



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

I. Project Information

Project Name: Allen Creek Pipeline

Type of Project: Convert open ditch conveyance to pipe for increased efficiency

Check box if project type includes storage

Funding Request Type: Loan Grant

Funding Amount Requested: \$ \$382,400 Total cost of project: \$ \$706,900

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: Bob Williams	Fiscal Officer: Crooked River Watershed Council
Address: <u>3672 SE Juniper Canyon Rd.</u> <u>Prineville OR 97754</u>	Address: <u>498 SE Lynn Blvd.</u> <u>Prineville OR 97754</u>
Phone: <u>541-419-1853</u> Fax:	Phone: <u>541-447-8567</u> Fax: <u>541-416-2115</u>
Email: <u>21cows.bw@gmail.com</u>	Email: <u>contact@crwc.info</u>

Involved Landowner 1: Waibel Ranch LLC	Involved Landowner 2:
Address: <u>8055 SW Powell Butte Hwy</u> <u>Powell Butte OR 97753</u>	Address:
Phone: <u>541-480-6573</u> 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: Brad Waibel Date: 1-18-16
Print Name: Brad Waibel Title/Organization: WAIBEL Ranches LLC
Managing member

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.

Big Summit Prairie is a large privately owned meadow in the Ochoco National Forest. The meadow currently provides summer grazing to over 2,500 head of cattle. The meadow is the origin of the North Fork of the Crooked River. As it flows through the Ochoco Nation Forest, the North Fork of the Crooked River is a key source of recreation for the public with sections being designed as Wild, Scenic, and Recreational. There is an existing 1,800 acre-ft reservoir (Allen Creek Reservoir) at the north-eastern end of the meadow that is predominantly on private land (Waibel) with a corner that belongs to the BLM at the south eastern shore. This section of BLM land allows public access to that portion of the lake. As the water-level in the reservoir drops, the public loses access to the reservoir.

Currently, the adjacent landowner to the West (Woodward) has a right to store up to 800 acre-ft of water in Allen Creek Reservoir for irrigation. The 800 acre-feet of water is to be delivered to the Woodward property line. Delivery of this water is presently via an open, unlined ditch which is over 4 miles long. Additionally, the existing ditch system cannot access the full storage of the reservoir due to the location of the headgate and ditch inlet being mid-way up the dam. The ditch crosses permeable ground with seepage losses estimated at over 30%. In order to deliver the required 800 acre-ft of irrigation water to the Woodward property boundary, at least 1,100 acre-ft must be stored in the reservoir and released into the ditch. This means that at least 1.38 acre-ft of water must be stored and released from the reservoir to provide 1 acre-ft of irrigation water at the delivery point, resulting in highly inefficient water use. The proposed pipeline discussed below greatly improves water delivery efficiency by reducing the volume of water required to simply meet the irrigation right, leaving more water for other beneficial uses.

This project will install a 13,000 ft. long pipeline with an inlet at the reservoir near the bottom of the dam, allowing full access to the stored water in Allen Creek Reservoir. The pipeline is shorter than the ditch because the pipe can follow a much shorter route. The pipeline will also eliminate ditch seepage losses, reducing the volume of additional water needed to deliver the required 800 acre-ft of irrigation water at the delivery point. The results will be improved delivery efficiency of Woodward's water, improved water supply reliability for Woodward, greatly reduced system maintenance, and improved productivity on 500-600 acres of quality meadow. Additional expected results would be improved conditions in the North Fork Crooked River. The current ditch loss occurs some distance from the river and as such does little to recharge the shallow aquifer. The proposed conversion from unlined ditch to pipeline water delivery will bring an additional 300 acre-ft of water for application in close proximity to the river. In this case a perceptible improvement in the hydrologic system should be apparent in an area which often becomes dry in late summer months.

It is anticipated that this project will require at a minimum a 50,000 lb class excavator, a 30,000 lb class dozer, telehandler or off-road forklift, HDPE pipe welder, and an off-road capable dump truck. The pipe will be delivered to the ranch via on-road trucks and offloaded at a staging area approximately 1.5 miles from the beginning of the pipeline. A primitive road exists from the staging area to the project site, but will be improved to handle the additional machinery. The pipeline route will be staked prior to starting the project and elevations of key locations will be verified. The excavator and dozer will grub the pipeline path in order to accommodate the trench as well as a temporary haul road for pipe delivery and space to accommodate the HDPE welding machine. Alignment, elevation, and burial depth will be monitored via engineering oversight of the project.

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:

Crook County currently has an unemployment rate of 8.3% and has seen recent unemployment of over 15%. The long-term benefit of the project will be that the improved production on both landowner's properties will either increase or maintain the labor force required to manage both the irrigation and the livestock. The project will provide short-term job creation/retention during the construction phase of the project. It is estimated that the project will require 4-7 positions for a minimum of 3 months. Materials will be purchased through local vendors which will promote the Central Oregon economy and encourage retention.

Over the last two years the Waibels have increased their employment on their portion of the prairie from 2 to 6 employees as they have become more actively involved in the ranching operation. It is the intent of the ranch that as the meadow becomes more productive they will continue to add to the operation and increase the number of employees accordingly. They are expecting to add 1-2 more full-time long-term personnel once the productivity of the operation is increased through ranch improvements.

(b) Increases in economic activity:

The increase in irrigation efficiency will allow for either livestock numbers to be increased and/or the meadow to be utilized for a greater length of time. This will increase the dollars spent in the area to manage the increased agricultural activity. This increase is expected to be greater than five years. This is important in a county with historically high unemployment and a large natural resource based economy.

Additional long-term affects from this increased production in this small community will be an increase in local spending. Most materials to facilitate an expanding ranch operation are purchased locally which is key to a sustainable small-town economy.

The increased productivity of the meadow will have a net positive impact on the wildlife in the region. Large herds of elk are common in the area and are often observed in the meadow. Providing the elk with improved grazing opportunities will provide improved hunting on both the public and private portions of the area. The improved hunting will directly lead to increased economic activity in the nearby region.

(c) Increases in efficiency or innovation:

Based on similar open ditch conveyance systems, the current ditch is estimated to have approximately 30% ditch-loss. This loss results in a direct reduction of irrigation capabilities and production levels. The piped system will have 0% loss which will result in an estimated savings of over 300 acre-ft which could be applied to 500-600 acres for improved production. The system currently irrigates approximately 1,800 acres on a limited basin. The improved irrigation on up to 600 acres will account for a 33% increase.

There will also be the long-term (50+ year life of HDPE) elimination of work required to maintain the open ditch and to repair significant failures. This saved manpower will be used to better apply the water to the fields for increased production or on other ranch improvements.

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

The project will at a minimum directly affect the resale value of the Waibel Ranch by increasing the real value proportionately to the cost of the improvements. The improved cattle production will increase the net profit which will add to the ranch value from a purely economic standpoint.

There is also the secondary value-added benefit of the improved riparian area and wildlife increase. On ranches in the Central Oregon area, properties with strong wildlife populations and other recreational features such as reservoirs, command a premium on the property value.

- (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:

Due to the reduced water draw from the elimination of ditch loss, the reservoir will stay fuller later into the year. The reservoir is predominantly on private land (Waibel) with a corner belongs to BLM at the south eastern shore. This section of BLM land allows public access to that portion of the lake. As the water-level in the reservoir drops, the public loses access to the reservoir. Maintaining a higher water level will increase the recreational benefit to the public in the BLM portion of the reservoir.

- (f) Increases in irrigated land for agriculture:

This project will provide enough water savings to add an additional month of irrigation to 500-600 acres of meadow pasture. Due to the limited water supply, this acreage receives little to no irrigation starting in July. This results in a direct reduction of grazing as the grass goes dormant due to drought like conditions. More importantly however, is that as the grass becomes stressed it has difficulty becoming active again during the fall "green-up". The system currently irrigates approximately 1,800 acres on a limited basin. The improved irrigation on up to 600 acres will amount to a 33% increase.

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:

The increased water available for irrigation will partially return to the stream system through groundwater recharge. This will serve to support a more natural hydrograph in a flow restricted system. The additional water in the riparian area will promote and sustain streamside vegetation.

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

Improvements in groundwater levels are anticipated in the meadow area. This increased groundwater will serve to provide cold-water recharge to the North Fork Crooked River.

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

Baseline summer flow will exhibit an increase due to the application of the stored water normally lost during conveyance to the meadow. This increase will also serve to reduce water temperatures. Maintaining baseline flow is a key component for the meadow ecosystem. This will also compliment the proposed restoration work on the meadow which has the long-term goal of maximizing agricultural productivity and ecological health.

(d) Water conservation:

The piped system will have 0% loss instead of the current 30% loss which will result in an estimated savings of over 300 acre-ft which will be applied to 500-600 acres for improved production. The system currently irrigates approximately 1,800 acres on a limited basin. The improved irrigation on up to 600 acres will account for a 33% increase in irrigated pasture.

(e) Increased ecosystem resiliency to climate change impacts:

Increased water availability will help buffer increased atmospheric temperatures and extended periods of drought; both of which are highly likely in the coming years.

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

The North Fork Crooked River is 303(d) listed by DEQ as temperature limited and needing a TMDL. The increased flows and cold groundwater recharge provided through this project will improve in-stream conditions.

Social/Cultural Benefits ORS 541.673(4)

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

Increasing the quality and quantity of the forage on the meadow will ensure high quality cattle entering the local and regional food supply.

(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:

Crook County has a consistently above average unemployment rate. The potential increase in long-term jobs will greatly benefit the area. Also, in the Central Oregon area where ranching is a way of life, this will provide significant long-term benefits.

(c) The promotion of recreation and scenic values:

By allowing the Allen Creek Reservoir to remain fuller later into the summer it will provide the public with increased recreational opportunities.

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

(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:

Objective 10A - Improve water-use efficiency and water conservation

The system currently irrigates approximately 1,800 acres on a limited basin. The improved irrigation on up to 600 acres will account for a 33% increase.

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

Waibel Ranch is currently working with the Crooked River Watershed Council on a total ranch plan through a technical assistance grant funded by the Oregon Watershed Enhancement Board. The plan is

currently being compiled and has identified irrigation efficiency and instream flow as being key limiting factors in respect to agricultural productivity and ecological health of the meadow.

2. Identify Project Location.

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

Location Map

Project Overview Map

(b) Township	Range	Section	Quarter-Quarter Section
14 S	21E	2,3,10, 11	multiple

(c) Tax Lot Number(s)

100 & 106

(d) Latitude/Longitude

44.377/ -120.184

(e) County

Crook

(f) Watershed

North Fork Crooked River

(g) River/Stream Mile (where applicable)

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.

A letter from Weibel Ranch is attached.

(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.

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 October 31, 2016

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

Project Key Tasks	2016				20				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	
<i>clear pipeline route</i>		X							
<i>order 20" HPDE class 64</i>		X							
<i>fabricate flow control structures</i>		X							
<i>stake-out pipeline path and key features</i>			X						
<i>install pipeline</i>			X	X					
<i>provide engineering oversight during construction</i>			X	X					
<i>cultural survey / admin</i>		X							

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

There are no known conditions which may affect the completion of this project. The design has been completed and all materials are readily available. The selected time-frame for the installation of the pipe is historically suitable for this project.

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

No specific feasibility analysis has been completed, but the design took into account all the key project elements such as pipe slope, required flow, flow measuring, and other necessary analysis.

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

It is suggested that the 20" HDPE pipe be ordered by the end of June to allow for delivery time for the proposed installation time-frame.

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

*Waibels (Landowners)
Oregon Dept. of Forestry
Crooked River Watershed Council*

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

Waibel Ranch is currently working with the Crooked River Watershed Council and other state and federal agencies on the complete restoration of their portion of Big Summit Prairie and the headwaters of the North Fork Crooked River. This project and their other irrigation improvement goals are key pieces to the overall restoration.

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.

LCIS has been contacted and they have provided a list of affected tribes with contact information.

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.

Emails to the three affected tribes were sent on 1/4/16. A response has been received from the Klamath Tribes indicating that the area is outside of their aboriginal territories. A response was also received from the Confederated Tribes of the Warm Springs indicating that there is a high possibility of finding areas of cultural significance near the project. A cultural resource survey has been budgeted for the project.

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.

There will be no permits required for this project.

(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.

There will be no permits required for this project.

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.

The stamped engineering design for the pipeline and the flow measurement and control structures are attached to this application.

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.

0 %

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.

In the Type column below matching funds may include:	In the Status column below matching funds may have the following status:
<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.

Match Funding Source (if in-kind, briefly describe the nature of the contribution)	Type (✓ One)	Status (✓ One)	Amount/ Dollar Value	Date Match Funds Available (Month/Year)
<i>Waibel Ranch LLC</i>	<input type="checkbox"/> cash <input checked="" type="checkbox"/> in-kind	<input checked="" type="checkbox"/> secured <input type="checkbox"/> pending	\$324,500	01/16
	<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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