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Oregon Water Resources Department
Water Conservation, Re-use and Storage Grant Program
Evaluation for the December 2011 Applications

Applicant: Central Oregon Irrigation District
Study Type: Conservation
Application No: GR 0037 13
Study Name: *Redmond 25 Mile Feasibility Study*
Basin: Deschutes **Watermaster District:** 11
Original Request: \$ 11,485 **Total Cost:** \$ 22, 970

Application Description:

The Feasibility Study will comprehensively examine COID's existing main Pilot Butte Canal from the 25-Mile weir to the end of the canal (approximately 26,890 linear feet or a little over 5 miles) to determine the highest loss areas and the best alternative to maximize water conservation in the high-loss areas. A preliminary loss study conducted in 2006 shows an estimated 20 cubic foot (7,140.6 AF) loss through the entire project area, which includes 41 head gates and 5 laterals. The overall goals are to conserve water through system improvements in the high areas of water loss and increase capacity in the canal to allow for future water conservation projects that will assist in water delivery improvements within COID and North Unit Irrigation District.

Application Review Team Evaluations: This project scored well in technical and statewide priority. This application was well organized and scored well in Readiness, Goals, Other Involvement, Water Supply Needs and Source Water categories. The relationship between the applicant and the other partners in the region is well reflected in the application. The source water description and instream benefits were better stated on the Deschutes than the Crooked River but the benefits for an implemented project were apparent.

Comments: None Received

Staff Recommendations: *Fund in Tier One.* Department staff appreciates the continued efforts and relationship with COID staff on a number of different program levels. This proposal is consistent with these other efforts in Water Management and Conservation Planning, District Transfer transactions, Instream Leases & Transfers as well as the Allocation of Conserved Water Program.

**Oregon Water Resources Department
Water Conservation, Re-use and Storage Grant Program
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Applicant: Deschutes Conservancy
Study Type: Conservation
Application No: GC 0040 13
Study Name: *The Deschutes Conservation Initiative Study*
Basin: Deschutes **Watermaster District:** 11
Original Request: \$ 50,000 **Total Cost:** \$ 157,500

Application Description:

The Deschutes Conservation Initiative Study proposes to develop up to twenty irrigation district water conservation projects in the Upper Deschutes Basin. These projects will supply Deschutes and Crooked River water to meet agricultural and environmental water needs. Project partners will delineate canal piping and lining projects in Central Oregon Irrigation District and Swalley Irrigation District. Project partners will evaluate water supply benefits, develop reconnaissance level designs, quantify project costs, and prioritize projects for implementation. Study partners intend that these conservation projects will be ready to finance and implement following the completion of the proposed feasibility study. These projects will, upon implementation, yield up to 20,000 acre-feet of Deschutes and Crooked River water rights through Oregon's Allocation of Conserved Water Program. These water rights will be allocated to the Deschutes River, Crooked River, and lands in North Unit Irrigation District that currently receive water pumped from the Crooked River.

Application Review Team Evaluations: This project scored well in technical and statewide priority. This application was well organized and scored well in Readiness and the Goals but lacked some detail. The relationship to other organizations involved was written as if it is assumed; not all projects will be popular with all parties. Water Supply Needs and Source Water categories are reflected in the application. The source water description and instream benefits on the Deschutes and the Crooked River were apparent.

Comments: The Department received the following public comment(s):

Ken Bierly - Oregon Watershed Enhancement Board

The Oregon Watershed Enhancement Board has been working with the Deschutes River Conservancy (DRC) for the last four years to address limiting factors to the successful reintroduction of salmon and steelhead above Round Butte dam. The partners (Upper Deschutes Watershed Council, Crooked River Watershed Council, DRC, and Deschutes Land Trust) have made significant progress; however there is additional work that needs to be done. The work proposed by DRC will identify future water conservation projects that will be critical for meeting the ends proposed. OWEB has a strong commitment to the partners for funding implementation. Your favorable consideration of the grant application from the Deschutes River Conservancy will help in this endeavor.

Staff Recommendations: Fund in Tier One. Department staff appreciates the continued efforts and relationship with Deschutes Conservancy staff on a number of different program levels. This proposal is consistent with these other efforts in Water Management and Conservation Planning, District Transfer transactions, Instream Leases & Transfers as well as the Allocation of Conserved Water Program.

**Oregon Water Resources Department
Water Conservation, Re-use and Storage Grant Program
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Applicant: City of Dundee
Study Type: Reuse
Application No: GR 0042 13
Study Name: *City of Dundee Recycled Water Feasibility Study*
Basin: Willamette **Watermaster District:** 16
Original Request: \$ 30,000 **Total Cost:** \$ 60,000

Application Description:

Drinking water supply is an issue in the City of Dundee due to diminishing capacity in the City's existing groundwater wells and limited groundwater capacity in the area. The City is in the process of completing construction of a new membrane bioreactor (MER) wastewater treatment facility that, when complete, will consistently produce Class A recycled water. The City is interested in exploring options for using the Class A recycled water from the new wastewater treatment plant to help reduce the City's long term drinking water supply issues in the summer months by using the water for irrigation, toilet flushing, industrial process water and other allowable uses.

Application Review Team Evaluations: This project scored well in technical and statewide priority. This application was well organized and scored well in Readiness, Goals, Other Involvement, Water Supply Needs and Source Water categories. The relationship between the applicant and the other partners in the county could be better reflected in the application. The source water description and water supply benefits were well described.

Comments: The Department received a comment expressing support for this project from John DeVoe of WaterWatch of Oregon.

WaterWatch was impressed to read about the City of Dundee's recycled water project and is pleased to see that the city is being awarded a grant to help with this forward-looking and progressive project. This type of project, which stretches existing supplies, is a great use of the 1069 funds and WaterWatch supports funding for it.

Staff Recommendations: *Fund in Tier One.* The City's wells are not in a designated Ground Water Limited Area (GWLA). However, this portion of the Columbia River Basalt Aquifer does share the same characteristics as the adjacent GWLAs. The City urgently needs to pursue more water supply options.

**Oregon Water Resources Department
Water Conservation, Re-use and Storage Grant Program
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Applicant: East Valley Water District
Study Type: Storage
Application No: GA 0043 13
Study Name: *Drift Creek Storage Project II*
Basin: Willamette **Watermaster District:** 16
Original Request: \$ 71,665 **Total Cost:** \$143,330

Application Description:

East Valley Water District has completed a number of studies to develop a storage reservoir on Drift Creek, near Silverton, Oregon. This request includes the next level of studies that will enable the District to develop its final EIS or EA prior to construction development.

2012-2013 Study Tasks:

- 1) Provide an additional year of stream gage analysis to further verify flow data
- 2) Develop a time-step hydrologic yield analysis to determine storage fill and withdrawal operational requirements
- 3) Determine water right needs
- 4) Continue development of fish passage mitigation with agencies
- 5) Develop economic analysis of irrigator ability-to-pay
- 6) Complete land use requirements, including geologic and flood plain assessments
- 7) Follow through with State Historic Preservation Office request for project approval
- 8) Evaluate pump station viability
- 9) Provide additional water quality discharge study

Application Review Team Evaluations: The ART scored this application mid range in the Tier One group for both Technical merit and statewide priority. The application could have been strengthened by better description in the organizational aspects and the technical expertise. The application used knowledge from previous Department grants; this was helpful to the team's review and subsequent scores. The application materials scored very well in the water supply and water source analysis.

Comments: The Department received comments from Dickman Farms and the Oregon Seed Council expressing support for the project and one comment from WaterWatch of Oregon expressing concerns. There was concern about the level of detail in the application. Please see Attachment 2.

Staff Recommendations: *Fund in Tier One.* Due to public comment by WaterWatch of Oregon on referenced technical reports, Department staff conducted a special review of the application and previous technical reports. Prior technical reports addressed SB 1069 requirements; the current application is consistent with the minimum standards. Any new agreements will contain a special scope of work for statutory consistency.

**Oregon Water Resources Department
Water Conservation, Re-use and Storage Grant Program
Evaluation for the December 2011 Applications**

Applicant: Fessler Nursery

Study Type: Storage (GW)

Application No: GB 004413

Study Name: *Fessler Nursery Aquifer Storage and Recovery Feasibility Study*

Basin: Willamette

Watermaster District: 16

Original Request: \$ 11,405

Total Cost: \$ 22,810

Application Description:

Fessler Nursery is determining the feasibility of using Aquifer Storage and Recovery (ASR) as an alternate source of water for nursery use. The objective of the feasibility study will be to determine whether: the source water meets drinking water standards; the source water is chemically compatible with the basalt aquifer; the basalt aquifer has the capacity to store the volume of water to be injected; and the source can sustainably provide the water. The source is an alluvial aquifer that is also used for drinking water. Water will be pumped from existing permitted alluvial wells and injected into a basalt well completed for the feasibility study. The study will consist of water quality testing, water compatibility analysis, a pumping test, pumping test analysis and water level monitoring.

Application Review Team Evaluations: This project scored well in technical and statewide priority. This application was well organized and scored well in Readiness, Goals, Water Supply Needs and Source Water categories. In the area of Other Involvement, more outside support would strengthen the application. There were some questions about implementation beyond feasibility.

Comments: The Department received a comment from Mark Dickman of Dickman Farms expressing support for this project.

Staff Recommendations: *Fund in Tier One.* The applicant had previously submitted an application for a limited license for ASR testing. The outcome of this study will enhance the existing application with new data but not authorize use of water. The Grant project can only finance feasibility, not implementation.

**Oregon Water Resources Department
Water Conservation, Re-use and Storage Grant Program
Evaluation for the December 2011 Applications**

Applicant: Grande Ronde Model Watershed
Study Type: Storage (GW)
Application No: GB 0046 13
Study Name: *Grande Ronde River Watershed Storage Study*
Basin: Grande Ronde **Watermaster District:** 6
Original Request: \$ 56,000 **Total Cost:** \$112,000

Application Description:

The planning study will evaluate the potential application of managed underground storage (MUS) techniques in the Grande Ronde River watershed in Wallowa County. The goal of the study is to determine feasible ways to augment late season stream flows that are currently diminished by irrigation as well as to provide an alternative to mitigate potentially declining groundwater levels in the Columbia River Basalt Group (CRBG) aquifers of the Grande Ronde River watershed. Specifically, the study will evaluate whether using the Oregon Water Resources Department (OWRD)'s artificial recharge (AR) and/or aquifer storage and recovery (ASR) rules can be used to employ aquifer storage technologies in the Grande Ronde River watershed for these purposes.

Application Review Team Evaluations: This project is one of two similar applications from the same applicant. The ART scored this application mid range in the Tier One group for both Technical merit and statewide priority. The application described a somewhat generic, traditional feasibility-type study and mostly a desk top evaluation. This would yield some valuable information. The ART felt the case for the water supply is stronger for the Grande Ronde basin application than the Lostine basin.

Comments: None Received

Staff Recommendations: *Fund in Tier One.* The applicant proposes to memorialize when critical low-flow periods occur and also who the senior water right holders are on the stream. Staff will work with the applicant to shift work tasks and reduce overhead to the 10% maximum.

Oregon Water Resources Department
Water Conservation, Re-use and Storage Grant Program
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Applicant: Hood River County
Study Type: Storage
Application No: GA 0047 13
Study Name: *Hood River Basin Surface Water Storage Feasibility Study*
Basin: Hood River **Watermaster District:** 3
Original Request: \$ 250,000 **Total Cost:** \$ 759,050

Application Description:

Hood River Valley's economy and ecology are highly dependent upon surface water. In fall 2008, Hood River County convened its Water Planning Group to assess future water needs for threatened and endangered aquatic species, irrigated agriculture, and recreation in the Hood River Basin. This group collected all existing water-related study documents. It identified the need for a feasibility study of the potential to store winter water flows in above-ground reservoirs, allowing for operational flexibility of irrigation diversions, while enhancing late-season stream flows for aquatic species. This OWRD grant (along with a secured BOR WaterSMART Basin Study Grant) will address this need, providing for the analysis of required irrigation, by-pass, optimum peak, flushing, and ecological flows, including comparative water supply alternative analyses and the potential for environmental harm from proposed storage facilities. The study will identify the need for stored water in the Hood River Basin.

Application Review Team Evaluations: The ART scored this application mid range in the Tier One group for both technical merit and statewide priority. The application could have been strengthened by better description in the organizational aspects and the technical expertise. One of the strengths of the HRWPG is the partnerships and participants. The group includes agriculture, drinking water interests, tribal representatives, local, State and Federal government agencies. The secured match and partnerships described included good representation and the project goals are consistent with the requirements of the 1069 grant program.

Comments: The Department received one comment from WaterWatch of Oregon. There was concern about the level of detail in the application, particularly in the issue of peak and ecological flows. WaterWatch of Oregon points out that ODFW would be the key agency to identify such flows and not WRD. WaterWatch of Oregon had further concerns about the Middle Fork Irrigation District being a partner in the HRWPG due to a protest regarding conversion of the Parkdale hydro-electric license to an instream water right.

Staff Recommendations: *Fund in Tier One.* Some of the concerns about lack of detail may be related to the application form and questions themselves. Review of the proposed contracted services statement of work will be reviewed and approved prior to disbursement of funds.

**Oregon Water Resources Department
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Applicant: Jefferson County Soil & Water Conservation Dist
Study Type: Conservation
Application No: GC 0048 13
Study Name: *South Juniper Butte Water Conservation Feasibility Study*
Basin: Deschutes **Watermaster District:** 11
Original Request: \$ 15,350 **Total Cost:** \$ 30,700

Application Description:

North Unit Irrigation District, partnering with Jefferson County Soil and Water Conservation District, is proposing to redesign and implement a water conservation and re-use project in South Juniper Butte Area. The area is 4,700 estimated acres with potential water savings: 2,000 cubic foot per second/season by conserving water in the irrigation and water delivery system, along with tail water reuse. The South Juniper Butte Feasibility Study will determine: 1) the amount of water that could be conserved by piping open delivery canals and on farm ditches along with improved on farm irrigation equipment and management 2) where adequate pressure for on farm energy conservation exists, and 3) what options exist for tail water management for re-use of irrigation water. The consequence of this study is helping farmers help the fish in the Crooked River, Deschutes Basin.

Application Review Team Evaluations: The ART scored this application mid range in the Tier One group for technical merit and but higher for statewide priority. The benefits of conservation in this area will be enhanced by the demonstration value of the project. The ART was impressed by the low cost for the Grant program in this application.

Comments: None Received

Staff Recommendations: *Fund in Tier One.* This proposal is consistent with these partners' other efforts in Water Management and Conservation Planning, District Transfer transactions, Instream Leases & Transfers as well as the Allocation of Conserved Water Program.

**Oregon Water Resources Department
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Applicant: La Creole Orchards
Study Type: Storage
Application No: GM 0049 13
Study Name: *La Creole Orchards Water Storage Projects Planning Study*
Basin: Willamette **Watermaster District:** 16
Original Request: \$ 6,200 **Total Cost:** \$ 12,938

Application Description:

The planning study will evaluate the feasibility of three on-farm water storage projects to provide irrigation to a 50-acre truffle, fruit, and nut orchard in Polk County. The potential projects are: (a) several small storage ponds to hold groundwater pumped year-around from the orchard's low-yielding wells; (b) a storage pond to hold water from a spring that has been detected at the site; and (c) a bioswale to reclaim polluted storm-water runoff that is discharged onto the site by a drain from a neighboring subdivision (part of the City of Dallas), and a storage pond for the reclaimed water. Storing at least 350,000 gallons is an absolute necessity to be able to irrigate the entire orchard when it reaches full maturity in 2014-2015. The planning study will analyze the best technical solutions, best cost/benefit ratios, and best environmental benefits for the storage projects.

Application Review Team Evaluations: The ART scored this application higher in the Tier One group for technical merit and but mid range for statewide priority. The organization and technical merit of the application were appreciated by the ART. The applicant also worked very hard to gather support from local and state agencies. The water supply scarcity and the innovative investigation of several sources was appreciated by the Team.

Comments: None Received

Staff Recommendations: *Fund in Tier One.* Staff will need to work with Water Rights staff, Dept of Agriculture and Department of Environmental Quality to develop a metric for assessment of this project.

**Oregon Water Resources Department
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Applicant: Cities of Central Point, Eagle Point, Jacksonville, Talent & Phoenix Co- Applicant Name: Medford Water Commission

Study Type: Conservation

Application No: GC 0053 13

Study Name: *Rogue Valley Cooperative Urban Water Conservation Strategy*

Basin: Rogue **Watermaster District:** 13

Original Request: \$ 100,000 **Total Cost:** \$ 200,000

Application Description:

The Medford Water Commission (MWC) currently provides wholesale domestic water for five customer cities (Central Point, Eagle Point, Jacksonville, Talent & Phoenix) and three water districts in addition to providing water on a retail basis for the citizens of Medford, and some customers in the outlying, unincorporated areas near Medford including White City. The planning study is proposed to generate coordinated water conservation strategies that can be incorporated into water management and conservation plans for all entities served by the MWC. In doing so, we anticipate that the need for water system expansion and acquisition of additional water rights can be reduced or delayed. Potential projects to be evaluated in the study include: expansion of MWC's conservation program, an enhanced leak detection program, calibration of large meters, usage trend analysis, modeling of Big Butte Springs pipelines, and the implementation of other identified successful conservation strategies in use throughout the nation.

Application Review Team Evaluations: The ART scored this application higher in the Tier One group for technical merit and but mid range for statewide priority. The ART evaluations reflected good organization, technical expertise and scheduling. The goal setting could be stronger in the area of data collection and analysis.

Comments: None Received

Staff Recommendations: *Fund in Tier One.* Staff will need to work with Field staff, Water Rights staff and Water Management and Conservation Program staff to develop a metric for assessment of this project.

**Oregon Water Resources Department
Water Conservation, Re-use and Storage Grant Program
Evaluation for the December 2011 Applications**

Applicant: *City of Sisters*
Study Type: Reuse
Application No: GR 0054 13
Study Name: *City of Sisters Wastewater Reuse & Conservation Project Planning Study*

Basin: Deschutes **Watermaster District:** 11
Original Request: \$ 21,210 **Total Cost:** \$42,420

Application Description:

The City of Sisters requests a Water Reuse & Conservation Grant to develop an implementation plan to transition from surface water irrigation to effluent irrigation on the City's Lazy Z property. The plan would determine when, how and under what conditions the transition could occur. The study will also assess on-farm efficiency opportunities and opportunities to place existing surface water rights from the Lazy Z property instream, and how such instream transactions might help finance needed reclaimed water infrastructure improvements. Instream transactions could help meet future water supply needs for City uses and flow needs for fish and wildlife in Whychus Creek.

Application Review Team Evaluations: The ART scored this application mid range in the Tier One group for technical merit and but higher for statewide priority. The ART is familiar with the partners in this project and has a high confidence in the ability to execute the project.

Comments: None Received

Staff Recommendations: *Fund in Tier One.* Grant program staff will need to work with Field staff, Water Rights staff, Dept of Agriculture and Department of Environmental Quality to develop a metric for assessment of this project.

**Oregon Water Resources Department
Water Conservation, Re-use and Storage Grant Program
Evaluation for the December 2011 Applications**

Applicant: Talent Irrigation District - WISE
Study Type: Combined
Application No: GM 0059 13
Study Name: *WISE Project Cost Benefit Analysis*
Basin: Rogue **Watermaster District:** 14
Original Request: \$ 243,000 **Total Cost:** \$ 486,000

Application Description:

The WISE Project is a regional approach to address water resource issues in the Rogue Valley. This project will improve water reliability and availability for agriculture, while improving stream flow and water quality throughout the Bear Creek and Little Butte Creek watersheds. The proposed project includes piping the entire irrigation system (thus conserving all of the water lost through the earthen and lined infrastructure), increasing storage at one of the irrigation reservoirs, and using reclaimed effluent for agriculture uses. The project will leave live summer stream flows instream to improve aquatic habitat. Based on the preliminary feasibility study, during an average precipitation year, the WISE Project will provide more than 45,000 acre-feet of additional water annually (sum of conserved water, reclaimed effluent, and live flows left instream).

Application Review Team Evaluations: The ART scored this application mid range in the Tier One group for technical merit and for statewide priority. The individual components of this project would likely score higher in both technical merit and statewide priority. The combination of the three projects calls for an aggressive schedule that will be difficult to execute. Some of the ART were concerned that the funding was for an Environmental Impact Statement under the National Environmental Policy Act rather than a feasibility study.

Comments: The Department received letters of support for this project from WaterWatch of Oregon, Oregon Wild, and the Cities of Ashland, Jacksonville, and Medford.

Staff Recommendations: *Fund in Tier One.* Grant Program staff will need to set up a task related schedule for the contract. The technical report will be consistent with grant program requirements; the Department recognizes that information gathered may be usable secondarily for other purposes.

**Oregon Water Resources Department
Water Conservation, Re-use and Storage Grant Program
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Applicant: Tri City Water & Sanitary Authority
Study Type: Storage
Application No: GA 0056 13
Study Name: *Tri City Water & Sanitary Authority Water Storage*
Basin: Umpqua **Watermaster District:** 15
Original Request: \$ 16,500 **Total Cost:** \$33,000

Application Description:

Tri City Water & Sanitary Authority's (TCWSA) planning study would evaluate the above-ground storage options and conservation potential in order to compare the relative feasibilities of various strategies. The physical, regulatory, ecological, economic, and energy saving feasibilities will be explored so that TCWSA can make a qualified decision on increasing surface water storage. The goal of this study will be to find additional water storage options in order to provide less constant demand and impact on Tri City Water's municipal intake on the South Umpqua River, to pump less frequently, allowing more constant river flows during the summer months, and to conserve energy.

TCWSA's Water Master Plan, which was completed in 2006, and a Risk Failure Analysis, completed in 2011, states that a significant deficiency exists that could impact area development and service to users, including sufficient water flows for fire protection.

Application Review Team Evaluations: The ART scored this application higher in the Tier One group for technical merit and but mid range for statewide priority. This application was difficult for the group to follow in the point-by-point criteria. Several of the ART rescored their application once they had read the application through to the end. Once the ART understood the scope of the project and the positive aspects of water supply and potential for benefits to the South Umpqua River their scores went up.

Comments: The Department received a comment from Mark Garcia expressing support for this project.

Staff Recommendations: *Fund in Tier One.* The application and criteria are not set up well for this kind of project. Also, the Infrastructure Finance Authority (IFA) may be able to add flexibility to one of their programs in the future. Grant program staff will work with IFA to improve future application processes.

**Oregon Water Resources Department
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Applicant: Umatilla Basin Watershed Council
Study Type: Conservation
Application No: GC 0041 13
Study Name: *Dillon Ditch Conservation and Dam Removal Feasibility Study*
Basin: Umatilla Basin **Watermaster District:** 5
Original Request: \$ 34,020 **Total Cost:** \$240,762

Application Description:

This study will evaluate and mitigate environmental concerns associated with moving the Dillon Ditch point of diversion upstream 2.6 miles and converting an open ditch system to pipe. An in-depth study will evaluate removing water from a portion of the Umatilla River not previously de-watered and identify return flows that have come from the 1.75 mile open and unlined delivery system. Advantages to moving the point of diversion are: conservation of water in a water quality limited area; increased irrigation efficiency and need for one less anadromous fish passage barrier on the Umatilla River.

Application Review Team Evaluations: The ART scored this application mid range in the Tier One group for both Technical merit and statewide priority. The team liked the concept of a mutually positive outcome for environmental and operational aspects of this project. The partnership with an experienced local contractor was important with those familiar with the basin. The goal to remove the dam for ESA and source water benefits could have been strengthened by a stronger estimate for water conservation.

Comments: None Received

Staff Recommendations: *Fund in Tier One.* Staff will work with the applicant in the contract phase to better estimate the water savings.

Oregon Water Resources Department
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Applicant: Clean Water Services

Study Type: Reuse

Application No: GC 0039 13

Study Name: *Reuse and Flow Restoration from Decentralized Wastewater Treatment*

Basin: Willamette

Watermaster District: 18

Original Request: \$ 57,000

Total Cost: \$ 114,000

Application Description:

The purpose of this study is to evaluate the feasibility of decentralized reuse water production facilities to reduce demands on irrigation and potable water supplies and to improve water quality in tributaries of the Tualatin River. It will focus on a range of options to improve the health of tributary streams through offsetting irrigation withdrawals and stored water usage; local water reuse by new industrial or residential developments; and stream flow-augmentation through hyporheic or wetland recharge. Clean Water Services (CWS) has demonstrated the benefits of summer time flow augmentation in tributaries over the last five years that suffer from low flows (due to low rainfall and agricultural irrigation withdrawals). This study will therefore add to an existing body of work and support innovative approaches to wastewater management that benefit watershed health.

The study will evaluate:

- Potential demand for reuse water from decentralized treatment facilities as the District expands.
- Strategies to utilize reuse water to indirectly restore tributary stream flow.
- Treatment, conveyance and O&M requirements and costs necessary to protect public health and improve water quality.

Application Review Team Evaluations: This project did not score as well as Tier One applications in technical merit or statewide priority with the ART. The Readiness section would have been increased with more details about the personnel and evaluation criteria. The Goals section would have benefited from project specific goals and the methodology to assess meeting the goals. The partnership could have been enhanced by support from other public entities in the area. More specifics on the water supply needs to be met would have been helpful. The source water benefits of the project both on site and for the Tualatin need to be developed.

Comments: None Received

Staff Recommendations: Clean Water Services is regionally known for its excellent work in improving watershed health. There would be major benefits for a project in the Dairy Creek drainage. The Bureau of Reclamation (BOR) operates a major facility in the Tualatin Basin. Department staff recognizes that the missing elements of the application from CWS can be reworked. Subject to availability of funds there are possible adjustments to the scope of the grant through a secondary application process to identify a feasibility project on specific projects in the Dairy Creek Basin. This would prepare the applicant for the fall round of the BOR WaterSMART grant program which would be open for applications between October and December of 2012. Defer action to the secondary application process.

**Oregon Water Resources Department
Water Conservation, Re-use and Storage Grant Program
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Applicant: Corvallis
Study Type: Reuse
Application No: GR 0038 13
Study Name: *City of Corvallis Wastewater Reclamation Plant East
Alternative Feasibility Study*
Basin: Willamette **Watermaster District:** 16
Original Request: \$ 466,977 **Total Cost:** \$ 933,955

Application Description:

The City of Corvallis is in the process of developing a plan for complying with the requirements of the Willamette River Total Maximum Daily Loads (TMDLs) for temperature and other pollutants. After completing a TMDL Alternatives Evaluation and undertaking an extensive citizen involvement process, the City of Corvallis selected two TMDL Alternatives for evaluation in an initial, Part A Due Diligence Feasibility Study of the East and West TMDL alternatives, to determine fatal flaws that could impact future implementation of either alternative. The findings of the Part A Feasibility Study resulted in a recommendation to the City to implement the East TMDL Alternative due to capacity limitations identified for the West Alternative. The City has elected to proceed with a Part B Detailed Feasibility Study of the East TMDL Alternative to verify recycled water uses and address issues raised in the Part A Due Diligence Feasibility Study.

Application Review Team Evaluations: This project did not score as well as Tier One applications in technical merit or statewide priority with the ART. The Readiness score was affected by confusion related to implementation and feasibility descriptions. The Goals lacked focus related to the actual re-use project. For a project of this magnitude, the Committee expected a larger amount of support and involvement from the community and other agencies. The water supply description could have drawn a stronger picture by building a case for a cost benefit project based on saving regional water supply. The description of the source water was adequate for the proposal.

Comments: None Received

Staff Recommendations: Subject to availability of funds there are possible adjustments to the scope of the grant through a secondary application process that would be consistent with the intent of the program. An example of the smaller scale concept would be analysis of the cost-benefit of irrigation application improvements and best management practices related to tree planting in the project areas. Defer action to the secondary application process.

**Oregon Water Resources Department
Water Conservation, Re-use and Storage Grant Program
Evaluation for the December 2011 Applications**

Applicant: Grande Ronde Model Watershed
Study Type: Storage (GW)
Application No: GB 0045 13
Study Name: *Lostine River Watershed Storage Study*
Basin: Grande Ronde **Watermaster District:** 6
Original Request: \$ 56,000 **Total Cost:** \$112,000

Application Description:

The planning study will evaluate the potential application of managed underground storage (MUS) techniques in the Lostine River watershed in Wallowa County. The goal of the study is to determine feasible ways to augment late season stream flows that are currently diminished by irrigation as well as to provide an alternative to mitigate potentially declining groundwater levels in the Columbia River Basalt Group (CRBG) aquifers of the Lostine River watershed. Specifically, the study will evaluate whether using the Oregon Water Resources Department (OWRD) artificial recharge (AR) and/or aquifer storage and recovery (ASR) rules can be used to employ aquifer storage technologies in the Lostine River watershed for these purposes.

Application Review Team Evaluations: This project is one of two similar applications from the same applicant. The Lostine project did not score as well as Tier One applications in technical merit or statewide priority with the ART. The application described a somewhat generic, traditional feasibility-type study and mostly a desk top evaluation. This would yield some valuable information. However the case for the water supply is stronger for the Grande Ronde basin application than the Lostine basin.

Comments: None Received

Staff Recommendations: Subject to availability of funds there are possible adjustments to the scope of the grant through a secondary application process that would be consistent with the intent of the program. Staff will work with the applicant to develop a reduced study to evaluate the feasibility of gathering new, site specific data, which must be done to evaluate feasibility of AR/ASR versus the cost and benefit of a conservation project. Defer action to the secondary application process.

Oregon Water Resources Department
Water Conservation, Re-use and Storage Grant Program
Evaluation for the December 2011 Applications

Applicant:	Lane Council of Governments	
Study Type:	Combined	
Application No:	GC 0050 13	
Study Name:	<i>Willamette Multi-City Regional Conservation and Reuse Planning Study</i>	
Basin:	Willamette	Watermaster District: 2
Original Request:	\$ 242,553	Total Cost: \$620,970

Application Description:

This project ignites a conservation and reuse initiative with eight small cities in the upper and middle regions of the Willamette River Basin. Through an examination of information about current supply and future demand needs, the Lane Council of Governments (LCOG) will develop a water conservation and reuse policy tool kit that includes existing and successful models in addition to new tools and measures to reduce water supply needs. This project initiates a regional platform for water conservation/reuse; and provides feedback from stakeholders throughout the process. Strategies developed will be scalable and transferable while building relationships and supporting broader outreach. Extensive resources are leveraged in partnership with the Willamette Water 2100 Project and efficiencies achieved that provide for communication, coordination and participation of a diverse partnership supporting the goals of SB 1069.

Application Review Team Evaluations: This project did not score as well as Tier One applications in technical merit or statewide priority with the ART. The applicant is well known to the ART so there was good confidence with the ability to execute. The emphasis on a planning guide rather than an analysis of cost and benefit for various actions for these smaller communities was a major concern. The ART wanted more detail on individual projects rather than the larger policy discussion. Department staff connected this applicant with the Lane Community College Water Management and Conservation Program.

Comments: None Received

Staff Recommendations: Identification of specific conservation projects for each city with an emphasis on the cost, benefit and ability for the particular City to execute the project would be fundable under the program. Defer action to the secondary application process.

**Oregon Water Resources Department
Water Conservation, Re-use and Storage Grant Program
Evaluation for the December 2011 Applications**

Applicant: Lower Powder Irrigation District
Study Type: Conservation
Application No: GA 0051 13
Study Name: *Lower Powder System Optimization Review*
Basin: Powder **Watermaster District:** 8
Original Request: \$ 42,409 **Total Cost:** \$ 86,285

Application Description:

The Lower Powder Irrigation District, in cooperation with the Bureau of Reclamation, is planning a feasibility study of the Lower Powder Irrigation District. The feasibility study process consists of the Lower Powder Irrigation District, Bureau of Reclamation and Browne Consulting, who will work towards the goal of a reliable source of water to be able to serve all water users in the district throughout the entire irrigation season. The feasibility study will identify areas of water loss, areas that can conserve water, collect missing data such as stream flows, diverted flows, and return flows, and collect information for baseline conditions that already exist within the basin, like natural flows and irrigation demands.

Application Review Team Evaluations: This project did not score as well as Tier One applications in technical merit or statewide priority with the ART. The application did not describe the kinds of expertise the ART expected for the proposal. Also the application did not have a strong indication of the schedule for the matching funds for the BOR grant process.

Comments: None Received

Staff Recommendations: Grant program and field staff should work with the applicant to identify specific opportunities within the basin for a fall application for the Bureau of Reclamation WaterSMART grant program. Defer action to the secondary application process.

Oregon Water Resources Department
Water Conservation, Re-use and Storage Grant Program
Evaluation for the December 2011 Applications

Applicant: Polk County
Study Type: Storage
Application No: GA 0052 13
Study Name: *2012-2013 Valsetz Water Storage Concept Analysis*
Basin: Willamette **Watermaster District:** 16
Original Request: \$ 80,538 **Total Cost:** \$ 203,036

Application Description:

The 2011 Valsetz Water Storage Concept Analysis included several suggestions for further assessment. This grant application would be used to conduct further assessments. Components of the 2012-2013 storage concept analysis would include the following:

1. Collection of LIDAR data
2. Expanded modeling of flows and water temperature to evaluate potential use of variable level intakes to modify temperature and dissolved oxygen in the reservoir and downstream of the dam
3. Modeling of the effect of reservoir management options on dissolved oxygen
4. On the ground surveys of sensitive plants near the head of the proposed reservoir
5. On the ground surveys of fish presence/absence and habitat quality in the tributaries upstream of the proposed dam
6. Expansion of the assessment of alternatives, to include a reconnaissance-level examination of possible alternative locations
7. Instrumentation to measure water temperature, climate, and stream flow.

Application Review Team Evaluations: This project did not score as well as Tier One applications in technical merit or statewide priority with the ART. The source water issues were difficult. Based on the previously funded project there were concerns about the cost and benefit of this project because of the mitigation needs for the impacts to aquatic and terrestrial features of the reservoir site. There were also concerns about the clean up of the former Mill site as well.

Comments: The Department received 15 comments requesting the Polk County proposal not be funded. The major themes of the comments were dealing with sensitive and listed endangered fish species, water quality concerns, ecosystem functions, water supply needs, minimum qualifications of the application, post dam operations (invasive species) use of out of state consultants, and some of the comments reflected a desire for alternative source analysis (including conservation). Please see attachment 2.

Staff Recommendations: Expansion of the assessment of alternatives to include an analysis of possible alternative locations and an assessment of conservation was requested in some of the public comments. Defer action to the secondary application process.

**Oregon Water Resources Department
Water Conservation, Re-use and Storage Grant Program
Evaluation for the December 2011 Applications**

Applicant: Eugene/Springfield Metropolitan Wastewater Management Commission

Study Type: Reuse

Application No: GA 0055 13

Study Name: *Industrial Aggregate Recycled Water Use Study, Eugene/Springfield, Oregon*

Basin: Willamette

Watermaster District: 2

Original Request: \$ 170,262

Total Cost: \$ 415,790

Application Description:

The Eugene/Springfield Metropolitan Wastewater Management Commission (MWMC) will study the feasibility of expanding recycled water use to neighboring industrial aggregate partners in lieu of river and groundwater sources. The potential demand is more than 3 million gallons per day and could be the first recycled water use in Eugene/Springfield outside of MWMC's facilities. This use could potentially provide more efficient use of water resources, benefits to river temperature and habitat, and enhance green business practices. The proposed study includes analytical water balance modeling, engineering design scoping, water quality evaluations, water rights issues assessment, stakeholder acceptability, and triple-bottom-line cost/benefit analysis. Potential industrial applications for recycled water include gravel washing, concrete and asphalt production, equipment rinsing, and dust control. These applications could demonstrate safe and effective recycled water use to the greater community, potentially expanding interest in regional use of recycled water for sustainability and water quality benefits.

Application Review Team Evaluations: The ART scored this application higher in the Tier One group for technical merit and but mid range for statewide priority. Generally the group liked the organization and schedule. The innovative goal of industrial use of recycled water was appreciated. The support for this project was adequate. Water supply and source water issues were well stated but because of the location, did not drive the application higher in statewide priority.

Comments: None Received

Staff Recommendations: Defer action to the secondary application process.

**Oregon Water Resources Department
Water Conservation, Re-use and Storage Grant Program
Evaluation for the December 2011 Applications**

Applicant: Walla Walla Basin Watershed Council
Study Type: Storage (GW)
Application No: GB 0057 13
Study Name: *Aquifer Storage and Recovery Potential-Walla Walla Basin, Eastside Alluvial Aquifer*
Basin: Umatilla **Watermaster District:** 5
Original Request: \$ 129,200 **Total Cost:** Not stated

Application Description:

The study will help fund a bi-state strategic plan for aquifer restoration and flow recovery. This will utilize data from more than 100 wells, 60 surface-water points, seepage analysis, several aquifer recharge projects, and modeling tools such as IWFEM and Hydrus 2D/3D. These tools and data sets have been in development for nearly 10 years and we believe sufficient information has been collected to be able to compile this data into a comprehensive recovery plan. The second component will focus on the feasibility of shallow aquifer recharge in the depleted 'Eastside' sub-basin of the alluvial aquifer; with the added component to investigate recovery of a portion of the recharged water to supplement instream flows during irrigation season. Due to aquifer depletion in this particular sub-basin, seepage loss in the adjacent mainstem Walla Walla River can exceed 75% in the summer.

Application Review Team Evaluations: This project did not score as well as Tier One applications in technical merit but scored mid range in priority with the ART. There was some confusion about the benefits for the source water and the quantity of water that would be placed instream. The ART was disappointed that the local partners did not include the Tribes and ODFW.

Comments: The Department received two comments expressing support for this project.

Ken Bierly - Oregon Watershed Enhancement Board:

The Oregon Watershed Enhancement Board has a long relationship with the Walla Walla Watershed Council. We have funded canal piping projects and have seen them increase the knowledge about the shallow groundwater aquifer and "spring creeks" that flow over the alluvial fan that have been intercepted by irrigation infrastructure. I am very supportive of their efforts and quite confident that they will complete what they propose. If there are funds for additional projects I strongly encourage consideration of the project proposed by the watershed council.

Chris Marks, Water Rights Policy Analyst

The Confederated Tribes of the Umatilla Indian Reservation's Natural Resource Department supports State funding for the Walla Walla Basin Watershed Council's Aquifer Recharge Strategy and Feasibility Study proposal. Utilization of high winter and spring flows to augment water supply and stream flows is a growing trend. The CTUIR and basin stakeholders have made tremendous strides in restoring conditions that can sustain a healthy fishery. We believe aquifer recharge and recharge/recovery can play a vital role in restoring stream flow quantity and quality.

Utilization of high winter and spring flows to augment stream flows and consumptive supply is a growing. Without a plan in place, we fear those efforts could result in the same over appropriation issues that plague other seasons. While we understand there are unanswered quantity and regulatory questions in the application, we believe it is important to start defining the opportunities and begin investigating their potential.

Staff Recommendations: The watershed council has been managing a shallow aquifer recharge project since 2004. It was designed and operates for streamflow enhancement. The goal of storing winter water for irrigation use is very different- both in terms of water rights permitting and the characteristics that make an aquifer suitable. Defer action to the secondary application process.

**Oregon Water Resources Department
Water Conservation, Re-use and Storage Grant Program
Evaluation for the December 2011 Applications**

Applicant: Water and Stream Health Committee
Study Type: Combined
Application No: GM 0058 13
Study Name: *Powder Basin "Water and Stream Health" (WASH)*
Basin: Powder **Watermaster District:** 6
Original Request: \$ 134,000 **Total Cost:** \$ 1,500,000

Application Description:

The Water and Stream Health Committee is seeking funding to continue the study of how to conserve, enhance and maximize use of water in arid Baker County, while identifying additional partners in this long term project. Our goal is to better manage unallocated water from excessive spring flows for later beneficial use during dry summer months. Streams in this area typically run extremely low on water as the summer progresses; many even go completely dry to the demise of fish and aquatic life. Some beneficial uses to be evaluated and emphasized include flood control, necessary spring flushing, dilution of pollution in impaired streams, promotion of aquatic life, electrical power production, production of food and fiber.

Application Review Team Evaluations: This project did not score as well as Tier One applications in technical merit or statewide priority with the ART. The committee did not believe the specific tasks or schedule for the project were clearly stated.

Comments: None Received

Staff Recommendations: Grant program and field staff should work with the applicant to identify specific opportunities within the basin for a fall application for the Bureau of Reclamation WaterSMART grant program. Defer action to the secondary application process.