



# Water Project Grants and Loans Applications Evaluation Summaries – 2017 Funding Cycle



September 27, 2017

## 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 first funding cycle was conducted in 2016. This is the second funding cycle, and the application deadline was April 5, 2017. The Department received 32 complete applications requesting a total of \$34,967,706 in grants and loans.

## Document Description

The following are evaluation summaries for complete grant applications received by April 5, 2017 for the 2017 Water Project Grants and Loans funding cycle. The multi-agency Technical Review Team (TRT) provided comments on each application, scored applications based on the criteria identified within the [Guidance on the Evaluation of Public Benefits](#), and made a funding recommendation to the Water Resources Commission (Commission) based on that evaluation and available funds. The TRT comments found within this document are adapted from comments gathered by the Department during the application evaluation process. The evaluation summaries are listed in order of the TRT ranking.

## Next Steps

**The Department is soliciting public comment on the TRT ranking and funding recommendation through 5:00 pm on October 27, 2017.** Information on how to submit a public comment is available [here](#). Public comments submitted on the TRT ranking and funding recommendation will be presented to the Commission who will make a funding decision. The tentative date for the Commission to make its funding decision is December 7 and 8, 2017.

## More Information

If you have questions please contact Water Resources Development Program Manager, Kim Ogren, at 503.986.0873 or [waterprojects@wrd.state.or.us](mailto:waterprojects@wrd.state.or.us).

## 2017 Applications

North Fork Sprague Conservation Piping and Instream Flow Restoration .....	3
Powder Valley Connector.....	5
Opal Springs Fish Passage and Pool Raise.....	7
Coe Branch Pipeline & On-farm Irrigation Efficiency Project .....	9
Painted Hills Reservoir Expansion .....	11
Dog River Pipeline Replacement Project.....	13
Desolation Creek Natural Water Storage Project .....	15
Bandon Off-Channel Reservoir Project .....	17

Threemile Joint Fish Screen Project.....	19
Flat Creek Watershed Enhancement .....	21
Alder Creek Reservoir .....	23
Highland Ditch Piping.....	25
Walla Walla Basin Alluvial Managed Aquifer Recharge.....	27
Water Storage for Irrigation at La Creole Orchards in Polk County.....	29
East Reservoir Water Supply & Irrigation Project .....	31
Ruby Peak Diversion.....	33
Marks Creek Meadow Restoration Project .....	35
Madras Agricultural Water Efficiency and Reuse Project.....	37
McMullin Creek Dam and Spillway Upgrades.....	39
Newport Citywide Advanced Metering Infrastructure .....	41
Restormel Family Farm Water Conservation and Storage Project.....	43
Silverton Water Treatment Plant Improvement Project.....	45
Big Springs and Lost River Infrastructure Improvements.....	47
Hwy 240 to Chehalem Drive and North to Columbia Drive Waterline Extension .....	49
Cold Springs Ranch Irrigation System Improvement Project .....	51
Fargo Frontage Road Hazelnut Drip Irrigation.....	53
Queen's Avenue Transmission Line .....	55
Wallace Pump Station, Under-Road Crossing and Piping Upgrade.....	57
Stanfield Irrigation District Efficiency Project .....	58
South Deschutes County Water Conservation & Frog Habitat.....	60
Burlington Control System Updates .....	62
Kubli Ditch Group Restoration.....	64

# North Fork Sprague Conservation Piping and Instream Flow Restoration

*TRT Recommendation: Recommended for Funding (\$2,731,746)*

## Project Information (adapted from application)

**Applicant Name:** Trout Unlimited

**Funding Requested:** \$2,731,746

**Total Project Cost:** \$3,875,000

**Public Benefit Score:** 60

**Project Summary:** The proposed project would install dual 36-inch high-density polyethylene (HDPE) pipe in the unlined North Fork Sprague River Irrigation Ditch located in the Upper Klamath Basin in Klamath County. 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, demonstrating that water conservation can be achieved through this project. More than 90% of the conserved water (as much as 29 cfs) would be legally protected for instream use in the North Fork Sprague River.

## Technical Review Team Comments

### Economic Public Benefits Comments

An economic strength of the proposed project is that it intends to support agriculture in the Upper Klamath Basin by providing a more reliable water supply for both instream needs and agriculture. Another economic benefit is that the project intends to result in pressurized pipe allowing irrigators to convert to sprinklers and stretch water further into the season. There are also economic benefits associated with time savings associated with reduced ditch maintenance, conserved water being allocated to new lands, and the potential for a reduction in tribal calls for water. The application could be improved by describing the impact of updated irrigation technology on jobs and whether or not future conversions to sprinklers would result in a net increase in jobs. The application could further be improved by quantifying the increased profitability for ranches expected to result from the project.

### Environmental Public Benefits Comments

An environmental strength of the proposed project is that it intends to legally protect up to 29 cfs of water instream, with various portions of that total protected in the spring, summer, and fall. Another environmental benefit is that since the project takes place on a headwater stream the water quality benefit would be strong with increased flows having the potential to improve stream temperatures. There are also environmental benefits associated with a strong, collaborative monitoring plan for water temperature, and the proposed project providing benefit to spring chinook in a high priority area.

### **Social/Cultural Public Benefits Comments**

A social/cultural strength of the proposed project is the public data that would be available due to the monitoring proposed. Other social/cultural strengths of the application are a demonstration of a strong collaborative effort and the inclusion of a letter of support from the Klamath Tribes. The application could be improved by providing specific data collection parameters and methods for the proposed project. The application could also be improved by providing additional detail of the collaborative process that identified this project as worth pursuing and describing how the basin residents were involved.

### **Other Comments**

The review team commented that the proposed project supports and is in-line with Klamath Basin planning efforts and may be helpful in addressing conflicts between tribes and agriculture. The reviewers also noted that while the application provided evidence that landowners are in agreement with the proposed water right changes, an application for the Allocation of Conserved Water Program will require a high level of coordination due in part to that fact that individual landowners are not part of an organized legal entity. It is also possible that the project may not be able to dedicate one of the water rights listed instream if evidence cannot be provided to demonstrate that the supplemental right has been used in the last five years. The reviewers recommend that the applicant works with OWRD to clarify which water rights can go through the Allocation of Conserved Water Program. Another comment was that there is no match contribution from the landowners.

# Powder Valley Connector

*TRT Recommendation: Recommended for Funding (\$1,076,000)*

## Project Information (adapted from application)

**Applicant Name:** Powder Valley Water Control District

**Funding Requested:** \$1,076,000

**Total Project Cost:** \$1,440,000

**Public Benefit Score:** 58.5

**Project Summary:** The Powder Valley Water Control District is a group of irrigators located in Baker and Union counties seeking to reduce water loss from the MaHarry-Blevins Ditch, an 8,090-foot manually controlled and open irrigation ditch. The proposal is to construct 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. When completed, the pipeline would result in the conservation of up to 1,350 acre-feet of water each irrigation season, which would result in less water being released from Wolf Creek Reservoir to meet demand and a corresponding increase in late season reservoir volume.

## Technical Review Team Comments

### Economic Public Benefits Comments

An economic benefit strength of the proposed project is that it intends to result in long-term preservation of jobs in ranching. Another economic benefit is that it would improve infrastructure and provide for improved on-farm efficiency. There is also economic benefit associated with tourism and recreation since the project would allow Wolf Creek Reservoir to remain full for a month longer. The public benefit descriptions in the application could have been improved by additional quantification of the job impacts.

### Environmental Public Benefits Comments

An environmental benefit strength of the proposed project is that it seeks to maintain cooler water temperatures and increased oxygen in the reservoir for a longer period of time. Other environmental benefits are that the project may prevent E. coli from ending up in the Powder River as well as decreased runoff of sediment and pesticides. While the project could result in water conservation, a weakness in the environmental benefit category is that streamflow would not be increased or legally protected instream. The environmental benefits could be improved by including monitoring of water quality parameters in the project scope. Another weakness of the application is that it notes an intention to improve bull trout habitat but it is unclear if the project would result in water that is cool enough to meet bull trout needs.

### Social/Cultural Public Benefits Comments

Social/cultural benefit strengths of the proposed project are that it intends to increase recreation and tourism resulting from enhanced reservoir levels and provide benefit to an economically

distressed rural community. Another social/cultural benefit is that the proposed project seeks to promote public health and safety by protecting crops from animal waste and reducing the potential for E. coli contamination. There are also social/cultural benefits associated with making the project data publically available and collaborative efforts with the Oregon Department of Fish and Wildlife. The social/cultural public benefits could be further improved by increasing collaboration with the US Forest Service, state agencies, tribes, and county parks.

### **Other Comments**

The review team noted that the application demonstrates that the proposed project is likely feasible and demonstrates a readiness for funding (i.e. shovel ready). Other positive reviewer comments were that landowners demonstrated a stake in the project through in-kind match funding and that the project provides a model for other similar projects.

# Opal Springs Fish Passage and Pool Raise

TRT Recommendation: Recommended for Funding (\$1,550,486)

## Project Information (adapted from application)

**Applicant Name:** Deschutes Valley Water District

**Funding Requested:** \$1,550,486

**Total Project Cost:** \$10,720,486

**Public Benefit Score:** 52.5

**Project Summary:** The Opal Springs Hydroelectric Project (OSHP) is a 4.3 megawatt (MW) hydropower project on the Crooked River in Deschutes County. 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 proposed project would restore effective migratory fish access to over 100 miles of habitat through the lower Crooked River. If implemented, the proposed project would enable Deschutes Valley Water District to qualify for Low Impact Hydro Institute (- certification to provide renewable energy credits.

## Technical Review Team Comments

### Economic Public Benefits Comments

Economic benefit strengths of the proposed project are that it intends to preserve water delivery for agriculture, prevent an increase in water rates, and increase hydropower generation income. Another economic benefit is increased opportunities for camping and whitewater rafting. There are also economic benefits associated with the creation of temporary jobs and a strengthened long-term viability of municipal water supply. The application could be improved by better describing the benefits to the larger communities instead of focusing on statements about customers of the project and by providing additional substantiating detail.

### Environmental Public Benefits Comments

An environmental benefit strength of the proposed project is that it intends to reconnect redband trout and open historic habitat for bull trout. Another environmental benefit is that the proposed project addressed the number two fish passage priority project in the state as identified by the Oregon Department of Fish and Wildlife. There is also environmental benefit associated with increased resilience to climate change that could result from fish passage. A limiting factor for the environmental benefits of the proposed project is that there is not an opportunity for the state to legally protect flows instream. Non-consumptive hydroelectric use does not allow for legal protection of water instream and the credit banking flows described in the application are not legally protected by the state.

### **Social/Cultural Public Benefits Comments**

A social/cultural benefit strength of the proposed project is that it represents a collaborative process that is supported by regional fisheries organizations. Other social/cultural benefits are increased recreation in a blue ribbon fishery area, the public availability of scientific data, and the proposed project's location within an economically distressed Jefferson County. There is also social/cultural benefit associated with the importance of redband trout to Indian tribes.

### **Other Comments**

The review team noted that the project demonstrates a readiness for funding (i.e. shovel ready). Another comment was that the application could have more clearly described how the project fits within a complex water distribution system.



# Coe Branch Pipeline & On-farm Irrigation Efficiency Project

TRT Recommendation: Recommended for Funding (\$924,000)

## Project Information (adapted from application)

**Applicant Name:** Middle Fork Irrigation District

**Funding Requested:** \$924,000

**Total Project Cost:** \$1,680,105

**Public Benefit Score:** 49.5

**Project Summary:** The purpose of the project is to increase on-farm water conservation in the Middle Fork Irrigation District (MFID) in Hood River County, which would 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 would be accomplished in two ways. First, MFID proposes to construct a new pipeline segment from their Coe Branch diversion to an existing settling pond, which would allow them to remove significant amounts of sediment from the water before it is delivered to irrigators. Second, MFID patrons would 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. *Note: Instream benefits may result through improvements in efficiency but the project as proposed would not legally protect water instream.*

## Technical Review Team Comments

### Economic Public Benefits Comments

As described in the application, the proposed project would provide economic benefit to a key industry in the basin by increasing sustainability long-term through increased efficiency. The project also supports value-added agriculture, a top economic priority in that region. An economic benefit strength of the proposed project is that it intends to increase efficiency and remove sediment from water, allowing the use of more innovative technology like drip irrigation. Currently glacial flour in the source water is an issue preventing the installation of drip irrigation. This project would eliminate that barrier and increase water supply reliability in an area where supply will decrease over time as glaciers melt. Irrigation with drip or micro-sprinklers is identified as an important strategy to meet future orchard irrigation needs. The application could be improved by providing additional detail regarding crop outputs related to the properties served by the proposed project.

### Environmental Public Benefits Comments

An environmental benefit strength of the proposed project is that it intends to improve flows and instream conditions in Clear Branch which is important salmonid habitat. Other environmental

benefits are the potential for water temperature improvements, reduced demand for stored water, conservation of water through a reduced need for backflushing, and reduced use of groundwater. The application could be improved by describing more clearly how the proposed project meets fish management objectives and how the reservoir will be managed. A weakness of the application is that it did not include assurances that efficient irrigation infrastructure will be installed. Rather the application simply included letters of support indicating the Natural Resources Conservation Service was involved in on-farm irrigation upgrades in the district.

### **Social/Cultural Public Benefits Comments**

A social/cultural benefit strength of the proposed project is that it demonstrates a strong link to local food systems and tribal fisheries. Other social/cultural benefits are strong collaboration, significant monitoring capacity and publically available data, and the potential for improved recreation and scenic values. While the application describes the proposed project's potential to benefit low income and minority communities, it is unclear if there are benefits to these communities beyond a general increase in industry sustainability through water supply reliability.

### **Other Comments**

The review team had a number of other comments about this application. One comment was that there are significant match contributions, many strong letters of support, and 50% designs have been completed, demonstrating that the project is shovel ready. A concern was identified that the application lacked detail regarding reservoir management plans. The application also did not address the status of a required special-use permit that has been under negotiation for many years.

# Painted Hills Reservoir Expansion

*TRT Recommendation: Not Recommended for Funding at This Time*

## Project Information (adapted from application)

**Applicant Name:** Bridge Creek Ranch LLC

**Funding Requested:** \$542,429

**Total Project Cost:** \$881,793

**Public Benefit Score:** 48

**Project Summary:** The purpose of the project is to enlarge the storage capacity of Painted Hills Reservoir, an existing off-channel reservoir located along Bridge Creek in Wheeler County in the John Day Basin. This project would raise the existing pool elevation by 6.2 feet and increase the reservoir's capacity by 500 acre-feet. Twenty five percent (25%) of the increased stored water (up to 125 acre-feet) would be released instream during low flow periods to augment stream flows in Bridge Creek. The project would also result in the installation of power and a 900 foot center-pivot in a field adjacent to Bear Creek to increase irrigation efficiency.

## Technical Review Team Comments

### Economic Public Benefits Comments

An economic benefit strength of the proposed project is that it intends to result in direct and indirect job opportunities in Wheeler County. Another economic benefit is the potential for improved irrigation efficiency to lead to increased crop yield. The proposed project could be improved by providing economic benefits to an increased number of landowners. As described, the majority of economic benefit is seen by the landowner as opposed to the broader public.

### Environmental Public Benefits Comments

An environmental benefit strength of the proposed project is that it intends to release stored water into Bridge Creek and enhance instream flows. Another environmental benefit is that the proposed project could result in reduced flashiness of flows which could beneficially impact beaver dams below the proposed project site. The project's environmental benefit could be improved by using the Allocation of Conserved Water program to dedicate water conserved through irrigation upgrades to instream use. Another weakness of the proposed project's environmental benefit is that while the reservoir diverts water from both Bridge and Bear Creeks, water would only be released into Bridge Creek and not Bear Creek, which has water quality concerns. An additional concern is that the temperature of water released into Bridge Creek may not be cool since the reservoir often isn't deep enough to stratify.

### Social/Cultural Public Benefits Comments

Social/cultural benefits of the proposed project include that it intends to increase water available for fire suppression and provide benefits to an economically distressed community. Another social/cultural benefit is that five years of post-project monitoring data would be made publically

available. While the project could improve recreational opportunities, a weakness of the proposed project is that water quality issues such as temperature and algae may negatively impact the recreational benefits of the lake. The application could be improved by increased description of collaborative and cooperative efforts.

### **Other Comments**

Other review team comments included a concern that there has been a lack of cooperation in maintaining fish passage and screening associated with the existing storage project. Other comments highlighted the following concerns: 1) repair of a flow meter required to adhere to existing permit conditions has not occurred in a timely manner, and 2) the required fish passage condition was not mentioned in the application materials.

# Dog River Pipeline Replacement Project

TRT Recommendation: Not Recommended for Funding at This Time

## Project Information (adapted from application)

**Applicant Name:** City of the Dalles

**Funding Requested:** \$1,000,000

**Total Project Cost:** \$8,097,700

**Public Benefit Score:** 47.5

**Project Summary:** The Dog River pipeline is a 3.5 mile long, over 100 year old wooden water transmission pipeline that carries 54% of the City of The Dalles' municipal water supply of 1.26 billion gallons per year. Due to significant deterioration, the pipeline leaks nearly 1 million gallons per day at peak level, and is at risk of complete failure. This project would replace the wooden pipeline with a ductile iron pipe as well as enhance flow metering systems, install fish screens and upstream fish passage structures, construct an arch culvert where vehicles are currently required to drive through a stream, and commit to providing a 0.5 cubic feet per second (cfs) bypass flow in Dog River during the months of September and October. *Note: Bypass flow commitment would be operational and as proposed would not legally protect water instream.*

## Technical Review Team Comments

### Economic Public Benefits Comments

An economic strength of the proposed project is that it intends to address an infrastructure need of a large diverse community and, if left unaddressed, failure of the system would result in a large economic burden. Other economic benefits are that a reliable water source may attract new and retain existing businesses, and that the infrastructure is linked to industrial and housing developments which are key priorities for The Dalles. The Dog River Pipeline is also a priority project on the North Central Regional Solutions Project list, and it is ranked very high on the region Comprehensive Economic Development Strategy. However, the application could be improved by better quantification of project impacts to the community. The application would be strengthened by including additional details about the population and number of businesses that would be served and benefit from the project as well as further description of the current vulnerability of the City of the Dalles system.

### Environmental Public Benefits Comments

Environmental strengths of the proposed project include that it intends to eliminate current water loss due to leakage and it would result in the installation of a fish screen at the diversion. The proposed project intends to provide 0.5 cfs of bypass flows in Dog River in September and October which are months when tribes have hatchery spawning; however the bypassed water would not be legally protected instream. The review team also noted that the city has the right to all flows in Dog River, so while the bypass flows may not be legally protected instream no

additional users currently have rights to divert the bypass flows. Public benefits could be improved by increasing the number of months in which bypass flows would occur, and coordinating with the Oregon Department of Fish and Wildlife on timing.

### **Social/Cultural Public Benefits Comments**

A social/cultural strength of the proposed project is that it intends to support public health and safety through increased water security and improved water quality. Another social/cultural benefit is the potential to slow the pace of already high water rates. The application could be improved by providing additional detail of the collaborative process that promoted this project and describing how the basin residents and other stakeholders were involved.

### **Other Comments**

Other application comments include that the proposed project would need fish passage and screening approval from ODFW and that the project would benefit from additional metering and measurement. Another was that the application is a resubmission from last year with the addition of bypass flows and associated public benefits.

# Desolation Creek Natural Water Storage Project

*TRT Recommendation: Not Recommended for Funding at This Time*

## Project Information (adapted from application)

**Applicant Name:** North Fork John Day Watershed Council

**Funding Requested:** \$194,040

**Total Project Cost:** \$258,839

**Public Benefit Score:** 45.5

**Project Summary:** The proposed activities would increase groundwater storage retention and capacity across approximately 818 acre-feet of adjacent wet lands on the Desolation Creek, LLC property in Grant County. The project would employ local youth crews to install 275 small woody debris dams on four streams, install four beaver dam analogs (BDA's) on one stream and plant and cage 200 aspen for a future beaver food source, and plant and cage 25 cottonwoods at a separate riparian location. These activities would increase contributions to the hydrologic system in Desolation Creek, a tributary of the North Fork John Day River.

## Technical Review Team Comments

### Economic Public Benefits Comments

An economic strength of the proposed project is that it intends to result in fish industry improvements and other tourism benefits related to public access to the creek. Other economic benefits are that the proposed project would use an innovative approach to improve groundwater that could in turn benefit agriculture and cattle grazing in the area. While the project would create one full-time position and youth labor crews, the application could have been improved by providing more detail about the anticipated employment of the youth crews that would be performing work.

### Environmental Public Benefits Comments

Environmental strengths of the proposed project are that it intends to improve floodplain function, reduce stream flashiness, benefit wetlands, and benefit bull trout and Chinook Salmon habitat. Other environmental benefits are the application included a good plan for water quality monitoring and the applicant has been working with Oregon Department of Fish and Wildlife on fish passage. The application could be improved by better describing how groundwater levels will be monitored to demonstrate improvement. Limitations of the proposed project are that it does not legally protect water instream, claimed project benefits to the Columbia River are unclear because of distance, and the environmental benefits are uncertain because it is unclear how effectively the project will benefit streamflow. The application would be improved by providing additional evidence to demonstrate that environmental benefits would be achieved if the project were implemented.

### **Social/Cultural Public Benefits Comments**

A social/cultural strength of the proposed project is that it intends to result in fishery benefits for two Indian tribes and provide economic benefits to two distressed communities in Grant County. Other social/cultural benefits are employment of local youth, community involvement in climate resiliency efforts, and public availability of information. While the proposed project includes increased public access, the application could be improved by including additional information on how private landowners intend to provide public access.

### **Other Comments**

The review team had a number of other comments about this application. One comment was that the project is of an experimental nature and could benefit from additional evidence supporting the application benefit claims.



## Bandon Off-Channel Reservoir Project

*TRT Recommendation: Not Recommended for Funding at This Time*

### Project Information (adapted from application)

**Applicant Name:** City of Bandon

**Funding Requested:** \$7,200,000 (\$5,400,000 and \$1,800,000 loan)

**Total Project Cost:** \$7,200,000

**Public Benefit Score:** 45

**Project Summary:** The purpose of this project is to improve and expand water storage for the City of Bandon in Coos County. The City has two existing on-stream reservoirs on Geiger and Ferry Creeks, but neither is capable of storing very much water, nor can storage in either be expanded. The City has adequate amounts of surface water rights, but there are times when the supply may not be available. The proposed off-channel reservoir project would store approximately 100 acre-feet of water for municipal use that would provide the city approximately 74 days of water storage.

### Technical Review Team Comments

#### Economic Public Benefits Comments

An economic public benefit of the proposed project is that it would improve water supply reliability for Bandon, a city with good growth potential on the south coast. There is also economic benefit associated with the potential for more water available for agricultural water users. The application could be improved by further describing the connection between municipal and agriculture users of the surface water and the economic benefits of that water use. The application could also be improved by clarifying and substantiating the percentages of increased efficiency noted in the application. A weakness of the application is that the claim that the project will result in a reliable source of water for 150 years was not well substantiated.

#### Environmental Public Benefits Comments

An environmental benefit of the proposed project is that it could provide water quality benefits including supporting Coquille Total Maximum Daily Load implementation. Another environmental benefit is that the proposed project would move a water right point of diversion downstream of the Oregon Fish and Wildlife (ODFW) fish hatchery, which would be beneficial for the hatchery. A third potential environmental benefit is that if stored water is used to meet municipal demand, streamflow may become more stabilized during peak demand period. There is also environmental benefit associated with planned aeration mixing that could result in improved water quality. While the project would release of 25% of stored water instream per grant program requirements, a shortcoming is that the releases would be so low in the watershed (1.5 miles from the ocean) that the benefit of those releases would be limited.

### **Social/Cultural Public Benefits Comments**

A social/cultural benefit strength of the proposed project is increased fire flow availability which would benefit public safety. Another social/cultural benefit is that the additional water supply would support tourism since the community has almost run out of the current water supply several times at the height of tourism season. There is also social/cultural benefit associated with reduced vulnerability to public health that is provided by a secure water source.

### **Other Comments**

The review team had a number of other comments about the application. A comment was made that if the project is constructed, the Coquille Indian Tribe should be contacted immediately if any known or suspected cultural resources are encountered during the work. Additionally, extreme caution is recommended during project related groundbreaking activities and if archaeological materials are discovered, uncovered, or disturbed, on the property, the Coquille Indian Tribe would discuss the appropriate actions with all necessary parties. One comment was that if the project were to be implemented, diversion of water and construction of the reservoir should be coordinated with ODFW hatchery staff. There was an additional concern that the feasibility study submitted with the application did not demonstrate an understanding of dam safety requirements and the geotechnical work lacked strength, the cost estimates for the project were not sufficiently supported by the geotechnical information, and it was unclear how much fill would be needed to construct the embankment. There was also a concern that the storage capacity numbers and days of municipal water needs met each year were inconsistent within the application and attached feasibility study. The reviewers recommend the applicant work with OWRD to address dam safety concerns.

# Threemile Joint Fish Screen Project

*TRT Recommendation: Not Recommended for Funding at This Time*

## Project Information (adapted from application)

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

**Funding Requested:** \$317,495

**Total Project Cost:** \$1,694,203

**Public Benefit Score:** 44.5

**Project Summary:** The Threemile Joint Fish Screen Project in Wasco County would eliminate 16,000 feet of open ditch in two neighboring irrigation districts and convert it to pipe, saving an estimated 2 cubic feet per second (cfs). Half of the conserved water (an estimated 1 cfs) would be legally protected instream permanently. The project would eliminate two unscreened fish passage barriers and install a new fish-friendly diversion and Farmers Conservation Alliance fish screen. The instream water right would improve flow in up to 14 miles of natural stream that has been seasonally dewatered for the last century.

## Technical Review Team Comments

### Economic Public Benefits Comments

Economic benefit strengths of the proposed project are that it intends to increase land values, increase production, and provide for additional irrigation through the Allocation of Conserved Water program. Another economic benefit is that the proposed project supports the local agriculture economy of Wamic. While conserved water would be available to agriculture, a piece of information not provided in the application is whether water would be applied to new or existing lands. Another limitation of the application is that job creation or retention numbers and expected crop yields were not quantified. The economic public benefits described within the application would be strengthened by increased detail and quantification.

### Environmental Public Benefits Comments

An environmental benefit strength of the proposed project is that it intends to legally protect 1 cfs instream that could potentially add water to a previously dry stream section. However, while the project intends to provide streamflow benefits, it is unclear if 1 cfs is enough flow to rewater the stream section or support fish.

### Social/Cultural Public Benefits Comments

A social/cultural benefit strength of the proposed project is that it intends to support the local food economy and local food systems. While the project could result in additional recreational opportunities at Rock Creek Reservoir, the reservoir is not used in the late summer for recreation due to muddy conditions and it is unlikely that the project's benefits would overcome

these conditions. Another weakness of the application is that collaboration with the local community is not described.

### **Other Comments**

The review team had a number of other comments about this application. One comment was that project feasibility could be impacted by the need to acquire an Oregon Department of Fish and Wildlife (ODFW) easement and that fish passage is triggered by the project but not identified in the application. Another comment was concern that point of diversion transfers would be needed for the project and approval could be complex because ODFW would have to consent to injury.

## Flat Creek Watershed Enhancement

*TRT Recommendation: Not Recommended for Funding at This Time*

### Project Information (adapted from application)

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

**Funding Requested:** \$224,430

**Total Project Cost:** \$414,859

**Public Benefit Score:** 44.5

**Project Summary:** The Flat Creek subwatershed is a listed critical steelhead habitat tributary of the Upper Mainstream John Day River, five miles east of Dayville in Grant County. The proposed project area lies within Oregon Department of Fish and Wildlife's Phillip W. Schneider Wildlife Area which is a popular area for recreation. There are three reservoirs associated with Aldrich Ponds located in the headwaters: Stewart, Roosevelt, and Pinchot. The objective of this project is to improve the Roosevelt and Pinchot Reservoirs so they are fully functional, and capable of supplying irrigation water to a 60-acre food plot field. The project would also replace wheel lines with a more efficient center pivot.

### Technical Review Team Comments

#### Economic Public Benefits Comments

An economic benefit strength of the proposed project is that it intends to employ 5-10 local youth to perform trail maintenance and pond cleanup. Other economic benefits are improved irrigation efficiency and increased tourism that may provide economic benefit to the communities of Dayville and Mt. Vernon. There is also economic benefit associated with increased crop yield on the wildlife area that would also prevent animal related crop damage on neighboring fields. The application could be improved through increased focus on the economic value of enhanced recreational opportunities.

#### Environmental Public Benefits Comments

An environmental benefit strength of the proposed project is that it intends to increase irrigation efficiency. Other environmental benefits are installation of new fish screens and the monitoring of water temperature benefits through data loggers. While the application described the potential for improved flow in a priority conservation area, a weakness is the application does not describe how the project would result in improved flow. The application could be improved by providing additional information about how deep the ponds will be dredged to better support temperature benefit claims and by describing the impacts of the estimated 40% water savings from pivot installation. Other public benefit shortfalls are that it does not result in legal protection of water instream and it benefits trophy fish instead of native fish.

### **Social/Cultural Public Benefits Comments**

A social/cultural benefit strength of the proposed project is that it intends to provide recreational fishing benefits. Another social/cultural benefit is that the project could provide additional water for wildfire suppression addressing a public safety issue. There are also social/cultural benefits associated with demonstrated collaboration, publically available data and signage in a wildlife area and the location of the project in economically distressed Grant County.

### **Other Comments**

A broader reviewer comment was that portions of the application lack clarity and would benefit from greater detail.

# Alder Creek Reservoir

*TRT Recommendation: Not Recommended for Funding at This Time*

## Project Information (adapted from application)

**Applicant Name:** Bert Siddoway

**Funding Requested:** \$6,334,590 (\$4,861,398 grant and \$1,473,192 loan)

**Total Project Cost:** \$6,481,865

**Public Benefit Score:** 43.5

**Project Summary:** The Alder Creek Reservoir project in Baker County includes final design, permitting, and construction of an 85-foot-tall earthen dam. The goal of the project is to build a dam that would result in a reservoir capable of supplying surface water for irrigation in accordance with pending water rights applications, while minimizing environmental impacts to the area and improving irrigation efficiency. Finalizing design documents, material sourcing and testing, permit requirements, wetland delineation, and operations and maintenance plans would be completed prior to start of construction. Construction activities include building an access road and constructing the dam. Post-construction activities would include restoration planting.

## Technical Review Team Comments

### Economic Public Benefits Comments

An economic benefit strength of the proposed project is that it intends to result in an additional full time job for the applicant's business and additional temporary construction jobs during the construction phase of the project. Another economic benefit is increased land value. There are also economic benefits associated with increased water reliability for agriculture, as well as increased crop yield with the potential for growing new, more profitable crops. While the proposed project could result in increased economic benefit associated with recreation and bird-watching, a limitation of the application is that the recreation benefits are unclear and unsubstantiated. The application could be improved by providing evidence to support those recreation benefits, as well as by providing agriculture benefits to a greater number of landowners.

### Environmental Public Benefits Comments

An environmental benefit strength of the project is that it intends to improve habitat for trout by conserving water through installation of center pivots, doing riparian planting, and improving water quality. Another environmental benefit is the dedication of 25% of newly-stored water to instream use. A weakness of the application was that it is unclear if the reservoir will fill in one year or over multiple years. The fill schedule and associated amount of water that could be released impacts the environmental benefit associated with the 25% stored water dedication. Another limitation of the proposed project's environmental benefit is that water conserved through installation of center pivots would not be legally protected instream.

### **Social/Cultural Public Benefits Comments**

Social/cultural benefits of the project include increased economic activity within a distressed rural community, as well as potential recreational benefits such as increased birdwatching. Another social/cultural benefit is the project tie to the local “beef to school” lunch program. The application could be strengthened by providing more detail to demonstrate that the benefits proposed were likely to be achieved by the project. For example, recreational access to downstream lands is not described in the application and therefore reviewers could not evaluate the potential recreational benefit of the project. The application could also be improved by including plans that describe project site recreation access and goals for youth fishing.

### **Other Comments**

The review team had a number of other comments about this application. One comment regarding dam safety was that the hazard rating analysis conducted for the project is not appropriate. The inundation analysis (IA), which informs the dam design and construction cost is inadequate. A more detailed and rigorous IA is needed to determine the hazard rating and inform dam design. If the new IA shows that it is a significant or high hazard dam, the cost for this project will likely increase significantly. The applicant should work with the Oregon Water Resources Department to ensure any dam proposals meet dam safety requirements. The comment was made that the project is dependent on a fish passage waiver that has not yet been obtained and the proposed timeframe for acquiring the waiver is unrealistic. The applicant is encouraged to contact the Oregon Department of Fish and Wildlife regarding the waiver. The applicant should also note that a Scientific Take Permit would be required for fish salvage when the coffer dam is installed.



## Highland Ditch Piping

*TRT Recommendation: Not Recommended for Funding at This Time*

### Project Information (adapted from application)

**Applicant Name:** Badger Improvement District

**Funding Requested:** \$650,000 (\$507,300 and \$142,700 loan)

**Total Project Cost:** \$676,400

**Public Benefit Score:** 43

**Project Summary:** The proposed project would pipe roughly 5,000 ft. of irrigation ditch with a 30-inch polyvinyl chloride (PVC) or high-density polyethylene (HDPE) pipe. The current open ditch is in steep terrain and surrounded by the Badger Creek Wilderness Area in the Mt. Hood National Forest in Wasco County. The ditch is difficult to access and repair and is subject to washout due to debris filling the ditch. Ditch failure would threaten the economic stability of agriculture in the area and negatively affect fish habitat in Badger Creek through potential large amounts of dirt and debris filling the creek. Because of leaching and seepage in the existing ditch, a pipe would also conserve water and improve the overall efficiency of Badger Improvement District's irrigation system with an estimated 0.5 cubic feet per second of conserved water being legally protected for instream use.

### Technical Review Team Comments

#### Economic Public Benefits Comments

An economic benefit strength of the proposed project is that it intends to mitigate a threat to a key industry by providing water security to agriculture. Another economic benefit is that the proposed project is a benefit to the tourism industry. The fact that the ditch has failed several times demonstrates a high risk of future failure if nothing is done. Therefore there is also economic benefit associated with decreased susceptibility to the economic loss associated with failure. The application could be improved by increasing information about jobs, current crops grown, and by providing greater detail in the description of the project economic benefits.

#### Environmental Public Benefits Comments

An environmental benefit strength of the proposed project is that it intends to dedicate 50% of conserved water to instream use. Another environmental benefit is the potential to improve future water quality by reducing the risk of washouts. The application could be improved by including increased water quality and fish monitoring in the proposal. The application could be improved by including additional detail to support public benefit claims. Other environmental benefit weaknesses are: Badger Creek is in a wilderness area and is not currently water limited; benefits to pine hollow reservoir may be less than stated since it has another source of water; and conservation measures may impact groundwater when ditch seepage is eliminated.

### **Social/Cultural Public Benefits Comments**

This application is limited in the identified social/cultural public benefits; however, some strengths of the proposed project are its ties to local food production, as well as recreation. The application could be improved by demonstrating increased collaboration. Another limitation of the application is that it identifies that the proposed project is consistent with state and local priorities but it does not describe how the project promotes and supports the identified state and local priorities. Additional information and support could increase the public benefit score of the project.

### **Other Comments**

The review team had a comment that in order to implement the project, a new US Forest Service (USFS) easement would be required and the application materials did not include a support letter from USFS.

# Walla Walla Basin Alluvial Managed Aquifer Recharge

*TRT Recommendation: Not Recommended for Funding at This Time*

## Project Information (adapted from application)

**Applicant Name:** Walla Walla Basin Watershed Foundation

**Funding Requested:** \$212,509

**Total Project Cost:** \$615,250

**Public Benefit Score:** 42

**Project Summary:** The proposed project in Umatilla County would result in installation of five alluvial aquifer recharge projects spread across the alluvial aquifer system in the Walla Walla Basin to help meet the goal of the Walla Walla Basin Managed Aquifer Recharge (MAR) program. Each aquifer recharge site would include a diversion from a ditch or canal, a measurement device, valves and control structure, and either an infiltration basin or infiltration gallery. The goal of the MAR program is to recover groundwater levels in the alluvial aquifer system for regional benefits.

## Technical Review Team Comments

### Economic Public Benefits Comments

An economic benefit strength of the proposed project is that it intends to provide greater water reliability for agriculture through increased groundwater levels and improved spring performance. Other economic benefits are the creation and retention of local jobs and increases in efficiency and innovation. The proposed project could be improved by better describing how previous groundwater recharge efforts benefitted agriculture and how this project would impact agriculture.

### Environmental Public Benefits Comments

An environmental benefit strength of the proposed project is that it intends to increase alluvial groundwater levels to benefit spring fed creeks and the mainstem Walla Walla River. These increased streamflows could provide benefit to aquatic life such as bull trout and spring chinook. Another environmental benefit is the potential for water temperature benefits. A limitation of the proposed project is that any streamflow benefits resulting from alluvial aquifer recharge would not be legally protected instream.

### Social/Cultural Public Benefits Comments

A social/cultural benefit strength of the proposed project is that it intends to make project monitoring data available online. Other social/cultural benefits are that the proposed project intends to increase recreational opportunities and benefit an economically distressed community.

## Other Comments

The review team had a number of other comments about this application. One concern was that the proposed outcomes of MAR and the instream flow improvements may not be reliable and are potentially highly speculative. The Confederated Tribes of the Umatilla Indian Reservation said that it would appreciate the opportunity to work with the applicant to reshape the proposal. This could help address concerns related to declining alluvial aquifers and ensure that MAR proposals are focused on the collection of data from existing projects and designed to determine the fate, movement, and withdrawal of alluvial ground water by alluvial wells. A concern expressed was that the application lacked detail about leasing and property access for the project and whether a change in landownership could impact the long-term viability of the project concept.

# Water Storage for Irrigation at La Creole Orchards in Polk County

*TRT Recommendation: Not Recommended for Funding at This Time*

## Project Information (adapted from application)

**Applicant Name:** La Creole Orchards & Polk County

**Funding Requested:** \$59,041

**Total Project Cost:** \$78,836

**Public Benefit Score:** 41.5

**Project Summary:** La Creole Orchards, located in Polk County, is faced with very limited groundwater. The goal of the proposed project is to provide adequate irrigation through water storage. The proposed project would install an off-channel, above-ground water storage tank with a capacity of 1.5 acre-feet of water for irrigation. An existing groundwater permit allows the storage of groundwater harvested from the two wells and a sump well. Groundwater would be supplemented by rainfall over the large surface of the tank, as a floating cover would allow rainwater to seep into the tank and reduce the need to pump groundwater from the wells by an estimated 250,000 gallons.

## Technical Review Team Comments

### Economic Public Benefits Comments

An economic benefit strength of the proposed project is that it intends to directly and indirectly create jobs in the high value and expanding olive oil industry. There is also economic benefit associated with the installation of innovative infrastructure, including a reservoir cover that can also harvest rainwater. In addition, the application makes strong connections to the agricultural-tourism sector. The application could be improved by quantifying the economic public benefits to Polk County beyond the private landowner.

### Environmental Public Benefits Comments

Although the project results in an expansion of acreage and an associated increase in water use, water used for irrigation would be applied in an efficient manner. However, as described in the application, the project provides limited environmental public benefit, and stated benefits to Ash Creek are unclear since the groundwater and surface water connection is not documented.

### Social/Cultural Public Benefits Comments

A social/cultural benefit described in the application is the engagement and education efforts the applicant intends to do to share information about this irrigation infrastructure. There are also social/cultural benefits associated with the project taking place in an economically distressed rural community, project collaboration, and the potential of the project to serve as a demonstration of technology that allows for irrigation when water supplies are scarce.

### **Other Comments**

The review team noted that the installation of the first tank demonstrated that the innovative infrastructure approach proposed by the project (an installation of a second tank) is feasible.

## East Reservoir Water Supply & Irrigation Project

*TRT Recommendation: Not Recommended for Funding at This Time*

### Project Information (adapted from application)

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

**Funding Requested:** \$651,300

**Total Project Cost:** \$868,400

**Public Benefit Score:** 41

**Project Summary:** The proposed East Reservoir Project in Crook County would consist of an off-channel, engineered earthfill dam creating a water storage reservoir with maximum storage capacity of 134 acre-feet. The reservoir would be adjacent to Beaver Creek, in the upper Crooked River Basin. Water would be pumped from Beaver Creek into the reservoir from March 1 to April 14 of each year. Stored water would be used to supply irrigation water for grass hay feed during June – August, when none, or very little, water is available in Beaver Creek. Release of 25% of newly stored water to Beaver Creek would be legally protected and would augment creek flows during summer periods.

### Technical Review Team Comments

#### Economic Public Benefits Comments

An economic strength of the proposed project is that it intends to increase beef production and revenues for the landowner. Another economic benefit is the promotion of agricultural tourism. A weakness of the application is there is uncertainty whether the project will increase or retain jobs. The application could be further improved by providing greater economic benefit to the public.

#### Environmental Public Benefits Comments

An environmental strength of the proposed project is that it intends to improve ecosystem resiliency by increasing summer flows. While the project proposes to increase streamflow by releasing 25% of newly developed water instream (a grant program requirement), those water releases may not be enough to improve an already degraded system (dewatering of the stream may cause any water releases to infiltrate into the subsurface). Also, while releases may provide minor water quality improvements to Beaver Creek, water quality benefits would be limited if the reservoir water becomes hot, anoxic, and/or full of algae.

#### Social/Cultural Public Benefits Comments

A social/cultural strength of the proposed project is that it intends to support the production of grass fed beef that is a local food source. Other social/cultural benefits of the proposed project are that it takes place in a distressed rural area and promotes recreation and scenic opportunities. While the application noted that project-related scientific data would be posted and made publicly available on the company's website, the application would be strengthened

by including the website address for reviewers in the application materials. The application could be improved by increased quantification and detail of the project public benefits.

### **Other Comments**

The review team had a number of other comments about this application. Reviewers noted that the majority of benefits are to the landowner with broader public benefits being limited and mostly associated with the water left instream. Another comment was that the water rights listed do not match the dam specifications submitted. A concern was expressed that the application proposes to change the location of the water right storage permits which is problematic under Oregon water law. For this reason the reservoir as proposed is oversized for the authorizations in place. Finally, the application seems to lump Seasonally Varying Flows (SVF) and 25% Instream Flow Protection together. These are two separate requirements of storage projects that receive OWRD funds.



## Ruby Peak Diversion

*TRT Recommendation: Not Recommended for Funding at This Time*

### Project Information (adapted from application)

**Applicant Name:** Wallowa Soil and Water Conservation District

**Funding Requested:** \$25,000

**Total Project Cost:** \$503,698

**Public Benefit Score:** 40

**Project Summary:** This Wallowa County project proposes to improve the irrigation efficiency on 773 irrigated acres by replacing old, leaky pipelines that were installed in the 1950s and 60s with new pipeline. On-farm irrigation improvements are also being done with funding from the landowners, Natural Resource Conservation Service and Oregon Watershed Enhancement Board. This grant would help fund a new, fish-friendly diversion structure and an inlet structure that would be installed for the pipelines, and would have flow gauges installed to help inform the Watermaster and irrigators how much water is being applied.

### Technical Review Team Comments

#### Economic Public Benefits Comments

An economic benefit strength of the proposed project is that it has the potential to result in direct and indirect jobs through construction. Other economic benefits are upgraded infrastructure and more efficient irrigation on 773 acres. While the application describes plans to install micro hydropower, the benefits and value derived from the micro hydro were not clearly described. The application in general could be improved by providing additional detail to substantiate economic public benefit claims.

#### Environmental Public Benefits Comments

An environmental benefit strength of the proposed project is that sections of pipe were studied to determine what the impacts would be for groundwater and some allowance for recharge is considered. While the proposed project could provide some flow benefits to Hurricane Creek, the proposal does not include legal protection of water instream and, therefore, the benefits to redband trout may not be realized.

#### Social/Cultural Public Benefits Comments

A social/cultural benefit strength of the project is the potential for improvement of safety due to the reduction in risk of infrastructure failure. Another social/cultural benefit is the demonstration of collaboration with private sector partners, the local community, and federal agencies. The application could be improved by further detailing and quantifying the project's impact on economically distressed rural communities in Wallowa County.

#### Other Comments

The review team had a number of other comments about this application. One was that the application demonstrates secured cost match from the Natural Resources Conservation Service and the Oregon Watershed Enhancement Board, which provide the majority of funds needed to implement the project. Other positive review team comments were that the application demonstrates a readiness for funding and that the application is written in an engaging manner. However, in general the review team commented that the application would be improved by increased quantification of public benefits.

## Marks Creek Meadow Restoration Project

*TRT Recommendation: Not Recommended for Funding at This Time*

### Project Information (adapted from application)

**Applicant Name:** Crooked River Watershed Council

**Funding Requested:** \$105,490

**Total Project Cost:** \$387,316

**Public Benefit Score:** 39

**Project Summary:** The proposed project is located on Marks Creek, a tributary to Ochoco Creek upstream of Ochoco Reservoir in Crook County. The proposed project would implement fish passage, fish screens, and irrigation system improvements at two points of diversion; restore approximately 4,000 feet of stream channel; restore 1.2 acres of wet meadow habitat; and protect habitat through enrollment of 10 acres of riparian habitat into the Farm Services Agency Conservation Reserve Enhancement Program (CREP). Oregon Water Resources Department funds would be used for the fish screening and irrigation system improvements, including installation of 2 paddle wheel rotating drum screens at the points of diversion, and construction of 4,000 feet of 8-inch diameter steel and high-density polyethylene (HDPE) irrigation pipeline to replace an open ditch.

### Technical Review Team Comments

#### Economic Public Benefits Comments

An economic benefit strength of the proposed project is that it intends to increase livestock production and revenue for the landowner through increased production on 30 acres. A weakness is that the funding application identifies limited economic public benefit beyond that increased production for the landowner. Another weakness of the application is that the multipliers used to quantify economic public benefit appear high or are not directly linked to the project. The application could be improved by providing more detail and quantification of how the specific project would result in public benefit instead of relying on these economic multipliers.

#### Environmental Public Benefits Comments

An environmental benefit strength of the proposed project is that it intends to remove two fish passage barriers, increasing fish resiliency to climate change. Another environmental benefit is the potential to improve wet meadow and floodplain habitat, which could raise the water table and reduce erosion. There is also environmental benefit associated with increased shading through riparian planting, which may improve water quality by reducing solar radiation warming the stream. The proposed project could be improved by including water quality monitoring in the proposal. The application provides limited instream water supply benefits because the project does not propose to protect water instream, and may lack the water savings to do so.

Further, the application indicates a senior water user downstream would limit the benefit of legally protecting water instream.

### **Social/Cultural Public Benefits Comments**

A social/cultural benefit strength of the proposed project is that it intends to provide benefit to an economically distressed population. While the proposed project may increase fishing opportunities on US Forest Service lands, a weakness of the environmental benefit is that Marks Creek is a small creek that likely limits the size of fish, resulting in a low potential for recreational benefit. The application could be improved by demonstrating increased collaboration and additional partners to increase public benefits, and by describing how the proposed project ties in with other activities in the basin.

### **Other Comments**

Concern was expressed that the application describes irrigation of lands that haven't been irrigated in some time and that the water right holder should ensure the lands are currently covered by a water right. A comment was also made that the project is more focused on habitat restoration instead of meeting water supply needs. More generally, reviewers felt the application could be strengthened by presenting information more clearly and in a more organized fashion.

# Madras Agricultural Water Efficiency and Reuse Project

*TRT Recommendation: Not Recommended for Funding at This Time*

## Project Information (adapted from application)

**Applicant Name:** Jefferson Soil and Water Conservation District

**Funding Requested:** \$43,567.50

**Total Project Cost:** \$59,267.50

**Public Benefit Score:** 38.5

**Project Summary:** The proposed project would take place on three different landowner's properties in Jefferson County within the middle Deschutes Watershed. The project would consist of cleaning out four existing tailwater ponds, expanding two tailwater ponds, and installing a pump to improve irrigation efficiency on 300 acres. The project would reduce the amount of tailwater runoff and sediment transport from three different drainages to the Deschutes River. The goal of the project is to promote agricultural reuse, irrigation efficiency, and improved water quality within the Middle Deschutes Watershed.

## Technical Review Team Comments

### Economic Public Benefits Comments

Economic benefit strengths of the proposed project are that it intends to support job retention and creation as well as increases to water use efficiency and improved infrastructure. The application could be improved by including more analysis and numbers to support public benefit claims, such as providing additional detail about crops currently grown.

### Environmental Public Benefits Comments

An environmental benefit strength of the proposed project is that it intends to reduce sediment going into the Deschutes River. Another environmental benefit is that pre- and post-project monitoring is included in the proposal. While increased efficiency may provide some benefit to the Spotted Frog, a limitation of the application is that the benefits to the Spotted Frog are not well substantiated. The application could be improved by providing additional detail about current turbidity and other water quality parameters allowing future demonstration of measurable improvement and benefits to the Spotted Frog. Other limitations are that the proposed project does not result in legal protection of water instream and application claims about percentage of water conserved in the application were not well supported.

### Social/Cultural Public Benefits Comments

A social/cultural benefit strength of the proposed project is that it intends to preserve land for agricultural production. Other social/cultural benefits are the demonstration of collaboration through public meetings on the project and a potential benefit to the Warm Springs Reservation by improving water quality at the drinking water intake. However, the application could be

improved by providing more specifics about the about relationship between turbidity levels from tributaries and water quality at the drinking water treatment plant downstream.

### **Other Comments**

Other comments included a concern about the long term feasibility of the project since the ponds may need to be cleaned out every 5-10 years. Long-term maintenance needs and how they will be addressed are not mentioned in the funding application. Another comment was that there are many similar ponds in the area and that the proposed project only addresses a handful of them. Reviewers also noted that this application presented a modest funding request.

# McMullin Creek Dam and Spillway Upgrades

*TRT Recommendation: Not Recommended for Funding at This Time*

## Project Information (adapted from application)

**Applicant Name:** Josephine County

**Funding Requested:** \$2,623,500

**Total Project Cost:** \$3,498,000

**Public Benefit Score:** 37

**Project Summary:** Josephine County proposes conducting improvements to the McMullin Creek Dam to maintain use of the existing water rights for recreation at Lake Selmac. The project would enhance the safety of downstream residents by raising the dam crest and constructing a large rock buttress to improve the dam's earthquake resilience. In addition, the dam would be retrofitted with a midlevel conduit so it can safely control large rain events. The project would maintain dry-season flows and improve habitat for federally threatened Coho salmon and other native fish downstream of the dam.

## Technical Review Team Comments

### Economic Public Benefits Comments

An economic benefit strength of the proposed project is that it intends to support regional tourism and the application did a good job quantifying the tourism benefits. Other economic benefits are infrastructure improvement and short- and long-term job creation and retention.

### Environmental Public Benefits Comments

An environmental benefit strength of the proposed project is that it intends to mitigate the negative environmental impacts that would occur if the dam failed. Another environmental benefit is that the proposed project would include some habitat restoration work including riparian and instream projects. There is also environmental benefit associated with the potential to combat invasive aquatic plants if the lake can be lowered and weeds desiccated periodically in cooperation with a variety of agencies and other entities. The application could be improved by providing detail about the flow and release regime of the reservoir. Other limitations of the application are that it does not result in legal protection of water instream, there is lack of clarity on how the proposed project will result in increased flows, the drawdown schedule and ramping may impact water quality, and the instream/riparian work identified is not in priority areas.

### Social/Cultural Public Benefits Comments

A social/cultural benefit strength of the proposed project is that it intends to address a top statewide priority for dam safety. The dam is high hazard because it is located upstream of a mobile home community and structural improvements are needed to reduce risk. Another social/cultural benefit is that the proposed project intends to preserve recreation and scenic value in Josephine County.

### **Other Comments**

The review team noted that the application could be improved by addressing sediment deposition that compromises dam efficiency.



# Newport Citywide Advanced Metering Infrastructure

*TRT Recommendation: Not Recommended for Funding at This Time*

## Project Information (adapted from application)

**Applicant Name:** City of Newport

**Funding Requested:** \$1,730,000

**Total Project Cost:** \$2,653,050

**Public Benefit Score:** 36.5

**Project Summary:** The City of Newport (the City) in Lincoln County proposes to replace its outdated metering equipment with Advanced Metering Infrastructure (AMI) technology, telemetry equipment, and billing software. Project funds would be used for the third (and final) phase of installation of a state-of-the-art, digital metering equipment and updated billing software linked to the meters. This technology would enable the City to quickly identify leaks and wasteful water practices. Installation of the AMI technology is a core strategy of the City's efforts to secure new water sources to meet growing demand for clean water supply in the Mid-Coast region.

## Technical Review Team Comments

### Economic Public Benefits Comments

An economic benefit strength of the proposed project is that it intends to help the community meet increased water demand associated with tourism, population growth, and commercial water needs. Other economic benefits are that the proposed project would address critical infrastructure for the community and that AMI is a proven technology that would reap the benefits outlined in the application.

### Environmental Public Benefits Comments

An environmental benefit strength of the proposed project is that the technology would make it easier for the City to identify and fix leaks, thereby promoting water conservation. However, the conserved water will not be legally protected instream or quantified. Overall the application could be improved by including additional environmental public benefits in the proposal.

### Social/Cultural Public Benefits Comments

A social/cultural benefit strength of the proposed project is that it could result in energy savings and lower water bills. Other social/cultural benefits are that the proposed project is in line with South Coast/Valley Regional Solutions priorities and may mitigate the impacts of drought, fire, and turbidity. The review team questioned whether the increased instream flows and the benefits described in the application were likely to occur. The application could be improved by describing how the proposed project promotes recreation and scenic values.

### **Other Comments**

The review team had a comment that there is an uncertainty whether this is the appropriate funding opportunity for the proposed project given the evaluation criteria for this funding opportunity. The review team noted that an Infrastructure Finance Authority loan may be a better fit.

# Restormel Family Farm Water Conservation and Storage Project

*TRT Recommendation: Not Recommended for Funding at This Time*

## Project Information (adapted from application)

**Applicant Name:** Angela Lathrop

**Funding Requested:** \$273,750

**Total Project Cost:** \$365,000

**Public Benefit Score:** 35.5

**Project Summary:** The proposed project in Josephine County would convert flood irrigation to sprinkler application and add supplemental water storage and use. The irrigation infrastructure portion of the project proposes to install underground mainlines along each field to irrigate crop rows on contour, to upgrade the electrical system to 3-phase power, and to improve the current point of diversion pump site that would lessen riparian impact. A portion of the water conserved through the irrigation upgrades would be legally protected instream. The project would also construct a storage reservoir that would take water during the high rainy season and store until use during peak growing season. Twenty-five percent of the water stored would be released for instream flow during low flow in the summer.

## Technical Review Team Comments

### Economic Public Benefits Comments

An economic benefit strength of the proposed project is that it intends to expand agricultural operations resulting in four new jobs. The application could be improved by adding additional details that would clarify the project's economic public benefits, such as describing how increased production would occur and providing additional detail about the crops that would be produced. A weakness of the application is that claims of improvement to water and energy savings lacked supporting information and clarity.

### Environmental Public Benefits Comments

An environmental benefit strength of the proposed project is that it intends to conserve water through the Allocation of Conserved Water program, resulting in the legal protection of water instream. While the application indicates water would be conserved, a limitation is that details regarding the amount of savings and how the water would be saved are lacking. The project environmental benefits could be improved by including a proposal for post-project monitoring and further describing the benefits of switching from flood irrigation to more efficient technology.

### Social/Cultural Public Benefits Comments

While the application describes an intent to contribute to publically available scientific data, detail about how this would occur is not found in the application. The application could be improved by including supporting detail to substantiate social/cultural public benefit claims.

### **Other Comments**

The review team had a number of comments about the application. One comment was a concern that the application is under developed and lacked clarity, making the assessment of public benefits difficult. Another was that due to lack of detail there are concerns related to project feasibility including missing elements related to dam safety, dam specifications, and storage site location.

# Silverton Water Treatment Plant Improvement Project

*TRT Recommendation: Not Recommended for Funding at This Time*

## Project Information (adapted from application)

**Applicant Name:** City of Silverton

**Funding Requested:** \$5,250,000

**Total Project Cost:** \$7,000,000

**Public Benefit Score:** 34.5

**Project Summary:** The proposed project includes reconstruction of the City of Silverton's primary water treatment plant that would replace the existing 50-year old facility. A recent, third party assessment concluded that the plant is failing and immediate replacement is necessary. The project includes demolition of the existing plant and installation of a new 4.0 million gallons per day system. The new system would include tanks, piping, treatment system and control building. The proposed project would enable less surface water diversion to occur as the technology associated with the planned system is more efficient in both raw water and energy use.

## Technical Review Team Comments

### Economic Public Benefits Comments

An economic benefit strength of the proposed project is that it intends to increase water treatment capacity and, should development be approved, would allow additional commercial and industrial development on 42 acres. Another economic benefit is the proposed project intends to support increases in recreation and tourism. While the proposed project would create temporary jobs associated with construction, it does not directly create or retain long-term jobs. The public benefits in the application could be improved by making connections to local and regional economic priorities and quantifying savings resulting from the new plant (energy, money, and chemicals).

### Environmental Public Benefits Comments

An environmental benefit strength of the proposed project is that it intends to conserve water through a reduced need for filter backwashing. This could reduce daily waste of water from 108,914 to 18,152 gallons per day. The application could be improved by providing additional detail about what benefit the conserved water will provide. Other shortcomings of the environmental benefits described in the application include: groundwater benefits that are not supported or substantiated; the project does not result in legal protection of water instream; and the water quality improvements proposed lack clarity, are not substantiated, and will not be monitored.

### **Social/Cultural Public Benefits Comments**

Social/cultural benefit strengths of the proposed project include the potential for increased fire suppression flows and preservation of recreational values. There are also social/cultural benefits associated with the updated plant being better able to meet drinking water standards and helping other communities understand the implemented technology. The application could have been improved by demonstrating increased collaboration and clarifying Mount Angel's role in the project. If Mount Angel was identified as benefiting from the project there could have been an opportunity to describe a broadened social/cultural impact.

### **Other Comments**

The review team had a number of other comments about this application. One comment was that the proposal could have benefitted from increased detail and quantification. Another is that the application references letters of support but they may have inadvertently not been submitted with the application. A comment questioned the extent to which the benefits described are new public benefits as opposed to benefits the current plant already provides. There was a comment that questioned whether this is the appropriate funding source for a municipal water treatment plant.

# Big Springs and Lost River Infrastructure Improvements

*TRT Recommendation: Not Recommended for Funding at This Time*

## Project Information (adapted from application)

**Applicant Name:** Big Springs Park and Recreation District

**Funding Requested:** \$17,000

**Total Project Cost:** \$22,700

**Public Benefit Score:** 34

**Project Summary:** The proposed project would result in pump station and infrastructure improvements at Big Springs Park in Klamath County. Work would include installation of a new pump on the Lost River, and installation of water pipe and three-phase power to the pump site. The project seeks to improve water distribution and efficiency, help meet irrigation demands, and save energy and overall costs to the park. At the current location of the park's pump, it draws from the springs and the Lost River. Relocating the pump would alleviate the strain on Big Spring, allowing the park to use Lost River water instead. In addition to increased fish habitat, the increased contribution of Big Spring flows to the Lost River could reduce instances of Lost River backflow into the Big Spring and the associated potential for contamination of community water wells.

## Technical Review Team Comments

### Economic Public Benefits Comments

An economic benefit strength of the proposed project is that it would benefit the Big Springs Park by providing increased water security, which supports the community strategy to increase tourism. The application could be strengthened by including additional metrics and evidence to support economic public benefit claims. The economic benefits are lessened in that the proposed project is unlikely to result in job creation or retention.

### Environmental Public Benefits Comments

An environmental benefit of the proposed project is the potential for reduced comingling of contaminated water which may improve groundwater quality. Additionally, the installation of a new pump and timer has the potential to increase water conservation. Another environmental benefit is that conditions could be improved for the Lost River Sucker by eliminating reliance on Big Spring. A weakness of the proposed project's environmental benefit is that, while the project is intended to improve Sucker habitat conditions, Suckers have not been present at this location in many years. The project location is within historic Sucker habitat, but there is not a high likelihood of return with several nearby dams preventing fish passage. Other limitations of the application include a concern that Big Spring has been going dry, which may indicate that the project would have less benefit to fish than that proposed, and that the Lost River also has flow concerns that this project would not address.

### **Social/Cultural Public Benefits Comments**

A social/cultural benefit strength of the proposed project is that it intends to address groundwater contamination, which is a public safety issue. However, as described in the application, it is not clear if the project would address this groundwater issue. The application would be improved by providing additional evidence and supporting information to demonstrate how the project would achieve improvements to groundwater quality and, therefore, improve public safety. The project would also benefit a low income rural community. Another benefit is the potential for recreation and scenic value improvements.

### **Other Comments**

The review team had a number of other comments about the application. One comment was that a water right point of diversion transfer would be needed for the project but is not identified in the application. Other comments were that the diversion on Lost River should include a fish screen and that there is currently no metering or monitoring on the Lost River pump. The proposal could be strengthened by collaborating with the Oregon Department of Fish and Wildlife to understand the impacts to fish as well as by having a water quality monitoring plan associated with the project.



# Hwy 240 to Chehalem Drive and North to Columbia Drive Waterline Extension

*TRT Recommendation: Not Recommended for Funding at This Time*

## Project Information (adapted from application)

**Applicant Name:** City of Newberg

**Funding Requested:** \$250,000

**Total Project Cost:** \$765,000

**Public Benefit Score:** 32

**Project Summary:** In Yamhill County, this proposed project would extend the City of Newberg's water distribution system along the western edge of the city limits, between the city and the urban growth boundary. This extension would allow customers inside the city urban growth boundary and water district boundary to connect directly to city water lines improving their water quality and providing more efficient fire protection services. At the same time, the project extends city water lines to the edge of the city urban growth boundary, allowing future development projects to connect to the city water supply system.

## Technical Review Team Comments

### Economic Public Benefits Comments

Economic benefit strengths of the proposed project include connections made to resiliency efforts and the potential for long-term economic impacts associated with more homes in Newberg. Another economic benefit is the relationship between the proposed project, housing, and agricultural tourism. While the proposed project could address a need for housing, a limitation of the application is lack of clarity on how housing needs would be met. The application would be strengthened by making the connection to the local and regional economic development priorities from Mid-Valley Regional Solutions, SEDCOR and Mid-Willamette Valley Council of Governments. Another limitation of the application is that statements about permanent job creation are estimates that lack evidentiary support.

### Environmental Public Benefits Comments

While the application details how local water wells will be taken offline and septic systems will be decommissioned, the work would take place during a future phase not funded by this request. Therefore the environmental benefits of the project as described in the application are limited with much of the claimed benefits occurring in future phases that are not considered in this application evaluation. The application could be improved by incorporating additional environmental benefits, providing greater clarity around water quality benefits, and including water quality monitoring in the proposal.

### **Social/Cultural Public Benefits Comments**

A social/cultural benefit strength of the proposed project is that it intends to improve drinking water quality and meet fire flow standards. Another social/cultural benefit is that the proposed project is consistent with the city comprehensive goals and policies growth management plan. While the application references the presence of a housing affordability committee, this does not ensure benefits related to the potential for increased housing development will be realized. Similarly the application does not provide evidence to support claims of benefits to minority housing. The application could be strengthened by making a clear connection between project implementation and affordable housing.

### **Other Comments**

The review team noted that, as proposed, the project provides limited public benefit in the specific public benefit categories listed in statute as the scoring criteria for this funding opportunity.

# Cold Springs Ranch Irrigation System Improvement Project

*TRT Recommendation: Not Recommended for Funding at This Time*

## Project Information (adapted from application)

**Applicant Name:** Crooked River Watershed Council

**Funding Requested:** \$258,600

**Total Project Cost:** \$473,045

**Public Benefit Score:** 30

**Project Summary:** The proposed project is located in Crook County on the South Fork of the Crooked River, the primary tributary to the main-stem Crooked River. The project is focused on implementing fish passage, fish screens, and irrigation system improvements at three points of diversion. OWRD funds would be used to implement the irrigation system improvements, including installation of 6,000 feet of 8-inch diameter steel and high-density polyethylene (HDPE) irrigation pipeline to replace an open ditch. Completion of the fish passage portion of the project would provide access to approximately 10 miles of habitat upstream in the South Fork of the Crooked River and include a new fish screen installation.

## Technical Review Team Comments

### Economic Public Benefits Comments

An economic benefit strength of the proposed project is that it intends to support cattle production and increase profits for the landowner. The proposed project could be improved by linking it with other economic activities in the area. A weakness of the proposed project's economic benefit is that direct job creation or retention is not described. Other weaknesses are that the economic multipliers used to quantify public benefit claims are not directly related to the project, and that the applicability of the economic study is uncertain. Therefore, the economic benefits described in the application may be greater than what the project could feasibly achieve.

### Environmental Public Benefits Comments

An environmental benefit strength of the proposed project is that it intends to provide for fish passage at three diversions on the South Fork of the Crooked River. Other environmental benefits are that the proposed project has a high potential for increased fish habitat and would result in the installation of headgates that would prevent fish from getting stranded in ditches. The application could be improved by including water quality monitoring in the proposal. The proposed project's environmental benefit is decreased with the presence of downstream senior water right holders which may result in the continued dewatering of the stream even if the project were implemented. The proposed project does not result in legal protection of water instream or appear to address the stream dewatering issue. Current diversions in the area result in several long stretches of dry streambed of up to 1.5 miles in length.

### **Social/Cultural Public Benefits Comments**

A social/cultural benefit strength of the proposed project is that it supports the Crooked River Habitat Conservation Plan for redband trout and would benefit a high priority fishery. A weakness of the application is that the multiplier used to quantify social/cultural benefits seems high.

### **Other Comments**

The review team had a number of other comments about this application. Reviewers noted that the proposed project may be complementary with work Trout Unlimited is doing in the area and that the project may have the potential to be part of the habitat mitigation needed for the Bowman Dam hydroelectric project. Another comment was that there is not a match contribution from the landowner, which would have strengthened the project.

## Fargo Frontage Road Hazelnut Drip Irrigation

*TRT Recommendation: Not Recommended for Funding at This Time*

### Project Information (adapted from application)

**Applicant Name:** Paul Leavy

**Funding Requested:** \$45,621

**Total Project Cost:** \$74,327

**Public Benefit Score:** 28

**Project Summary:** The proposed project would provide drip irrigation to a newly planted, blight resistant, 79-acre hazelnut orchard in Marion County. The project would result in the installation of plumbing, drip lines, a filtration unit, and electronics. The goal of the project is to replace orchards dying of Eastern Filbert Blight and preserve groundwater for neighboring farmers.

### Technical Review Team Comments

#### Economic Public Benefits Comments

An economic strength of the proposed project is that it intends to increase land value and water security for the landowner. Other economic benefits are an increase in irrigated acreage and use of an efficient means of applying water to the hazelnut orchard. While job creation and retention benefits were generally referenced, a weakness of the application is that it lacked the quantification and details to support the public benefit claims. The application could be improved by making the connection to the local and regional economic development priorities from Mid-Valley Regional Solutions, Strategic Economic Development Cooperation, and Mid-Willamette Valley Council of Governments as well as by providing more detail and quantification to identify what the project means to the economy and landowner. The application could also be strengthened by describing additional filbert tonnage and equipment needs and more clearly connect the project with regional infrastructure and economy.

#### Environmental Public Benefits Comments

The funding application identifies limited environmental public benefit. One environmental benefit strength of the proposed project is that it intends to use efficient means of irrigating the hazelnut orchard. The intended irrigation method is efficient; however, it represents a new use of water, not conservation of water (i.e. using less water to achieve the same outcome) as noted in the application. The application could be improved by including groundwater and water quality monitoring in the proposal. Other weaknesses of the environmental benefits described in the application are that it is unclear how benefits to the Pudding River would be achieved and, while there is a potential benefit to pesticide reduction, the benefit is not quantified and not directly tied to water.

### **Social/Cultural Public Benefits Comments**

A social/cultural benefit strength of the proposed project is that it intends to address Eastern Filbert Blight. Another social/cultural benefit is that the visibility of the proposed project on I-5 promotes the agricultural industry. The application could be improved by providing additional detail and connections to substantiate claims. The application would be improved by demonstrating collaboration.

### **Other Comments**

The review team had a comment that this on-farm project may be a better fit as a Natural Resources Conservation Service or Marion County Soil and Water Conservation District funded project.

## Queen's Avenue Transmission Line

*TRT Recommendation: Not Recommended for Funding at This Time*

### Project Information (adapted from application)

**Applicant Name:** Lakeside Water District

**Funding Requested:** \$120,562

**Total Project Cost:** \$160,750

**Public Benefit Score:** 27

**Project Summary:** Lakeside Water District in Coos County proposes to install a 12-inch transmission line up Queens Avenue to connect the system to two 500,000-gallon storage tanks and one 150,000-gallon storage tank. This would replace transmission by an 8-inch line which has been in service since the 1960s. The old Asbestos-Cement 8-inch line also works as a service line to supply water to individual customers. With any failure of the 8-inch line, water storage would not be possible and the water treatment plant would have to be manned 24 hours per day to keep the town supplied with water.

### Technical Review Team Comments

#### Economic Public Benefits Comments

Economic benefit strengths of the proposed project include job retention, increased efficiency, and increased water security for the community. The application and project public benefits could be improved by quantifying claims related to increases in irrigated agriculture and including a plan for how the community would support long-term maintenance of the new infrastructure.

#### Environmental Public Benefits Comments

An environmental benefit strength of the proposed project is that it seeks to conserve water by addressing the current 16% water loss. The application could be improved by describing how potential benefits to and resulting from wildlife buffers would be measured and by including additional environmental public benefits in the proposal.

#### Social/Cultural Public Benefits Comments

Social/cultural benefit strengths of the proposed project are that it intends to provide for increased fire protection and it may increase recreation and scenic values. Another social/cultural benefit is that it may contribute to public safety through a reduced risk of infrastructure failure.

#### Other Comments

The review team had a number of other comments about this application. One comment was that the project should be part of a capital improvement plan and there is uncertainty whether this is the appropriate funding source. Other comments were that an additional permit (1200 C)

would be needed for construction, the schedule for implementation may not be realistic, and that the proposed project's public benefits could be improved by adding additional benefits or provide greater detail to further describe and support public benefit claims.



# Wallace Pump Station, Under-Road Crossing and Piping Upgrade

*TRT Recommendation: Not Recommended for Funding at This Time*

## Project Information (adapted from application)

**Applicant Name:** Palmer Creek Water District

**Funding Requested:** \$281,100

**Total Project Cost:** \$377,900

**Public Benefit Score:** 26.5

**Project Summary:** The existing under-road bore for Palmer Creek Water District's water line under Hwy 221/Wallace Road, a Yamhill County main arterial road, is degrading and poses a risk to supply integrity and public safety in the event of a major seismic event. The proposed project would create a new under-road bore 15 feet south of the existing aging bore. Infrastructure improvements would include installation of 48-inch steel casing and 36-inch high-density polyethylene (HDPE) piping, replacement of existing steel and/or concrete pipe from pump station head wall, and replacement of 1250 feet of concrete pipe with 36-inch polyvinyl chloride (PVC) that discharges water into an open canal.

## Technical Review Team Comments

### Economic Public Benefits Comments

Economic benefit strengths of the proposed project include improved infrastructure as well as the maintenance of an efficient water delivery system for agriculture. Although the application describes job benefits, additional information about types of jobs created or retained and how they relate to the local community would strengthen the application. Weaknesses of the application are a lack of detail regarding the percentage of district water delivered through the pipe and a general lack of detail and quantification of economic claims regarding water supply resiliency.

### Environmental Public Benefits Comments

An environmental benefit strength of the proposed project is that it intends to lessen the need to pursue groundwater supplies in the future. A limitation of the application is that the link to stream health is not strong. The application could be improved by including additional detail to substantiate the environmental benefits listed in the application.

### Social/Cultural Public Benefits Comments

Social/cultural benefit strengths of the proposed project are public safety and water supply resiliency. A weakness of the application is that assertions that the infrastructure would improve seismic resiliency are not supported by inclusion of seismic considerations and specifications. Another weakness of the application is that it notes data would be made publically available but does not specify the type of data that would be provided.

# Stanfield Irrigation District Efficiency Project

*TRT Recommendation: Not Recommended for Funding at This Time*

## Project Information (adapted from application)

**Applicant Name:** Stanfield Irrigation District & Umatilla Soil and Water Conservation District

**Funding Requested:** \$201,000

**Total Project Cost:** \$269,000

**Public Benefit Score:** 24.5

**Project Summary:** The proposed project aims to conserve groundwater by using allocated surface water from the Columbia River instead of well water for irrigation purposes. This goal would be accomplished by connecting a pipeline from the Northeast Oregon Water Association (NOWA) project and running it to the Stanfield Irrigation Ditch. With this pipeline, 3100 acres of irrigated agriculture would be able to use their primary water from Stanfield Irrigation District longer and more effectively before switching to their secondary well water right. This project would also allow Stanfield Irrigation District to pull less water from the Umatilla, leaving more water in the river.

## Technical Review Team Comments

### Economic Public Benefits Comments

Economic benefit strengths of the proposed project is that it intends to facilitate economic growth related to increased crop production and yield as well as increased land values associated with additional water supplies. The application could be improved by better quantifying and documenting the degree to which economic public benefits would occur if the project were implemented.

### Environmental Public Benefits Comments

An environmental benefit strength of the project is that it intends to reduce groundwater use in a Critical Groundwater Area. The application claims the project will result in decreased diversion from the Umatilla River; however, the extent to which diversions will be reduced is unclear since currently irrigators switch from Umatilla to Columbia River water fairly early in the irrigation season. Another environmental benefit concern was that increased irrigated agriculture and fertilizer use could worsen groundwater quality.

### Social/Cultural Public Benefits Comments

A social/cultural benefit strength of the project is that it is aligned with Region Solutions priorities. The application could be improved by demonstrating increased collaboration and communication.

### **Other Comments**

An additional review team comment was that the application proposes to tap into a pipeline that is currently planned but not yet constructed. For this reason the proposal may be premature.

# South Deschutes County Water Conservation & Frog Habitat

TRT Recommendation: Not Recommended for Funding at This Time

## Project Information (adapted from application)

**Applicant Name:** Deschutes Soil and Water Conservation District

**Funding Requested:** \$65,750

**Total Project Cost:** \$94,595

**Public Benefit Score:** 24

**Project Summary:** This proposed project would line ponds, install a drip irrigation system for on-farm use, and conserve an estimated 117 acre-feet of water. Water would be conserved that is currently lost through seepage and run off or tail water. The water seepage rate for this area exceeds 40% water loss. The goal of the project is to ease the pressure on landowners that want to continue their agricultural practices while leaving water instream for the Oregon Spotted Frog. *Note: The project as proposed would not legally protect water instream.*

## Technical Review Team Comments

### Economic Public Benefits Comments

Economic benefit strengths of the project include improved water security for the landowners involved and the support of livestock production. The application could be improved by increased description and quantification of the economic public benefits. Shortcomings of the application are that the economic value of maintaining farmland is vague and not quantified, statements are general in nature and do not tie project to direct public benefits, and some responses are not relevant to the public benefit category. Additional consideration of the criteria identified in the Guidance on the Evaluation of Public Benefit document would strengthen the application.

### Environmental Public Benefits Comments

An environmental benefit strength of the proposed project is that it intends to conserve water through the lining of ponds and installation of drip irrigation. A weakness of the application is that it identifies limited environmental public benefit. Other weaknesses of the application include a lack of a clear link to spotted frog benefits, loss of seepage may impact groundwater recharge and reduce groundwater levels, and the project does not result in legal protection of water instream.

### Social/Cultural Public Benefits Comments

A weakness of the application is that it identifies limited social/cultural public benefit. The benefits described in the application are general in nature and not directly linked to the proposed project. The application could be improved by describing whether the proposal is

linked to or consistent with the larger Bureau of Reclamation WaterSMART study occurring in the basin.

### **Other Comments**

The review team had a number of other comments about this application. One comment was that the applicant should be commended for thinking about how to address water needs in light of spotted frog concerns, but the proposed project needs further refinement in order to determine how to meet the needs of farmers, frogs and result in other public benefits. Another comment was that the proposed project could be aligned with other water management work in the Deschutes.

# Burlington Control System Updates

*TRT Recommendation: Not Recommended for Funding at This Time*

## Project Information (adapted from application)

**Applicant Name:** Burlington Water District

**Funding Requested:** \$3,000

**Total Project Cost:** \$4,000

**Public Benefit Score:** 10.5

**Project Summary:** The proposed project would update the technology used to fill the Burlington Water District's (District) reservoir in Multnomah County by making modifications to the existing booster pump control panel. The project would allow the District to more efficiently manage their water use and reduce waste. Currently the District does not have the full time crew needed to monitor the fill of the reservoir. Updating the technology would allow the District to refill the reservoir as needed, over a 3-4 day period, rather than every 24 hours. This would also serve to reduce the number of times the district exceeds their peaking factors with the City of Portland, and stabilize the water rates for low-to-moderate income customers.

## Technical Review Team Comments

### Economic Public Benefits Comments

An economic benefit strength of the proposed project is that automation of the reservoir system is intended to reduce operational costs and improve financial stability. While the application did describe increased efficiency and innovation, weaknesses of the application are that it did not quantify the fiscal impact of upgrades, how much water would be saved, time savings, and provided little information on potential job creation or retention. Overall the application does not adequately quantify and document the degree to which economic public benefits would occur if the project were implemented.

### Environmental Public Benefits Comments

An environmental benefit strength of the proposed project is that it intends to update technology to conserve water. However, while the proposal represents an increased stewardship of water resources, the application would be strengthened by estimating the amount of water to be saved. An additional weakness is that the applicant is currently getting water from another city and the application did not quantify the actual environmental benefit to the source of water.

### Social/Cultural Public Benefits Comments

A social/cultural benefit strength of proposed project is that it intends to stabilize water rates to customers who are of low to moderate income. However, inclusion of specific income demographics would have further quantified and strengthened the benefit. Overall the funding application identified limited social/cultural public benefit.

### **Other Comments**

Other comments from the review team were that the proposal is a modest request that could help the community and that the public benefits described in the application are limited to the patrons of the district.

## Kubli Ditch Group Restoration

*TRT Recommendation: Not Recommended for Funding at This Time*

### Project Information (adapted from application)

**Applicant Name:** Kubli Ditch Group

**Funding Requested:** \$5,700

**Total Project Cost:** \$7,600

**Public Benefit Score:** 7

**Project Summary:** The proposed project in Jackson County would pipe 240 feet of irrigation ditch with 24-inch high-density polyethylene (HDPE) pipe. Currently 240 feet of retaining wall constructed of 2-inch by 12-inch boards and 6-foot fence posts is failing due to tree and root damage. Upgrading the system would improve the uninterrupted flow of water.

### Technical Review Team Comments

#### Economic Public Benefits Comments

An economic benefit strength of the proposed project is that improves infrastructure and maintains the ability to irrigate. The application could be improved by increased detail and documentation supporting economic public benefit claims. The application could also be improved by describing the agricultural activities being protected and conserved.

#### Environmental Public Benefits Comments

A weakness of the application is that it was lacking in environmental public benefit by only addressing one out of six possible environmental public benefits.

#### Social/Cultural Public Benefits Comments

While there may be some protection to a public roadway associated with the proposed project, the application identifies limited social/cultural public benefit and the detail is inadequate.