



**OREGON WATER RESOURCES DEPARTMENT
WATER SUPPLY DEVELOPMENT ACCOUNT
LOAN AND GRANT APPLICATION**

I. Project Information

Project Name: Beaver Creek Dam Fish Passage and Stream Flow Restoration

Type of Project: Stream Flow Restoration Check box if project type includes storage

Funding Request Type: Loan Grant

Funding Amount Requested: \$ \$600,000 Total cost of project: \$ 1,125,700

Note: Grant funding requests must demonstrate cost match of at least 25% of total project cost. This may include in-kind.

II. Applicant Information

Principal Contact: <i>Norm Paullus, City of La Grande</i>	Fiscal Officer: <i>Same as Principal Contact</i>
Address: <i>800 X Avenue</i>	Address:
<i>La Grande, Oregon 97850</i>	
Phone: <i>(541) 962-1325</i> Fax: <i>(541) 963-3608</i>	Phone: Fax:
Email: <i>npaullus@cityoflagrande.org</i>	Email:

Involved Landowner 1: <i>U.S. Forest Service Willowa-Whitman National Forest</i>	Involved Landowner 2:
Address: <i>1550 Dewey Avenue/P.O. Box 907</i>	Address:
<i>Baker City, Oregon 97814</i>	
Phone: Fax:	Phone: Fax:
Email:	Email:

**Please include a supplementary document that lists all additional involved landowners if applicable.*

Certification:

I certify that this application is a true and accurate representation of the proposed project work and that I am authorized to sign as the Applicant or Co-Applicant. By the following signature, the Applicant certifies that they are aware of the requirements of an Oregon Water Resources Department funding award and are prepared to implement the project if awarded.

Applicant Signature: *Norman J Paullus* Date: *1-16-2016*
 Print Name: *Norm Paullus* Title/Organization: *City of La Grande Public Works Director*

III. Project Summary

Please provide a description of the need, purpose and nature of the project. Include what the applicant intends to complete and how the applicant intends to proceed.

The goal of the Beaver Creek Dam Fish Passage and Stream Flow Restoration project is to implement infrastructure improvements to the City of La Grande's water storage reservoir located in the Beaver Creek Watershed. The City's overall objective for this project is to manage the watershed in such a way that ecological processes support aquatic productivity and diversity, while maintaining a reliable potential drinking water source for the City of La Grande. The

improvements will bring the reservoir into regulatory compliance; thus, allowing the City to continue operating this water storage resource. Additionally, these improvements will open up 12 river miles (RMs) of spawning habitat for salmonids, while supporting in-stream flow augmentation during low-flow periods of the year. See Attachments A through G for supporting documentation for this application.

The City of La Grande, Oregon, owns and operates the La Grande Reservoir, an impoundment on Beaver Creek, in the upper Grande Ronde River watershed in Union County, Oregon. The Beaver Creek Dam was constructed in 1915 to create the reservoir to provide water storage for domestic use during dry periods of the year. At the time of construction, fish passage was not considered. The current system contains seven barriers, five of which inhibit aquatic passage to approximately 12 RMs of potential habitat. The area is historic spawning and rearing habitat for spring Chinook salmon and threatened Snake River evolutionarily significant unit summer steelhead, as well as a migratory channel for bull trout.

The City of La Grande owns and operates the La Grande Reservoir, Beaver Creek Dam, and associated infrastructures, which are located on United States Forest Service (USFS) property. Because of fish passage concerns, the USFS has determined that without major modifications to the existing infrastructure to facilitate fish passage, reduce leaks, and modernize the 100-year-old dam, the USFS will not renew the Memorandum of Understanding (MOU) with the City of La Grande that allows for operation of the La Grande Reservoir and will proceed with decommissioning this water storage system. In 2014, the USFS agreed to extend the MOU with the City as long as the City continued to pursue its goals to restore fish passage. Until 1992, the La Grande Reservoir provided drinking water to the City and was a means to release stored water at critical times to enhance late-season stream flows. Currently, due to the dilapidated infrastructure of the dam and the lack of a water treatment facility, the City relies on a basalt aquifer for drinking water. This use is causing depletion of the aquifer because current municipal water use is exceeding the aquifer recharge rates. This situation leaves the City with little municipal water redundancy.

The project will involve multiple improvements to the water storage facility including installation of a vortex weir fishway at the dam and modification of four diversion structures. This will be accomplished by installing vortex weirs, streambed simulation material, gradient control structures, boulders, and large woody debris to restore upstream fish passage and improve habitat. Site restoration will include planting disturbed uplands and riparian areas, bank stabilization, and replacement of native stream substrate material. See Attachment F for additional details.

Once completed, this project will have three major benefits. First, these upgrades will bring the reservoir into regulatory compliance, and the City of La Grande will be able to retain this valuable water storage resource; thus, protecting a threatened potential drinking water source and ensuring the economic stability of the City of La Grande. Second, opening up 12 RMs of historic spawning habitat for endangered salmonids will help with population recovery goals and protect biodiversity. Third, improvements, including a flowmeter on the outflow area, will improve flow augmentation procedures of supplementing stream flow during low periods when Beaver Creek experiences high temperatures that are dangerous for aquatic life.

The City and The Freshwater Trust have entered into a 20-year renewable lease agreement to release water from the reservoir during low-flow periods in Beaver Creek. Through completing these water storage system improvements, the La Grande Reservoir will once again be in compliance with applicable regulations, operable, and have the ability to serve as a permanent stream flow augmentation system during low-flow periods for Beaver Creek, which is home to multiple Endangered Species Act (ESA) -listed species including spring Chinook, summer steelhead, and bull trout. By protecting this existing water storage system, the City will be able to use this reservoir as a backup drinking water supply system (once treatment is complete).

The City of La Grande has worked diligently on the Beaver Creek Dam Fish Passage and Stream Flow Restoration project since 2007. Over the years, the City has invested over \$250,000 toward the design, planning, and permitting of this incredibly important project. Including the City's proposed matching funds to this grant, the City is committed to spending over \$500,000 to support this vital water storage project. This project is fully designed and permitted, and approximately half of the capital construction funding has been secured through grants and matching funds from Oregon Watershed Enhancement Board (OWEB), Grande Ronde Model Watershed (GRMW), and the City of

La Grande. The City is excited about the opportunity that this grant will provide to secure the second half of the funding needed to complete this significant project.

Due to the complex nature of this project, a detailed description of project sequencing and other technical details are located in the attached Plan set and accompanying project narrative in Attachment F.

The following attachments are referenced in this application:

Attachment A - Figures

Figure 1A Location and Vicinity Maps

Figure 1B Beaver Creek Watershed Intakes

Figure 2A Project Area Aerial

Figure 2B Beaver Creek Dam Aerial

Figure 2C Beaver Creek Main and Cove Creek Intake Diversions Aerial

Figure 2D Beaver Creek Upstream Diversion Aerial

Figure 2E West Fork Beaver Creek Intake Aerial

Figure 3A Site Photographs 1

Figure 3B Site Photographs 2

Figure 3C Site Photographs 3

Figure 3D Site Photographs 4

Figure 3E Site Photographs 5

Attachment B - Project Budget

Attachment C - Letters of Support

2016 USFS

2012 USFS

2015 Freshwater Trust

2012 Freshwater Trust

2016 City of La Grande

2012 City of La Grande

2016 Business Oregon

2016 Oregon Health Authority (OHA)

2016 GRMW

2016 U.S. Fish and Wildlife Service (USFWS)

Attachment D - Permits

1 USFWS Letter of Concurrence

2 National Marine Fisheries Service (NMFS) Biological Opinion

3 Decision Notice and Finding of No Significant Impact (FONSI)

4 Department of State Lands (DSL) Fill/Removal Permit

5 U.S. Army Corps of Engineers (USACE) 404 Permit

6 Oregon Department of Fish and Wildlife (ODFW) Fish Passage

7 Wetland Delineation Letter of Concurrence

8 Section 106 Letter of Concurrence

9 USFS Special Use Permit

Attachment E - Preliminary Engineering Report

Attachment F - Project Narrative and Final Design

Attachment G - Other Plans and Studies

1 Monitoring Plan

2 Seeding Plan

3 Operating Plan for La Grande Reservoir

4 2014 La Grande Reservoir Release

5 Freshwater Trust Lease Agreement

6 2011 Business Oregon Union County Evaluation

IV. Project Specifics

Instructions: Answer all questions in this section by typing the answer below the question, using additional space as needed.

- 1. Describe how the project will provide public benefits in each of the three public benefit categories.** Project applications will be scored and ranked based on the economic, environmental and social/cultural public benefits identified below. Describe the conditions prior to and after project implementation to demonstrate changes resulting from the project. Descriptions should be quantitative when possible. Information provided must be sufficient to allow evaluation of the public benefits of the project. **Please see the Public Benefit and Evaluation Guidance document for a description of how public benefits will be evaluated.** Applications that do not demonstrate public benefit in each of the three categories (economic, environmental, social/cultural) will be deemed incomplete. Leave blank any categories that are not applicable to project.

Economic Benefits ORS 541.673(2)

- (a) Job creation or retention:

The City of La Grande is the economic hub of northeast Oregon, and the City's water supply has always been critical to the survival of the community. A water supply system that is reliable, efficient, and fully functional is absolutely critical to the retention of jobs in the community. Without the implementation of this project, the future of the La Grande Reservoir is questionable. If this water storage resource were to be decommissioned, it is unlikely that such a system could be replaced. It is the only viable redundancy option for the City in the event that the groundwater supply is compromised. Water remains critical to the City's prosperity and having a secure water supply is essential to encourage the growth of the City, which in turn provides an increase in job opportunities. According to Business Oregon's Distressed Areas in Oregon, 2016, Union County is classified as a distressed area. Each job in an economically distressed area is essential.

This project will produce long-term increases in economic activity and will have indirect effects on consumers of the project (i.e., municipal water users). When completed, the project will allow for improved water storage that may be used to enhance fisheries, supplement municipal water supplies, and allow for continued irrigation for farming. Recreational fisheries and farming provide jobs to many people in the Grande Ronde Valley. In 2014, The Freshwater Trust conducted the first transacted release with the City of La Grande. The Freshwater Trust purchased water and released it into Beaver Creek to measure the impact of flow augmentation during a low-flow period. This successful project resulted in a 20-year renewable lease agreement between the City of La Grande and The Freshwater Trust. Funds obtained by the City from such transacted releases could account for additional municipal revenue.

In addition, numerous short-term jobs will be created and retained through this project, which is anticipated to take 3 to 5 years to construct. Project administration, design, and construction will be accomplished by local firms, which will allow for job retention in engineering firms and short-term job creation for construction firms.

- (b) Increases in economic activity:

This project will result in an exceptional increase in ability to provide water to citizens for decades to come. This project serves to protect a major economic investment asset owned by the City. New water storage and drinking water source options are rare and often very expensive to develop. It would be extremely difficult, if not impossible, to develop a reservoir of this size again. New wells and water systems are typically paid for by raising taxes and rates on municipal water users. By avoiding the need to develop a costly new water source, this project would effectively spur economic activity by allowing water users to spend funds elsewhere within the community. Additionally, the City has already invested over \$250,000 designing and planning this project, because of the high value the community places on municipal water supply stability.

Recently, the Oregon State Economic Development Team led by Jill Miles conducted an evaluation of the City's most important economic benefits and determined that the City's water and sewer systems were the most important assets for future growth and economic stability. This project is essential to ensure that this water storage resource remains a part of the City's water system.

The completed project will result in vital increases in economic activities that require stored water and use water during periods of low precipitation. The water could be used for fisheries enhancement as well as for drinking water. Redundancy in water supplies would help ensure economic continuity in the community in the case of an emergency, such as contamination of a primary water source or a wildfire. Both of these issues have recently caused decreases in economic activity in northeast Oregon.

In the event of a catastrophic failure in the City's water system, the complete lack of a backup system could cause enormous economic impacts from lost productivity and the cost of recovering from a disaster. Ensuring that the La Grande Reservoir is available as a backup municipal water supply would reduce the risks to the community from economic impacts occurring from a potential water supply disaster.

If the La Grande Reservoir was once again able to be used for municipal water, all of the pipes would be gravity fed. This would reduce water service rates, thus, benefitting the residents, especially those with low incomes. The City of La Grande may be able to increase revenue from lease agreements with The Freshwater Trust through the infrastructural upgrades provided by the project.

The project will likely result in additional increases in economic activity while the fish passage and water storage components of the project are constructed (construction is anticipated to take 3 to 5 years).

Overall, the impacts of this project will be long-lasting, strengthening the community and fostering a stable environment that promotes long-term business growth.

(c) Increases in efficiency or innovation:

The primary innovative benefit of this project is that the City will obtain redundancy in its water system. By relying only on groundwater wells, La Grande is exceptionally vulnerable to water supply disruption. Updating the infrastructure of the La Grande Reservoir will enable it to serve as a water storage option, to be used for backup or to share the burden of water use, and allow more time for groundwater recharge to occur. Water system efficiencies such as system redundancy will be 100 percent improved, as there is no redundancy now.

This project will increase efficiency in storage and release options. Retrofitting existing dams to meet fish passage criteria and water flow augmentation goals is a developing science that must be modeled in new environments. This project will utilize innovative river restoration technologies such as vortex weirs, large woody debris, and streambed simulation material.

Collaboration between the USFS and the City of La Grande to preserve the La Grande Reservoir increases efficiency in water use, source protection, and redundancy. In the event the City can resume use of the stored water, energy would be saved as the delivery system is gravity fed, which reduces the need for energy intensive well pumps.

Transacted releases, such as the one that occurred in 2014, are a new method of temporary water transfers to conservation groups. Completing this project would ensure that long-term transacted releases with The Freshwater Trust could continue to be implemented. This project will serve as a model to test this innovative conservation process. The time that it takes to conduct in-stream flow augmentation will be reduced after this project is constructed as the release system will be more efficient through the use of flowmeters and wier modifications.

- (d) Enhancement of infrastructure, farmland, public resource lands, industrial lands, commercial lands or lands having other key uses:

Exceptional enhancement in water storage infrastructure, public resource lands, and fish habitat (lands having other key uses) will be gained through the construction of this project. The value of the upgraded infrastructure is substantial. The City has already invested \$250,000 on designing and planning for this asset.

This project will implement the necessary infrastructural improvements to the La Grande Reservoir that will allow the City to continue to operate this existing water storage resource. Another benefit is that the La Grande Reservoir will be modified to meet fish passage requirements, including major modifications to the 1915-era infrastructure. Updating the upstream diversion, main diversion, and dam passage features, which include grade control structures and streambed simulation material, and reducing the diversion footprint, will increase the value of this infrastructure as a component of a multifaceted drinking water plan for the City and also as a mechanism for flow augmentation and fish habitat enhancement.

Additionally, the La Grande Reservoir is located in the Beaver Creek Watershed and is protected through USFS roadless area laws. Improving the structure and restoring fish passage to the Beaver Creek Dam will enhance the watershed's value as an important public land resource. Following project completion, revegetation will occur that will increase the connectivity and stability of the riparian habitat along Beaver Creek.

This project serves to increase water availability when it is needed most, whether for fish passage and stream flow augmentation, or for a backup municipal water supply. If the City were to face a water shortage crisis, it would devastate property values. Healthy water supplies are important to improve property values for resale opportunities.

- (e) Enhanced economic value associated with tourism or recreational or commercial fishing, with fisheries involving native fish of cultural significance to Indian tribes or with other economic values resulting from restoring or protecting water instream:

This project will provide exceptional in-stream protection for native fish of cultural significance to Indian tribes. Since 1915, these fish have been blocked from using 12 RMs of habitat located above the La Grande Reservoir. Opening up this area will provide increased habitat for fish (including ESA-listed spring Chinook salmon, summer steelhead, and bull trout), and flow augmentation may help decrease in-stream temperatures. Additionally, Beaver Creek flows into the Grande Ronde River, which is a scenic waterway; thus, through flow augmentation the project supports this important waterway.

Other economic benefits include tourism such as hiking, hunting, fishing, bird watching, and other outdoor activities. Forty-six percent of trips to eastern Oregon listed outdoor recreation as the main purpose of travel, according to the Longwood Travel 2013 report. By increasing the recreational value of the landscape, tourism opportunities will be enhanced.

The economic value associated with improving conditions for native fish is through an increase in fishing licenses and tourism revenue. Allowing for cultural treaty fishing rights is economically valuable to tribes who depend on fishing resources in the area.

- (f) Increases in irrigated land for agriculture:

This project has the potential to increase irrigated land for agriculture, as recent low stream flows have resulted in junior water right holders being unable to irrigate during droughts. The project will have a positive effect on agricultural land by improving flow conditions by releasing water from the reservoir into the streams when needed; thus, reducing the impacts of drought conditions. Possessing sufficient aboveground water storage and conveyance systems to introduce water into streams during critical periods ensures that farming and irrigation will be able to continue.

Environmental Benefits ORS 541.673(3)

- (a) A measurable improvement in protected streamflows that accomplishes one or more of the following:
- (A) Supports the natural hydrograph;
 - (B) Improves floodplain function;
 - (C) Supports state- or federally-listed sensitive, threatened or endangered fish species;
 - (D) Supports native fish species of cultural importance to Indian tribes; or
 - (E) Supports riparian habitat important for wildlife:

This project results in a 130 percent increase in in-stream flows during critical low-flow periods of the year through a legal lease agreement. In the 2014 flow augmentation by The Freshwater Trust and the City of La Grande, water was released from the La Grande Reservoir at a time when the starting flow in Beaver Creek was 2.7 cubic feet per second (cfs). During the release, the flow was increased by 3.6 cfs to 6.3 cfs. This project supports the legal use of water through a 20-year renewable lease agreement between the City of La Grande and The Freshwater Trust. The City anticipates renewing this lease as it has been very successful over the 2 years it has been implemented.

This project supports the natural hydrograph as it provides the option to augment flows during low flow conditions caused by overuse of water or lack of snowpack. Through restoring the natural hydrograph environmental benefits are realized, such as better in-stream and out-of-stream habitat.

This project results in a measurable benefit to habitat for ESA-listed species and native fish species of cultural importance to Indian tribes. It will increase available habitat by 12 RMs. The project supports riparian habitat through redevelopment of areas that are currently subject to low flows and lack enough water to support a thriving riparian community.

Providing additional water to Beaver Creek will be beneficial to endangered salmonids and native bull trout, which are listed as threatened on a state and federal level. Preserving healthy populations of endangered aquatic species is important to regional biodiversity and species recovery goals.

- (b) A measurable improvement in groundwater levels that enhances environmental conditions in groundwater restricted areas or other areas:

Protecting this water storage facility for future municipal water use for the City of La Grande (after a treatment plant is installed) will allow the City to transition to using less groundwater by utilizing surface water sources.

A 2005 Source Water Assessment Report for the City of La Grande conducted a risk assessment for the source water and concluded that "the water system would be highly sensitive to a contamination event inside of identified Drinking Water Protection Areas." The report also noted that the water system is susceptible to viral contamination.

Reducing demand on groundwater use would allow for groundwater levels to improve and create redundancy in the system. Additionally, this would provide a backup water system in case of contamination of the primary drinking water system.

- (c) A measurable improvement in the quality of surface water or groundwater:

Surface water quality will be significantly improved during periods of low in-stream flows because the repaired dam infrastructure will allow for the efficient release of stored water into the stream when it is needed most.

Temperature-limited waterbodies, such as Beaver Creek, require increased flows to ameliorate high temperatures during the late summer and fall. High temperatures in the reservoir are dangerous for fish and aquatic animals that require cool water for survival. As was evident from The Freshwater Trust's 2014 flow augmentation, temperatures are reduced with increased flows, and this project would allow for this release to be formally adopted into an annual occurrence. This improves general surface water conditions, especially during the times of the year when conditions are the most perilous to aquatic life. These releases also represent a significant value to the City of La Grande, resulting in funds that have been reserved to repair the water system infrastructure.

(d) Water conservation:

The dam was constructed in 1915, and the infrastructure is worn out and functioning in an inefficient manner. Updating the infrastructure would facilitate efficient use of the water. This project would conserve trace amounts of water through infrastructure repairs. The project would help conserve significant amounts of water by adding the flowmeter at the outlet of the dam to monitor and adjust water use based on need.

(e) Increased ecosystem resiliency to climate change impacts:

This project will provide an exceptional increase in the ecosystem resiliency to climate change impacts. Increasing temperatures result in an increase in evaporation of water, reduced snowpack, and an increase in water temperatures. When snowpack melts earlier, in-stream flows are dramatically reduced in the late summer and fall (which is historically an important time for salmon spawning and irrigation). Protecting the water storage capacity of the La Grande Reservoir will allow for in-stream flows to be augmented during low-flow periods. The project ensures redundancy in the availability of water storage options.

The La Grande Reservoir is an integral part of the community's response to fighting wildfires. Climate change increases the likelihood of drought conditions, which increases the chance of wildfires. Ensuring the continued operation of the La Grande Reservoir allows for this community resource to be available when needed to fight wildfires. Additionally, wildfires wreak havoc on ecosystems and decrease biodiversity. Many sensitive species and types of ecosystems are unique to eastern Oregon, and the project helps prevent harm to these irreplaceable species and ecosystems.

(f) Improvements that address one or more limiting ecological factors in the project watershed:

The Oregon Integrated Water Resources Strategy (2012) identifies water storage as a key component for resilient communities. This project ensures that the La Grande Reservoir remains a viable water storage resource by keeping it in compliance with current laws and does not let it become defunct due to lack of upgrades.

Lack of habitat, temperature, and flow are limiting ecological factors for ESA-listed species in the watershed. The project removes habitat barriers for fish, opening up an additional 12 RMs of pristine habitat and also provides flow augmentation during low-flow periods.

In a 2006 analysis entitled, "Grande Ronde River MPG. Upper Grande Ronde Chinook Population Limiting Factors and Threats," the ODFW identified that restoration efforts for Beaver Creek and the mainstem of the Grande Ronde River should focus on reducing sediment load and improving water quality (temperature), as these are the limiting factors for sustaining viable populations.

According to the Northwest Power Planning Council's "2004 Grande Ronde Subbasin Plan" (page 258) the goals for aquatic habitat within the subbasin include: (1) protect high-quality habitat, restore degraded habitats, and provide connectivity between functioning habitats; and (2) manage healthy ecosystems to support aquatic resources and native species. In addition, priorities for the Upper Grande Ronde River include: (1) sediment, (2) flow, (3) temperature, and (4) key habitat quantity (reduced wetted widths).

In both studies, limiting factors are fish passage, flow, temperature, and sediment. This project would correct connectivity and temperature issues by removing fish passage barriers and increasing flow augmentation activities.

Social/Cultural Benefits ORS 541.673(4)

(a) The promotion of public health and safety and of local food systems:

Security and redundancy in a drinking water supply is vital for the public health of a community. This project will take major steps to bring the La Grande Reservoir back to the capacity of serving as a backup water supply for the City. In addition, ensuring that the La Grande Reservoir remains intact will allow for enhanced firefighting options, which will help to ensure public safety.

(b) A measurable improvement in conditions for members of minority or low-income communities, economically distressed rural communities, tribal communities or other communities traditionally underrepresented in public processes:

According to Business Oregon's Distressed Areas in Oregon, 2016, Union County is classified as a distressed area. Improving the environmental conditions for water supplies and fisheries will result in an improvement in the lives of people in the community. Tribal communities will gain an additional 12 RMs of habitat to support spawning for culturally important fish species. The project proponent, the City of La Grande, represents members of this distressed rural community and has led the development of this project to fulfill community needs.

Consultation has occurred throughout the project design process in a number of ways. Formally, through the USFS Environmental Assessment process, scoping letters were sent to relevant parties, and feedback was integrated into the final Environmental Assessment. Additionally, eight on-site project tours have been sponsored by the City of La Grande, and this has allowed an informal way for agencies, Tribes, and members of relevant interest groups to provide comments on the plan. Members of environmental justice communities, including residents and Tribal members, were present at on-site visits to the project area and have been consulted throughout the development of this project.

(c) The promotion of recreation and scenic values:

Recreational and scenic values will be promoted by this project, transforming 12 RMs of previously inaccessible habitat into an excellent area for fish. Water flows will be maintained, which will benefit water-based recreation in the watershed. The La Grande Reservoir is located in the pristine Beaver Creek Watershed in which recreational activities such as hunting, camping, and fishing, are allowed with restrictions, along with hiking, wildlife viewing, photography, and sightseeing. This project improves the conditions of this recreational and scenic environment.

The La Grande Reservoir is a major source of tourism, and conserving water will extend the amount of time each year that visitors can use the reservoir. The La Grande Reservoir is a beautiful place where many rustic forms of recreation are enjoyed.

Tourism is vital to rural economies. Forty-six percent of trips to eastern Oregon listed outdoor recreation as the main purpose of travel, according to a Longwood Travel 2013 report. By increasing the recreational value of the landscape, tourism opportunities will be enhanced.

(d) Contribution to the body of scientific data publicly available in this state:

Habitat restoration and fish passage in historically restricted areas are innovative processes that require substantial monitoring to determine the effects of a project. The monitoring and gathering of data from this project will be helpful in understanding how systems recover and will help other groups in the state that are

considering similar habitat and flow restoration projects. This new data will be made available for public utilization upon request. A Monitoring Plan has been developed for this project, and some of the metrics to document whether the completed project is supporting its goals for flow augmentation and fish passage include photopoints, direct measurements, and visual observations to evaluate each performance criteria in an annual report. See the Monitoring Plan in Attachment G for additional details.

(e) The promotion of state or local priorities, including but not limited to the restoration and protection of native fish species of cultural significance to Indian tribes:

This project restores 12 RMs of stream channel that was used by ESA-listed fish species until the fish passage was blocked through dam construction in 1915. This project provides additional water and spawning areas for fish, thereby enhancing important habitat qualities. This project has been identified by the City of La Grande as a high priority water conservation and surface water source protection project. The City has dedicated significant time and resources to working with agencies, partners, and stakeholders to make this project a reality. Stream flow restoration is also identified by the Oregon Water Resources Department (OWRD) as a state priority, as evidenced by this grant program.

The Oregon Integrated Water Resources Strategy (2012) encourages local strategies to evaluate in-stream and out-of-stream needs as they relate to water quantity and water quality. This project seeks to increase in-stream water supply during critical times of the year and protect an existing water storage component.

According the Northwest Power Planning Council's "2004 Grande Ronde Subbasin Plan" (page 258) the goals for aquatic habitat within the subbasin include: (1) protect high-quality habitat, restore degraded habitats, and provide connectivity between functioning habitats; and (2) manage healthy ecosystems to support aquatic resources and native species. In addition, priorities for the Upper Grande Ronde River include: (1) sediment, (2) flow, (3) temperature, and (4) key habitat quantity (reduced wetted widths). This project increases high-quality habitat by 12 RMs, increases connectivity between areas previously inaccessible due to fish passage barriers, and reduces in-stream temperatures through the ability to support flow augmentation during low-flow periods.

Additionally, the Oregon State Economic Development Team noted that having secure water and sewer systems is vital to the City's strength as a community. This is considered both a state and local priority.

(f) The promotion of collaborative basin planning efforts, including but not limited to efforts under Oregon's Integrated Water Resources Strategy:

This project is the result of years of collaboration and compromise between agencies and stakeholders including the USFS, USFWS, ODFW, the Confederated Tribes of the Umatilla Indian Reservation (CTUIR), City of La Grande, OWEB, and GRMW. Each of these groups recognizes the importance of modifying this system to allow for fish passage, while also securing it as a long-term asset for the City to continue managing with the hope that sustainable use for municipal water can occur in the future.

Over the course of its development, the City of La Grande has engaged in an organically collaborative process with the public that has been open, transparent, and inclusive. Eight, day-long tours have occurred in the Beaver Creek Watershed to discuss the project and to obtain meaningful suggestions. These site visits included members of regulatory agencies, Tribes, and community members. Public meetings were held, a formal Environmental Assessment scoping process was performed, and members of the public have taken the opportunity to provide input to the project.

The City is committed to balancing community water needs with ecological needs. The agreement with The Freshwater Trust is a 20-year lease agreement that each organization can cancel if needed. The City believes it can avoid water conflicts in the foreseeable future (e.g., using well water when reservoir water is needed to support fish health during low-flow seasons).

2. Identify Project Location.

(a) Attach map of project implementation area if appropriate. List map(s) in this space and attach to application.
Location and Vicinity Maps (Figure 1A, Attachment A).

(b) Township	Range	Section	Quarter-Quarter Section
5S	37E	08	SW-SE, SE-SE
		17	NE-NE, NW-NE
		16	NW-NW, NE-NW, SE-NW

(c) Tax Lot Number(s)
5S 37E (Tax Lot: 100)

(d) Latitude/Longitude
45.1373/ -118.2056

(e) County
Union

(f) Watershed
Beaver Creek Watershed, GRMW

(g) River/Stream Mile (where applicable)
Grande Ronde River RM 13.5

3. (a) Will the project result in a physical change on private land? Yes No

If yes, attach evidence that landowners are aware of and agree to the proposal. List attachments below.

This project occurs on land owned by the USFS. The USFS supports this project as evidenced by their letter of support. Additionally, the USFS has issued a Special Use Permit for the City of La Grande to operate the La Grande Reservoir. The USFS has also issued a decision notice after reviewing the Environmental Assessment for the project listing the FONSI.

*Attachments:
2016 Letter of Support
2012 Letter of Support
USFS Special Use Permit
FONSI*

(b) Will the project result in monitoring on private land? Yes No

If yes, attach evidence that landowners agree to the proposal and are aware that monitoring information is public record. List attachments below.

This project is located on USFS land. A Monitoring Plan has been developed for this project and some of the metrics to document whether the completed project is supporting its goals for flow augmentation and fish passage include photopoints, direct measurements, and visual observations to evaluate each performance criteria in an annual report. See the Fish Passage Monitoring Plan in Attachment G. An additional component of monitoring is

the City's goal to add a flowmeter to the outlet of the dam so water releases can be more accurately monitored. It is estimated that The Freshwater Trust currently uses only about one-third of the total water that is available based on the lease agreement.

4. Provide a project schedule, including beginning and completion dates. Use the following table as a guide. Attach a separate sheet to application if needed.

Estimated Project Duration: July 1, 2016 to January 31, 2019

Place an "X" in the appropriate column to indicate when each Key Task of the project will take place.

Project Key Tasks	2016				2017				2018 & Beyond
	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	
<i>Secure Funding</i>			X						
<i>Complete Bid Documents, and National Pollutant Discharge Elimination System (NPDES) 1200-C Permit</i>			X						
<i>Bid Project/Secure Contract</i>			X						
<i>Construction</i>				X	X	X	X	X	X
<i>Construction Administration</i>				X	X	X	X	X	X
<i>Project Closeout</i>									X

5. Describe any conditions that may affect the completion of the project.

The final design of this project is complete, and all permits have been secured, with the exception of the NPDES 1200-C Permit. The Oregon Department of Environmental Quality's (DEQ) Water Quality Permit Program requires NPDES Stormwater Discharge Permits for most projects. The NPDES 1200-C Permit regulates stormwater runoff to surface waters during construction. It is required for projects that affect one or more acres. The NPDES 1200-C Permit will be secured after funding is obtained.

The acquisition of funds for construction is the last component needed to begin construction of the project.

The project timeline is anticipated to take 3 to 5 years as the majority of improvements can only be completed during the in-water work window of each year.

6. Attach a completed feasibility analysis if one has been completed.

Yes. See the alternatives and feasibility discussion in the Preliminary Engineering Report in Attachment E.

7. Provide suggestions for interim and long-term project performance benchmarks.

Performance standards have been developed for this project. Channel stability, suitability for fish passage, flow, and observations of fish use will be evaluated during the annual monitoring visits to the three intake structures (Beaver Creek main intake, Cove Creek intake, and West Fork Beaver Creek intake) and the Beaver Creek upstream diversion. See the Fish Passage Monitoring Plan in Attachment G.

8. Provide letters of support for the proposed project (list in this space and attach to application).

See all letters and emails of support in Attachment C.

2016 USFS

2012 USFS

2015 Freshwater Trust

2012 Freshwater Trust

2016 City of La Grande

2012 City of La Grande

2016 Business Oregon

2016 OHA

2016 GRMW

2016 USFWS

9. Describe partnerships and collaborative efforts associated with the project.

Several groups have been involved with efforts associated with this project. The City of La Grande, USFS, GRMW, CTUIR, ODFW, and the USFWS collaborated in developing, designing, and funding this project. These organizations have consulted with interested parties to ensure there is support for this effort.

This project has been designed and permitted, and approximately half of the capital construction funding has been secured through grants and matching funds from the OWEB, GRMW, and the City of La Grande. This OWRD funding is available for implementation of stream flow protection or restoration, as well as water storage protection, which strongly aligns with the economic, environmental, and social/cultural benefits of this project.

This project is the result of years of collaboration and compromise between agencies and stakeholders including the USFS, USFWS, ODFW, CTUIR, City of La Grande, OWEB, and GRMW. Each of these groups recognizes the importance of modifying this system to allow for fish passage, while also securing it as a long-term asset for the City to continue managing with the hope that sustainable use for municipal water can occur in the future.

Over the course of its development the City of La Grande has engaged in an organically collaborative process with the public that has been open, transparent, and inclusive. Eight, day-long tours have occurred in the Beaver Creek Watershed to discuss the project and to obtain meaningful suggestions. These site visits included members of regulatory agencies, Tribes, and community members. Public meetings were held, a formal Environmental Assessment scoping process was performed, and members of the public have taken the opportunity to provide input to the project.

The City is committed to balancing community water needs with ecological needs. The Freshwater Trust is a 20-year lease agreement that each organization can cancel if needed. The City believes it can avoid water conflicts for the foreseeable future (e.g., using well water when reservoir water is needed to support fish health during low-flow seasons).

10. Consultations/communications with affected Indian tribes and with the Legislative Commission on Indian Services regarding the project.

Has the Legislative Commission on Indian Services been contacted to identify tribes affected by the project?

Yes No

Please provide correspondence as an attachment to this application.

Has there been consultation/communications with affected Indian tribes?

Yes No

Please provide a description of consultation/communication that occurred and attach documents to this application if applicable.

A Cultural Resources Inventory has been completed. See Wetland Delineation Letter of Concurrence in Attachment D.

11. Provide a description of:

(a) Required local, state and/or federal [permits](#) and/or authorizations for project implementation that have been secured to date. Please attach secured permits/authorizations to the application.

USFWS Letter of Concurrence (01EOFW00-2014-I-0081) (required to show the project is in compliance with the ESA).

NMFS Biological Opinion (WCR-2014-637) (required to show the project is in compliance with the ESA).

USFS FONSI (required after a review of the Environmental Assessment to ensure the project is in compliance with the National Environmental Policy Act).

DSL Fill/Removal Permit (54549-RF) (required to show that in-water work is protective of the environment and is in compliance with state laws).

USACE 404 Permit (NWP-2013-296) (required to show that in-water work is protective of the environment and is in compliance with federal laws.)

ODFW Fish Passage Approval (required to show that the project meets state fish passage laws).

Wetland Delineation Letter of Concurrence (required after a review of the wetland delineation report to show that the project does not adversely impact wetlands).

Section 106 Letter of Concurrence (required after a review of the cultural resources inventory to show that the project does not adversely impact cultural or historic properties).

USFS Special Use Permit (required to operate the La Grande Reservoir).

(b) Required local, state and/or federal permits and/or authorizations that will be secured in the future to implement the project. Describe efforts to date in securing these permits and/or authorizations.

All permits for the project have been secured with the exception of the NPDES 1200-C Permit, which is typically obtained closer to construction dates. The DEQ Water Quality Permit Program requires NPDES Stormwater Discharge Permits for most projects. The NPDES 1200-C permit regulates stormwater runoff to surface waters during construction. It is required for projects that affect one or more acres. The NPDES 1200-C Permit will be secured after funding is secured.

12. Provide any additional supplemental materials to demonstrate ability to implement the project. Examples include project plans and specifications, engineering details and [water availability analysis](#). List documents in this space and attach to application.

Please see attached:

Attachment A - Figures

Figure 1A Location and Vicinity Maps

Figure 1B Beaver Creek Watershed Intakes

Figure 2A Project Area Aerial

Figure 2B Beaver Creek Dam Aerial

Figure 2C Beaver Creek Main and Cove Creek Intake Diversions Aerial

Figure 2D Beaver Creek Upstream Diversion Aerial

Figure 2E West Fork Beaver Creek Intake Aerial

Figure 3A Site Photographs 1

Figure 3B Site Photographs 2

Figure 3C Site Photographs 3

Figure 3D Site Photographs 4

Figure 3E Site Photographs 5

Attachment B - Project Budget

Attachment C - Letters of Support

2016 USFS

2012 USFS

2015 Freshwater Trust

2012 Freshwater Trust

2016 City of La Grande

2012 City of La Grande

2016 Business Oregon

2016 OHA

2016 GRMW

2016 USFWS

Attachment D - Permits

1 USFWS Letter of Concurrence

2 NMFS Biological Opinion

3 FONSI

- 4 DSL Fill/Removal Permit
- 5 USACE 404 Permit
- 6 ODFW Fish Passage
- 7 Wetland Delineation Letter of Concurrence
- 8 Section 106 Letter of Concurrence
- 9 USFS Special Use Permit

Attachment E - Preliminary Engineering Report

Attachment F - Project Narrative and Final Design

Attachment G - Other Plans and Studies

- 1 Monitoring Plan
- 2 Seeding Plan
- 3 Operating Plan for La Grande Reservoir
- 4 2014 La Grande Reservoir Release
- 5 Freshwater Trust Lease Agreement
- 6 2011 Business Oregon Union County Evaluation

V. Storage Project Requirements (if not a storage project continue to Section VI)

For any storage project please contact Water Resources Grant Administrator, Jon Unger, at (503) 986-0869 prior to completing the application.

13. Storage Project Type: Above Ground Below Ground

14. If above-ground storage, would the proposed storage project be located in-channel?

Yes No N/A

15. Identify the capacity in acre-feet of the proposed storage project.

16. Has a water right application been filed for the proposed storage project?

- Application not yet made.
- Water right application made; permit not yet issued Application #
- Permit issued. Application # Permit #

For Questions 17 & 18 answer the following:

(a) Does the proposed storage project impound surface water on a perennial stream?

Yes No Uncertain

(b) Does the proposed storage project divert water from a stream that supports state- or federally-listed sensitive, threatened or endangered fish species?

Yes No Uncertain

(c) Does the proposed storage project divert more than 500 acre-feet of water annually?

Yes No

17. Water Dedicated Instream N/A

For above ground storage projects seeking grant funding: If you answered “yes” to any of the questions posed in a-c above a minimum volume of water equal to at least 25% of the stored water must be dedicated to instream use.

Identify percentage of stored water to be dedicated to instream use.

%

Note: Any storage project dedicating 25% of stored water to instream use will automatically receive a median score in the environmental public benefit category with the opportunity to demonstrate additional environmental benefit to increase the score.

18. Seasonally Varying Flow Prescription

For all storage projects: If you answered “yes” to any of the questions posed in a-c above the project will need a **Seasonally Varying Flow (SVF) Prescription**, determining the duration, timing, frequency and volume of flows (including ecological baseflow), necessary for protection and maintenance of biological, ecological, and physical functions outside of the official irrigation season. The initial step in defining the SVF for the project is to schedule an SVF meeting with OWRD. For assistance and more information please contact Water Resources Grant Administrator Jon Unger at (503) 986-0869.

Identify whether the storage project will need a Seasonally Varying Flow Prescription.

Yes No Uncertain

VI. Environmental Public Benefit for Conservation Projects Dedicating Water Instream (if not a conservation project continue to Section VII)

19. Identify percentage of conserved water to be dedicated to instream use. N/A

%

Note: Any project that conserves water and dedicates at least 25% of the conserved water quantity to instream use will automatically receive a median score in the environmental public benefit category with the opportunity to demonstrate additional environmental benefit to increase the score. Water dedicated to instream use must be permanently placed instream and protected by the Oregon Water Resources Department.

VII. Financial Information

For Loan Applicants – Since loan applications do not require cost match, loan applicants who do not offer a cost match need not complete Section A and can disregard the match funding columns in Sections B and C. Budget and costs of key tasks must be identified in sections B & C. Loan applicants will be required to provide additional financial information related to their ability to repay the loan. This request for information will take place after the scoring and ranking process for those projects that are recommended for funding.

For Grant Applicants – Complete Sections A, B and C.

Section A – Cost Match Information

Applicants must demonstrate a minimum 25% funding match based on the total project cost. The match may include: a) applicant funds or secured funding commitment from other sources; b) pending funding commitment from other sources; and/or c) the value of in-kind labor, equipment rental, and materials essential to the project. For secured funding, the applicant must attach a funding award letter from the match funding source that specifically mentions the dollar amount shown in the “Amount/Dollar Value” column. For pending resources, documentation showing a request for the matching funds must accompany the application. Funds expended prior to grant agreement are not reimbursable nor do they qualify for cost match without prior authorization by the Department.

<p>In the Type column below matching funds may include:</p>	<p>In the Status column below matching funds may have the following status:</p>
<ul style="list-style-type: none"> • Cash - Cash is direct expenditures made in support of the feasibility study by the applicant or partner*. 	<ul style="list-style-type: none"> • Secured - Funding commitments already secured from other sources.
<ul style="list-style-type: none"> • In-Kind - The value of in-kind labor, equipment rental and materials essential to the feasibility study provided by the applicant or partner. 	<ul style="list-style-type: none"> • Pending - Pending commitments of funding from other sources. In such instances, Department funding will not be released prior to securing a commitment of the funds from other sources. Pending commitments of the funding must be secured within 12 months from the date of the award.

* “Partner” means a non-governmental or governmental person or entity that has committed funding, expertise, materials, labor, or other assistance to a proposed project planning study. OAR 690-600-0010.

<p>Match Funding Source (if in-kind, briefly describe the nature of the contribution)</p>	<p>Type (✓ One)</p>	<p>Status (✓ One)</p>	<p>Amount/ Dollar Value</p>	<p>Date Match Funds Available (Month/Year)</p>
<p><i>City of La Grande</i></p>	<input checked="" type="checkbox"/> cash <input checked="" type="checkbox"/> in-kind	<input checked="" type="checkbox"/> secured <input type="checkbox"/> pending	<p>\$225,700</p>	<p><i>December 15</i></p>
<p><i>GRMW - Bonneville Power Administration Funding</i></p>	<input checked="" type="checkbox"/> cash <input type="checkbox"/> in-kind	<input type="checkbox"/> secured <input checked="" type="checkbox"/> pending	<p>\$150,000</p>	<p><i>December 15</i></p>
<p><i>OWEB</i></p>	<input checked="" type="checkbox"/> cash <input type="checkbox"/> in-kind	<input checked="" type="checkbox"/> secured <input type="checkbox"/> pending	<p>\$150,000</p>	<p><i>December 15</i></p>
	<input type="checkbox"/> cash <input type="checkbox"/> in-kind	<input type="checkbox"/> secured <input type="checkbox"/> pending		
	<input type="checkbox"/> cash <input type="checkbox"/> in-kind	<input type="checkbox"/> secured <input type="checkbox"/> pending		
	<input type="checkbox"/> cash <input type="checkbox"/> in-kind	<input type="checkbox"/> secured <input type="checkbox"/> pending		
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	<input type="checkbox"/> cash <input type="checkbox"/> in-kind	<input type="checkbox"/> secured <input type="checkbox"/> pending		

