# 2015-2017 Grant Solicitation

# WATER CONSERVATION, REUSE AND STORAGE FEASIBILITY STUDY GRANT PROGRAM

## *GRANT APPLICATION*

### APPLICATION INSTRUCTIONS

1. Complete Sections I through VII in the spaces provided.
2. An application must be submitted on a form provided by the Department. An explanation must accompany the application if any of the information required cannot be provided [OAR 690-600-0020(6)].
3. If in hard copy - use 8 ½" x 11" single sided, unstapled pages. Provide any attachments to application also on 8 ½" x 11" single-sided, unstapled pages. Avoid color and detail that will not photocopy clearly.
4. Please Contact the Department's Grant Specialist Jon Unger at **503.986.0869** or Jon.J.Unger@wrd.state.or.us if you have any questions.

**Application Deadline: July 31, 2015 5:00 PM,**
(Application must be received by this date and time)

Mail application to:

**OREGON WATER RESOURCES DEPARTMENT**
**Attention: Grant Specialist**
**725 Summer Street NE, Suite A**
**Salem, OR 97301**

# KEY GRANT INFORMATION

**Introduction.** The Water Conservation, Reuse and Storage Grant Program, established by Senate Bill 1069 (2008), is designed to fund the qualifying costs of feasibility studies that evaluate the feasibility of developing water conservation, reuse or storage projects. Oregon is facing increasing water demand and increasingly scarce water supplies. To adequately meet Oregon's diverse water demands now and into the future, Oregonians must use their water wisely and efficiently. That means looking more closely at innovative water conservation and reuse programs and environmentally sound storage projects that capture available water so it can be put to good use when needed.

**What is a feasibility study?** A feasibility study is an assessment of a proposed plan or method. Typically there should be a previously identified water project that appears to have merit but is lacking important details necessary to determine whether or not to proceed. The feasibility study focuses on helping answer the essential question of "should we proceed with the proposed project idea?" All activities of the study are directed toward helping answer this question. Ideally the project identified will have community support and will have been identified through a collaborative process.

**Match Funding.** To be eligible for funding applicants must clearly demonstrate funding from a source other than the Program of not less than a dollar-for-dollar match from cash or in-kind services. For example, if $25,000 is requested in Program Funds, then there must be a match of at least $25,000 from another source. The matching funds must be secured or in the process of being secured. The maximum grant award is $500,000.

**Eligibility Requirements for Storage Studies.** To be eligible for funding for a project feasibility study associated with a proposed storage project that would: Impound surface water on a perennial stream; Divert water from a stream that supports sensitive, threatened or endangered fish; **or** Divert more than 500 acre-feet of surface water annually, the proposed project feasibility study must contain the following elements:

- Analyses of by-pass, optimum peak, flushing and other ecological flows of the affected stream and the impact of the storage project on those flows;
- Comparative analyses of alternative means of supplying water, including but not limited to the costs and benefits of water conservation and efficiency alternatives and the extent to which long-term water supply needs may be met using those alternatives;
- Analyses of environmental harm or impacts from the proposed storage project;
- Evaluation of the need for and feasibility of using stored water to augment in-stream flows to conserve, maintain and enhance aquatic life, fish life and any other ecological values; and
- For a proposed storage project that is for municipal use, analysis of local and regional water demand and the proposed storage project's relationship to existing and planned water supply projects.

***See Application Criteria and Evaluation Guidance for assistance in filling out this application.***

# OREGON WATER RESOURCE DEPARTMENT
# WATER CONSERVATON, REUSE AND STORAGE
# FEASIBILTY STUDY GRANT PROGRAM

## I. Grant Information

Study Name: *City of Echo Land Feasibility Study for Water Storage and Reuse*

Type of Feasibility Study: ☐ Water Conservation ☒ Reuse ☐ Above-Ground Storage
☐ Storage Other Than Above-Ground [Including Aquifer Storage and Recovery (ASR)]

Program Funding Dollars Requested: $ 20,000 Total Cost of Feasibility Study: $ 40,000
***Note: Request may not exceed $500,000***

## II. Applicant Information

| **Applicant Name:** *City of Echo, Oregon* | | **Co-Applicant Name:** |
|---|---|---|
| Address: | *20 South Bonanza Street/P.O. Box 9* | Address: |
| | *Echo, Oregon 97826* | |
| Phone: | *(541)376-8411* | Phone: |
| Fax: | *(541) 376-8218* | Fax: |
| Email: | *ecpl@centurytel.net* | Email: |

| **Principle Contact:** *Diane Berry* | |
|---|---|
| Address: | *20 South Bonanza Street/P.O. Box 9* |
| | *Echo, Oregon 97826* |
| Phone: | *(541)376-8411* |
| Fax: | *541) 376-8218* |
| Email: | *ecpl@centurytel.net* |

**Certification**:

I certify that this application is a true and accurate representation of the proposed work for a project feasibility study and that I am authorized to sign as the Applicant or Co-Applicant. By the following signature, the Applicant certifies that they are aware of the requirements of an Oregon Water Resources Department grant, have read and agree to all conditions within the sample grant agreement and are prepared to conduct the feasibility study if awarded.

Applicant Signature: _____ Date: 7/28/15

Print Name: *Diane Berry* Title: *City Administrator*

## III. Feasibility Study Summary

Please give a brief summary of the feasibility study using no more than 150 words.

*The City of Echo, Oregon, wastewater system is permitted as a surface water discharging system. The existing wastewater system has several deficiencies that continue to cause the City to violate the conditions of the City's National Pollutant Discharge Elimination System (NPDES) Permit issued by the Oregon Department of Environmental Quality (DEQ). As such, to assist with bringing the system into compliance, the DEQ issued a Mutual Agreement and Order (MAO) to the City. The City must complete the action items required by the MAO and address the non-compliance issues. The City completed a Wastewater Facilities Plan (WWFP) Update in 2015 and identified a preferred alternative for wastewater disposal that includes the storage, treatment, and reuse of wastewater. A feasibility study is needed to identify local land parcels for potential water reuse and storage sites. The City has generally identified three potential locations for evaluation. The feasibility study will consider the feasibility of each potential site.*

# IV. Grant Specifics

## Section A. Common Criteria

***Instructions:*** Please answer all questions contained in this section. It is anticipated that completed applications will result in additional pages.

1. Describe your goal and how this study helps to achieve the goal.

   *The City is currently out of compliance with its NPDES Permit and needs to address non-compliance issues by updating its wastewater system. The City's goal is to address this issue by constructing a water storage and irrigation system that will reuse the City's wastewater and eliminate the need to discharge wastewater into the Umatilla River. The goal of the feasibility study is to identify potential sites that will be suitable for the storage of treated wastewater and for reusing the stored water to irrigate agricultural land. The feasibility study will consider the location, size, soil quality, water supply needs, community support, and financial feasibility of potential sites.*

   *This feasibility study is a critical step in identifying the optimal location for a water storage pond and irrigation fields. After this feasibility study is complete, design will commence immediately if funding allows.*

2. Describe the water supply need(s) that the proposed project addresses. Identify any critical local, regional, or statewide water supply needs that implementation of the project associated with the feasibility study will address. **Responses should rely upon solid water availability and needs data/analysis.** For examples of water supply needs see "Criteria and Evaluation Guidance Document."

   *The City of Echo is located in the Umatilla Basin, which has an arid to semi-arid climate. Precipitation ranges from 8 to 12 inches annually, with the majority falling during winter months. The community's economic base is agriculture. The lack of precipitation, combined with high evapotranspiration and large withdrawals of water from both ground and surface water sources for the irrigation of agriculture crops, creates a large water supply need. Additionally, Echo is located in the Stage Gulch Critical Ground Water Area where groundwater is in short supply and needs to be conserved. Currently, the City is discharging treated wastewater into the Umatilla River, a 303(d) water quality limited stream. The City's wastewater treatment facility (WWTF) has been unable to consistently meet permit requirements for biochemical oxygen demand, total suspended solids, and chlorine residuals. Therefore, the water that is discharged into the Umatilla River from the WWTF continues, at times, to degrade the water quality of the river. The City needs an alternative to discharging treated wastewater into the Umatilla River.*

3. Explain how the proposed project will meet the water supply need(s), and indicate what percentage of that need will be met. (For example: If your water supply need is 20,000 acre-feet of additional water and the project will supply 10,000 additional acre-feet, 50 percent of your need will be met).

*The City's discharge monitoring reports were evaluated, which determined that the average annual flow of wastewater is approximately 44,000 gallons per day. According to the water balance developed in the 2015 WWFP Update, if the proposed wastewater storage and reuse alternative is implemented, the City could potentially irrigate 7.5 acres of cropland with approximately 26.3 acre-feet of water. This could potentially restore 26.3 acre-feet of water to the Umatilla River or eliminate the need to withdraw 26.3 acre-feet of groundwater by replacing water that currently irrigates 7.5 acres of existing cropland with stored wastewater. Additionally, if this project is implemented, there is the potential for the improvement of water quality in the Umatilla River, because the City would no longer be discharging treated wastewater into the river.*

*The proposed project could supply 100 percent of the irrigation needs for 7.5 acres of cropland. Additionally, the selected wastewater treatment system improvements would provide a system capable of treating wastewater to acceptable levels and would provide increased capacity for disposal of treated effluent for a 20-year planning period. This project is anticipated to meet 100 percent of the water disposal and storage needs.*

4. Describe the technical aspects of the feasibility study and why your approach is appropriate for accomplishing the specific study goals and objectives.

*The City has predetermined three potential sites for the evaluation. To determine if the site will meet technical and regulatory requirements for water storage and reuse, a qualified engineer will apply technical criteria to each of these sites. Location, size, soil quality, community support, and financial feasibility of potential sites will be used as part of the criteria.*

*The feasibility study will include a cost benefit and alternatives analysis of water conservation and efficiency alternatives, evaluation of long-term water supply, analysis of potential environmental impacts from the project, and an evaluation of the project's relationship to existing and planned local and regional water supply projects.*

*The cost benefit and alternatives analysis, based on clearly delineated factors, will enable the feasibility study results and conclusions to be meaningful and defensible for the City of Echo. The City will be able to confidently use the results and conclusions to pursue a site that will be suitable for modifications to the wastewater treatment system through water storage and irrigation reuse.*

5. Describe how the feasibility study will be performed. Include:
    a. General summary statement that describes the study progression.
    b. When the feasibility study will begin.
    c. Listing of key tasks to be accomplished with each task having:
        i. Title
        ii. Timeline for completion
        iii. Description of the activities to be performed in this key task
        iv. Description of the resources necessary for accomplishing the key task

    **Example:**

    (i) Streamflow measurement;
    (ii) September-April;
    (iii) Weekly streamflow measurements will be performed to gather hydrographic data for the hydrologic analysis to take place in May;
    (iv) A technician will be hired to perform the streamflow measurements.

    (Key tasks listed here are to be placed in <u>Section VI. Project Feasibility Study Schedule</u> for a quick reference "graphical" representation of the schedule.)

*a. The feasibility study will progress in the following manner. Once funding is secured through the Water Resources Grant 1069, a contract for engineering services will be agreed upon by the City of Echo and Anderson Perry & Associates, Inc. (AP). The first steps in the investigation will include a preliminary evaluation of sites identified in the WWFP Update and other sites as recommended by experienced personnel. Landowners will be contacted, and evaluations for cost, capacity, and environmental permitability will be conducted. A final preferred alternative site will be proposed for selection by the City. A final report will be compiled. This will facilitate the next step of funding for design and construction through Oregon Clean Water State Revolving Fund, U.S. Department of Agriculture Rural Development, or the Oregon Business Development Department - Infrastructure Finance Authority grant/loan package. Lastly, this Water Resources Grant 1069 grant will be closed out and final paperwork completed.*

*b.When funding becomes available.*

*c. Below is the list of key tasks and associated timelines, activity descriptions, and resource descriptions.*

*i. Secure Funding/Water Resources Grant 1069*

*ii. Fourth quarter (December 2015)*

*iii. Receive notice of grant success*

*iv. City staff time*

*i. Contract for Engineering Services*

*ii. Fourth quarter (December 2015)*

*iii. Sign relevant contract documents*

*iv. City staff time*

*i. Begin Preliminary Identification and Meetings*

*ii. Fourth quarter 2015, first quarter 2016 (December 2015 through March 2016)*

*iii. A list of irrigation locations will be drafted. The acceptability of the storage pond locations will be reviewed and a series of initial meetings will occur. City staff and landowners will assess the practibility of utilizing various fields for reusing treated wastewater for irrigation.*

*iv. City staff and contacts will be utilized to assist with contacting local landowners and finding available sites*

*i. Main Work on Feasibility Study*

*ii. First through third quarter (January through August 2016)*

*iii. Research area and sites, develop cost estimate, create maps and drawings, and determine the feasibility of each alternative. Propose a preferred alternative at the end of the document for the City's approval.*

*iv. A qualified professional engineer will perform this work*

*i.Conclude Feasibility Study and Complete Final Report*

*ii. Third quarter (September 2016)*

*iii. Draft final report*

*iv. A qualified professional engineer will perform this work*

*i. Close Out Grant and Final Paperwork*
*ii.Third and fourth quarter 2016 (September through December)*

*iii.Complete project closure reporting, final billing, and paperwork*
*iv. This task will require City staff and engineering time*

6. Please provide the following data and information for the proposed project and the project's sources of water supply:

a. The location of the proposed project. Include the basin, county, township, range and section. Attach a **map** that identifies the project's implementation area to this application.

*The City of Echo is located in northeast Oregon in Umatilla County. The study area to be examined within this feasibility study is shown on Figure 1. The City of Echo is located approximately 21 miles northwest of Pendleton and 1 mile southeast of Interstate 84 on Lexington-Echo Highway 320. The Umatilla River forms the western corporate limits of the City. The City is situated entirely within Section 16, Township 3 North, Range 29 East, Willamette Meridian. The area for this feasibility study encompasses the entire area within the City limits and the urban growth boundary of the City of Echo, with particular focus on areas within the City limits. Umatilla County is served by two major drainage basins. The majority of the County lies in the Umatilla drainage basin, while the southern tip lies in the John Day drainage basin. The Umatilla River subbasin is located in northeastern Oregon, in the center of the Columbia Basin. The study area is located adjacent to the Umatilla River in 5th Field HUC 17070103.*

b. The name(s) and river mile(s) of the source water and what they are tributary to, if applicable.

*Umatilla River near river mile 26.*

c. Whether the project will be off-channel or on-channel (for above-ground storage only).

*Off-channel.*

d. Water availability to meet project storage. For above-ground storage the Department typically evaluates availability using a 50 percent exceedance water availability analysis.

*The City of Echo's existing water rights will be utilized for this project. All water to be used in this project will be wastewater; no new water will be diverted for storage.*

e. Proposed purposes and/or uses of conserved or stored water.

*Stored wastewater will be used to irrigate existing cropland. This may conserve water from the Umatilla River by allowing water currently used for irrigation to remain in-stream. It may also help conserve groundwater that is currently being used for irrigation by leaving water in the ground.*

f. Environmental flow needs and water quality requirements of supply source water bodies.

*The result of this feasibility study, which will determine potential water reuse sites, may eventually leave more water in the Umatilla River and, therefore, help restore the natural flow of the Umatilla River to previous historic natural flows. If the City no longer has to discharge treated wastewater to the river, there is the potential to improve water quality in the Umatilla River.*

7. What local, state or federal project permitting requirements/issues/approvals do you anticipate in order for the feasibility study to be conducted? If approvals are required, indicate whether you have obtained them. If you have not obtained the necessary permits/governmental approval, describe the steps you have taken to obtain them. If no permits are needed, please provide explanation.

*This is a feasibility study; therefore, no permitting requirements or approvals are needed.*

8. Describe the level of involvement, interest and/or commitment of local entities associated with the feasibility study. Describe how the feasibility study and/or proposed project will benefit/impact these entities. Attach letters of support if available.

*This project is supported by the community, local and regional officials, and the DEQ. Please see attached letters of support.*

9. Identify when matching funds will be secured, from whom, and the dates of matching funds availability.

   *Matching funds will be obtained from the City of Echo. The funds will be secured prior to conducting the feasibility study.*

10. Provide a description of the relevant professional qualifications and/or experience of the person(s) that will play key roles in performing the feasibility study. If the personnel have not been decided upon, include a description of the professional qualifications and/or experience of the person(s) you anticipate will play key roles in performing the feasibility study.

    *The primary author will be an experienced engineer from AP. Support personnel will be a certified systems operator who is City staff, is connected to the local community, and is familiar with the area and sites. Additional technical support personnel will be an AP employee experienced with land negotations, agreements, and state and federal relocation requirements. AP has over 40 years of experience in eastern Oregon accomplishing all steps of this process, including conducting the feasibility study, designing the storage and reuse system, and overseeing project construction.*

## Section B. Unique Criteria

***Instructions:*** Address the set of items below that applies to the type of feasibility study that this grant will fund.

### ☐ Water Conservation or ☒ Reuse

1. Water Conservation or Reuse projects that are identified by the Department in a statewide water assessment and inventory receive a preference in the scoring process. Contact the Department's Grant Specialist to include your project on the inventory.

   **Coordination occurred with OWRD and this project was added to the list, the inventory form is attached to this application.**

2. Explain how the associated project will either: (a) mitigate the need to develop new water supplies and/or (b) use water more efficiently. Reference documentation and/or examples of the success of similar or comparable water conservation/reuse projects that would be available upon request.

   *Wastewater will be used to meet the storage and reuse needs of this project, so no new water supply will need to be developed. Treated wastewater is currently being discharged to the Umatilla River, degrading water quality. This project would allow the City to stop discharging to the river and would provide storage for the wastewater that can then be reused to irrigate crops during the irrigation season. The entire community would benefit from the efficiency of reuse. The project will also result in the more efficient use of treated wastewater, because applying water to crops is more ecologically efficient and beneficial than discharging directly to the Umatilla River.*

   *An example of a similar water reuse project includes the City of Halfway's feasibility study for water reuse. This project's feasibility study was completed, and design is in progress by AP. Information on this project is available upon request.*

3. Provide a description of: (a) Local, state and/or federal permitting requirements and issues posed by the **implementation** of the project associated with the feasibility study and (b) property ownership status within the project implementation area. If permitting or other approvals are not needed please indicate and provide an explanation.

   a) Until the preferred alternative is selected, it is unknown which permits will be required for construction of this project. As such, these permits have not been obtained, but actions, including early consultation, have been taken to gain governmental approval for this project. See the attached letters of support. Permits and concurrences likely to be required for the proposed project include:
   1. Conditional Use Permit if lagoon options are located on farmland.
   2. Land Use Compatability Statement.
   3. If the storage option is built on prime farmland, consultation under the Farmland Protection Program will be necessary.
   4. Wetland determination/delineation and associated permitting as needed (removal/fill permit, mitigation plan, etc., if necessary).
   5. Section 106 consultation with the Oregon State Historic Preservation Office (SHPO) and relevant tribes will be required before construction.
   6. If the City chooses to land-apply biosolids from the lagoon cleaning, a Biosolids Management Plan will need to be developed and approved by the DEQ.
   7. Endangered Species Act review and clearance.

   b) The potential sites for irrigation and storage are owned by a variety of individuals, the County, and City. The feasibility study would include contacting these landowners and reaching an agreement on whether the property can be obtained by the City for these purposes. Because the WWFP Update

identified multiple potential locations, it is likely that landowner permission will be obtained for at least one location.

## ☐ Above-Ground Storage

Please answer the following three questions **BEFORE** proceeding:

| | | |
|---|---|---|
| Will the project divert more than 500 acre-feet of surface water annually? | ☐ Yes | ☒ No |
| Will the project impound surface water on a perennial stream? | ☐ Yes | ☒ No |
| Will the project divert water from a stream that supports sensitive, threatened or endangered species? | ☐ Yes | ☒ No |

*If you answered "Yes" to any of these questions, by signature on this application, you are committing to include the following required elements in your feasibility study.*

Describe how you intend to address the required elements in your feasibility study:

a) Analyses of by-pass, optimum peak, flushing and other ecological flows of the affected stream and the impact of the storage project on those flows.

*N/A*

b) Comparative analyses of alternative means of supplying water, including but not limited to the costs and benefits of water conservation and efficiency alternatives and the extent to which long-term water supply needs may be met using those alternatives.

*N/A*

c) Analyses of environmental harm or impacts from the proposed storage project.

*N/A*

d) Evaluation of the need for and feasibility of using stored water to augment instream flows to conserve,

maintain and enhance aquatic life, fish life and any other ecological values.

*N/A*

Is the proposed storage project for municipal use?

☒ Yes ☐ No

If "Yes," then please describe how you intend to address the following required element in your feasibility study:

e) For a proposed storage project that is for municipal use, analysis of local and regional water demand and the proposed storage project's relationship to existing and planned water supply projects.

*A review of existing and planned water supply projects will be conducted through coordination with local, regional, and state agencies including the Oregon Water Resource Department,Oregon Department of Fish and Wildlife, the local and adjacent communities' public works departments, and any other agencies or organizations that may have an interest or be impacted by the proposed project.*

**Proceed in addressing the following items:**

1. Describe to what extent the project associated with the feasibility study includes provisions for using stored water to augment instream flows to conserve, maintain and enhance aquatic life, fish life or other ecological values. Projects that include the above provisions receive preference in the scoring process.

   *The project does not directly include provisions for augmenting in-stream flows. However, if the resulting project can reuse wastewater to irrigate land that is currently irrigated with Umatilla River water and that water can be left in-stream, flows could potentially be augmented by water left in-stream.*

2. Provide a review of: (a) Local, state and/or federal permitting requirements and issues posed by the **implementation** of the project associated with the feasibility study and (b) property ownership status within the project implementation area.

   *a) Until the preferred alternative is selected, it is unknown which permits will be required for construction of this project. As such, these permits have not been obtained, but actions, including early consultation, have been taken to gain governmental approval for this project. See the attached letters of support. Permits and concurrences likely to be required for the proposed project include:*
   *1. Conditional Use Permit if lagoon options are located on farmland.*
   *2. Land Use Compatability Statement.*
   *3. If the storage option is built on prime farmland, consultation under the Farmland Protection Program will be necessary.*
   *4. Wetland determination/delineation and associated permitting as needed (removal/fill permit, mitigation plan, etc., if necessary).*
   *5. Section 106 consultation with SHPO and relevant tribes will be required before construction.*
   *6. If the City chooses to land-apply biosolids from the lagoon cleaning, a Biosolids Management Plan will need to be developed and approved by the DEQ.*
   *7. Endangered Species Act review and clearance.*

   *b) The potential sites for irrigation and storage are owned by a variety of individuals, the County, and City. The feasibility study would include contacting these landowners and reaching an agreement on whether the property can be obtained by the City for these purposes. Because the WWFP Update identified multiple potential locations, it is likely that landowner permission will be obtained for at least one location.*

## ☐ Storage Other Than Above-Ground [Including Aquifer Storage and Recovery (ASR)]

Please answer the following three questions **BEFORE** proceeding:

| | | |
|---|---|---|
| Will the project divert more than 500 acre-feet of surface water annually? | ☐ Yes | ☒ No |
| Will the project impound surface water on a perennial stream? | ☐ Yes | ☒ No |
| Will the project divert water from a stream that supports sensitive, threatened or endangered species? | ☐ Yes | ☒ No |

*If you answered "Yes" to any of these questions, by signature on this application, you are committing to include the following required elements in your* feasibility *study.*

Describe how you intend to address the required elements in your feasibility study:

a) Analyses of by-pass, optimum peak, flushing and other ecological flows of the affected stream and the impact of the storage project on those flows.

*N/A*

b) Comparative analyses of alternative means of supplying water, including but not limited to the costs and benefits of water conservation and efficiency alternatives and the extent to which long-term water supply needs may be met using those alternatives.

*N/A*

c) Analyses of environmental harm or impacts from the proposed storage project.

*N/A*

d) Evaluation of the need for and feasibility of using stored water to augment instream flows to conserve, maintain and enhance aquatic life, fish life and any other ecological values.

*N/A*

Is the proposed storage project for municipal use?

☒ Yes ☐ No

If "Yes," then please describe how you intend to address the following required element in your feasibility study:

e) For a proposed storage project that is for municipal use, analysis of local and regional water demand and the proposed storage project's relationship to existing and planned water supply projects.

*N/A*

**Proceed in addressing the following items:**

1. Underground storage projects that are identified by the Department in a statewide water assessment and inventory receive a preference in the scoring process. Contact the Department's Grant Specialist to include your project on the inventory.

   N/A

2. Provide a review of: (a) Local, state and/or federal permitting requirements and issues posed by the **implementation** of the project associated with the feasibility study and (b) property ownership status within the project implementation area.

   N/A

## V. Match Funding Information

Applicants must demonstrate a minimum dollar-for-dollar match based on the total funding request. The match may include a) secured funding commitment from other sources, b) pending funding commitment from other sources, and/or c) the value of in-kind labor, equipment rental, and materials essential to the feasibility study. For secured funding, you must attach a letter of support from the match funding source that specifically mentions the dollar amount shown in the "Amount/Dollar Value" column. For pending resources, documentation showing a request for the matching funds must accompany the application.

| **In the "type" column below matching funds may include:** | **In the "status" column below matching funds may have the following status:** |
|---|---|
| • **Cash** - Cash is direct expenditures made in support of the feasibility study by the applicant or partner*. | • **Secured** - Secured funding commitments from other sources. |
| • **In-Kind** - The value of in-kind labor, equipment rental and materials essential to the feasibility study provided by the applicant or partner. | • **Pending** - Pending commitments of funding from other sources. In such instances, Department funding will not be released prior to securing a commitment of the funds from other sources. Pending commitments of the funding must be secured within 12 months from the date of the award. |

*"Partner" means a non-governmental or governmental person or entity that has committed funding, expertise, materials, labor, or other assistance to a proposed project planning study. OAR 690-600-0010.

| **Match Funding Source** (if in-kind, briefly describe the nature of the contribution) | **Type ( ✓ One)** | **Status ( ✓ One)** | **Amount/ Dollar Value** | **Date Match Funds Available** *(Month/Year)* |
|---|---|---|---|---|
| *City of Echo, Oregon* | ☒ cash ☐ in-kind | ☒ secured ☐ pending | *$20,000* | *July 15* |
| | ☐ cash ☐ in-kind | ☐ secured ☐ pending | | |
| | ☐ cash ☐ in-kind | ☐ secured ☐ pending | | |
| | ☐ cash ☐ in-kind | ☐ secured ☐ pending | | |
| | ☐ cash ☐ in-kind | ☐ secured ☐ pending | | |
| | ☐ cash ☐ in-kind | ☐ secured ☐ pending | | |
| | ☐ cash ☐ in-kind | ☐ secured ☐ pending | | |
| | ☐ cash ☐ in-kind | ☐ secured ☐ pending | | |
| | ☐ cash ☐ in-kind | ☐ secured ☐ pending | | |
| | ☐ cash ☐ in-kind | ☐ secured ☐ pending | | |

## VI. Feasibility Study Schedule

### Estimated Study Duration: <u>September 1, 2015</u> to <u>December 31, 2016</u>

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

| | 2015 | | | 2016 | | | | 2017 |
|---|---|---|---|---|---|---|---|---|
| **Feasibility Study Key Tasks** | **2nd Qtr** | **3rd Qtr** | **4th Qtr** | **1st Qtr** | **2nd Qtr** | **3rd Qtr** | **4th Qtr** | **& Beyond** |
| *Secure Funding/Water Resources Grant 1069* | | | X | | | | | |
| *Contract for Engineering Services* | | | X | | | | | |
| *Begin Preliminary Identification and Meetings* | | | X | X | | | | |
| *Main Work on Feasibility Study* | | | | X | X | X | | |
| *Conclude Study and Complete Final Report* | | | | | | X | | |
| *Close Out Grant and Final Paperwork* | | | | | | X | X | |
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- **Please Note**: Successful grantees must include all invoices and identify which key tasks are associated with each invoice when requesting financial reimbursement.

## VII. Feasibility Study Budget

**Section A**

Please provide an estimated line item budget for the proposed feasibility study. Examples would include: labor, materials, equipment, contractual services and administrative costs.

| Line Items | Number of Units* *(e.g. # of Hours)* | Unit Cost *(e.g. hourly rate)* | In-Kind Match | Cash Match Funds | OWRD Grant Funds | Total Cost |
|---|---|---|---|---|---|---|
| Staff Salary/Benefits | | | | | | |
| Contractual/Consulting | | | | | | |
| Equipment (must be approved) | | | | | | |
| Supplies | | | | | | |
| *Other: Engineering* | *342* | *$105.00* | | *$18,000* | *$18,000* | *$36,000* |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| Administrative Costs** | *38* | *$105.00* | | *$2,000* | *$2,000* | *$4,000* |
| **Total for Section A** | | | *$0* | *$20,000* | *$20,000* | *$40,000* |
| **Percentage for Section A** | | | ***0%*** | ***50%*** | ***50%*** | ***100%*** |

** Note: The "Unit" should be per "hour" or "day" – not per "project" or "contract." Units x Unit Costs = Total Cost*
*** Administrative Costs may not exceed 10 percent of the total funding requested from the Department*

**Section B**

**If grant amount requested is $50,000 or greater, you MUST complete Section B. Key Tasks in Section B should be the same as the Key Tasks in Section VI (Feasibility Study Schedule).**

| Feasibility Study Key Tasks | In-Kind Match | Cash Match Funds | OWRD Grant Funds | Total Cost |
|---|---|---|---|---|
| *N/A* | | | | |
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| **Total for Section B** | | | | |

*Totals in Section B must match the totals in Section A*

# APPLICATION CHECKLIST

**Instructions:** Use this checklist to ensure that your application is complete. An incomplete application will jeopardize your application's review. **This form does not need to be included in your application packet.**

**General**

If submitting electronically, the preferred format is either a Microsoft word or Adobe pdf

- ☐ Only one application is included with the packet (other applications must be sent separately).

**Paper submissions only**

- ☐ The application and attachments are on 8 ½" x 11" paper.
- ☐ The application and attachments are single-sided.
- ☐ The application and attachments are not stapled or bound.

**Section I – Grant Information**

- ☐ All questions in this section have been answered.
- ☐ The Grant Dollars Requested and the Total Project Cost mirror the totals shown in Section VII.

**Section II – Applicant Information**

- ☐ All contact information for the applicant(s) and fiscal officer is complete and current.
- ☐ The certification is signed by an authorized signer.

**Section III – Feasibility Study Summary**

- ☐ A brief summary, of no more than 150 words, is complete.

**Section IV – Grant Specifics**

- ☐ All questions in Section A have been answered.
- ☐ If the type of feasibility study is water conservation, reuse or storage other than above-ground, you have contacted the Department and requested project be added to the Oregon Water Resources Department's statewide water assessment and inventory.
- ☐ All applicable questions for the type of grant requested have been answered.

**Section V – Match Funding Information**

- ☐ Applicant has identified that at least 50 percent match has been sought, secured or expended.
- ☐ Letters of support are included for "secured" match funding sources.
- ☐ Documentation is included for "expended" match funds.
- ☐ Documentation is included for "pending" match funds.

**Section VI – Feasibility Study Schedule**

- ☐ Estimated project duration dates have been supplied.
- ☐ All Key Tasks of the project are listed.

**Section VII – Feasibility Study Budget**

- ☐ Section A is complete.
- ☐ Administration costs do not exceed 10 percent of the requested OWRD Grant Funds.
- ☐ If grant amount requested is $50,000 or greater, Section B has been completed.
- ☐ All Key Tasks listed in Section B mirror the Key Tasks listed in Section VI.

*Request to be added to the Oregon Water Resources Department's*

# Inventory of Potential Conservation Opportunities

The purpose of this inventory is to catalogue potential conservation projects that water users themselves have identified but not yet pursued because of financial, institutional, or other barriers. For the purpose of this application, water storage other than above-ground are included as conservation opportunities and are most likely capital conservation projects.

As a water provider or user, you know your water demands and water conservation opportunities better than anyone. We would appreciate your assistance with this important data collection effort by completing this survey. Your participation will help provide the building blocks we need to begin to identify and achieve potential future water supplies. Please answer the questions as completely as possible, to the best of your ability. We appreciate your help with this important effort.

This inventory of already-identified, potential conservation projects includes both capital and programmatic projects. Capital projects are defined as one-time, large investments resulting in water savings. Examples include reclaimed water plants, reservoir covering, transmission line upgrades reducing leaks, or industrial engineering modifications to re-use process water. Programmatic projects are defined as ongoing investments resulting in water savings. Examples include facilitating upgrades to more efficient water using devices (e.g., distributing free showerheads, toilet rebates) and distribution system leak detection programs. The conservation inventory is primarily intended to include "planned" projects rather than projects that are currently being implemented. However, currently active programmatic projects may be listed if they will continue or expand in future years. The inventory of projects submitted will be compiled by county or basin.

Examples are provided below.

| | **Example<br>Capital Conservation Project** | **Example<br>Programmatic Conservation Project** |
|---|---|---|
| **Project Description**<br>Provide brief sentence | Line 3 miles of unlined ditch. | Toilet rebate program for residential customers |
| **Estimated Future Savings**<br>Provide brief sentence, including information regarding savings seasonality. | 20 acre feet of water per year | If we spend our full budget each year, we estimate 50,000 gallons of water save per year |
| **Seasonality**<br>Indicate what part of the year savings are generated (e.g. year-round; summer only; etc.). | Peak (irrigation) season savings. | Savings should occur throughout the year. |
| **Estimated Future Costs**<br>Provide brief sentence. | $500,000 total project costs. | $40,000 a year. |
| **Implementation Schedule**<br>Provide brief sentence. | Not set. Have conducted cost and savings estimate, but still seeking funding. | We started the program in 2005 and plan to implement until 2015. |
| **Project Funded?**<br>Designate either "yes", "no", or provide brief sentence if necessary | No. Pursuing grant funding. | Yes. IN our CIP through the next 5 years. |

To add a project to the inventory of potential conservation opportunities, please provide the following information for each conservation project.

| This is a ☒ Capital Conservation Project ☐ Programmatic Conservation Project | |
|---|---|
| **Project #/Name** | **City of Echo Land Feasibility Study for Water Storage and Reuse** |
| Project Description | Feasibility study for wastewater storage and reuse through irrigation application. |
| Estimated Future Savings | N/A. |
| Seasonality | Yes - irrigation season. |
| Estimated Future Costs | $2,910,000 total project cost. |
| Implementation Schedule | Not set. Feasibility study and funding will determine schedule. |
| What are the barriers to implementation, e.g. funding? | Funding. |
| This is a ☐ Capital Conservation Project ☐ Programmatic Conservation Project | |
| **Project #/Name** | |
| Project Description | |
| Estimated Future Savings | |
| Seasonality | |
| Estimated Future Costs | |
| Implementation Schedule | |
| What are the barriers to implementation, e.g. funding? | |

**- Include this form with your application -**

Oregon
Kate Brown, Governor

Department of Environmental Quality
Eastern Region - Pendleton Office
800 SE Emigrant Ave, Suite 330
Pendleton, OR 97801
Phone: (541) 276-4063
Fax: (541) 278-0168
Relay Service: 711

23 July 2015

Diane Berry, Administrator
City of Echo
PO Box 9
Echo, OR 97826

RE: WQ Umatilla County
City of Echo STP
File# 26200; NPDES# 102054

Dear Ms. Berry:

This letter expresses the Department of Environmental Quality's (Department) wholehearted support for the City of Echo's funding application for planned wastewater facilities upgrades. Upon completion, the upgrades will improve collection and treatment system operational efficiency and treatment that will benefit public health and the environment.

The proposed collection system improvements will reduce the potential for public exposure to sewage spills by the addition of collection system cleanouts; the reduction in pressure line grease accumulation; updating the standby generator; and installation of an autodial alarm system to notify staff in the event of a lift station failure. Treatment system upgrades include removing accumulated biosolids; improving influent flow measurement; and the construction of new wastewater storage with fountains will increase evaporation and eliminate the need for river discharge thereby improving water quality for human uses and aquatic life.

The Department appreciates the city's commitment to undertake the proposed infrastructure improvements and consider the public health and environmental benefits to be money well spent.

Sincerely,

Paul Daniello
Water Quality Specialist
541-278-4617
daniello.paul@deq.state.or.us

Umatilla Meadows

To Stanfield

To Boardman

RIVER

Rest Area

EMIGRANT BUTTE ROAD

ECHO MEADOWS RD

HOUSER ROAD

ATTERBURY ROAD

FEED

DITCH

Gibbon

Stanfield Junction

OLD PENDLETON ROAD

FERNISH ROAD

MEADOWS ROAD

ECHO ROAD

HUNT ROAD

Mile 25

Mile 26

Umatilla River

**CITY OF ECHO WASTEWATER TREATMENT FACILITY**

**STUDY AREA**

**ECHO**

Well

Res

Golf Course

**URBAN GROWTH BOUNDARY**

**CITY LIMITS**

**INTERSTATE 84**
**U.S. HWY. 30**

To Pendleton

To Lexington

OREGON TRAIL

CANAL

U.P.R.R.

Dam

R 28 E

R 29 E

**T.3 N. R.29 E., W.M.**

SCALE IN FEET

2000 0 2000

**CITY OF ECHO**

**VICINITY MAP**

Astoria, Seaside, Tillamook, Hebo, Lincoln City, Newport, Corvallis, Waldport, Florence, Reedsport, North Bend, Coos Bay, Coquille, Gold Beach, Grants Pass, Roseburg, Oakridge, Eugene, Albany, Salem, McMinnville, Portland, Hood River, The Dalles, Arlington, Biggs, Madras, Sisters, Redmond, Prineville, Bend, La Grande, Baker City, John Day, Unity, Vale, Ontario, Nyssa, Burns, Paisley, Jordan Valley, Medford, Ashland, Klamath Falls, Lakeview, Pendleton, Enterprise, OREGON

anderson perry & associates, inc.

CITY OF
**ECHO, OREGON**
LAND FEASIBILITY STUDY FOR WATER STORAGE AND REUSE
WATER CONSERVATION, REUSE, AND STORAGE FEASIBILITY STUDY
GRANT APPLICATION

**STUDY AREA**

**FIGURE**

**1**

Job#1391-25-030 Jul. 24, 2015 lbauer