Oregon
Kate Brown, Governor

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MEMORANDUM

TO: Water Resources Commission

FROM: Kim Ogren, Manager, Water Resources Development Program

SUBJECT: Agenda Item H, September 7, 2018
Water Resources Commission Meeting

Water Project Grants and Loans Update

I. Introduction

The Water Project Grants and Loans funding opportunity provides grants and loans for water projects that help address instream and out-of-stream water needs that result in economic, environmental and social/cultural benefits. This informational item provides an update on the 2016 and 2017 awards, and the status of the 2018 funding cycle.

II. Background

In 2013, the Oregon Legislature passed Senate Bill 839, establishing the Water Project Grants and Loans funding opportunity. In June 2015, the Commission adopted rules establishing procedures for administration of the funding opportunity and requirements for water resource projects to receive funding. This supports Recommended Action 13.E, "Invest in the implementation of water resources projects."

III. 2016 Grant Award Update

In the inaugural 2016 funding cycle, the Commission awarded nine grants totaling $8,891,118. Two projects are now complete and the grants are closed:

- Lostine River Conservation Project: The Freshwater Trust and Mr. Woody Wolfe finalized the project in April of 2018. The project converted 872 acres of flood irrigated fields to irrigation using 16 pivot sprinklers and 30,000 feet of mainline. The project utilized the Allocation of Conserved Water Program and transferred 90% of the conserved water instream. The project leveraged $643,857 in matching funds for a total project cost of $2,132,575.
- Sun Creek Restoration and Irrigation Efficiency: Trout Unlimited finalized the project in September of 2017. Water Rights for 249.7 acres were permanently transferred instream in the Upper Klamath Basin to reconnect Sun Creek, which was running dry. The project leveraged $302,867 in matching funds for a total project cost of $552,734.

Table 1 lists the other grant awards from 2016 and notes their status. Two projects have completed work and closed out their grant. Four have completed work and are compiling their final reports. Three others remain in progress.

Table 1. 2016 Grant Awards and Status

2016 Grant Awards			
Project	**County**	**Grant Award**	**Status**
Lostine River Conservation Project	Wallowa	$1,488,718	Grant closed Project complete
Sun Creek Restoration and Irrigation Efficiency	Klamath	$249,867	Grant closed Project complete
Beaver Creek Dam Fish Passage and Flow Restoration	Union	$600,000	Work completed*
Tumalo Feed Canal Conservation Phase 5	Deschutes	$1,299,968	Work completed*
Highline Canal Pipeline	Hood River	$566,299	Work completed*
Klamath East Side Water Recycling Project	Klamath	$268,673	Work completed*
Kingsley Reservoir Expansion and Lowline Pipeline Project	Hood River	$3,000,000	In progress
Mosier Deep Water Supply Well	Wasco	$917,238	In progress
Willow Creek Piping Irrigation Laterals	Malheur	$500,355	In progress
Total Awards		**$8,891,118**	
Total Reimbursed through June 30			**$6,290,638**

*Project work has been completed, and final reports and grant documentation are in progress.

IV. 2017 Grant Award Update

In December 2017, the Commission awarded four grants totaling $6,282,232. All four grant agreements have been finalized and two projects have begun construction. Table 2 lists the grants awarded in 2017.

Table 2. 2017 Grant Awards and Status

2017 Grant Awards			
Project	**County**	**Grant Award**	**Status**
Powder Valley Connector	Union	$1,076,000	In progress
Opal Springs Fish Passage and Pool Raise	Jefferson	$1,550,486	In progress
Coe Branch Pipeline & On-Farm Irrigation Efficiency Project	Hood River	$924,000	In progress
North Fork Sprague Conservation Piping and Instream Flow Restoration	Klamath	$2,731,746	In progress
Total Awards		**$6,282,232**	
Total Reimbursed through June 30			**$0**

Attachment 1 includes summary information and project updates on the 2016 and 2017 grant awards. A map showing all Water Project Grants awarded to date is included as Attachment 2.

V. Status of 2018 Funding Cycle

The 2018 application deadline was April 25, 2018. The Department received 19 complete applications requesting a total of $15,998,829 in grants and loans. Applications were posted for a 60-day public comment period. Additionally, applications were sent to affected Indian Tribes for evaluation and review.

Since the 2017 funding awards were made, the Department has worked to address the concerns raised regarding inconsistent scoring of public benefits. Staff began work to address these concerns by improving the guidance and instructions provided to the reviewers.

The inter-agency Technical Review Team (TRT) met on July 25, 2018 to discuss the public benefits of each project application, and consider comments from affected Indian Tribes and the public. The TRT scored the applications based on public benefits described in the applications and the comments received. After receipt of the initial TRT scores, the Department calculated the median score in each public benefit category for each project and prepared a draft ranking. The TRT then reviewed the results and adopted a final ranking and funding recommendation for the project applications received. The results were published for a second public comment period. This 30-day public comment period started on August 22 and closes at 5pm on September 21, 2018. The Commission will be presented with funding recommendations for approval during the November 2018 meeting.

Attachment 3 lists the applications under evaluation. Attachment 4 provides a summary of each project.

VI. Conclusion

Since its authorization in 2013, the Department has worked to build Water Project Grants and Loans into a sustainable funding opportunity that will allow the state to invest in projects that help meet instream and out-of-stream water needs. The Department anticipates providing a funding recommendation for consideration by the Commission at its November meeting. The Water Resources Development Program, which runs Water Project Grants and Loans is also scoping out a process that will include stakeholder engagement to follow up on the biennial review recommendations and to review the statutes and rules.

Attachments:

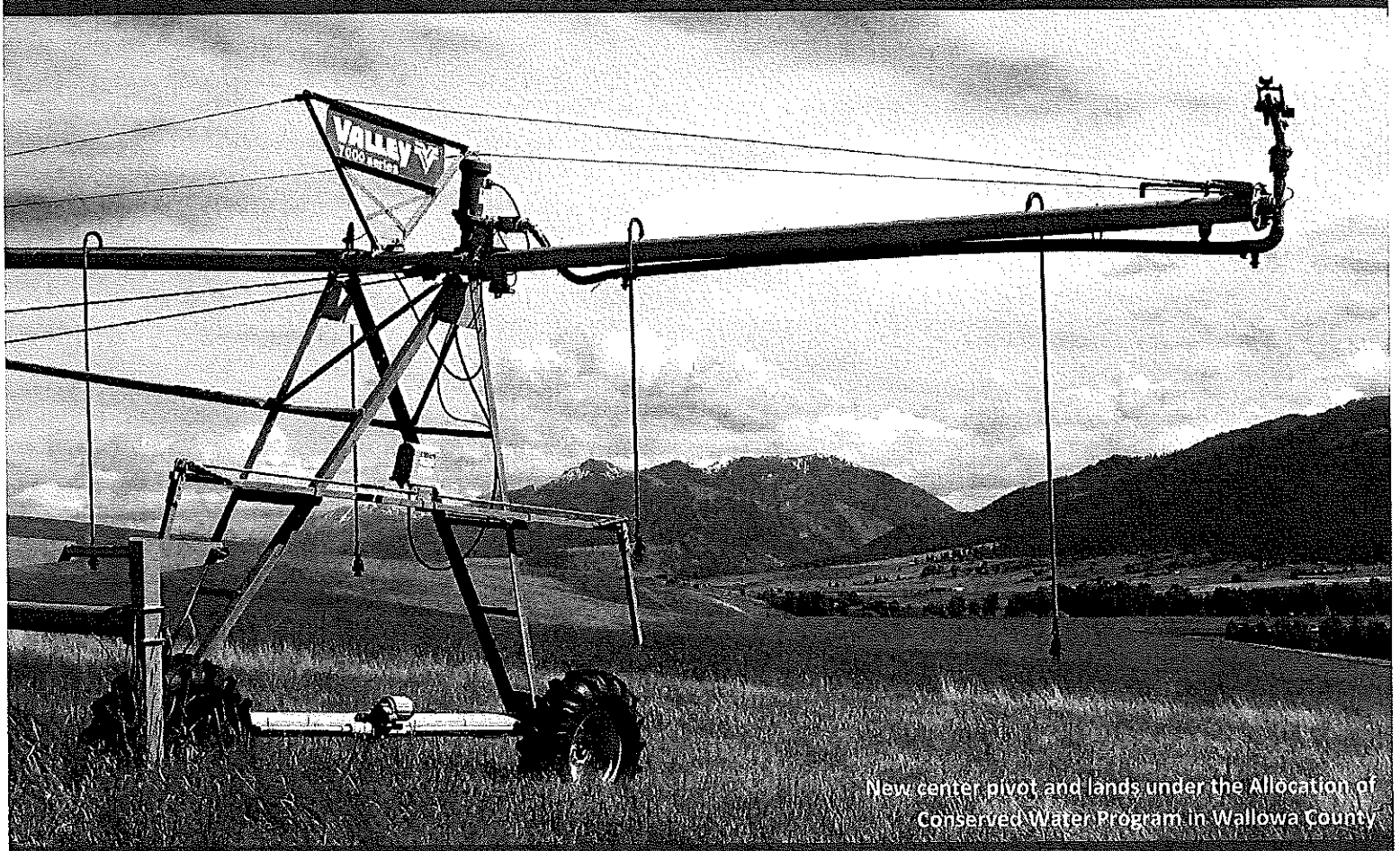
1. Water Project Grants and Loans Funding Award Update
2. Map of Water Project Grants Awarded
3. List of Complete Applications Received for 2018 Cycle
4. 2018 Application Summaries

Kim Ogren
503-986-0873

Becky Williams
503-986-0869

Attachment 1

2018
WATER PROJECT GRANTS AND LOANS FUNDING AWARD UPDATE



New center pivot and lands under the Allocation of Conserved Water Program in Wallowa County

OREGON

WATER RESOURCES DEPARTMENT

PROJECT STATUS UPDATE

BY KIM OGREN

STATE OF OREGON

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2018
WATER PROJECT GRANTS AND LOANS FUNDING AWARD UPDATE

PROJECT STATUS UPDATE

BY KIM OGREN

STATE OF OREGON

OREGON

WATER RESOURCES
DEPARTMENT

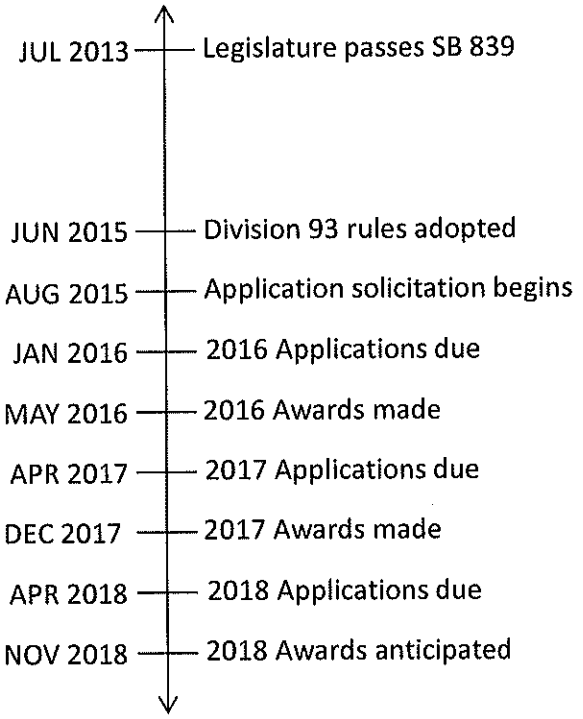
Cover Photo Credit: David Bates, OWRD

Contents

Background

The Oregon's Integrated Water Resources Strategy calls for investment in water resource projects, including water supply development (recommended actions 10.E and 13.E, respectively). In 2013, the Oregon Legislature passed Senate Bill 839, establishing the Water Project Grants and Loans funding opportunity, which provides funding for water projects that help address instream and out-of-stream water needs and have economic, social, and environmental public benefits.

In June 2015, the Commission adopted rules establishing procedures and requirements for water resource projects to receive funding. Since adoption of the rules, the Department has hosted two funding cycles (2016 and 2017) and is in the middle of the third (2018). The timeline to the right shows the history of the funding opportunity. In the inaugural 2016 funding cycle, the Commission awarded nine grants totaling $8,891,118 (table 1). In 2017, the Commission awarded four grants totaling $6,282,232 (Table 2). This report provides a summary and update for each funded project.



Timeline of Water Project Grants & Loans

Table 1. 2016 Grant Awards

Project	County	Grant Award	Status
Lostine River Conservation Project	Wallowa	$1,488,718	Complete
Sun Creek Restoration and Irrigation Efficiency	Klamath	$249,867	Complete
Beaver Creek Dam Fish Passage and Flow Restoration	Union	$600,000	Complete*
Tumalo Feed Canal Conservation Phase 5	Deschutes	$1,299,968	Complete*
Highline Canal Pipeline	Hood River	$566,299	Complete*
Klamath East Side Water Recycling Project	Klamath	$268,673	Complete*
Kingsley Reservoir Expansion and Lowline Pipeline Project	Hood River	$3,000,000	In progress
Mosier Deep Water Supply Well	Wasco	$917,238	In progress
Willow Creek Piping Irrigation Laterals	Malheur	$500,355	In progress
Total Awards		**$8,891,118**	

*Project construction is complete. Grantee is working on Final Report and grant closeout.

Table 2. 2017 Grant Awards

Project	County	Grant Award	Status
North Fork Sprague Conservation Piping and Instream Flow Restoration	Klamath	$2,731,746	In progress
Powder Valley Connector	Union	$1,076,000	In progress
Opal Springs Fish Passage and Pool Raise	Jefferson	$1,550,486	In progress
Coe Branch Pipeline & On-Farm Irrigation Efficiency Project	Hood River	$924,000	In progress
Total Awards		**$6,282,232**	

Completed Projects

Lostine River Conservation Project

Grantee: The Freshwater Trust and Wolfe Family Farm

Funding Awarded: $1,488,718

Total Project Cost: $2,132,575

County: Wallowa


New center pivot irrigating at the Wolfe Family Farm

Photo Credit: Jessica Humphreys, The Freshwater Trust

Project Summary: The project intended to convert 980 acres of predominately flood irrigation land to pressurized pivot sprinkler. The primary project goal was to improve water use efficiency, increase agricultural production, and enhance Lostine River instream flows for Endangered Species Act (ESA) listed fish species. The project was a result of collaboration between the Freshwater Trust, Nez Perce Tribe and an irrigator, and sought to work toward meeting instream flow targets identified by the Draft ESA Recovery for Northeast Oregon Snake River Spring and Summer Chinook Salmon and Snake River Steelhead Populations while keeping agricultural production whole. The project involved 1) installation of pivots, pumps, mainlines and electrical upgrades, and 2) the transfer of water instream to increase Lostine River flows in May, June and July.

Project Status: Complete and grant closed out

Project Update: The project converted 872 acres of flood irrigated fields to irrigation using 16 pivot sprinklers and 30,000 feet of mainline. The project utilized the Allocation of Conserved Water Program and transferred 90% of the conserved water instream. The project was finalized in April of 2018. Approximately 102.3-acres of formerly irrigated land were converted to wildlife habitat and dryland farming. The

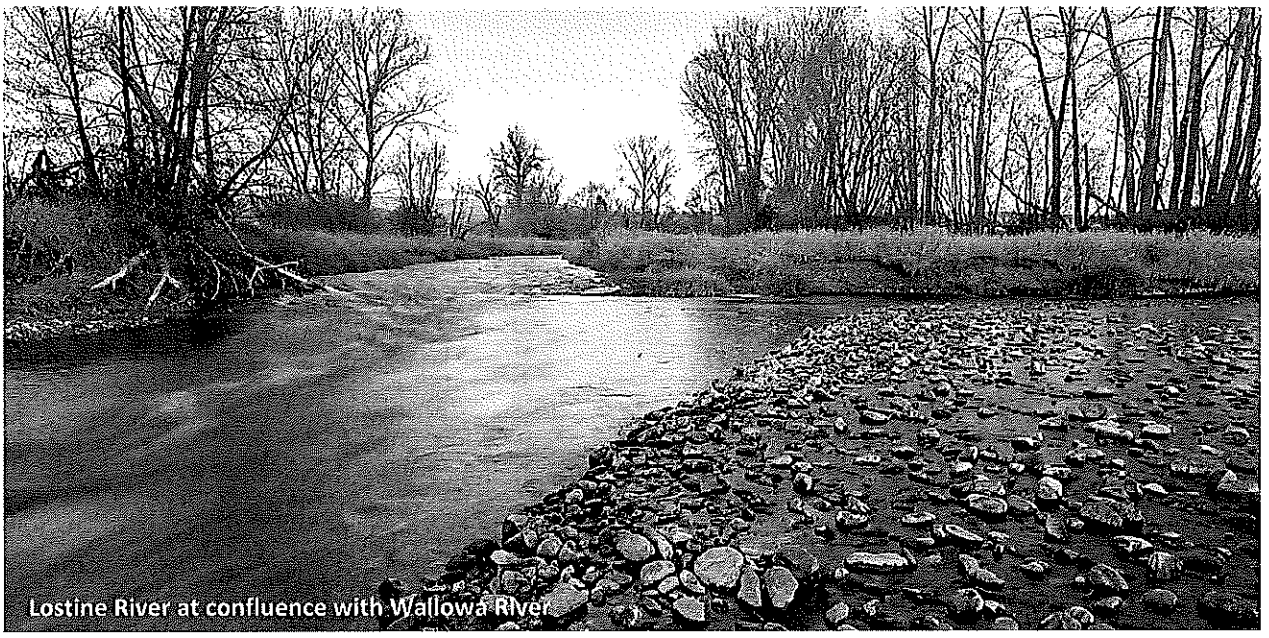

Lostine River at confluence with Wallowa River

Photo Credit: Leon Werdinger, The Freshwater Trust

grantees applied to transfer these acres instream which will contribute an additional 460 acre-feet (2.5 cfs) of flow in June-July and 102.3 acre-feet (0.8 cfs) of flow in August-September to the lower Lostine River. One hundred and twenty-four acre feet of conserved water (less than 10% of the total conserved water) was transferred to 61.2-acres to support irrigated agriculture.

Sun Creek Restoration and Irrigation Efficiency

Grantee: Trout Unlimited

Funding Awarded: $249,867

Total Project Cost: $552,734

County: Klamath

Project Summary: The project intended to support the recovery of native fish (redband trout and Endangered Species Act listed bull trout) in Sun Creek. The project goal was to increase instream flows in Sun Creek through the transfer of water rights instream.

Project Status: Complete and grant closed out

Project Update: The project was finalized in September of 2017. Water Rights for 249.7 acres were permanently transferred instream in the Upper Klamath Basin to reconnect Sun Creek which was running dry. The instream flow resulting from this project is 3.67 cfs from April 1 through June 30, 3.17 cfs from July 1 through July 19, and 3.13 cfs from July 20 through September 30. These increased flows and the resulting improved hydrologic and geomorphic function will provide additional spawning, rearing, and migration habitat for redband trout and bull trout.

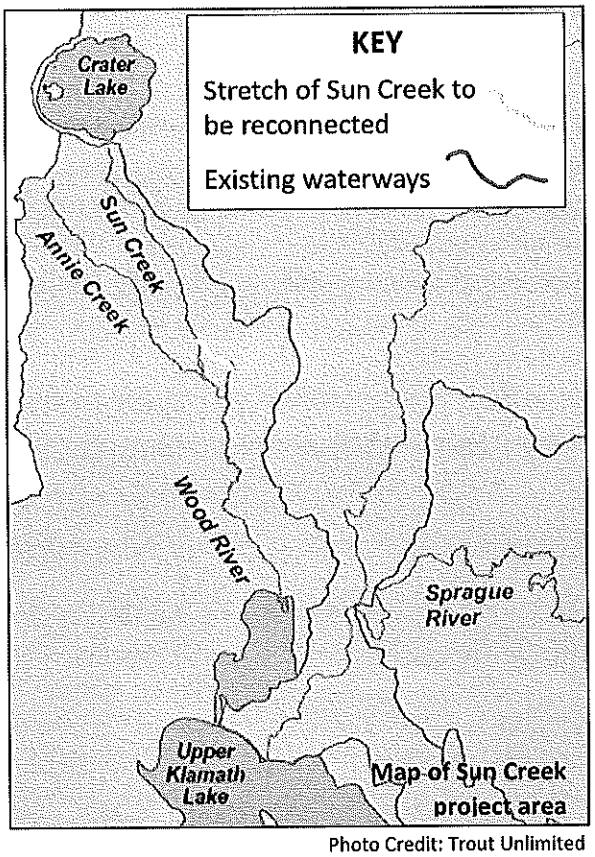


Photo Credit: Trout Unlimited

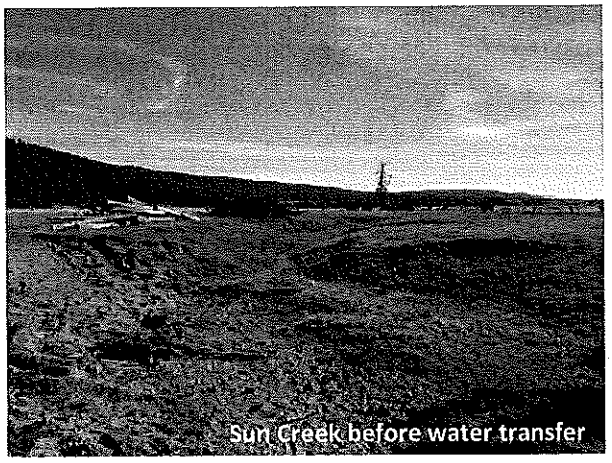


Photo Credit: Trout Unlimited

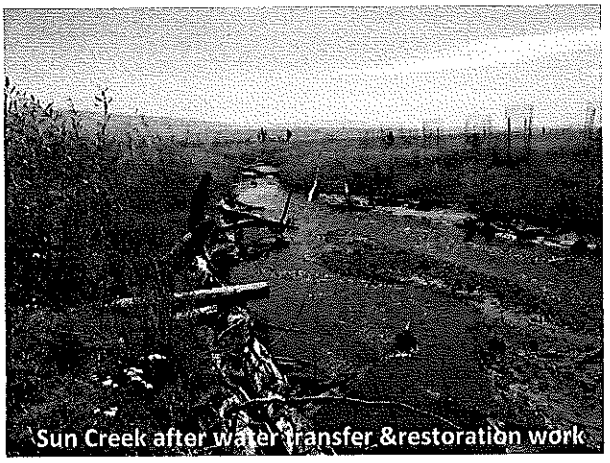


Photo Credit: Trout Unlimited

2016 Funded Projects in Progress

Beaver Creek Dam Fish Passage and Flow Restoration

Grantee: City of La Grande

Funding Awarded: $600,000

Total Project Cost: $1,125,700

County: Union

Project Summary: The City of La Grande owns and operates the La Grande Reservoir, an impoundment on Beaver Creek, in the upper Grande Ronde River watershed. When the dam was constructed in 1915, fish passage was not considered. In order to retain the reservoir as a water supply source, the City of La Grande proposed major modifications to the existing infrastructure to facilitate fish passage, reduce leaks, and modernize the dam. The project intended to: 1) install approximately 67 precast-concrete-vortex weirs with 7 precast-concrete, off-channel, resting pools at Beaver Creek Dam; 2) modify the existing diversion and main intake diversion structures including installation of grade control; 3) install woody debris and rock clusters at the downstream end of the project to create scour pools for fish habitat; and 4) install streambed simulation materials downstream of the Cove Creek and West Beaver Creek intake structures.

Project Status: Complete, awaiting final report

Project Update: Construction of the fish ladder was largely completed in the fall of 2017. Final elements of the project were completed in the spring of 2018 after the weather improved. The City of La Grande hosted a ribbon cutting for the project in June 2018.

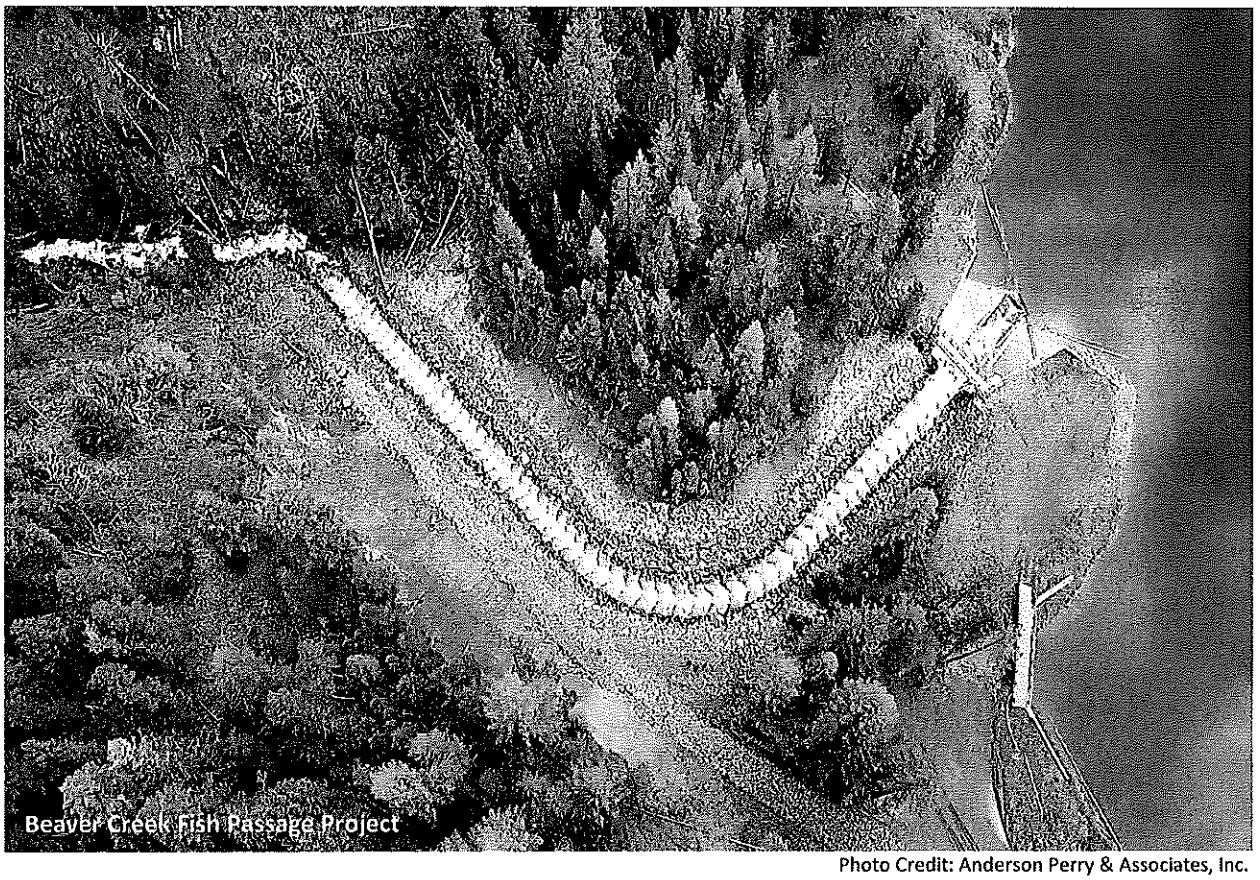


Photo Credit: Anderson Perry & Associates, Inc.

Tumalo Feed Canal Conservation Phase 5

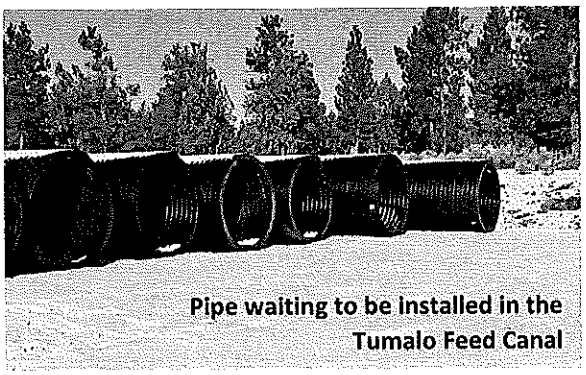
Grantee: Tumalo Irrigation District

Funding Awarded: $1,299,968

Total Project Cost: $3,407,155

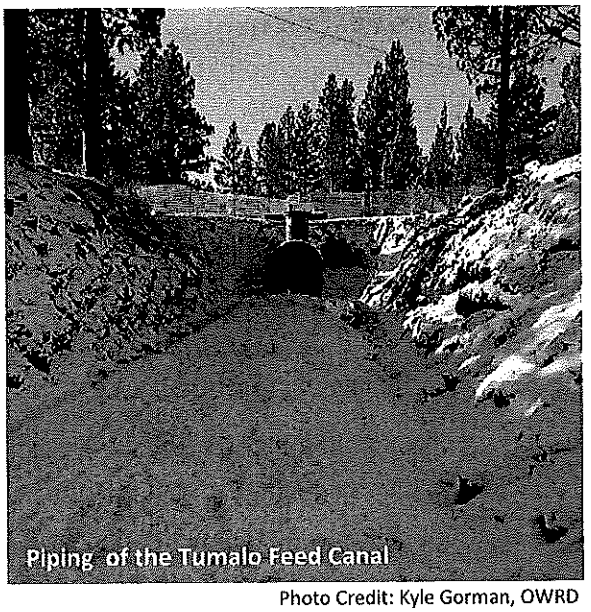
County: Deschutes

Project Summary: The Tumalo Feed Canal Conservation Project is a multi-phased effort to pipe approximately six miles of open irrigation basalt canal. Tumalo Irrigation District previously completed four phases of this project. Each phase of the project incrementally eliminated the approximately 50% seepage loss caused by the open basalt canals and created a new senior instream water right held by the State of Oregon in Tumalo Creek and the Deschutes River during the summer, and Crescent Creek, the Little Deschutes River, and the Upper Deschutes River during the winter. This funded project completed the fifth phase. The goal of the proposed project was to conserve water and increase instream flows. The project was designed to: 1) install 5,500 feet (~1 mile) of 84-inch HDPE pipe; 2) install outlet structure, outlet slide gate/controls and weholite pipe to steel pipe connection; 3) construct 5500-linear-foot ditch-rider road; 4) install two laterals, turnouts and AV/VR vaults; and 5) restore and landscape 5,500 linear feet.



Pipe waiting to be installed in the Tumalo Feed Canal

Photo Credit: Kyle Gorman, OWRD



Piping of the Tumalo Feed Canal

Photo Credit: Kyle Gorman, OWRD

Project Status: Complete, awaiting final report

Project Update: Installation of the pipeline and outlet structure was completed. An application to the Allocation of Conserved Water Program has been filed. This project will dedicate and legally protect 100% of the conserved water through that program.

Highline Canal Pipeline

Applicant: East Fork Irrigation District

Funding Awarded: $566,299

Total Project Cost: $784,699

County: Hood River

Project Summary: The Highline Lateral is a diversion ditch that begins at the end of the Dukes Valley Lateral Canal near Gilhouley Road in Hood River County and serves 321 acres. The project intended to pipe the open ditch sections, which total approximately 12,000 linear feet (~2.3 miles). The goals of the proposed project was to improve instream flows and water quality on the East Fork Hood River, increase operational efficiency for the

District, and improve irrigation reliability for District patrons. The project was designed to install 6,000 linear feet of 15-inch PVC pipe and 6,000 linear feet of 12-inch PVC pipe.

Project Status: Complete, awaiting final report

Project Update: Designs were finalized and the installation of the pipeline was completed in late 2017. Pipeline hookups and site cleanup were completed in early 2018.

Mosier Deep Water Supply Wells

Grantee: Wasco County Soil and Water Conservation District

Funding Awarded: $917,238

Total Project Cost: $1,225,013

County: Wasco

Project Summary: Groundwater levels in the upper Columbia River Basalt aquifers in the Mosier area have declined nearly 200 feet over the past 40 years, threatening the community water supply and reducing streamflow in Mosier Creek. Groundwater from the upper (Pomona and Priest Rapids) Columbia River Basalt Group aquifers is the primary source of water for domestic, municipal, and irrigation uses in the Mosier area. The goal of the project was to reduce demand on the upper, administratively withdrawn Columbia River Basalt aquifers to improve long-term groundwater supply availability and streamflows in Mosier Creek. The project intended to: 1) install two wells to depths of approximately 1,200 and 1,700 feet; 2) install pipeline; and 3) install two pumps.

Project Status: In progress

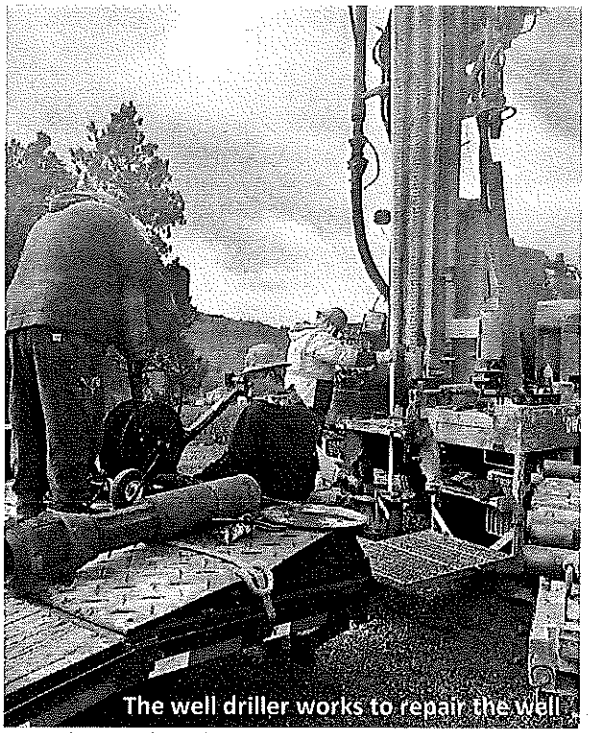

The well driller works to repair the well.

Photo Credit: Josh Thompson, Wasco County Soil and Water Conservation District (SWCD)

Project Update: While drilling the first deep well (Molesworth well), the project encountered high pressure. This meant the well would produce sufficient water but also resulted in difficulty in casing the well over 1,000 feet below the earth's surface. These challenges resulted in significant cost overruns. The landowner increased their financial contribution to the project, but the grantee will only be able to drill one well with the funds awarded. Construction of the Molesworth is nearing completion.

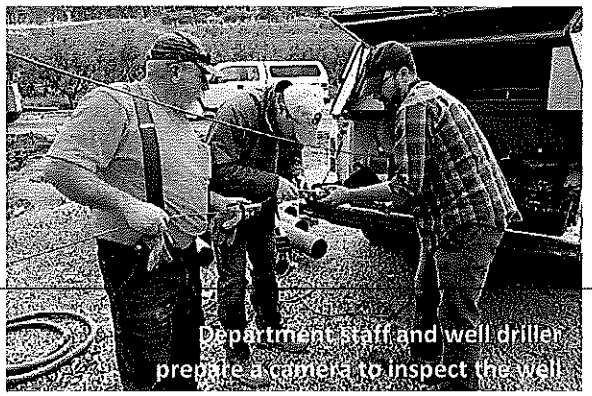

Department staff and well driller prepare a camera to inspect the well.

Photo Credit: Josh Thompson, Wasco County SWCD

Klamath East Side Water Recycling Project

Grantee: Klamath Drainage District

Funding Awarded: $268,673

Total Project Cost: $358,231

County: Klamath

Project Summary: The Klamath Drainage District in Klamath County is situated in Southern Oregon on the lakebed of the historic Lower Klamath Lake. The goal of the project was to augment water supply on the east side of the District by efficiently reusing 16,204 acre feet (AF) of drainage water prior to discharging to the Klamath River through the Straits Drain and. The project intended to collect drainage water from 10,803 acres of agricultural land lying on the east side of the District (District size is 27,000 acres) and convey it to a pumping station that will lift it back into the irrigation canal (North Canal) for reuse on 6,206 acres. The project is designed to: 1) install grating, discharge piping, intake piping, sump pipe pump (6,000 gallons per minute mix flow) motor (40 HP), CT/switchgear cabinet, 37-foot trash rack, flow meter, 36-inch headgate, steel top plate, flap gate valve and air release valve; and 2) construct concrete trash rack structure.

Installed z-pipe and flow meter at the Willow Creek Project.

Photo Credit: Malheur Watershed Council

Project Status: Complete, awaiting final report

Project Update: Construction of the project is complete. The pumping plant was constructed and completed during the second half of 2017. Final installation of the electrical work occurred in the first half of 2018. The trash rack was installed and is operational.

Willow Creek Piping Irrigation Laterals

Grantee: Malheur Watershed Council

Funding Awarded: $500,355

Total Project Cost: $785,143

County: Malheur

Project Summary: The project will pipe approximately 22,000 feet (~4.2 miles) of lateral irrigation canals in the Willow Creek area within the Vale Oregon Irrigation District. Water shortages have become increasingly frequent in recent years. The piping will not only reduce water losses from seepage and evaporation (estimated savings of 1,950 acre feet per year), but will also pressurize the system and allow farmers to convert from furrow irrigation to sprinkler systems. The goal of the proposed project is to prevent water loss from seepage and evaporation, address water quality and bull trout habitat issues, and provide economic benefit to a county with Oregon's highest poverty rate. The project will install solar units to power debris screens, 13 debris screens, 12 cement headwalls, and approximately 22,000 feet of pipe.

Project Status: In progress

Project Update: The grantee is making progress in piping ~14,000 feet of laterals. Headwalls, headgates, weed screens, z pipes, and flowmeters have been installed on several laterals. The district is looking to find another

7,000 feet to pipe because it was determined that it is not financially feasible to pipe the original canals identified. Any such request would need to be reviewed by the Department if the grantee wishes to use grant funds.

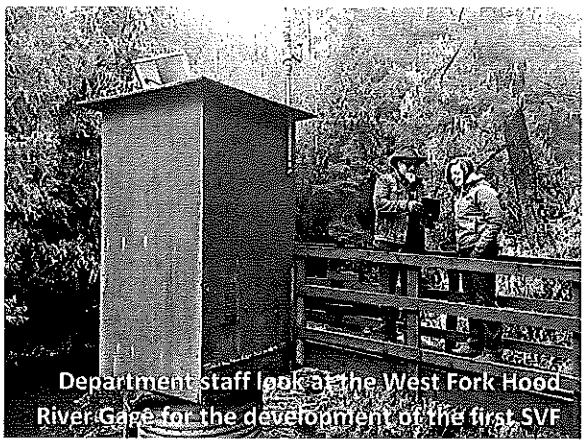

Department staff look at the West Fork Hood River Gage for the development of the first SVF

Photo Credit: Rachel LovellFord, OWRD

Kingsley Reservoir Expansion and Lowline Pipeline Project

Grantee: Farmers Irrigation District

Funding Awarded: $3,000,000

Total Project Cost: $4,241,000

County: Hood River

Project Summary: Farmers Irrigation District has historically had water supply shortages in its upper and middle lands during dry years. Results from the Hood River Basin Study (2015) indicate that these water shortages will be more frequent and severe in the future. The goals of this project are to alleviate water supply shortages in Farmers Irrigation District and to increase instream flow for threatened winter and summer steelhead, spring chinook, and coho. The project will: 1) replace 11,500 feet (~2.2 miles) of leaking pipe with 30-inch HDPE pipe, and 2) raise the height of the Kingsley Dam to increase storage volume by 650 acre feet. Per statute, this project is required to have a Seasonally Varying Flow.

Project Status: In progress

Project Update: Replacement of the pipeline was completed in 2017. The project addressed some dam safety concerns by replacing the dam outlet. Permitting to raise the dam and the development of the required Seasonally Varying Flow are underway.

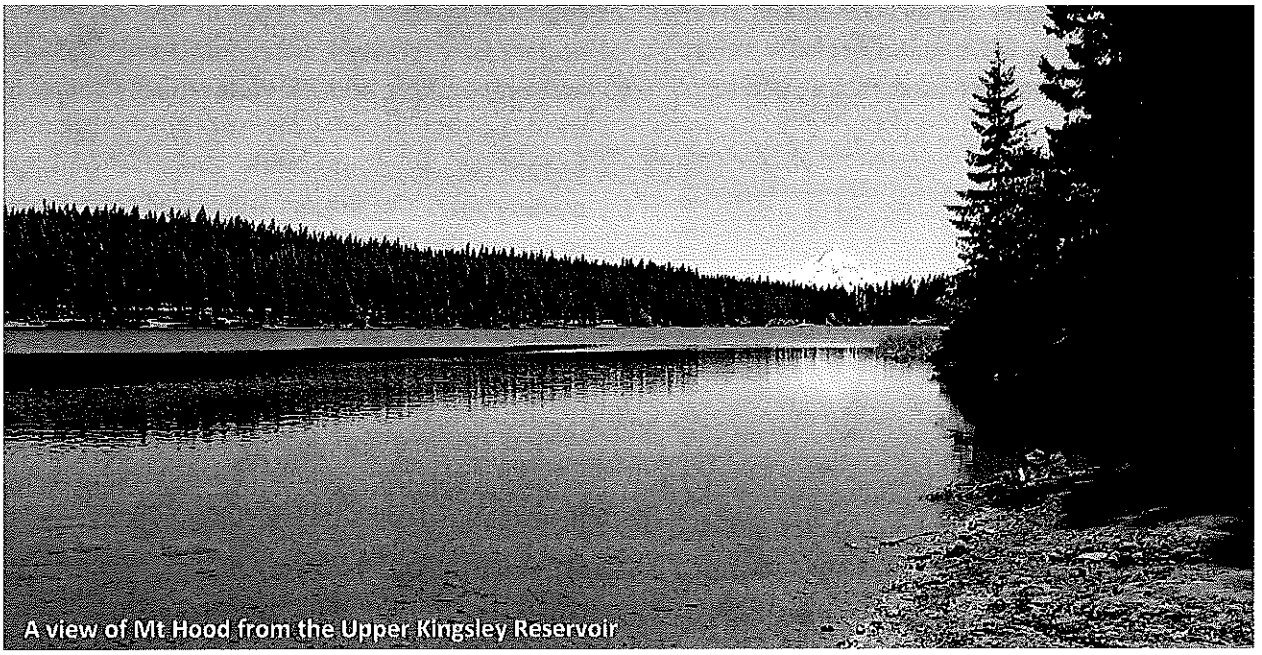

A view of Mt Hood from the Upper Kingsley Reservoir

Photo Credit: OWRD

2017 Funded Projects in Progress

Opal Springs Fish Passage and Pool Raise

Grantee Name: Deschutes Valley Water District (DVWD)

Funding Awarded: $1,550,486

Total Project Cost: $10,720,486

County: Jefferson

Project Summary: The Opal Springs Hydroelectric Project is a 4.3 megawatt (MW) hydropower project on the Crooked River. In 2007, fish agencies reintroduced listed salmon and steelhead into the Upper Deschutes Basin. The purpose of the project is to allow upstream and downstream fish passage through the development of fish passage facilities. The project intends to restore effective migratory fish access to over 100 miles of habitat through the lower Crooked River. The project will enable Deschutes Valley Water District to qualify for Low Impact Hydro Institute certification to provide renewable energy credits.

Project Status: Construction in progress

Project Update: Necessary permits have been secured and construction has begun. This includes installation erosion control measures and the construction of a cofferdam.

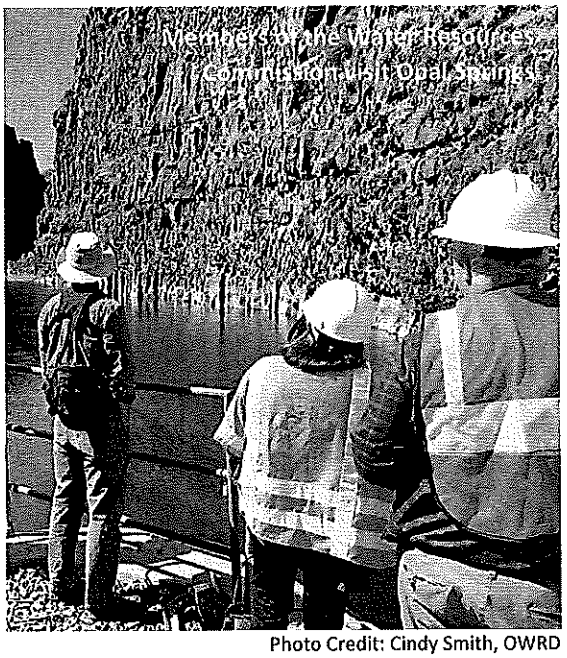


Photo Credit: Cindy Smith, OWRD

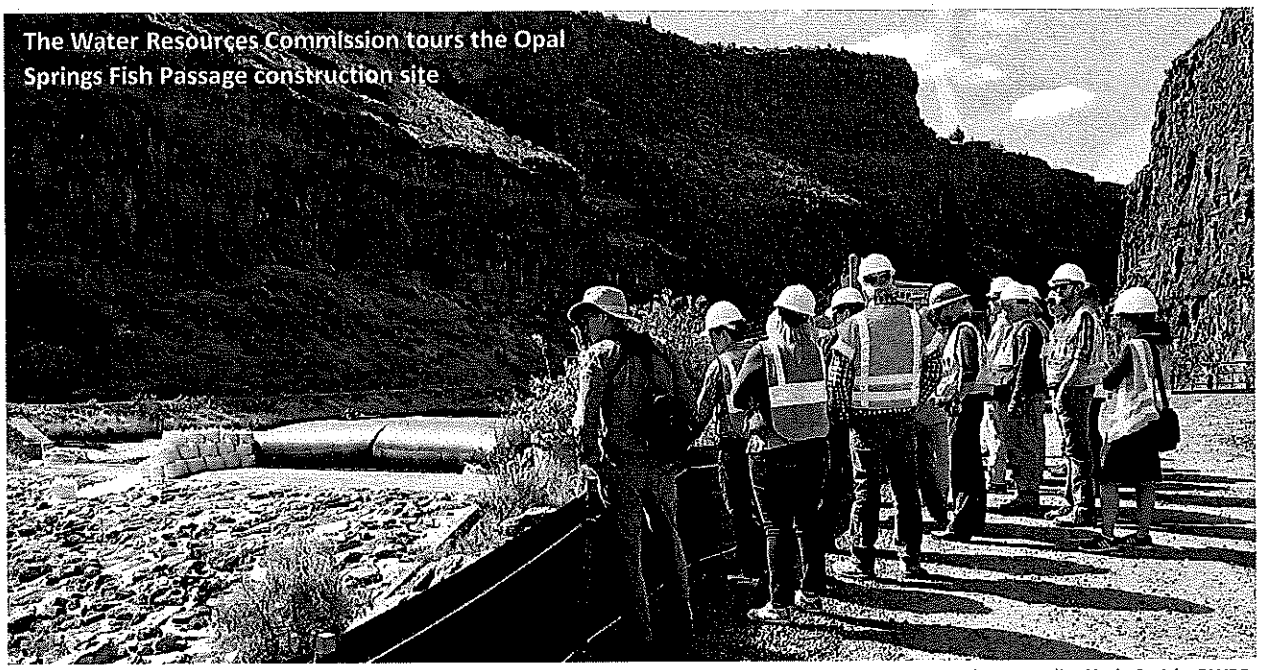


Photo Credit: Cindy Smith, OWRD

Powder Valley Connector

Grantee Name: Powder Valley Water Control District

Funding Awarded: $1,076,000

Total Project Cost: $1,440,000

County: Union

Project Summary: The Powder Valley Water Control District (PVWD) seeks to reduce water loss from the MaHarry-Blevins Ditch, an 8,090-foot manually controlled and open irrigation ditch. This project intends to accomplish this by constructing a 6,980-foot long, 36-inch diameter pipeline with automated control valves to replace the ditch from Wolf Creek Reservoir to the P-2 pipeline inlet. Once complete, the pipeline will conserve up to 1,350 acre-feet of water each irrigation season. This will result in less water being released from the reservoir to meet demand and will result in an increase in late-season reservoir volume.

Project Status: In progress

Project Update: Pipe has been ordered and construction is scheduled to start in the fall.

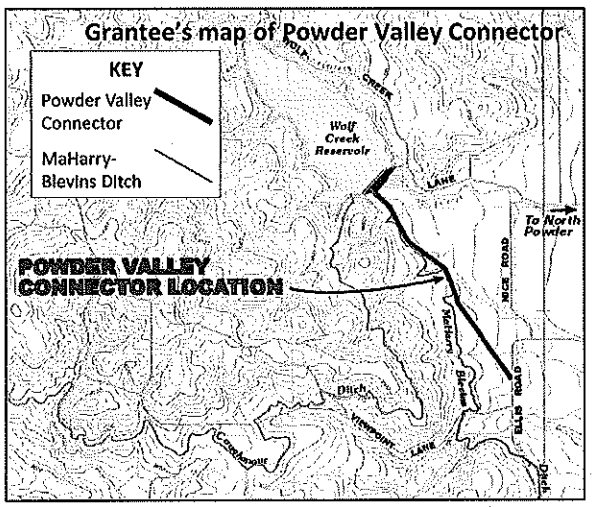


Figure Credit: PVWCD

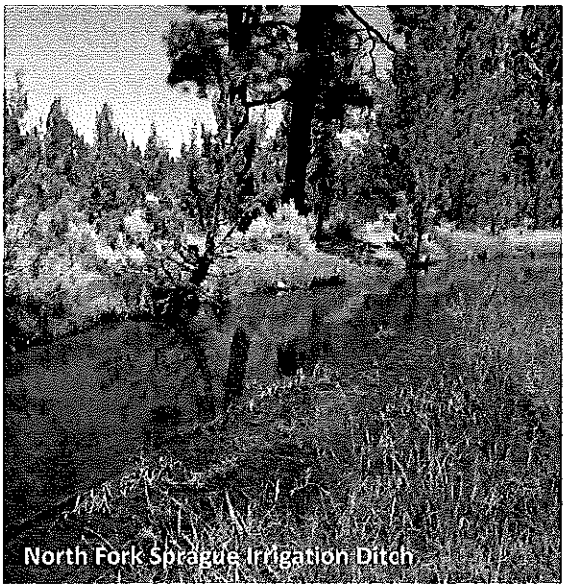


Photo Credit: Chrysten Lambert, Trout Unlimited

North Fork Sprague Conservation Piping and Instream Flow Restoration

Grantee Name: Trout Unlimited

Funding Awarded: $2,731,746

Total Project Cost: $3,875,000

County: Klamath

Project Summary: The project will install dual 36-inch high-density polyethylene (HDPE) pipe in the unlined North Fork Sprague River Irrigation Ditch located in the Upper Klamath Basin. The diversion rate is up to 76.8 cubic feet per second (cfs), and ditch loss surveys documented a 35% loss of water in the ditch. More than 90% of the conserved water (as much as 29 cfs) will be legally protected for instream use in the North Fork Sprague River.

Project Status: In progress

Project Update: The grant agreement has been signed. Construction will begin when cost-match and permits are secured and documentation is provided to the Department.

Coe Branch Pipeline & On-farm Irrigation Efficiency Project

Grantee Name: Middle Fork Irrigation District

Funding Awarded: $924,000

Total Project Cost: $1,680,105

County: Hood River

Project Summary: The purpose of this project is to increase on-farm water conservation in the Middle Fork Irrigation District (MFID) in Hood River County, which will allow more water to be left instream for the benefit of threatened populations of winter steelhead, spring Chinook, and bull trout. Instream benefits may occur due to an estimated 60% reduction in water diversion while achieving the same irrigation benefits. Increased on-farm water conservation will be accomplished in two ways. First, MFID will construct a new pipeline segment from their Coe Branch diversion to an existing settling pond, allowing removal of significant amounts of sediment from the water before it is delivered to irrigators. Second, MFID patrons will upgrade irrigation equipment on 304 acres, which would save approximately 407 acre-feet/year (1.7 cubic feet per second during the irrigation season). Removing sediment from Coe Branch water, via the existing settling pond, is key to enabling MFID irrigators to use more efficient irrigation equipment such as micro-sprinklers and drip lines.

Project Status: In progress

Project Update: The grant agreement has been signed. Construction will begin when cost-match and permits are secured and documentation is provided to the Department.

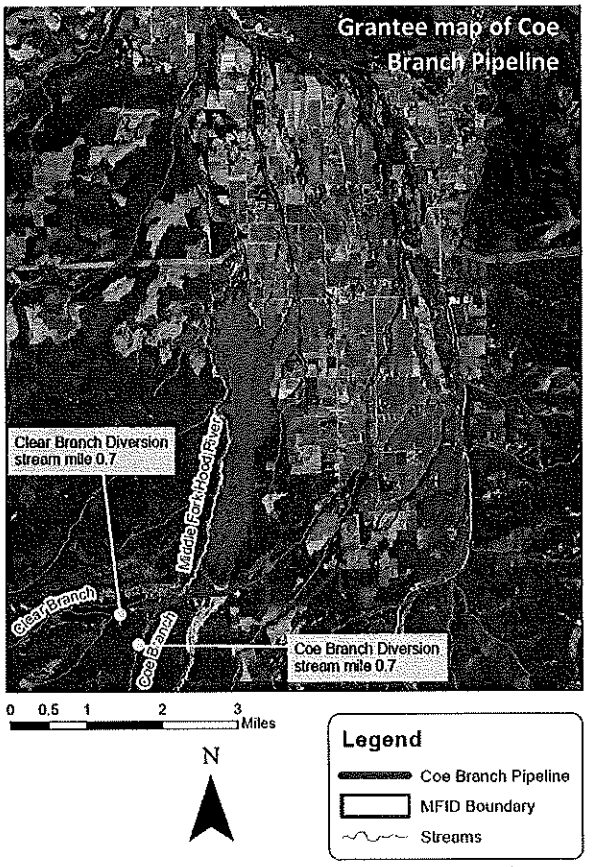
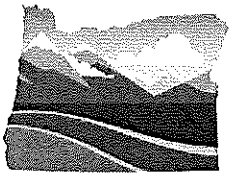


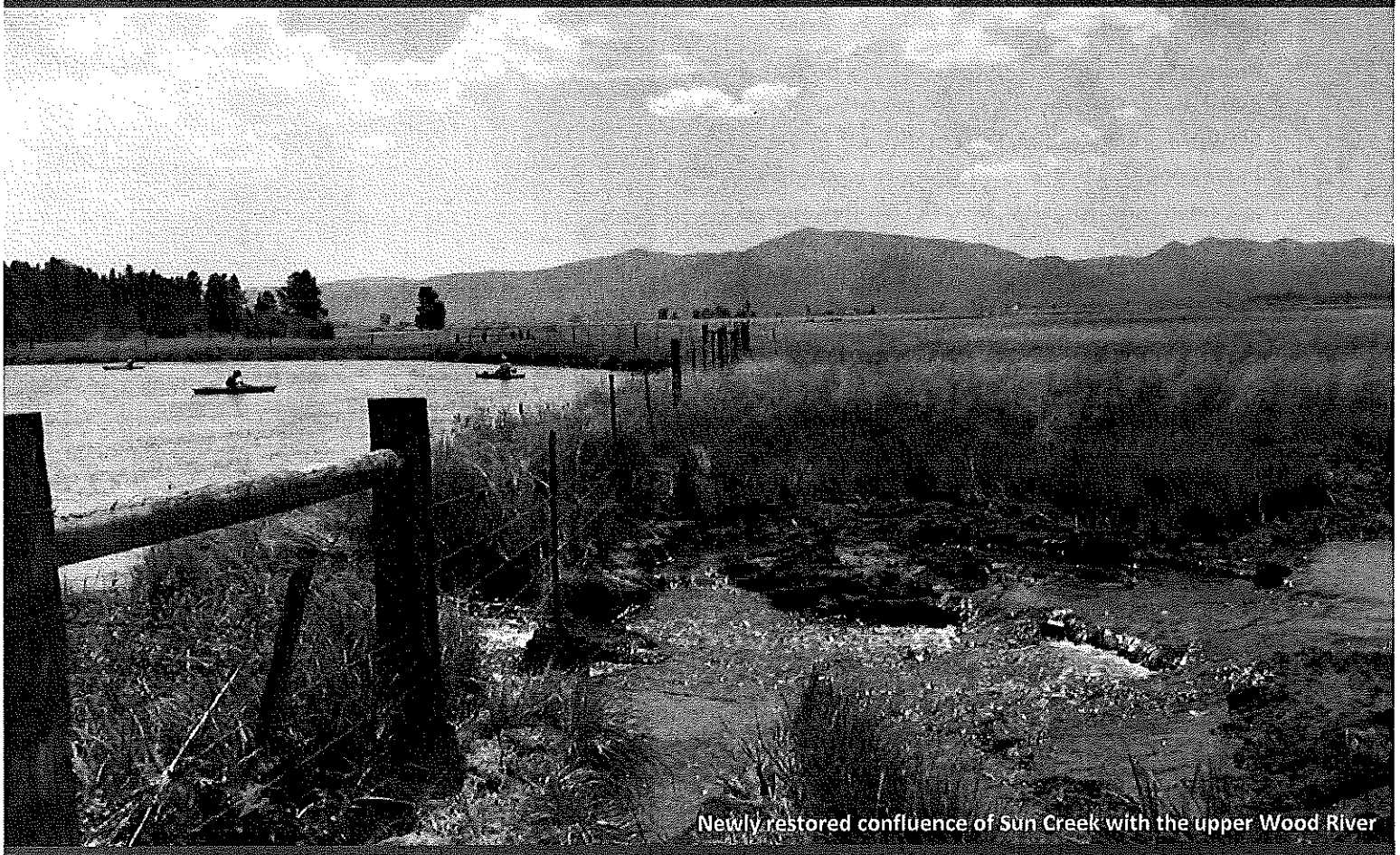
Figure Credit: MFID

Conclusion

Of the 13 projects awarded funding, two projects have been completed and have submitted final reports. Another four projects have completed construction but have not yet submitted their final report and closed out their grant. Seven projects are currently under construction—three projects from 2016 and four from 2017. All seven are making progress towards project completion.



Water Project Grants and Loans provides funding for projects that address instream and out-of-stream water supply needs, as well as result in economic, environmental, and social/cultural public benefits. Applications are generally due each spring and funding awards are made each fall. Approximately $13.8 million is currently available for the 2018 and 2019 funding cycles.



Newly restored confluence of Sun Creek with the upper Wood River

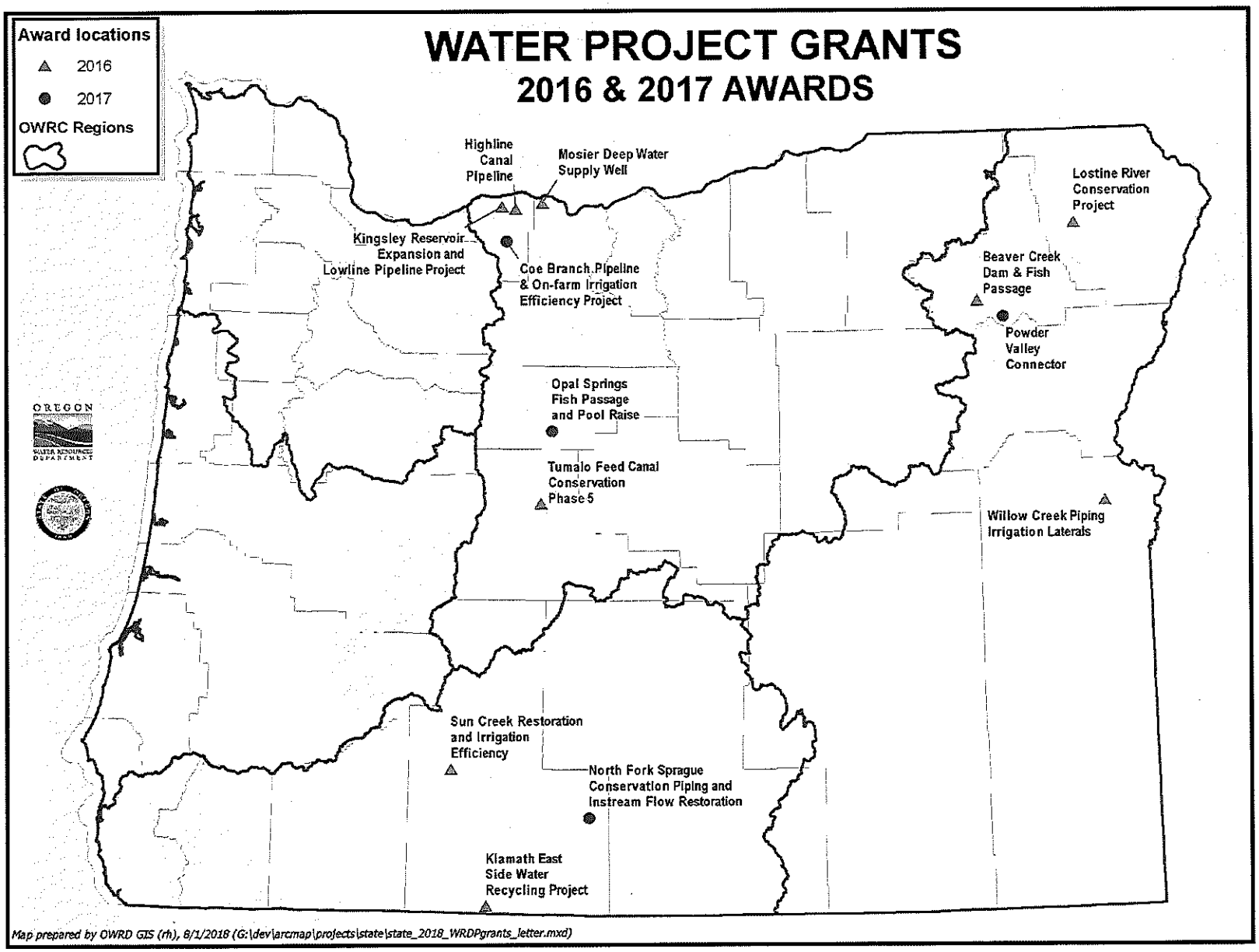
Photo Credit: OWRD

OREGON

WATER RESOURCES DEPARTMENT

For more information about these grants and the Water Project Grants and Loans funding opportunity visit: www.Oregon.gov/OWRD or email: WRD_DL_waterprojects@oregon.gov

Attachment 2



OREGON WATER RESOURCES DEPARTMENT

Water Project Grants and Loans

Complete Applications Received for 2018 Funding Cycle

Water Project Grants and Loans (SB 839 – 2013) allows the state to invest in projects that meet instream and out-of-stream needs, and provide economic, environmental, and social/cultural benefits. The following is a list of the 19 complete applications received by the April 25, 2018 deadline for the 2018 funding cycle. Eighteen grant complete applications and one loan complete application were received.

Project Title	Project Type*	County	Grant Funds Requested	Loan Funds Requested	Total Cost of Project
Amity Water Distribution Line Replacement and Reservoir Site Improvements	Conservation, Water Infrastructure	Yamhill	$2,134,353	-	$2,845,804
Beaver Creek East Reservoir Above-Ground Storage	Above-Ground Storage, Conservation, Flow Restoration & Protection, Water Infrastructure	Crook	$654,900	-	$873,200
COID G-4 Lateral Piping Project	Conservation, Flow Restoration & Protection	Deschutes	$349,728	-	$470,190
Dee Flat Water Conservation Project	Conservation, Flow restoration & Protection, Water Infrastructure	Hood River	$1,600,000	-	$2,688,587
Fishhawk Lake & Stream Water Supply & Quality Improvement Project	Above-Ground Storage, Flow Restoration & Protection, Water Infrastructure	Clatsop & Columbia	$584,068	-	$918,675
Fishhawk Lake Loan: Water Supply & Quality Improvement Project	Above-Ground Storage, Flow Restoration and Protection, Water Infrastructure	Clatsop & Columbia	-	$673,106	$918,675
Flat Creek Watershed Enhancements	Above-Ground Storage, Conservation, Water Infrastructure	Grant	$196,029	-	$391,458
Galls Creek Irrigation Conversion Project	Conservation, Flow Restoration & Protection, Other (Fish Passage Barrier Removal), Water Infrastructure	Jackson	$153,351	-	$213,913
Johnston Lane Conservation Project	Conservation	Wallowa	$606,343	-	$808,458
Lafayette Water Transmission Intertie to McMinnville	Water Infrastructure	Yamhill	$1,875,000	-	$2,800,000
Mosier Deep Water Supply Well	Water Infrastructure, Other (Water Supply Development)	Wasco	$671,724	-	$906,911
Newport Citywide Advanced Metering Infrastructure	Conservation	Lincoln	$636,119	-	$1,507,782
Painted Hills Reservoir Expansion	Above-Ground Storage	Wheeler	$581,990	-	$1,086,667
Palmer Creek Irrigation Upgrade Project	Conservation, Water Infrastructure	Yamhill	$582,713	-	$1,003,803

Smith Ditch Water Delivery Improvement	Water Infrastructure	Baker	$590,902	-	$799,152
Sterling Park Stormwater Recharge Project	Below-Ground Storage, Flow Restoration & Protection	Washington	$862,500	-	$1,150,000
The Dalles Municipal Watershed Dog River Pipeline Replacement Project	Conservation, Flow Restoration & Protection, Water Infrastructure	Hood River	$1,000,000	-	$8,097,700
Threemile Joint Fish Screen and Piping Project	Conservation, Flow Restoration & Protection, Water Infrastructure	Wasco	$ 948,461	-	$2,543,296
Tumalo Feed Canal Phase 6	Conservation, Flow Restoration & Protection	Deschutes	$1,297,542	-	$6,744,744
		TOTAL	**$15,325,723**	**$673,106**	**$35,850,340**

*Project type as identified by applicant.

OREGON WATER RESOURCES DEPARTMENT

Water Project Grants and Loans Applications

Project Summaries – 2018 Funding Cycle

July 3, 2018

Background

In 2013, the Oregon Legislature passed Senate Bill 839, establishing the Water Supply Development Account to provide grants and loans for water projects that have economic, environmental and social/cultural benefits. The 2018 application deadline was April 25, 2018. The Department received 19 complete applications requesting a total of $15,998,829 in grants and loans.

Document Description

The following are project summaries for complete grant applications received by April 25, 2018 for the 2018 Water Project Grants and Loans funding cycle. The project summaries are adapted from submitted project applications. The application summaries are listed in alphabetical order and page number listed below.

Next Steps

The Department is soliciting public comment on the Water Projects Grants and Loans applications through 5:00 pm on July 20, 2018. Public comments submitted on applications will be considered by the Technical Review Team (TRT). The TRT will evaluate applications and make a funding recommendation to the Water Resources Commission. The Department will post the TRT funding recommendation for an additional public comment period. The tentative date for the Commission to make its funding decision is November 2018.

More Information

If you have questions please contact Grant Program Coordinator, Becky Williams, at 503.986.0869 or waterprojects@wrd.state.or.us.

2018 Applications

Amity Water Distribution Line Replacement and Reservoir Site Improvements

Project Information (adapted from application)

Applicant Name: City of Amity

County: Yamhill

Funding Requested: $2,134,353 Grant

Total Project Cost: $2,845,804

Project Summary: The proposed Project is to design and implement improvements to the reservoir, replace seven pipelines as well as a transmission line, and install new fire hydrants. To bring the reservoir back online the proposal includes replacing valving and controls to restore storage capacity. Replacement of old corroded pipes and asbestos concrete material which have deteriorated is anticipated to improve water quality and reduce water loss from 43% to 15%. A goal of the Project also to reduce bottlenecking (succession of pipes of different diameters restricting water pressure) by upsizing lines resulting in an increase in water flow to enhance water pressure and fire protection. Other goals of the project are to enhance conservation, restore storage volume, and improve water infrastructure reliability and dependability.

Beaver Creek East Reservoir Above-Ground Storage

Project Information (adapted from application)

Applicant Name: Young's Farm Blue Mountain Holdings, LLC

County: Crook

Funding Requested: $654,900 Grant

Total Project Cost: $873,200

Project Summary: The Project proposes to store water in a 134 acre-foot off-channel reservoir in Crook County within the Crooked River watershed of the Upper Deschutes Basin. The Project goals include outcomes that intend to improve and increase agricultural production on the Blue Mountain Holdings irrigation grazing pastures and enhance instream flows for listed sensitive-critical Rainbow Trout, sensitive Great Basin Redband Trout, and the listed sensitive Brook Lamprey. The Project proposes to legally protect 25% of annually-stored water as instream flows in the dry summer months. Additionally, to address seepage losses, approximately 750 feet of new PVC piping infrastructure from the POD will be installed, thereby avoiding pumping into the existing earthen ditch, to the reservoir, and pipe from the reservoir to the irrigated place of use.

Central Oregon Irrigation District G-4 Lateral Piping Project

Project Information (adapted from application)

Applicant Name: Central Oregon Irrigation District

County: Deschutes

Funding Requested: $349,728 Grant

Total Project Cost: $470,190

Project Summary: This Project proposes piping approximately 4660 ft. of open, earthen canal as Phase One of Central Oregon Irrigation District's (COID's) System Improvement Plan (SIP). The current configuration of this lateral serves eight patrons in a rotation with a total of approximately 127 acres with a disparate mix of both flood and pressurized irrigation distribution, causing challenges in managing and delivering water. This Project intends to mitigate water loss by installing individual, measurable deliveries for each patron served by the G-4. The Project anticipates conserving 0.10 cfs of water to return and legally protect instream in the Deschutes River. This Project will connect to the Pilot Butte Canal (PBC), one of COID's two main transmission canals that will be enclosed in pipe in multiple phases with estimated completion in 2031.

Dee Flat Water Conservation Project

Project Information (adapted from application)

Applicant Name: Dee Irrigation District

County: Hood River

Funding Requested: $1,600,000 Grant

Total Project Cost: $2,688,587

Project Summary: The Project proposes to replace approximately 6 miles of open canal and old, unpressurized High Density Polyethylene pipe. Anticipated Project outcomes include 1) conserving water, 2) increasing irrigation water reliability, 3) legally protecting water instream and increasing flows, 4) energy savings, and 5) potential reduction of risks to water quality through the upgrade and pressurization of Dee Irrigation District's distribution piping system. The proposed upgrades are designed to eliminate seven end spills and approximately 50 individual pumps. The proposal of a fully-enclosed and pressurized distribution system, anticipates benefits which will improve irrigation water reliability and availability to the 870 acres in the Dee Flat, leave an estimated 2 cfs of water instream during the critical summer months (1 cfs will be protected through the Allocation of Conserved Water Program), reduce energy use by an estimated 340,000 kilowatt hours per year, and eliminate the potential water quality impacts to the West Fork and East Fork from the 7 end spills and their associated drainages. Another anticipated Project benefit is to increase instream flows, with the intention to enhance spawning and juvenile rearing habitat for Endangered Species Act listed population of spring Chinook, summer and winter steelhead, and coho.

Fishhawk Lake & Stream Water Supply & Quality Improvement Project

Project Information (adapted from application)

Applicant Name: Fishhawk Lake Reserve & Community and the Upper Nehalem Watershed Council

County: Clatsop, Columbia

Funding Requested: $584,068 Grant **Funding Requested:** $673,106 Loan

Total Project Cost: $918,675

Project Summary: This Project proposes construction of an 8' x 10' controlled sluice gate within the existing drop-drain spillway designed to operate simultaneously with high-water weather events to scour the bottom of the lake and flush both existing and incoming sediment downstream. The gated spillway is expected to pass a quantity of 2000-5000 cubic yards or more of sediment per year, based on two high-water weather events per year (depending on rainfall amount and storm duration). Goals of the Project include restoring the depth and available water in the lake, adding ecological benefits to the lake and downstream habitat with improved water temperatures, lessening turbidity, increasing oxygenation levels, and replenishing the streambed with gravels, sediments and debris deposits.

Flat Creek Watershed Enhancements

Project Information (adapted from application)

Applicant Name: South Fork John Day Watershed Council & Cascade Pacific Resource Conservation and Development

County: Grant

Funding Requested: $196,029 Grant

Total Project Cost: $391,458

Project Summary: The Project proposes updating the delivery headgate for the Roosevelt Reservoir, and excavating the Pinchot reservoir back to its permitted water holding capacity, making it capable of supplying irrigation water to a 40-acre Food Plot Field during the mid- to late- growing season, July-August. The current delivery system is a wheel line, and a goal of the Project is to improve water application efficiency by using a center pivot. Improved function of the Aldrich reservoirs, Roosevelt and Pinchot are an anticipated Project outcome. The Project includes installing a new fish screen and diversion, as well as conducting engineering, design, and cultural surveys.

Galls Creek Irrigation Conversion Project

Project Information (adapted from application)

Applicant Name: Jackson Soil & Water Conservation District and JTE Ranch

County: Jackson

Funding Requested: $153,351 Grant

Total Project Cost: $213,913

Project Summary: The Project proposes replacing push-up dams with a pump at the lower point of diversion, which would fill two ponds on the east side of Galls Creek. A second pump at the lower pond would provide water to two center pivot irrigation systems and additional "big gun" sprinklers. The landowner proposes abandoning the upper point of diversion, Pfiel ditch, and fields on the west side of Galls Creek, and transferring those water rights to the fields above the Gold Crest ditch and additional fields on the east side of Galls Creek. The new irrigation system anticipates reducing inefficiencies by eliminating all return flows to Galls Creek and replacing the Gold Crest conveyance ditch with a closed pipe. An intended outcome of the proposed Project is that removal of the two push-up dams would restore more than two miles of fish migration habitat, and eliminate return flows preventing bacteria contamination and stream temperature increases, thereby improving water quality in Galls Creek. The Project proposes to improve stream flows by returning a portion of the conserved water back in Galls Creek through the Allocation of Conserved Water Program.

Johnston Lane Conservation Project

Project Information (adapted from application)

Applicant Name: The Freshwater Trust, Ken and Bobbie Baker, and Perry Johnston

County: Wallowa

Funding Requested: $606,343 Grant

Total Project Cost: $808,458

Project Summary: The proposed Project is to convert approximately 300 acres of flood irrigated land to a center pivot irrigation system, with anticipated outcomes of improving water management and crop productivity on private land in Wallowa County in the Wallowa River basin. The Project proposes legally protecting approximately 2.3 cfs in conserved water instream, with a goal of improving instream flows for ESA-listed Chinook salmon and steelhead in the Lostine River. Additionally, the water rights not served by the new center pivot system would be transferred instream after project completion. The Project outcomes are expected to encourage other irrigators in the basin to consider participation in regionally-available conservation programs.

Lafayette Water Transmission Intertie to McMinnville

Project Information (adapted from application)

Applicant Name: City of Lafayette

County: Yamhill

Funding Requested: $1,875,000 Grant

Total Project Cost: $2,800,000

Project Summary: The Project proposes construction of an 8,800 foot, 12-inch water line and pump station from the City of McMinnville to Lafayette. If funded this project is designed to allow Lafayette to receive water from McMinnville Water & Light in order to supplement the City's water supply source and avoid summer water-use restrictions. In the winter, the City is able to utilize spring water, but that source is not an option in the summer, thus the City is completely reliant on a diminishing joint groundwater system shared with the City of Dayton. An additional goal of the water intertie Project is to support the future growth needs of Lafayette for the next 20 years.

Mosier Deep Water Supply Well

Project Information (adapted from application)

Applicant Name: Wasco County Soil & Water Conservation District and Wade Root

County: Wasco

Funding Requested: $671,724 Grant

Total Project Cost: $906,911

Project Summary: As proposed, the Project would complete construction of the second of two deep wells, which would result in removal of the two largest irrigators from the compromised aquifers in the Mosier Critical Groundwater Area. An outcome of the proposal is that withdrawals from the upper Columbia River Basalt aquifers would be reduced by between 660 and 990 acre feet per year. Completion of this project anticipates an increase in the long-term availability of the groundwater supply for Mosier's vital agricultural community and for the community at large, while also benefiting water quantity and quality in Mosier Creek.

Newport Citywide Advanced Metering Infrastructure

Project Information (adapted from application)

Applicant Name: City of Newport

County: Lincoln

Funding Requested: $636,119 Grant

Total Project Cost: $1,507,782

Project Summary: The proposed Project represents the third and final phase of its water conservation project. The City plans to complete the installation of updated Advanced Metering Infrastructure (AMI) technology to improve water management and meet growing demand for clean water supply in the coastal community. Installation of the AMI technology, telemetry equipment, and billing software would enable the City and its water users to quickly identify leaks and wasteful water practices by delivering real-time information to water users through online portals. Anticipated benefits to the City, industrial and commercial water users, and residents include savings of time, money, and water resources. Ultimately, outcomes of the Project expect results in water conservation, energy savings, improved water management, and increased resiliency to man-made and natural disasters.

Painted Hills Reservoir Expansion

Project Information (adapted from application)

Applicant Name: Bridge Creek Ranch, LLC

County: Wheeler

Funding Requested: $581,990 Grant

Total Project Cost: $1,086,667

Project Summary: The Project proposes to raise the Painted Hills reservoir's capacity from 800 acre-feet to 1,300 acre-feet and to add irrigation, conveyance, and water monitoring infrastructure to increase Bridge Creek Ranch's agricultural productivity and efficiency, as well as, to increase both water quality and quantity in Bridge Creek and Bear Creek (and the John Day River). By adding new irrigation infrastructure, the Project intends to improve agricultural production on 45 acres by increasing irrigation efficiency from 50% to 90-95%. The project also anticipates reducing power consumption used for irrigation by 20-25% on over 400 acres. This Project anticipates benefits to both Bridge and Bear Creek's steelhead and salmonid populations by providing an additional 125 acre-feet of water to be discharged to both streams during the summer low-flow period. This is equivalent to a 0.685 cfs increase for up to 92 days, which is anticipated to provide a 34% increase over recent summer base flows in Bridge Creek. Additional Project goals are to improve the ecological and economic development of the rural working community in this arid climate by providing increased water storage and streamflow, and by providing permanent tourism and agricultural jobs, as well as seasonal construction positions.

Palmer Creek Irrigation Upgrade Project

Project Information (adapted from application)

Applicant Name: Timothy and Suzanne Kreder

County: Yamhill

Funding Requested: $582,713 Grant

Total Project Cost: $1,003,803

Project Summary: The Project proposes to upgrade an existing agricultural irrigation system by expanding infrastructure and using water-saving technology. The aim is to give the system the capacity to effectively deliver enough water for higher-value crops on more acres. A Project goal is to make it possible for famers in Yamhill County to use more of the water stored in the Willamette Valley Project reservoirs. The first phase of the Project would be the implementation of drip tube irrigation and remote soil moisture monitoring and control system for greater water savings in a 55 acre blueberry field, which is currently irrigated using overhead impact sprinklers. The second phase would be replacing the existing pump with an energy-efficient higher-capacity pump and extending the existing mainline pipe with 10.1 ft. of underground 8 inch PVC mainline pipe to irrigate another 79 acres. The intent is to save water by using drip irrigation and remote soil moisture monitoring and control systems, rather than a big gun sprinkler. The third phase would be the construction of a small reservoir and secondary pumping site connected to center pivot and linear drip irrigation systems with 1700 ft. of underground 8-inch PVC mainline pipe. The third phase would irrigate another 92 acres.

Smith Ditch Water Delivery Improvement

Project Information (adapted from application)

Applicant Name: Baker Valley Soil and Water Conservation District County: Baker

Funding Requested: $590,902 Grant

Total Project Cost: $799,152

Project Summary: The Project proposes to pipe a section of the ditch to conserve water and provide protection from future ditch breaches. Such breaches into Baker City could result in the loss of the ability to use the ditch and irrigate 2,230 acres of agricultural land. A 3,550 ft. section of the open ditch will be replaced with 48" DR41HDPE fusion welded pipe which will be installed in the existing ditch for all but one portion of the project area. Regular flow measurements to determine the exact ditch loss will be conducted in the year leading up to the pipeline installation and 100% of the live flow amount (estimated currently at 0.53 cfs) would be legally protected instream.

Sterling Park Stormwater Recharge Project

Project Information (adapted from application)

Applicant Name: Clean Water Services and the City of BeavertonCounty: Washington

Funding Requested: $862,500 Grant

Total Project Cost: $1,150,000

Project Summary: The proposed Project is designed to capture and treat residential stormwater as a source for aquifer storage and recovery (ASR) at an existing groundwater well located in Sterling Park in Beaverton, Oregon. The stored stormwater would be recovered in the summer for non-potable uses, including irrigation and streamflow enhancement/temperature mitigation at Summer Creek. By creating an alternative source of supply for non-potable applications, this project anticipates leaving more water instream, benefiting native and endangered fish species in the Tualatin River, and offsetting groundwater usage in the Bull Mountain-Cooper Mountain Critical Groundwater Area. Additionally, by storing and reusing stormwater for beneficial purposes, the Project expects a reduction in excessive erosion and hydromodification by reducing peak stormwater flows in tributary streams to the Tualatin River.

The Dalles Municipal Watershed Dog River Pipeline Replacement Project

Project Information (adapted from application)

Applicant Name: City of The Dalles

County: Hood River

Funding Requested: $1,000,000 Grant

Total Project Cost: $8,097,700

Project Summary: The Project proposes to design and construct 3.5 miles of new ductile iron pipe, replacing a wooden pipeline built before World War I, eliminate 1 million gallons of water leakage or a 12.5% loss at peak levels per day, reduce reliance on well use in a Critical Groundwater Area, enhance flow metering systems, install fish screens and upstream fish passage structure, benefit instream flows during critical periods for important fish species such as Steelhead, Coho, and Chinook and help in securing a vibrant economic future for the community and surrounding areas.

Threemile Joint Fish Screen and Piping Project

Project Information (adapted from application)

Applicant Name: Wasco County Soil & Water Conservation District and Rock Creek District Improvement Company

County: Wasco

Funding Requested: $948,461 Grant

Total Project Cost: $2,543,296

Project Summary: The Threemile Join Fish Screen Project proposes to eliminate 16,000 feet of open ditch in two neighboring Irrigation Districts and convert it to pipe, saving 2 cfs. Half of the saved water (1 cfs) would be converted to a senior instream water right on a currently over-allocated stream. The Project proposal includes eliminating two unscreened fish passage barriers and installing a new fish friendly diversion and Farmers Conservation Alliance screen. The instream water right would restore flow in to up to 14 miles of natural stream that has been seasonally dewatered for the last century.

Tumalo Feed Canal Phase 6

Project Information (adapted from application)

Applicant Name: Tumalo Irrigation District

County: Deschutes

Funding Requested: $1,297,542

Total Project Cost: $6,744,744

Project Summary: The Tumalo Feed Canal Conservation Project is a multi-phased effort to pipe approximately six miles of open irrigation basalt canal. This application requests funding for Phase 6, which is intended to complete the Tumalo Feed Canal and mitigate water lost to seepage and evaporation in the primary District transmission canal. This phase will pipe 2,920 ft. of the Tumalo Feed Canal in addition to seven laterals totaling 3,380 length-feet: Gill, Lacy, Highline, Parkhurst, Steele, Rock Springs, and 2 Rivers Laterals. Phase 6 alone will conserve 6.84 cfs of water to be returned to Tumalo Creek and 1,740.12 acre-feet in Crescent Creek during the storage season (total of 4,178 acre-feet). One-hundred percent of the publicly-funded conserved water will be protected instream through a new senior water right held by the State of Oregon.