



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

I. Project Information

Project Name: Wolfe Family Farm Water Conservation Project, Lostine River

Type of Project: Conserved Water Check box if project type includes storage

Funding Request Type: Loan Grant

Funding Amount Requested: \$ \$1,488,718 Total cost of project: \$ \$2,132,575

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>Aaron Maxwell</i>	Fiscal Officer: <i>Heather Jones</i>
Address: <i>65 SW Yamhill St #200 Portland, OR 97204</i>	Address: <i>65 SW Yamhill St #200 Portland, OR 97204</i>
Phone: <i>541.263.2220</i> Fax: _____	Phone: <i>503.222.9091 ext 12</i> Fax: _____
Email: <i>aaron@thefreshwatertrust.org</i>	Email: <i>Heather@thefreshwatertrust.org</i>

Involved Landowner 1: <i>Woody Wolfe</i>	Involved Landowner 2:
Address: <i>81544 Highway 82 Wallowa, OR 97885</i>	Address: _____
Phone: <i>541.263.0802</i> Fax: _____	Phone: _____ Fax: _____
Email: <i>woodywolfe@yahoo.com</i>	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: *[Signature]* Date: *1-14-16*

Print Name: *Alan Horton* Title/Organization: *Managing 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 purpose of the proposed project is to convert approximately 1100 acres of predominantly flood irrigated land to pressurized pivot sprinkler to improve efficiency and agricultural production and to enhance instream flows for ESA listed fish species in the Lostine River. Local and State agencies have identified the need for irrigators to increase efficiency of water use in order to meet both agriculture production goals and environmental needs in the face of current and future water scarcity. The Lostine River in particular has been a focus for collaborative restoration efforts by The Freshwater Trust, Nez Perce Tribe, and irrigators for the past eleven years. The partners continue to seek ways to meet



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Print Name: Woody Wolfe Title/Organization: landowner

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instream flow targets identified by the Draft ESA Recovery Plan for Northeast Oregon Snake River Spring and Summer Chinook Salmon and Snake River Steelhead Populations while keeping agricultural production whole in Wallowa County.

The landowner involved in this project, a 6th generation Wallowa County rancher, is widely known as an early adopter of agricultural and conservation practices in Wallowa Valley. The landowner irrigates approximately 1100 acres of grain, alfalfa and grass hay from the Lostine and Wallowa Rivers (1000 acres Lostine, 100 acres Wallowa) and is the largest single water right holder on the lower Lostine River. He has been a proactive partner with the Nez Perce Tribe, Wallowa Land Trust, and The Freshwater Trust. The landowner has expressed interest in split season leasing and conserved water transfers for several years, but has been reluctant to engage because of social/cultural constraints and the failure of previous proposals to meet the economy of scale thresholds necessary for his financial operation.

This project will accomplish the following to benefit of sustainable agriculture and ESA listed fish species:

- 980 of 1100-acres converted to pivot will improve irrigation water management at the point of application, promote improved production through irrigating to crop need, facilitate cover cropping, improve forage production and grazing management.*

- 1250-acre feet of water will be transferred instream through Oregon's Conserved Water Stature. This volume will be realized in the early irrigation season of May, June and July and enhance Lostine River flow by approximately 7 CFS. During August and September the improved irrigation infrastructure will hold application rates, at the point of diversion, to existing water rights.*

- 150- acre feet of conserved water will be transferred to 60-acres of agricultural lands currently without water rights. The transferred water would be applied with a pivot, improve production and conserve water through improved application methods.*

- 120-acres will be transferred from the "up-river" Westside ditch downstream to the "lower river" Foster ditch. This action would add approximately 1.5 CFS to the historically lowest flow reach of the Lostine River.*

- Between pivots, in field corners, and areas not accessible with pivot 120-acres of formerly irrigated land will be converted to wildlife habitat. The retirement of these acres will contribute an additional 540 acre-feet (3 cfs) of flow in May-July and 120 acre (1 CFS) of flow in August-September the lower Lostine River.*

In order to bridge finance a portion of the costs associated with this project, the landowner will be participating in a five year split season lease through the Columbia Basin Water Transactions Program, forgoing irrigation in August and September and temporarily leasing those water rights instream. Split season leasing allows irrigators to maximize agricultural production in the early season when irrigation water provides the highest returns and be compensated for temporarily leasing water instream during times when water it is most critical for aquatic ecosystems during the late season. This lease will protect over 10 CFS in the Lostine during the months of August and September for a period of five years. The landowner will use the upfront lease payment to finance a portion of the conservation project. Columbia Basin Water Transactions Program will reimburse a portion of this investment once the conserved water resulting from the flood to sprinkler pivot conversion is legally certificated instream. The scenario of not applying late season irrigation also incentivizes growers to foster the health of their soils by increasing soil organic matter, carbon sequestration and water retention through cover cropping and managed grazing thus providing many ancillary benefits beyond restored instream flows.

The Freshwater Trust and the landowner are asking for 70% cost share from OWRD for the irrigation efficiency project. Columbia Basin Water Transactions Program will reimburse roughly 22% of the project costs once the conserved water is finalized instream. In order to finance the capital expenditures associated with the project, the landowner will bridge the payment from CBWTP with funds earned from a five year split season lease. In addition, the landowner will contribute approximately 8% of project costs in the form of labor and material expenses associated with excavation.

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:

Wallowa County has a population of around 7000 people with one of the highest unemployment rates in Oregon (7.7% as of December 2015). This project will create at least one additional full time position at the Wolfe Ranch. Because flood irrigating is an "art form" and administered most effectively by the landowner himself, switching to a pivot sprinkler system will allow the landowner to devote time otherwise flood irrigating to business development and to hire at least one worker to maintain and operate the automated irrigation system. In addition this project will support temporary contracting, manufacturing, and construction jobs associated with the installation and design of a large pivot system. The landowner intends to employ local and regional contracting services.

(b) Increases in economic activity:

Currently the landowner grows a mix of timothy grass, alfalfa and grain crops on a 4-7 year rotation. Under flood irrigation around 5 tons/acre of timothy and alfalfa are harvested yearly with approximately 50% of the high value forage sold as export. Under pivot sprinkler irrigation production is expected to increase to 7 tons/acre, and because of better irrigation and soil moisture management during the growing and curing phases, nearly 70% of the forage will be export grade and thereby increase profitability.

Wallowa County as whole hosts roughly 300,000 acres of irrigated land and contributes nearly \$47 million in direct farm sales to the regional economy (2012). The landowner in this particular project expects between 5-20% increase in yields under a more efficient irrigation system which will contribute the long term stability of the ranch. Because the landowner is a successful producer and contributes over \$1 million in ag related revenue to the economy, it is expected that additional irrigators will follow his lead and adopt efficient irrigation systems that benefit both farms and fish.

Additionally, an estimated \$1.9-2 million in capital and construction costs will be infused into the economy through this project. Additional upkeep and maintenance of the system will be required in future years which will demand both manufactured parts and labor not associated with a predominantly flood irrigated system.

(c) Increases in efficiency or innovation:

By converting roughly 1000 acres from flood irrigation to state of the art center pivot irrigation, this project is estimated to increase irrigation efficiency by nearly 30%, as well as increase labor efficiency. By allowing the irrigator to manage his water more efficiently and precisely, he will be able to more effectively work with NRCS programs to develop and experiment with cover cropping and managed grazing techniques that increase soil health and resiliency to drought. The landowner has several solar arrays installed on his property and will be looking into additional solar projects to offset energy consumption incurred by pumping. Because the landowner

is an early adopter of innovative agricultural and conservation practices, it is expected that many irrigators in the valley will follow suit.

The Freshwater Trust is particularly excited by the idea of using temporary late season instream leasing of water rights to not only provide value to freshwater ecosystems and promote drought tolerant cropping, but also as a financing mechanism to modernize aging irrigation infrastructure and secure long term benefits for both agriculture and environment. This a pilot project that showcases innovative tools developed by the State and Oregon Water Resources.

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

The conversion of flood to pivot sprinkler is expected increase the production value of the land between 5-20%. This project enhances infrastructure to irrigated farmland for both conservation and agricultural purposes. Precise and efficient irrigation will also enable increased flexibility for the irrigator to experiment with cropping and grazing management to further enhance soil health, drought resiliency and ecosystem function. Additionally, the landowner will be converting a portion of the acres not suitable to pivot irrigation to wildlife habitat to promote profitable hunting and tourism opportunities on his property. This project will not result in any reduction in riparian buffers.

(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 protect up to 10 CFS of cold water to the Lostine during certain times of the year to support healthy runs of Chinook salmon and steelhead, both of which are recreationally harvested in the Grande Ronde, Wallowa and Lostine Rivers. According to ODFW published creel data from 2012, nearly 21,000 angler hours by roughly 5000 individual anglers were spent fishing for salmon and steelhead on the lower Grande Ronde which includes the Wallowa and Lostine Rivers. A 2008 report published by Dean Runyan Associates estimated that fishing in eastern Oregon contributes \$27.6 million annually to the economy. Restoring flows to flow limited streams improves the economy by improving recreational and commercial fishing opportunities in the State of Oregon.

The Wallowa Band Nez Perce traditionally camped on the property and Old Chief Joseph died here in 1871. The Nez Perce Tribe remains connected to the property today, operating a fish weir facility on the Lostine River, within the property boundaries. Since 2000 the Nez Perce Tribe has invested tens of millions of dollars into restoring the Chinook run on the Lostine River. The weir and associated facilities were established by the Bonneville Power Administration in 1997 by a perpetual easement on three acres owned by the Wolfe Ranch. The section of the Lostine River from below the weir, downstream to the confluence provides for a significant tribal fishery. All spring Chinook harvested by tribal fisherman on the Lostine River occurs exclusively in this reach. Fish harvested by tribal members provide sustenance to tribal families as well as income through the sale of fish to the local community.

(f) Increases in irrigated land for agriculture:

Due to geographical constraints, it is estimated that approximately 120 acres of the currently irrigated land are not accessible by pivot irrigation. The landowner intends to transfer all of the water rights appurtenant to those dispersed acres instream and convert formerly irrigated corners into wildlife habitat to support whitetail deer hunting opportunities. The landowner will transfer 150 AF of the total water conserved in this project to 60 acres of land formerly dry land farmed. The net loss of farmed acres will be 60 acres, though its expected that increased yields resulting from irrigation upgrades will more than compensate for this loss. The landowner understands that a larger portion of the conserved water made available through this project could be transferred to new lands and result in an increase in irrigated acres, however he is choosing to transfer 90% of the conserved water instream for conservation purposes.

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 will allocate and protect approximately 1250 AF (90%) of conserved water generated by efficiency upgrades instream through the State of Oregon's conserved water statutory process (see Appendix A: Project Water Rights). An additional 660 AF of water rights appurtunant to lands not suitable for pivot irrigation will be transferred instream. The majority of water rights involved in this conservation project are duty limited with no rate limitation, receiving 1.5 AF/acre per 30 day period from May-July and 1AF/acre for all of Aug-Sept. For most crops produced in Wallowa County the consumptive use requirements during the period of Aug-Sept approach the 1AF/acre threshold, thus the bulk of the water conserved from this project (1.5 AF/acre) will occur in the months of May-July. However, it is expected that efficient sprinkler application will enable the landowner to stay within legal water right compliance during the late irrigation season and result in measurable improvements in stream flow during the months of Aug-Sept. Legally protected instream flow resulting from this conserved water project will amount to approximately 10 CFS from May-July and 1.0 CFS from Aug-Sept. The Freshwater Trust and water right holder will apply for these flows to be protected from the point of diversion on the Lostine River to the Grande Ronde River at the Oregon state line.

To increase efficiencies in pumping stations and lower project costs, there will also be a downstream point of diversion transfer resulting in an additional 1.5 CFS of flow restored to a four mile critical low flow reach of the Lostine from May-Sept.

In order to bridge finance a portion of the costs associated with this project, the landowner will be participating in a 5 year split season lease through the Columbia Basin Water Transaction Program, forgoing irrigation in August and September and temporarily leasing those water rights instream. Split season leasing allows irrigators to maximize agricultural production in the early season when irrigation water provides the highest yields, and be compensated for temporarily leasing water instream during times when it is most critical for aquatic ecosystems during the late season. This lease will protect over 10 CFS in the Lostine during the months of August and September for a period of five years. The landowner will use the upfront lease payment to finance a portion of the conservation project. Columbia Basin Water Transactions Program will reimburse a portion of this investment once the conserved water resulting from the flood to sprinkler pivot conversion is legally certificated instream.

These flow restoration actions support the the natural hydrograph and ecosytem function (both riparian and aquatic) of the Lostine and Wallowa Rivers. The waters of the Lostine and Wallowa are home to three ESA listed fish species including spring and summer Chinook Salmon, steelhead and bulltrout. As cited above, the Lostine River Chinook population is of cultural significance to the Nez Perce Tribe. It is expected that this project will increase the interest in conserved water and split season leasing projects in Wallowa County, and that these tools will be adopted as viable water management strategies moving forward.

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

N/A

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

Flood irrigation typically results in some portion of irrigation water flowing across the surface of a field without being absorbed into the ground. This water is warmed by solar radiation, contaminated with sediment, nutrients,

bacteria and toxins associated with agricultural production and then returned overland to the original body of water downstream in a degraded state. Pivot sprinkler systems eliminate the overland flow of contaminated water and prevent pollution of pristine water bodies. In addition, the conserved water that is transferred instream will result in more cold water remaining in the Lostine over a longer reach to help mitigate the harmful effects of thermal loading on salmonid species.

(d) Water conservation:

This project will result in roughly 1800 AF of water conservation, constituting nearly 30% of the total legal water right duty associated with irrigated acres involved in this project.

(e) Increased ecosystem resiliency to climate change impacts:

The projected impacts of climate change have not been assessed in the Lostine watershed specifically. However, a basin-level assessment has been undertaken of the entire state of Oregon. The findings of this assessment indicate that '...in basins with significant snow accumulation in winter, warmer temperatures systematically reduce peak snow accumulation, producing more runoff in winter, earlier peak flows in spring, and reduced water availability in summer. Snowpack at high elevations is generally less sensitive to temperature changes and more sensitive to precipitation changes. Thus, at high elevations, snowpack could increase if winter precipitation increases over time. However, even if there is an increase in snowfall at high elevations, the area covered by high elevations is small relative to the area of an entire river basin and consequently the total snow pack in a river basin typically declines if temperatures rise (even if precipitation increases by a modest amount).' [Scientific Consensus Statement on the Likely Impacts of Climate Change on the Pacific Northwest, prepared for Governor Kulongoski's Advisory Group on Global Warming].

The Lostine headwaters are high elevation and snowpack dominant. According to the conclusions above, this makes the climate change impact difficult to assess. The likely result of climate change will be a shift to earlier snowmelt, even in areas like the Lostine that are dominated by higher altitude snowpack. The result will be less late-season water availability and a shift of earlier water scarcity as has been seen in recent years, particularly 2015. If this is indeed the case, full season water use diminishment, such as under this proposed project, will reduce irrigation pressure on the time of year most likely to be impacted by climate change.

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

The conversion of flood irrigation to pivot sprinkler irrigation will result in significant flow restoration to the Lostine and Wallowa River and benefit aquatic and riparian communities. The following citations support flow restoration efforts in the Lostine and Wallowa Rivers:

Draft ESA Recovery Plan for Northeast Oregon Snake River Spring and Summer Chinook Salmon and Snake River Steelhead Populations. NOAA. October 2014.

□ Pg 23 and Pg 42: Lostine/Wallowa spring and summer Chinook MPG rated at HIGH risk of extinction

□ Pg 57: Recovery efforts should focus on restoring spawning and juvenile rearing habitat for Lostine/Wallowa Rivers spring Chinook salmon by increasing summer flows and habitat complexity, reconnecting floodplains, and improving riparian conditions.

□ Pg 57: Key strategies and actions should include increasing summer flows in the lower reaches of the Lostine River, Bear Creek, Hurricane Creek, and upper reaches of the Wallowa River for spring Chinook.

□ Pg 66: Reconnect floodplains and increase summer flows, especially in the lower reaches of the Lostine River and Bear Creek, Hurricane Creek, Prairie Creek, and the middle and upper reaches of the Wallowa River for steelhead.

□ Pg 213: The primary limiting factors for spring Chinook salmon populations in the Lostine and Wallowa River systems are poor water quality (high summer water temperature, low dissolved oxygen levels), excess fine sediment, altered hydrologic function (low summer flows), predation, reduced habitat quantity and diversity (lack of habitat complexity, reduced wetted widths, and a lack of pools and large woody debris), and limited fish passage (Huntington 1994; Wallowa County-Nez Perce Tribe 1999; NPCC 2004a; Christian 2007).

□ Pg 214: *Low flows and high summer water temperatures affect juvenile rearing and adult spawning. Low summer flows and physical passage barriers, especially in the Lostine River, Bear Creek, Hurricane Creek and the upper Wallowa River, limit adult access to spawning areas and juvenile access to quality rearing habitat.*

□ Pg 302: *Habitat restoration efforts are needed to move the Lostine/Wallowa Rivers spring Chinook salmon population toward a viable state, and address the abundance/productivity and spatial structure/diversity needs of the population. Effort must focus on increasing summer flows, primarily in the lower reaches of the Lostine River, Bear Creek, Hurricane Creek, and the upper reaches of the Wallowa River.*

□ Pg 365: *Recommends restoring approximately 25 CFS to the Lostine through water transaction and/or irrigation upgrades.*

U.S. Fish and Wildlife Service. 2002. Chapter 11, Grande Ronde River Recovery Unit, Oregon and Washington. 95 p. In: U.S. Fish and Wildlife Service. Bull Trout (Salvelinus confluentus) Draft Recovery Plan. Portland, Oregon.

□ Pg. 24-25: *'Bull trout within the Grande Ronde River Recovery Unit have been and continue to be adversely affected by irrigation diversions and water withdrawals.' 'Low flows in late summer can prevent bull trout, which are preparing to spawn from reaching spawning grounds and can also strand them.'*

□ Pg. 34-35: *'Opportunities to convert existing out-of-stream flows to instream flows in Oregon are available through a variety of legislatively mandated programs administered by Oregon Water Resources Department...[e.g.] allocation of conserved water to instream use (ORS 537.455 to 537.500), lease all or a portion of consumptive water rights to instream purposes (ORS 537.348, OAR 690-77-070 to 690-77-077)...Oregon Water Trust [now The Freshwater Trust] provides purchase of water rights from willing landowners for conversion to instream water rights.'*

1998 Lostine Instream Flow Study (Prepared for Nez Perce Tribe and Oregon Dept. of Fish and Wildlife).

□ *This study identified low flows through the upper river as a primary limiting factor for Chinook in their migration to upstream spawning grounds.*

□ Pg. 1-10: *'The impacts of reduced flows on anadromous and resident fish species in the lower reaches of the Lostine River are a major concern . . .'*

□ Pg 1-11: *'Low flows create passage barriers for migrating spring chinook salmon . . .'* *'Reductions in flow can result in poor quality holding habitat in many sections of the lower river . . .'* *'These flow reductions can also adversely impact the spawning and incubating habitat of spring chinook . . .'* *'Finally, reductions in flow can severely degrade the rearing habitat of juvenile steelhead trout, [and] spring chinook salmon . . .'*

Social/Cultural Benefits ORS 541.673(4)

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

This project allows for improved water management. By decreasing the amount of water applied to fields producers are better able to reduce soil erosion, increase soil organic matter, improve soil health and rely less heavily on potentially harmful soil amendments such as fertilizers, pesticides and herbicides. By eliminating irrigation waste and runoff, water quality is improved for not only fish and the public and tribal members who consume those fish, but also for producers who irrigate food crops downstream of the project site. Improved water application also allows producers to treat weed problems with reduced reliance on pesticides by enabling precise and predictable irrigation to promote the propagation of desired species.

By increasing management capacity and efficiencies irrigators become more adaptable and able to adjust to market demands by consumers. Specifically, by converting from flood irrigation to sprinkler irrigation the landowner in this project will be able to diversify crops and potentially grow more high value food crops and support locally based food systems that couldn't otherwise be done under flood irrigation.

(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:

Business Oregon classifies Wallowa County as an economically distressed rural county in Oregon. As of December 2015 Wallowa County has an unemployment rate of 7.7%, one of the highest in the state. Projects such as the one proposed here that create jobs, sustain the agricultural economy and improve environmental conditions for fish and tribal communities are critical to the future of rural Oregonians.

The Nez Perce tribal community supports the project as a means to enhance the tribal fishery and treaty rights connected to the Lostine and Wallowa Rivers. The cultural importance of the Wolfe Farm is significant. The Wallowa Band Nez Perce traditionally camped on the property and Old Chief Joseph died here in 1871. He was buried in the area before his body was reinterred at the foot of Wallowa Lake in 1926. Due to the property's cultural resources and historical importance, it is a private lands unit of the National Nez Perce Historical Park, established in 1965 to tell the story of the Nez Perce people. The Park is spread over 38 sites in four states, following the route of the War of 1877 that resulted in the exodus of Nez Perce from the Wallowa Valley.

The Nez Perce Tribe remains connected to the property today, operating a fish weir facility on the Lostine River, within the property boundaries. The weir and associated facilities were established by the Bonneville Power Administration in 1997 by a perpetual easement on three acres. The section of the Lostine River from below the weir, downstream to the confluence provides for a significant tribal fishery.

(c) The promotion of recreation and scenic values:

This project aims to protect the aesthetics of agrarian life and enhance the natural beauty of Wallowa County by promoting sustainable agricultural and restoring stream flows and riparian corridors for fish and wildlife. Tourism dollars account for a substantial portion of Wallowa County's revenue. A 2015 report published by Dean Runyan Associates estimated that 27.6 million tourism dollars were spent in Wallowa County in 2014, accounting for 11.7% of the employment in the county. A majority of tourists who visit this region come to enjoy the natural scenic beauty and wildlife of the area, as well as appreciate the balance of a working landscape.

Many tourists enjoy the scenic rivers and embark on fishing and rafting adventures. A 2008 report published by Dean Runyan Associates 2008 estimated that fishing in eastern Oregon contributes nearly \$30 million annually to the economy. The river corridor between Minam, Oregon, and Heller Bar, Washington includes the lower ten miles of the Wallowa River and the lower 81 miles of the Grande Ronde River. Public lands are managed in part by the Bureau of Land Management, U.S. Forest Service, and the States of Oregon and Washington. These river canyons have been designated as both National Wild and Scenic Rivers and State Scenic Waterways for conservation and recreation values. Restoring flows to the Lostine and Wallowa Rivers improves the economy by improving water quality and recreational and commercial fishing opportunities in these Wild and Scenic waterways.

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

Currently, irrigation diversions on the Lostine are largely unmonitored. This project will require monitoring devices on all project points of diversions. Data will be housed by OWRD's regional water master.

While not directly tied to this funding, it is also significant to note that the landowner is eager to partner with NRCS to experiment with various cover cropping and managed grazing techniques to improve soil health and drought tolerance. Increased water management efficiency will better enable the irrigator to participate in such experimental designs. It is expected that data from future projects and partnerships will be readily available to the public and used to encourage other producers to engage in conservation practices.

(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:

The proposed project supports the following regional planning efforts:

1999 Wallowa County Nez Perce Tribe Salmon Habitat Plan with Multi-Species Management Strategy (prepared by a committee of Wallowa County citizens, agency professionals, and the Nez Perce tribe in 1992 and revised in 1999).

□ Pg. 47: 'Irrigation Withdrawals (High Priority)--Irrigation diversions create instreamflow [sic] problems . . . Water could possibly be leased during low flow times (i.e. after second cutting of hay) to supplement low flows. . .

2004 the Grande Ronde Subbasin Plan prepared for Northwest Power and Planning Council

□ Section 5.2.1.2, pg. 262: Habitat Objectives and Strategies, Low Flow Condition strategy, 'Reduce irrigation withdrawals through an integrated program of irrigation efficiency improvements, diversion point consolidations, water right leasing and water right purchase, where applicable with willing landowners.' It is also a priority under subbasin plans Priority strategies Section 5.2.1.2, Table 60, pg. 258: Identifies increased flow as a priority strategy for Wallowa River watershed.

□ Water Quality Table 10 pg. 31: Lostine River is a 303(d) listed stream for sedimentation, habitat modification and flow modification.

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

Wallowa County and Lostine Basin in particular are currently engaged in the early stages of numerous planning efforts around water management and stream restoration. Recently, a Lostine Stakeholder Group was formed by upper Lostine irrigators as a first step towards developing a water management plan. These irrigators are part of Lostine Minimum Flow Agreement administered by The Freshwater Trust. The agreement enables irrigators to generate funds for future water infrastructure and planning efforts by maintaining instream flows. While the conservation project proposed above mainly concerns the lower Lostine, planning efforts in the upper Lostine are intimately connected to water projects on the lower river and offer an example of the benefits of improved irrigation practices.

Many concerns still exist in Wallowa County regarding Oregon's Conserved Water Statute and the transfer of water instream. Its important to note here that, if successful, this project will constitute the first use of the Oregon Conserved Water Statute in Wallowa County. Future water planning efforts (WRD Placed Based Planning, OWEB FIP, etc) will likely incorporate conserved water and leasing as a strategy if the community is able to point to win-win examples such as this.

2. Identify Project Location.

(a) Attach map of project implementation area if appropriate. List map(s) in this space and attach to application.

Appendix B: Project Maps

1. Tax Lot Map

2. Water Rights Map

(b) Township Range Section Quarter-Quarter Section

01 N 43 E 29 SWSW

(c) Tax Lot Number(s)

4000,4300,4303,4700,6700,8001,7100,8000,8900,900,3400,1400

(d) Latitude/Longitude

117.48 W/ 45.53 N

(e) County

Wallowa County

(f) Watershed

Wallowa: HUC 17060105

(g) River/Stream Mile (where applicable)

A Conserved Water Application will be submitted to the State or Oregon asking that conserved water be protected from the points of diversions identified in this project (Lostine River RM 4 and lower) past the confluence of the Lostine and Wallowa Rivers, past the confluence of the Wallowa and the Grande Ronde Rivers to the Oregon border with Washington.

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.
Landowner is a signatory to this application

(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.

Irrigation diversion monitoring will occur at the points of diversions and be administered OWRD Region 7 Water Master. In addition the Nez Perce Tribe and The Freshwater Trust have two instream gaging and fixed telemetry stations in the lower reach of the river where instream flows will be realized. This is part of an ongoing seven year study monitoring the relationship of flows to fish passage at select irrigation diversions using radio tagged Chinook.

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: April 1, 2016 to September 30, 2017

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

Project Key Tasks	2016				2017				20 & 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	
Complete contractual agreements	X	X	X						
OWRD Administrative Processes (water right changes, split season lease application, conserved water application)	X	X	X	X	X	X	X	X	
Installation of pivots, pumps, mainlines, electrical upgrades			X	X	X				
Project management and fiscal oversight	X	X	X	X	X	X	X	X	
Cultural permitting if needed		X	X						

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

This project is contingent on funding sources. Funding from Columbia Basin Water Transactions Program is contingent on the amount of conserved water allocated instream and the approval of the split season lease proposal. The Freshwater Trust is working on initial reviews of the project with OWRD staff prior to implementation and spending of grant funds. Contact District 7 Regional Water Master for further details.

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

Appendix C: Precision Rain Project Feasibility and Cost Estimate.

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

Ideally long term baseline monitoring of river flows and economic on farm trends pre and post efficiency projects such as these should be conducted. This project supports monitoring efforts that inevitably lead to better water management.

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

Appendix D: Letters of Support. NRCS, Nez Perce Tribe, ODFW, Wallowa Land Trust

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

The Freshwater Trust, Nez Perce Tribe and Lostine irrigators have been actively working together on flow restoration initiatives in the Lostine for the past eleven years. This project builds on the existing partnership by

advancing temporary solutions using minimum flow agreements to more permanent and sustainable solutions benefitting both agriculture and fisheries for the long term.

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.

Appendix E: Lostine River Wallowa County Water Conservation Services Contract. This contract is between The Freshwater Trust and the Nez Perce Tribe. Page 6 of the contract outlines the intent of the partnership between the applicant and the Nez Perce Tribe to further flow restoration efforts in the Lostine basin that include irrigation efficiency upgrades.

Appendix A: Letters of Support. See letter of support from the Nez Perce Tribe

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.

State Land Use Consistency Requirements apply to instream allocation of conserved water.

(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.

The project will occur entirely on private land. However, the applicant acknowledges the cultural significance of the property and so is working with the Nez Perce Tribe Cultural Division and State Historical Preservation Office to determine if there is a need for a cultural survey. No cultural sites on 1N 43E or 1S 43E are identified on the SHPO database accessed on January 8, 2016. For purposes of budgeting and planning it has been assumed that a cultural survey will be needed.

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.

Appendix C: Precision Rain Project Feasibility and Cost Estimate.

Note: We will also be soliciting a bid from Pioneer West. Precision Rain, a distributor of Valley pivot systems and Pioneer West, a distributor of Zumatic pivot systems, are the only two companies in the region that install center pivots. A cost-benefit analysis of the two product types will be completed prior to a final decision being made.

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

90 %

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>Columbia Basin Water Transactions Program. Funding will be secured prior to implementation but not available until conserved water is certificated instream. Landowner will provide gap funding using funds generated from split season lease.</i></p>	<input checked="" type="checkbox"/> cash <input type="checkbox"/> in-kind	<input type="checkbox"/> secured <input checked="" type="checkbox"/> pending	<p>\$468,093</p>	<p>June 16</p>
<p><i>Landowner will be doing much of the excavation work incurring labor and fuel costs.</i></p>	<input type="checkbox"/> cash <input checked="" type="checkbox"/> in-kind	<input checked="" type="checkbox"/> secured <input type="checkbox"/> pending	<p>\$165,709</p>	
<p><i>The Freshwater Trust. Project management staff salary will be covered by TFT and its funding agencies.</i></p>	<input type="checkbox"/> cash <input checked="" type="checkbox"/> in-kind	<input checked="" type="checkbox"/> secured <input type="checkbox"/> pending	<p>\$5,027</p>	
<p><i>Nez Perce Tribe: Project management staff salary will be covered by NPT and its funding partners.</i></p>	<input type="checkbox"/> cash <input checked="" type="checkbox"/> in-kind	<input checked="" type="checkbox"/> secured <input type="checkbox"/> pending	<p>\$5,027</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		
	<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		

