improvement Plan for Walla Walla River Irrigation District in Umatilla County. The study will identify and evaluate opportunities to modernize the District's infrastructure in a manner that benefits agriculture, the environment, and the community. The result of the study will be an evaluation of improving the District's infrastructure with associated high-level engineering designs, cost estimates, GIS mapping, projected water savings, fish screening and passage evaluations, and projected hydroelectric power generation and energy conservation potential.

Evaluation Summary

The application clearly described the study goal to develop a system improvement plan and investigate the potential for modernization to benefit agriculture, the environment, and the community. The description and detail of the study tasks provided in the application demonstrated that the study was well prepared and could successfully reach its goal.

The Confederated Tribes of the Umatilla Indian Reservation appreciated that the study was intended to identify opportunities to benefit the environment and offered a reminder that the water conserved can only provide instream benefits if the water is formally protected instream through the Allocation of Conserved Water Program.

Confederated Tribes *of the*
Umatilla Indian Reservation
Department of Natural Resources
Water Resources

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February 8, 2021

Rebecca Williams
Grand Program Coordinator,
Oregon Water Resources Department, Director's Office
725 Summer Street NE, Suite A
Salem, OR 97301

Re: 2020-2021 OWRD Feasibility Grant Applications

Submitted Electronically to: Becky.S.Williams@oregon.gov

Dear Ms. Williams:

The Confederated Tribes of the Umatilla Indian Reservation (CTUIR) Department of Natural Resources (DNR) Water Resources Program appreciates the Oregon Water Resources Department (OWRD) providing us the opportunity to comment on the 2020-2021 Feasibility Study Grant Applications. The opportunity for OWRD and CTUIR government–to-government consultation on these applications is an important tool to allow tribal concerns to be heard early in the process and we hope this practice can continue. There are numerous occasions where the CTUIR only learns about projects after the fact which has impacted tribal rights and complicated consultation. Below are the comments of the CTUIR DNR on this round of grant applications:

Upper Grande Ronde River Upper Watershed Storage Feasibility Study

This feasibility study grant application was submitted by the Upper Grande Ronde Place-Based Planning Partnership ("Partnership"). After systematically evaluating the timing, location, and magnitude of water deficits as part of the Place-Based Planning guidance provided by the State, the Partnership determined the need to consider off-channel storage opportunities within the basin. This application would provide the initial step in assessing the feasibility of off-channel storage locations, which would be filled under several pre-existing storage reservations in the basin.

However, due to the presence of ESA-listed species and the current lack of data regarding the specific instream needs of these species, this grant application also includes a funding request to undertake a detailed study of the instream flow requirements of the species present in the Upper Grande Ronde basin. The Partnership highlighted this lack of instream demand data as a foremost data gap in their Step 4 Planning Report as part of the Place-Based Planning effort. As such, the Partnership is seeking funding assistance both through this grant and from Bonneville Power Administration to provide the instream demand data necessary to ensure that any winter storage project would not compromise the needs of the river ecosystem and its species.

We feel that exploring off-channel storage options, where winter water is available and the withdrawals do not impair river ecosystems, is likely an unfortunate inevitability of managing water resources in a changing climate. We feel that the Partnership's feasibility grant application acknowledges this, and proposes the steps necessary to address this unfortunate reality in a way that does not further compromise aquatic ecosystems. However, we must acknowledge that the Umatilla Tribes are a member of this Partnership, and have provided a letter of support as part of this application.

The CTUIR DNR would also like the assessment to include cultural resources into the matrix when identifying storage locations and assessing site suitability. The applicant should include in the scope of the study a review of the State Historic Preservation Office (SHPO) database of recorded cultural resources and consultation with the affected tribes so that tribal cultural resources are factored into the criteria assessed.

Upper John Day Aquifer Storage and Recovery Feasibility Study

The goal of the John Day feasibility grant application is to identify the most promising areas to implement groundwater aquifer recharge and recovery projects along the upper mainstem John Day River. The application underscores the water deficiencies present in the Upper John Day mainstem, particularly emphasizing the importance of restoring instream flows for ESA-listed species in the basin.

However, it is not clear how the aquifer recharge described will lead to a restoration of instream flow. Inputs from groundwater recharge are not legally protectable instream, and the fact that there are surface water deficiencies for irrigators indicates that there are many junior water rights that do not receive their full amount of surface water from the John Day River each year. Even if groundwater recharge did manage to reach the river, it undoubtedly would be diverted by these junior water right holders to fulfill their unmet need rather than remain instream.

In addition, given the large amount of groundwater rights in the vicinity of where this study would take place, it is questionable as to whether any water recharged into the ground would ever reach the river. Rather, there is a considerable likelihood it would simply be pumped out of the aquifer by all the groundwater users in the area. Unless demand is also controlled, increasing supply through groundwater recharge does not guarantee in the least that aquifers would be stabilized or recover.

Further, according to the State's Water Availability Database, there are only three months out of the year (at 80% exceedance) that surface water is even available in the John Day basin above the South Fork confluence. Instream flow is also of paramount importance to aquatic ecosystems during the winter. It would seem prudent to first determine whether adequate water is even available during the winter for an aquifer recharge effort; barring this, it is not out of the realm of possibility that such a project could ultimately both undermine instream flows in the winter without restoring instream flows during the summer.

Finally, a water right is required to divert and use water. No mention is made of whether or not a water right is available for winter recharge, or whether instead a limited license would be required. If it is the latter, our prior experience in the Walla Walla Basin suggests that it is an unwise investment of public funds to develop recharge infrastructure without certainty that the outcomes will go to the intended beneficiary and that winter water is available to utilize that recharge infrastructure. Once the limited license expires for winter recharge in the Walla Walla, that publicly financed infrastructure will sit unused.

We would ask that these questions first be answered before money is invested in an aquifer recharge program, particularly one that is largely premised on restoring instream flows.

Finally, if a form of this project is approved, we recommend that the application include that the top rated sites be reviewed against the SHPO database of known archaeological sites in the area and the applicant should consult with the affected tribes to understand if these locations are culturally sensitive prior to allocating funds toward conceptual designs.

Walla Walla Irrigation District Water Conservation Feasibility Study

This feasibility grant application proposes a study to improve the irrigation conveyance infrastructure of the Walla Walla River Irrigation District (WWRID) for the benefit of the community, agriculture, and the environment. As the application notes, ESA actions in the basin have required the three largest irrigation districts in Oregon and Washington to bypass flows in the mainstem Walla Walla River. However, the legal protection of these flows can only be accomplished by drying up irrigated agriculture and transferring those water rights instream, or undertaking conservation and efficiency projects and protecting water savings through the State's Allocation of Conserved Water (ACW) program.

The study proposed appears to be much needed, and does provide an opportunity to indeed benefit both agriculture and the environment—as long as water savings are indeed formally protected instream through the ACW program. The Umatilla Tribes already have begun to undertake some of these efficiency analyses, and will look forward to working closely with both WWRID and the applicant to find ways to increase water use efficiency in the basin.

This feasibility grant appears to be well reasoned in the application but again the critical importance of formally protecting any efficiency savings through the ACW program must be underscored. Efficiency improvements are the one opportunity we have to avoid making instream flow restoration versus agricultural water use a zero-sum game. Increased efficiency is analogous to a new water "source," allowing for the maintenance of current levels of irrigated agriculture while also restoring instream flows. However, this is only true if efficiency savings are formally captured and protected through the ACW program. Otherwise, these opportunities are lost, and once lost, they are gone forever. After a system is fully efficient, any hope of flow restoration must come at the expense of out-of-stream water users. We look forward to working closely with the applicant and the irrigation district to ensure the mutual benefits described in the application are indeed realized.

Regarding impacts to cultural resources, the evaluation that is ultimately prepared should include discussion of the need to document any of the existing irrigation system before upgrades can be implemented if the structures are greater than 50 years old for federal undertakings under the National Historic Preservation Act or 75 years of age under Oregon state law.

The CTUIR DNR hopes these comments are of use to OWRD in the evaluation of these applications. If you have any questions, please feel free to contact Audie Huber, CTUIR DNR Intergovernmental Affairs Coordinator at 541-429-7228 or AudieHuber@ctuir.org to discuss or arrange a meeting with DNR staff.

Respectfully,

/s/: *David H. Haire*

David Haire, Manager
Water Resources Program
Department of Natural Resources