



# Oregon

John A. Kitzhaber, MD, Governor

## Water Resources Department

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### MEMORANDUM

**TO:** Water Resources Commission

**FROM:** Thomas J. Paul, Acting Director

**SUBJECT:** Agenda Item K, August 22, 2014  
Water Resources Commission Meeting

### **Water Conservation, Reuse and Storage Grant Program – Grant Funding for 2014 Grant Cycle**

#### **I. Issue Statement**

At its March meeting, the Commission approved grant funding of \$593,660 out of the \$750,000 available for the 2013-15 Water Conservation, Reuse and Storage Grant cycle. Staff will provide recommendations on funding for grant applications received during the 2014 grant cycle in order to distribute the remaining \$156,340. This report describes the Application Review Team recommendations, public comment and staff recommendations for funding. This is an action item.

#### **II. Background**

The Water Conservation, Reuse and Storage Grant Program was established by Senate Bill 1069 in 2008. The program is designed to fund the qualifying costs of planning studies that evaluate the feasibility of developing water conservation, reuse or storage projects. The Commission has awarded approximately \$3 million in grant funding since 2008.

The Department solicited grant applications from March 10 through April 11, 2014, and received 12 responses. All applications were deemed complete, however, one was deemed ineligible because the stated purpose did not meet the requirements of Senate Bill 1069. A total of \$589,569 funding was requested, with individual grant application requests ranging from \$6,818 to \$150,000.

#### **III. Grant Application Review Process**

An Application Review Team (ART) was convened to review and score the applications. The ART consisted of a multi-agency team of representatives from the Oregon Department of Fish and Wildlife, Oregon Department of Agriculture, and Business Oregon, as well as technical specialists from the Department.

Once the ART members scored each application (see attached), the information was posted on the agency website for a 30-day Public Comment Period between May 29 through June 27, 2014. The Department received comments from 5 entities on one application, all of which were in support of the proposed project submitted by the Cities of Silverton and Mt Angel.

**IV. 2014 Grant Award Recommendations**

Based on the ART scoring, public comment and staff review, the following applications and funding levels are being recommended to the Commission for awards. Once approved by the Commission, staff will work with applicants to develop grant agreements that include a statement of work, funding level, verification of match funding requirements, and a termination date for grant expenditures.

	Funding Request	Funding Recommendation
<b>Conservation and Reuse:</b>		
Arnold Irrigation District	\$6,818.00	\$6,818.00
Hood River SWCD & East Fork Irrigation District	\$48,881.00	\$35,000.00
Central Oregon Irrigation District	\$8,637.00	\$ -
<b>ASR:</b>		
City of Silverton/Mt Angel	\$17,500.00	\$17,500.00
SPF Water Engineering/Crater Lake National Park	\$49,999.00	\$33,000.00
<b>Storage:</b>		
Hood River SWCD & Farmer's Irrigation District	\$49,912.00	\$32,000.00
City of Astoria	\$50,000.00	\$32,000.00
City of Newport	\$150,000.00	\$ -
Port of Arlington	\$40,000.00	\$ -
Bert Siddoway	\$58,127.00	\$ -
Northeast Oregon Water Association	\$85,000.00	Withdrawn
<b>Total</b>	<b>\$564,874.00</b>	<b>\$156,318.00</b>

**V. Summary**

As the second funding cycle this biennium, the amount of funding available fell substantially short of the amount requested. The Department acknowledges the merit and importance of all projects for which applicants seek to obtain funding; however, we are unable to fully fund all requests.

The funding level recommendation is based on the applicant meeting eligible task and match funding requirements, and the Department’s desire to fund multiple projects.

This recommendation results in grant awards totaling \$156,318. If an applicant is unable to accept an award, the Department is requesting the ability to reallocate any remaining 2014 grant funds.

## **VI. Alternatives**

The Commission may consider the following alternatives:

1. Adopt staff funding recommendations, including the option to allocate any remaining grant funds.
2. Adopt modified funding recommendations.
3. Direct the Department to further evaluate the applications and return with a revised funding proposal.

## **VII. Recommendations**

The Director recommends Alternative 1, to adopt the staff funding recommendations; fund six applications at the base funding level of \$156,318. The applications recommended for funding are consistent with the intent and requirements of Senate Bill 1069.

Attachment 1: Individual Application Evaluations with Staff Recommendation  
Attachment 2: Summary of Public Comments Received  
Attachment 3: Application Review Team Scores

Tracy Loudon, Administrator  
503-986-0920

Oregon Water Resources Department  
Water Conservation, Reuse and Storage Grant Program  
Evaluation for April 11, 2014 Applications

**Applicant:** *Arnold Irrigation District*

**Study Type:** Conservation

**Application #:** GC-0069-15

**Study Name:** North Lateral Feasibility Study Phase 1

**Basin:** Deschutes                      **WRD District:** 11

**Requested:** \$6,818                      **Total Project Cost:** \$13,636

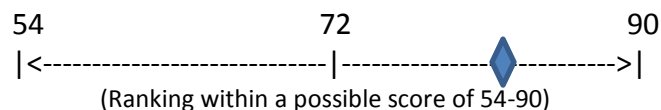
**Application Description:**

The Arnold Irrigation District is evaluating segments of their canal system to determine the location and amount of water seepage. Their long-term plan is to pipe or line the canal to conserve water within the Deschutes Basin and provide the most efficient water delivery possible.

The application indicates the district will evaluate a segment of the canal system that flows through the City of Bend. The District is proposing to refine its measurement of loss within the segment and evaluate the best means to address the high loss area to conserve water. They will consider either piping or lining the canal.

**Application Review Team Evaluation:**

This application received an above average score and high priority funding level. Team members stated this was a good conservation project for the area. It is also a highly visible project located within the city of Bend.



**Comments:** No comments were received on this application.

**Staff Recommendation:** Do Fund at \$6,818

**Commission Action:**

On August \_\_, 2014, the Water Resources Commission took action to:

The feasibility study received an award amount of \$ \_\_\_\_.

Oregon Water Resources Department  
Water Conservation, Reuse and Storage Grant Program  
Evaluation for April 11, 2014 Applications

**Applicant:** *Bert Siddoway*

**Study Type:** Storage

**Application #:** GS-0077-15

**Study Name:** *Alder Creek Reservoir Feasibility Study*

**Basin:** Powder **WRD District:** 8

**Requested:** \$58,127 **Total Project Cost:** \$143,702

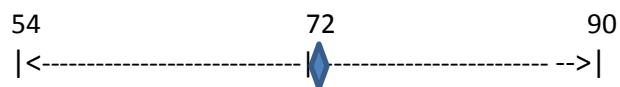
**Application Description:**

Mr. Siddoway owns property in eastern Oregon, Baker County, and grows grain, hay, and livestock. His irrigation system includes pivots, wheel lines, hand lines and flood irrigation. Surface water is diverted for irrigation of his crops which usually runs dry in July. Mr. Siddoway is proposing to develop a water storage reservoir on his property to ensure water availability and to increase crop yields.

The application shows that the study focuses on development of the dam by conducting geologic reconnaissance and mapping, preliminary analysis and schematic layout of the onsite geology and laboratory testing of on-site material. The application also shows that additional water rights are necessary and have been applied for.

**Application Review Team Evaluation:**

The Application Review Team gave this application a score of 72 with a medium to high funding priority. Team members commented that this project has potential and storage is needed in this area. However, with the limited funding available this grant cycle and limited local support noted in the application, this project not be funded at this time.



(Ranking within a possible score of 54-90)

**Comments:** No comments were received for this application.

**Staff Recommendation:** Do Not Fund

**Commission Action:**

On August \_\_2014, the Water Resources Commission took action to:

The feasibility study received an award amount of \$\_\_\_\_\_.

Oregon Water Resources Department  
Water Conservation, Reuse and Storage Grant Program  
Evaluation for April 11, 2014 Applications

**Applicant:** *Central Oregon Irrigation District*

**Study Type:** Reuse

**Application #** GR-0079-15

**Study Name:** *Radabaugh Water Reuse Pond Project*

**Basin:** Deschutes                      **WRD District:** 11

**Requested:** \$8,637                      **Total Project Cost:** \$17,274

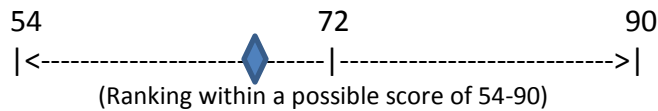
**Application Description:**

The Central Oregon Irrigation District is proposing to evaluate irrigation water flow trends as well as existing and potential irrigation water rights in Dry Canyon (central Oregon) that may benefit from a pond capture and reuse project. General geology and geotechnical information will be collected to determine the type of material used for a pond embankment.

According to the application, the project will determine the feasibility of building a capture pond at the tail end of Dry Canyon to capture irrigation water, waste water, and storm water runoff to be reused for irrigation. The capture pond is also intended to significantly reduce the amount of runoff spilling into the Crooked River from Dry Canyon, which in turn improves water quality within the Crooked River system.

**Application Review Team Evaluation:**

This application received a below average score with a low funding priority level. Team members stated the project would result in a nominal increase in water supply to irrigators.



**Comments:** No comments were received

**Staff Recommendation:** Do Not Fund

**Commission Action:**

On August\_\_2014, the Water Resources Commission took action to:

The feasibility study received an award amount of \$\_\_\_\_\_.

Oregon Water Resources Department  
Water Conservation, Reuse and Storage Grant Program  
Evaluation for April 11, 2014 Applications

**Applicant:** *Cities of Silverton and Mt Angel*

**Study Type:** ASR

**Application #:** GB-0072-15

**Study Name:** *Silverton-Mt. Angel ASR Feasibility Study*

**Basin:** Willamette                      **WRD District:** 16

**Requested:** \$17,500                      **Total Project Cost:** \$35,000

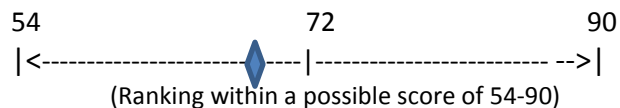
**Application Description:**

The cities of Silverton and Mt. Angel are proposing to evaluate the feasibility of developing a joint aquifer storage and recovery system (ASR). Both cities are experiencing redundancy, long-term sustainability issues, water quality and storage deficiencies.

According to their application, the study involves monitoring and evaluation of wells within the vicinity of the proposed ASR to estimate the capacity and sustainability of the aquifer.

**Application Review Team Evaluation:**

The Application Review Team gave this application a score of just below average with a high funding level priority. Both cities are situated within a Limited Groundwater Area and experiencing difficulty in sustaining water levels; therefore, the team gave this project high importance.



**Comments:** This application received five comments; all in support of the project.

**Staff Recommendation: Do Fund at \$17,500.**

**Commission Action:**

**On August \_\_2014, the Water Resources Commission took action to:**

**The feasibility study received an award amount of \$\_\_\_\_\_.**

Oregon Water Resources Department  
Water Conservation, Reuse and Storage Grant Program  
Evaluation for April 11, 2014 Applications

**Applicant:** *City of Astoria*

**Study Type:** Storage

**Application #:** GS-0074-15

**Study Name:** Bear Creek Dam Seismic Vulnerability Study

**Basin:** North Coast      **WRD District:** 1

**Requested:** \$50,000      **Total Project Cost:** \$145,000

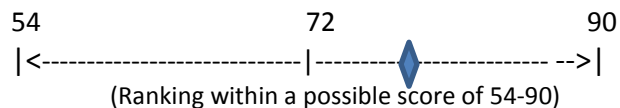
**Application Description:**

The City of Astoria's municipal water supply is located on Bear Creek situated east of town. Preliminary investigations show the dam structure to be deficient at low ground motion levels, but certainly in the event of an earthquake. This poses a safety hazard to citizens downstream of the dam as well as the potential loss of their municipal water supply. The project is a high safety concern and high priority from a dam safety perspective.

The City's application states that the proposed planning study is a phased approach at looking into Bear Creek dam's stability. This phase of the study will develop a more accurate model of the stability problem, analysis techniques that model the site conditions more accurately and develop a strategy to improve the stability of the dam.

**Application Review Team Evaluation:**

This application received an above average score and a medium to high priority funding level.



**Comments:** No comments were received on this project.

**Staff Recommendation:** Do Fund at \$32,000.

**Commission Action:**

On August \_\_ 2014, the Water Resources Commission took action to:

The feasibility study received an award amount of \$\_\_\_\_\_.



Oregon Water Resources Department  
Water Conservation, Reuse and Storage Grant Program  
Evaluation for April 11, 2014 Applications

**Applicant:** *City of Newport*

**Study Type:** Storage

**Application #:** GS-0075-15

**Study Name:** *Big Creek Dams #1 and #2 Environmental Impact and Fiscal Feasibility Study*

**Basin:** Mid Coast                      **WRD District:** 1

**Requested:** \$150,000                      **Total Project Cost:** \$312,710

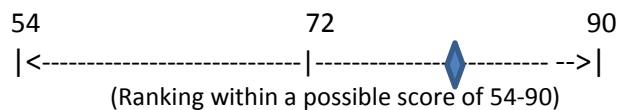
**Application Description:**

This is the 4<sup>th</sup> phase of the project and the second funding request by the City in an effort to conduct studies to repair or replace one or both dam structures on Big Creek Reservoirs, Newport’s municipal water supply. During this phase, funding is requested to conduct an environmental impact assessment and cost feasibility analysis for remediation alternatives identified in the first phase.

According to the application, the project addresses the only source of drinking water available for the City of Newport. Research efforts to date conclude both dams are highly susceptible to structural damage or failure. The feasibility study will help the City determine the best approach to maintaining their drinking water supply while ensuring the safety of downstream residents if the dam(s) fail.

**Application Review Team Evaluation:**

The Application Review Team gave this application an above average score with a medium funding priority level. Team members stated that this request was premature as the previous studies have not yet been completed.



**Comments:** No comments were received on this application.

**Staff Recommendation:** **Do Not Fund**

**Commission Action:**

On August \_\_, 2014, the Water Resources Commission took action to:

The feasibility study received an award amount of \$\_\_\_\_\_.

Oregon Water Resources Department  
Water Conservation, Reuse and Storage Grant Program  
Evaluation for April 11, 2014 Applications

**Applicant:** *Hood River SWCD & East Fork Irrigation District*

**Study Type:** Conservation

**Application #:** GS-0070-15

**Study Name:** East Fork Irrigation District Conservation Feasibility Study

**Basin:** Hood **WRD District:** 3

**Requested:** \$48,881 **Total Project Cost:** \$106,321

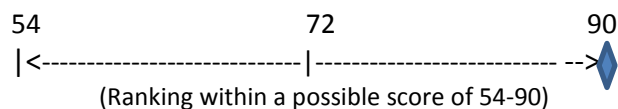
**Application Description:**

Hood River SWCD is partnering with the East Fork Irrigation District to conduct a feasibility study to evaluate alternatives to increase water supply reliability for irrigators by water delivery upgrades. One of the outcomes of this effort will also be to increase water flows in the East Fork Hood River for ESA-threatened spring Chinook, steelhead, and coho salmon.

According to the application, the study would evaluate the economic and technical feasibility of increasing water conservation within the East Fork Irrigation District. The analysis will include evaluating the water delivery system and irrigation demand, and determining the cost and relative priority of potential system improvement projects.

**Application Review Team Evaluation:**

This application received the highest score and funding priority level.



(Ranking within a possible score of 54-90)

**Comments:** No comments were received on this application

**Staff Recommendation:** Do fund at \$35,000.

**Commission Action:**

On August\_\_2014, the Water Resources Commission took action to:

The feasibility study received an award amount of \$\_\_\_\_\_.

Oregon Water Resources Department  
Water Conservation, Reuse and Storage Grant Program  
Evaluation for April 11, 2014 Applications

**Applicant:** ***Hood River SWCD & Farmers Irrigation District***

**Study Type:** Storage

**Application #:** GC-0071-15

**Study Name:** Farmers Irrigation District Storage Expansion Feasibility Study

**Basin:** Hood **WRD District:** 3

**Requested:** \$49,912 **Total Project Cost:** \$99,999

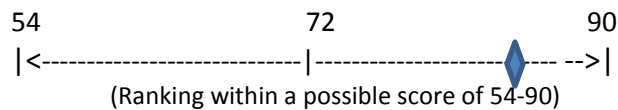
**Application Description:**

The Farmers Irrigation District has two reservoirs they use to store water for irrigators. Over the past several years, the district has experienced difficulty in retaining late-season water supply for the upper district users. Also, the Hood River Basin Study indicates that these water shortages will be more frequent and severe in the future. Therefore, the District has partnered with Hood River SWCD to evaluate expansion of these two reservoirs.

The project would include evaluating instream and peak flows in Green Point and Ditch Creeks (which feed the reservoirs), evaluate alternative means of supplying water including quantification of water conservation opportunities that would reduce irrigation water demand and determine the feasibility of the engineering and geotechnical aspects of increased storage on both reservoirs.

**Application Review Team Evaluation:**

This application received an above average score and a high funding priority level. Team members commented that this is a good project for fish as well as irrigators. Strong local support.



**Comments:** No comments were received for this application.

**Staff Recommendation:** Do Fund at \$32,000.

**Commission Action:**

On August \_\_, 2014, the Water Resources Commission took action to:

The feasibility study received an award amount of \$\_\_\_\_.

Oregon Water Resources Department  
Water Conservation, Reuse and Storage Grant Program  
Evaluation for April 11, 2014 Applications

**Applicant:** *Northwest Oregon Water Association*

**Study Type:** Storage

**Application #:** GS-0078-15

**Study Name:** Enhanced Juniper Canyon Appraisal and Feasibility Study

**Basin:** Umatilla                      **WRD District:** 5

**Requested:** \$85,000                      **Total Project Cost:** \$182,545

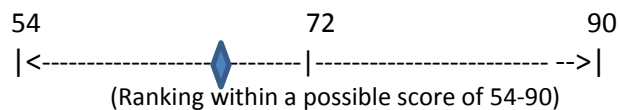
**Application Description:**

The Umatilla Basin lies within a Critical Groundwater Restricted area. The Northwest Oregon Water Association has taken the lead with an initiative to address the water supply needs within the Basin. The approach being pursued is very complex, extensive and requires a lot of coordination. The ultimate goal is to have a water system that draws water out of the Columbia River and fills a network of storage reservoirs. Water would then be available when needed for important crop production as well as livestock.

After discussion with the applicant, it was determined that the timing of conducting the *Enhanced Juniper Canyon Appraisal and Feasibility Study* is somewhat premature with the ongoing efforts of the much larger Umatilla Basin project. The efforts relating to the Umatilla Basin are larger in scope and broader in nature than what is generally considered under the SB 1069 grant program. Therefore, the decision was made to withdraw the application.

**Application Review Team Evaluation:**

This application received a below average score and a medium funding level priority.



**Comments:** No comments were received on this application.

**Staff Recommendation:** **Application Withdrawn by Applicant.**

**Commission Action:**

On August\_\_2014, the Water Resources Commission took action to:

The feasibility study received an award amount of \$\_\_\_\_\_.

Oregon Water Resources Department  
Water Conservation, Reuse and Storage Grant Program  
Evaluation for April 11, 2014 Applications

**Applicant:** *Port of Arlington & Gilliam County*

**Study Type:** Storage

**Application #:** GS-0076-15

**Study Name:** *Gilliam County 1260 Irrigation Project*

**Basin:** John Day                      **WRD District:** 21

**Requested:** \$40,000                      **Total Project Cost:** \$80,000

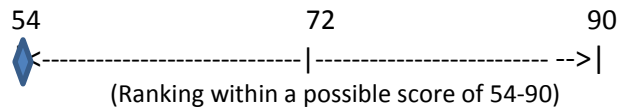
**Application Description:**

Gilliam County, with its low annual precipitation rate of 8 inches, is in need of developing a water supply storage system to expand its dry fallow wheat crop into a higher value crop. With a reliable water supply, the county could increase its crop production six times the current level. However, part of the challenge is there is no irrigation district within the county to lead this effort. So the Port of Arlington has partnered with Gilliam County to pursue a study to determine the feasibility of a water supply system in the county.

According to the application, the study would determine the most efficient location(s) and cost for water diversions and impoundments to service the county agriculture with irrigation water and possibly aquifer recharge. The study will evaluate withdraw or diversion from the Columbia River, John Day River, Willow Creek and Rock Creek.

**Application Review Team Evaluation:**

This application received the lowest score with a medium funding level priority. Team members commented that even though the project has merit, the proposal was premature in nature. The team recommended the entities work with the local watermaster to refine the scope of the project.



**Comments:** No comments were received on this application.

**Staff Recommendation:** **Do Not Fund**

**Commission Action:**

On August \_\_, 2014, the Water Resources Commission took action to:

The feasibility study received an award amount of \$\_\_\_\_\_.

Oregon Water Resources Department  
Water Conservation, Reuse and Storage Grant Program  
Evaluation for April 11, 2014 Applications

**Applicant:** ***SPF Water Engineering & Crater Lake National Park***

**Study Type:** ASR

**Application #:** GB-0073-15

**Study Name:** *Determining the Feasibility of Aquifer Storage and Recovery to Enhance Water Management for Crater Lake National Park in the Klamath Basin*

**Basin:** Klamath                      **WRD District:** 17

**Requested:** \$49,999                      **Total Project Cost:** \$274,342

**Application Description:**

As a junior water right holder, Crater Lake National Park is experiencing difficulty in obtaining available water supply during drought periods making it operationally difficult to keep the Park open. On an interim basis, water is being hauled into the Park. However, this is very costly. The Klamath Basin is over-allocated and has recently been adjudicated. Therefore, the Park has partnered with SPR Water Engineering to explore whether an ASR or AR would be feasible for a sustainable water supply.

According to the application, hydrogeologic properties and characteristics of the surface and groundwater supplies near Crater Lake National Park will be obtained. Also, a test well constructed in the fall of 2013 west of the Annie Springs diversion will be measured and monitored. The goal of this study is to find the balance between wet season water supply availability and dry season water supply, and whether it is achievable for the Park and potentially downstream water users.

**Application Review Team Evaluation:**

The Application Review Team gave this application an average score with a high funding level priority. The team suggested that SPF use WRD standards and guidelines already established for ASR and AR projects. And, that the literature review be replaced with site-specific characterizations of the existing wells.



(Ranking within a possible score of 54-90)

**Comments:** No comments were received on this application.

**Staff Recommendation:** **Do Fund at \$33,000**

**Commission Action:**

**On August\_\_2014, the Water Resources Commission took action to:**

**The feasibility study received an award amount of \$\_\_\_\_\_.**

## Summary of Public Comments

### Public Comment

### WRD Response

#### **Cities of Silverton & Mt Angel (5)**

Five comment letters were submitted to the Department. All five were letters of support from Pudding River Watershed Council, Kelley-Kelley Attorneys and Counselors, Silverton Health, Marion County Commissioners and the House of Representatives; Representative Vic Gilliam and Senator Fred Girod.

The application met the minimum qualification for it to be reviewed and scored. The Application Review Team gave this application a below average score and a high funding level priority.

No additional response is necessary.

Water Conservation, Reuse & Storage Grant Program  
Application Review Team Scores

<b>Entity</b>	<b>Project Type</b>	<b>Average Score</b>	<b>Funding Level</b>
Hood River SWCD & East Fork Irrigation District	Conservation	90	H*
Hood River SWCD & Farmers Irrigation District	Storage	84	H*
Arnold Irrigation District	Conservation	82	H*
City of Newport	Storage	80	M
City of Astoria	Storage	77	M/H*
Bert Siddoway	Storage	72	M/H
SPF Water Engineering/Crater Lake NP	ASR	71	H*
Central Oregon Irrigation District	Reuse	69	L
City of Silverton/Mt Angel	ASR	68	H*
Northeast Oregon Water Association	Storage	66	M
Port of Arlington/Gilliam County	Storage	54	M

\*Recommended for funding by staff