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

I. Grant Information

Study Name: *County Line Water Improvement District (CLWID) Recharge Water Piping*

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: $ $12,500
Note: Request may not exceed $500,000

Total Cost of Feasibility Study: $ $25,000

II. Applicant Information

Applicant Name: ***County Line Water Improvement District***		**Co-Applicant Name:**
Address:	*75858 Col. Jordan Rd*	Address:
	Hermiston, OR 97838	
Phone:	*541-561-4097*	Phone:
Fax:	*541-564-8886*	Fax:
Email:	*tyler.hansell@gmail.com*	Email:

Principle Contact: ***Tyler Hansell***	
Address:	*75858 Col. Jordan Rd*
	Hermiston, OR 97838
Phone:	*541-561-4097*
Fax:	*541-564-8886*
Email:	*tyler.hansell@gmail.com*

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: 2/4/16

Print Name: *Tyler Hansell* Title: President

III. Feasibility Study Summary

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

The proposed feasibility study will provide guidance as to the physical and economic viability of pumping water directly from the Umatilla River to the existing County Line Water Improvement District's recharge area. The study will review the potential conserved water that can be saved by pumping in an enclosed system versus running water down the Westland Irrigation District (WID) canals with the associated seepage losses and conveyance issues. It will look at the potential withdrawal location on the Umatilla River along with the associated pump station. The associated delivery pipe sizing, type of pipe, pressure rating and total length will be determined. Based upon those findings estimated costs of materials and installation of the system will be established. The study will also look at the potential for additional water to be artificially stored in the Ordinance Gravel Critical Groundwater Area (OGCGA).

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

I. Grant Information

Study Name: *County Line Water Improvement District (CLWID) Recharge Water Piping*

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: $ $12,500
Note: Request may not exceed $500,000

Total Cost of Feasibility Study: $ $25,000

II. Applicant Information

Applicant Name: *County Line Water Improvement District*		**Co-Applicant Name:**
Address:	*75858 Col. Jordan Rd*	Address:
	Hermiston, OR 97838	
Phone:	*541-561-4097*	Phone:
Fax:	*541-564-8886*	Fax:
Email:	*tyler.hansell@gmail.com*	Email:

Principle Contact: *Tyler Hansell*	
Address:	*75858 Col. Jordan Rd*
	Hermiston, OR 97838
Phone:	*541-561-4097*
Fax:	*541-564-8886*
Email:	*tyler.hansell@gmail.com*

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: _____

Print Name: *Tyler Hansell* Title: _____

III. Feasibility Study Summary

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

The proposed feasibility study will provide guidance as to the physical and economic viability of pumping water directly from the Umatilla River to the existing County Line Water Improvement District's recharge area. The study will review the potential conserved water that can be saved by pumping in an enclosed system versus running water down the Westland Irrigation District (WID) canals with the associated seepage losses and conveyance issues. It will look at the potential withdrawal location on the Umatilla River along with the associated pump station. The associated delivery pipe sizing, type of pipe, pressure rating and total length will be determined. Based upon those findings estimated costs of materials and installation of the system will be established. The study will also look at the potential for additional water to be artificially stored in the Ordinance Gravel Critical Groundwater Area (OGCGA).

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.

   Without recharging the OGCGA, pumping of the wells within the area during the irrigation season would be severly limited. Without recharge the annual curtailment of groundwater pumping from the OGCGA would be 8,000 ac-ft. The goal of the project is to more fully utilize the water authorized under Certificate 76669 that the CLWID holds, to recharge the OGCGA. Currently CLWID is receiving approximately 77% of their authorized amount of recharge water through the existing infrastructure into the OGCGA, but only 66% into the designated recharge area. This study would provide insight into if that number could be increased to closer to 100% based upon utilizing a closed pump and pipe system. This study will determine if it would be physically and economically feasible. In addition to reducing delivery losses this study will access the expansion and utilization of the system to divert, convey, and store additional water when available in the Umatilla River.

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 CLWID has a water right certificate (76669) to deliver 75 cubic feet per second (cfs) to an artificial recharge area located in Section 29, Township 4 North, Range 27 East. At the current POD water is available to utilize the certificate. At this time the water is delivered through the WID canal system. Owing largely to canal seepage losses taking place outside of the OGCGA, only approximately 49.2 cfs are actually delivered to recharge the OGCGA. Thus only 66% of the water authorized can be delivered to the OGCGA. This is expecially critical during low water years when the number of days authorized to deliver water to the recharge area is reduced. Also at this time water is diverted into the WID canal only when there is adequate water to run through the canal for an extended period of time thus reducing the amount of recharge that can take place.

   Also, given the number of critical groundwater areas idientified in the Lower Umatilla Basin and the resulting curtailment of pumping, the ability to store and recover additional water would be of significant importance to this area. In one critical groundwater area, the Buttercreek Critical Groundwater Area, the groundwater rights total 73,044 ac-ft, but the estimated sustainable yield is only 12,390 ac-ft leaving a curtailment of 60,654 ac-ft. This results in acres being left fallow or planted to lower value crops.

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).

By pumping directly from the Umatilla River an increase of approximately 25.8 cfs could be delivered to the CLWID artificial recharge area in the same amount of time as is currently being delivered. Additionally the total amount of water delivered will be increased above the current level owing to having the ability to pump any time water is available in the Umatilla River, compared to the current restricted ability.

In a review of the records from 1989 through 2013 the year 2005 produced the lowest volume of stored water. During 2005 the total recharge volume was only 627 ac-ft resulting in a credited storage of 533 ac-ft. Based on a preliminary review of Umatilla River flow records the propsed system could have delivered as much as 10,000 ac-ft resulting in a credited storage of 9,000 ac-ft. If the capacity of the system were doubled, 150 cfs rather than 75 cfs, the system could have delivered 16,300 ac-ft resulting in a credited storage of 14,680 ac-ft.

2013 was closer to an average year when 5,965 ac-ft were diverted of which 5,369 ac-ft were credited as storage. With the proposed system at a maximum capacity of 75 cfs there could have been a recharge of 21,500 ac-ft and a credited storage of 19,350 ac-ft. If the capacity of the system were doubled, 150 cfs rather than 75 cfs, the system could have delivered 36,650 ac-ft resulting in a credited storage of 32,980 ac-ft. These numbers are based on a preliminary review of available data from only a few years, but they do indicate the order of magnitude of expected impact.

With this proposed project, at a minimum, 100% of the CLWID water needs would be met.

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

   The feasibility study will look at several technical aspects of delivering water directly from the Umatilla River to the CLWID designated recharge area. The ability to deliver the water is dependent upon first getting the water out of the Umatilla River. This will entail looking at all possible means to install an intake into the River that would meet all requirements for such a structure. Once the structure is placed in the river an associated pump station will be required to pump the water from the river through a pipeline to the designated recharge area. The pump station must be located and sized so that it would be operational under all potential water conditions. A pipeline must then be designed to determine type of pipe material, sized to deliver the 75 cfs or 150 cfs as proposed, have the pressure class determined, and have the route and associated length established for cost estimating purposes. Exactly where and how the water would be discharged at the recharge area would have to be determined. Based upon a determination of the pumping requirements, an estimated pumping cost would also be established.

   Through this process the type and quanties of materials and their associated estimated installation costs will be determined. This project estimated cost along with the estimated pumping cost will then be utilized to determine if the project will be feasible to move forward with.

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 Section VI. Project Feasibility Study Schedule for a quick reference "graphical" representation of the schedule.)

a. The first task of the study will be to determine the amount of water conservation and the associated additional water that can be diverted and stored compared to the existing conditions. The second task will be to locate and conceptually design a pump station. This will include determining the type of intake that would be placed into the river. Then the associated type of pump station would be determined. The third task is to design a pipeline. The pipeline from the

pump station to the recharge area would be routed and sized to efficiently deliver both 75 cfs and 150 cfs. Then the pressure ratings and pump requirements would be determined through modeling. Based upon this design the fourth task would be to determine an associated estimated cost of the potential project. Upon completion a report will be drafted and presented to CLWID.

b. The feasibility study will begin within one week of having notice to proceed.

c. Task 1

(i) Determine water conservation potential and potential additional diversions and associated additional storage volumes

(ii) 1week after notice to proceed

(iii) Analyze existing information to determine how much water can be conserved along with how much additional water could be diverted compared with current conditions and available to be stored.

(iv) Engineers and technicians as needed to perform the task

c.Task 2

(i) Pump Station Location & Design

(ii) Four weeks after determining conservation volumes

(iii) Perform on site inspection of potential sites, review available river level information, contact entities to obtain any pertinent information, design the intake and pump station.

(iv) Engineers and technicians as needed to perform the task

c. Task 3

(i) Pipeline design and modeling

(ii) One week after determing the pump station design

(iii) Perform a feasibility level design of the pipeline from the pump station to the recharge area based upon modeling. Determine the pipeline sizes, locations, pressure rating and pumping requirements. As one deliverable from this task will be a map showing the route as well as the tax lots that we be crossed.

(iv) Engineers and technicians as needed to perform the task

c.Task 4

(i) Project estimated cost determination

(ii) Two weeks after completion of the pipeline modeling

(iii) Based upon the feasibility level designs determine the estimated cost of materials and installation for the proposed project along with contingencies to provide for a feasibility project cost estimate. Annual pumping costs will be determined.

(iv) Engineers and technicians as needed to perform the task

c.Task 5

(i) Project report

(ii) One week after determining costs

(iii) After completion of all facets of the study a final report will be drafted to be presented to CLWID.

(iv) Engineers and technicians as needed to perform the task

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 proposed project is located as shown on the attached map. It will serve the OGCGA through providing additional recharge water. A copy of the existing Certificate of Water Right is attached providing all of the specific information requested.

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

      The source of the water will be the Umatilla River. The specific location of the new diversion is yet to be determined. It is anticipated that it will be located between river mile 13.6 and river mile 15.3. The Umatilla River is a tributary of the Columbia River.

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

      NA

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

      NA

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

      The conserved water under this project would more effectively recharge the OGCGA.

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

      This project is looking to conserve under an existing water right withdrawing water out of the Umatilla River. The project would entail relocating the diversion several river miles downstream of the current withdrawal point. This would allow increased flows to exist in the section of river between the existing and future POD. Since withdrawals only occur during times when minimum instream flows are exceeded there should be no impact to existing water quality including water temperatures.

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.

   None

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.

   See Attached

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

Matching funds are now available from the CLWID.

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.

    IRZ Consulting is the company that has been selected to perform the feasibility study. IRZ Consulting has a staff of engineers and highly skilled technicians including two Professional Engineers. Over the history of the company they have performed numerous similar feasibility studies locally in Northeastern Oregon and Eastern Washington, nationally in a number of other states, as well as internationally. Currently, as examples, they are performing feasibility studies for NOWA in Northeastern Oregon, a large project in Colorado, and for a non-profit foundation in Rwanda. Over the years many of the feasibility studies IRZ Consulting has conducted they have taken to the next steps of design and construction.

11. If the project concept is ultimately deemed feasible, describe how the project will be implemented. Response should include a tentative funding plan for project implementation (e.g. other state or federally sponsored grant or loan programs) and the project proponent's track record in implementing similar projects.

    The next steps if deemed feasible will be to full design the project, and then subsequently constructed. Tenatively funding would be based upon grants, loans and direct funding from CLWID.

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.
   See Attached

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.

   The project will provide significant amounts of conserved water through more efficient transport of authorized water to the designated recharge area. This will provide for the more effective use of stored water in the OGCGA, and additionally provide for a more consistant supply of that water.

   It has been shown many times that by substituting pipelines for canal delivery systems that a significant savings can be anticipated through the elimation of canal seepage and evaporation. Specifically on this project the WID typically diverts on average approximately 63.7 cfs from the Umatilla River and delivers on average approximately 49.2 cfs to the CLWID, or a loss of 14.5 cfs, approximatly 23%.

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.

   Oregon Department of Water Resources would need to approve a water right transfer to add a POD.

   It would require a Corps of Engineers permit to construct an intake and associated pump station along the Umatilla River.

   Oregon Department of Transportation permit for a pipeline to cross under I-84.

   Umatilla County permits to cross under county roads.

   Westland Irrigation District permit to cross under the A-Line Canal.

   Easements for establishing pipeline through privately owned lands, though the majority of the pipeline length would be along public right of ways and private properties owned by CLWID members.

☐ 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.

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.

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

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.

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.

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.

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.

☒ 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.

The study will identify and account for all target flow rates.

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.

In addition to the water conservation associated with the conveyance of water through a pipeline rather than canals addressed as one part of this study, this study will include a cost comparison with pumping water from the Columbia River. This cost has been determined through a previous study conducted, in part, by IRZ Consulting.

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

Again, a part of this accessment, the impact of storing more water in the OGCGA, has already been conducted through a previous study. The impact to flows in the Umatilla River will be quantified.

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.

A review of a previous study which considered the increased return flows from additional groundwater recharge in the OGCGA will be included.

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.

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.

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.
   Oregon Department of Water Resources would need to approve a limited license for the AR and a water right for the utilization of the groundwater.

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)*
County Line Water Improvement	☒ cash ☐ in-kind	☒ secured ☐ pending	*$12,500*	*April 16*
	☐ 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: April 1, 2016 to June 30, 2016

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

	2016			2017				2018
Feasibility Study Key Tasks	**2nd Qtr**	**3rd Qtr**	**4th Qtr**	**1st Qtr**	**2nd Qtr**	**3rd Qtr**	**4th Qtr**	**& Beyond**
Determine the Amount of Conservation and Potential	X							
Determine Location & Design of Intake and Pump Station	X							
Pipeline Design and Modeling	X							
Project Estimated Cost Determination	X							
Draft Final Report	X							

- **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	*185*	*$135.00*		*$12,500*	*$12,500*	*$25,000*
Equipment (must be approved)						
Supplies						
Other:						
Administrative Costs**						
Total for Section A				*$12,500*	*$12,500*	*$25,000*
Percentage for Section A				***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
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.

Jordan Bennett Farming

77234 Hwy 207 Echo Or 97826

541 571-2356

I am writing this letter of support of the County Line Water Improvement District (CLWID) feasibility grant application. The information from this study, that with CLWID water right and potential new pipeline that CLWID be able to increase the amount of water this is recharged during the high winter flows out of the Umatilla River. Potential benefits from more water recharged into the aquifer would be more water elevating the level of the aquifer, adding to return flows to the Umatilla River at a later time of the year which stream flow are lower and demand is greater, adding water security to a region of the state that needs water, and more users could benefit from access to more stored water.

Thank you very much for you time to evaluating this application.

Sincerely Jordan Bennett

Jordan Bennett

PORT OF UMATILLA

January 29, 2016

To: Whom it May Concern

RE: Feasibility Study

The Port of Umatilla is pleased to work with our local partners in agriculture.

We are writing in support of the County Line Water Improvement District (CLWID) feasibility study grant application.

According to our understanding, the information from this study, in conjunction with CLWID water right and a potential new pipeline, should allow CLWID to increase the amount of water that is recharged during the high-water-flow time of the year of the Umatilla River.

Potential benefits of more water recharged into the aquifer would be: increased supply, elevation of the level of the aquifer, additional return flows and cooler water to the Umatilla River, thus providing additional water security to a region of the state that more needs water, and more users that could access stored water.

Furthermore, accessing stored water later in the irrigation season presumably leads to higher value crop yields and additional acres for crop production.

Thank you very much for your time in evaluating this application.

If I can provide additional information or clarification please contact me.

Sincerely,

Kim B. Puzey
General Manager
1-541-922-3224 - Office
1-541-379-9700 - Cellular

STATE SENATOR
DISTRICT 29

OREGON STATE SENATE

January 30, 2016

To Whom It may concern

I was asked to write a letter of support for the County Line Water Improvement District (CLWID) feasibility study grant application. I am most happy to do so. I am familiar with the CLWID because of my family's involvement in creating the district. CLWID has been providing water to the Ordnance Critical Groundwater basin since 1976. My brother Tyler, father Bill, and uncle Stafford were among those who helped form the district and provided leadership to make it a reality. It was the first of its kind in Oregon.

It is important to note I will not benefit personally should a grant be secured. I have no financial interest in any of the farm land now farmed by my deceased brother Tyler's family.

The information from this study, combined with the CLWID water right and a proposed new pipeline, has the potential of increasing the recharging of the aquifer significantly. There would be less leakage and evaporation of the water from the current diversion point on the Umatilla River to the recharge project via an irrigation canal.

A study is needed to determine if such a project will in fact accomplish the water conservation and recharge benefits at an affordable cost. The CLWID is prepared to meet the match requirements.

For the past 40 years this project has fulfilled the vision a group of ranchers had when it was built. The District now wants to make it even better and more efficient. I would ask you to give this grant application your every consideration.

Sincerely,

Bill Hansell

Senator Bill Hansell
District #29

Capitol Address: 900 Court St. NE S-423, Salem, OR 97301
Phone: (503) 986-1729 - Email: sen.billhansell@state.or.us

To whom it may concern:

My name is Tyler Hansell I am president of County Line Water Improvement District (CLWID), current president of the Oregon Wheat Growers League and president of the Hermiston High School Sports Booster. I am writing a letter of support for the County Line Water Improvement District (CLWID) feasibility study grant application. The aquifer that CLWID has been recharging in since 1977 (it was built in 1976) was the focus point of Senet Bill 1069 in 2008. The important information gathered from this Bill has led to some important changes in our area in the form of water use and location. From the time of the study one of the questions were how much water could the aquifer hold. The preliminary findings were thought to be almost 100,000 acre feet. The problem was not the recharge. The problem was twofold, first getting the water into the ground and second getting the water from the recharge out to the land that needed it. This study application is to help with the first of the problems, getting the water into the ground. The information from this study should help with assigning a quantity and price for a much larger project which would include direct pipeline to the river with a new pumping station. With CLWID's water right and a potential new pipeline, CLWID should be able to increase the amount of water that is recharged during the high water time of the year out of the Umatilla River. Potential benefits from more water recharged into the aquifer would be: more water, elevating the level of the aquifer, adding to return flows to the Umatilla River at a later time in the hotter part of the year, adding water security to a region of the state that needs water, and more users that could access stored water. With the possibility of accessing stored water later in the irrigation season, higher valued crops could be added to acres that run out of water to soon in the summer. We look forward to hearing from the review board about our application.

Thank you very much for your time in evaluating this application.

Tyler J. Hansell

PS any questions at all please do not hesitate to call me on my cell phone or if you are in the area I would love to show one or all of you our area and our ideas.

Tyler Hansell

541-561-4097

75858 Col. Jordan Rd.

Hermiston, Or.

97838

Madison Ranches Inc.

29299 Madison Road Echo, OR 97826
Phone: 541-376-8107 Fax: 541-376-8618

Oregon Water Resource Department
Attention: Grant Specialist
725 Summer Street NE, Suite A
Salem, OR 97301

Re: CLWID Feasibility Study Grant Request.

Dear Mr. Unger,

I am writing in support of the feasibility request that the County Line Water Improvement District has submitted. The funding of this grant would allow for an impact study as well as design of the project. This Feasibility study will help to determine project construction cost, operation cost, timing of water availability, potential public benefits, as well as the potentially substantial efficiency savings that a pipe offers over an open, unlined canal.

This project is has the potential so shine as an example of using existing water rights that already exist more efficiently and responsibly to better irrigate the high value ag lands of our great state. Funding this study could grow into a potentially solid investment for the State of Oregon as well as the local farmers and supply chain that would directly benefit from it.

Thank you for your consideration,

Jake Madison
President
Madison Ranches Inc.

JIM KEY FARMS

77126 COUNTY LINE RD.
HERMISTON, OR 97838
PH. 541-567-5933
FAX 541-567-0330
E-MAIL james29@wildblue.net

To Whom it may concern:

On behalf of my Farm, and as a Founding Father, this is a letter in support for County Line Water Improvement District's efforts to secure Grant Money for a feasibility study to upgrade the districts delivery system .

Over forty years ago a group of farmers banded together and formed County Line Water Improvement District, with the sole purpose of stopping, a two foot a year, declining water table. In 1976 the first water flowed through our districts newly installed pipeline and canals into our infiltration basin.

To O.W.R.D. and our own astonishment, not only did the recharge water stop the declining water table, it started to restore the aquifer, and after forty years of recharging, the aquifer has returned to its historic level. But not only did CLWID's 5,000 acre area benefit, the Westland Road Area's water table, also returned to historic levels.

CLWID's innovating recharging efforts has benefited far more than just its members, the entire area, the community, and the Umatilla river have all been enriched by that band of farsighted dedicated farmers.

Thank you,

Jim Key

Jim Key

MORROW COUNTY

COUNTY COURT

P. O. Box 788 • Heppner, Oregon 97836
(541) 676-5620 • FAX (541) 676-5621

TERRY K. TALLMAN, Judge
email: ttallman@co.morrow.or.us
Boardman, Oregon
LEANN REA, Commissioner
email: lrea@co.morrow.or.us
Heppner, Oregon
DON RUSSELL, Commissioner
email: drussell@co.morrow.or.us
Boardman, Oregon

February 1, 2016

Oregon Water Resources Department
Attn: Grant Specialist
725 Summer Street N.E., Suite A
Salem, OR 97301

Re: Grant Application for County Line Water Improvement District (CLWID)

Grant Specialist Jon Unger:

I have served as an Irrigation District Manager for three of the four Bureau of Reclamation projects in the Umatilla Basin, as well as serving many years on the Umatilla Basin Watershed Committee, the Umatilla Basin Water Commission, and the Lower Umatilla Basin Ground Water Management Area Committee, and on the Association of Oregon Counties Water Policy Board. With all of this history and background in the water issues of the Umatilla Basin, I feel very qualified to make the following recommendation to the Water Resource Department.

I am in full support of the CLWID feasibility study grant application. The information from this study, along with the CLWID water right and a potential new pipeline being considered by the District would, in my opinion, increase the amount of water available for recharging during the Umatilla River's high water time. The potential benefits from more water recharged into the aquifer would elevate the water level of the aquifer, in the Ordinance Critical Ground Water Area. This would generate additional return flows to the Umatilla River at a time when the temperature levels of the river are extremely high. All of these actions would assist in adding water security to a region of the state that relies on irrigation water for its very existence.

Thank you very much for your time in evaluating this application.

Sincerely,

Leann Rea

Leann Rea
Morrow County Commissioner

PORT OF MORROW

January 29, 2016

County Line Water Improvement District

RE: Letter of Support for Feasibility Study

The Port of Morrow is involved in the Regional Economy of the Umatilla Basin in Morrow and Umatilla Counties. Projects that assist in improving, enhancing and or expanding the prudent use of water in our region helps the overall economy and sustainability of the Natural Resource base that our region is so dependent upon.

It is our understanding the County Line Water Improvement District is requesting funding assistance for a feasibility study to evaluate the opportunity to improve efficiencies in their delivery of water to the Districts patrons and provide a more cost effective and more reliable alternative for their ongoing operations.

The Port of Morrow would support this request for assistance so that this feasibility study could assist in determining if the Water District should pursue changes, improvements or other alternatives and identify roadblocks in considering proceeding to the next steps based on the study findings.

Good luck in your request and if we can be of further assistance, please let us know.

Sincerely,

Gary Neal,
General Manager

GN/cm

Umatilla County

Board of County Commissioners

Commissioners

George L. Murdock
541-278-6202

W. Lawrence Givens
541-278-6203

William J. Elfering
541-278-6201

January 26, 2016

To Whom It May Concern:

I am writing a letter of support for the County Line Water Improvement District (CLWID) feasibility study grant application. The information from this study, along with CLWID water right and a potential new pipeline, would allow the CLWID to be able to increase the amount of water that is recharged during the high water time of the year out of the Umatilla River. Potential benefits from more water recharged into the aquifer would be more water elevating the level of the aquifer, adding to return flows to the Umatilla River at a later time in the hotter part of the year, adding water security to a region of the state that needs water, and more users that could access stored water.

Thank you very much for your time in evaluating this application

Sincerely,

George Murdock

George Murdock, Chair
Umatilla County Board of Commissioners

GM/ms

To whom it may concern:

My name is Craig Coleman. I am writing a letter of support for the County Line Water Improvement District (CLWID) feasibility study grant application. The information from this study should help with assigning a quantity and price for a much larger project which would include direct pipeline to the river with a new pumping station. With CLWID's water right and a potential new pipeline, CLWID should be able to increase the amount of water that is recharged during the high water time of the year out of the Umatilla River. Potential benefits from more water recharged into the aquifer would be: more water, elevating the level of the aquifer, adding to return flows to the Umatilla River at a later time in the hotter part of the year, adding water security to a region of the state that needs water, and more users that could access stored water. Timing and the amount of rain fall are two of the most difficult problems we have here in Eastern Oregon. A project like this with a proven history could be a partial solution to both problems.

Thank you very much for your time in evaluating this application.

Craig F. Coleman

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 Capital Conservation Project	**Example Programmatic Conservation Project**
Project Description Provide brief sentence	Line 3 miles of unlined ditch.	Toilet rebate program for residential customers
Estimated Future Savings 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 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 Provide brief sentence.	$500,000 total project costs.	$40,000 a year.
Implementation Schedule 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? 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	**County Line Water Improvement District (CLWID) Recharge Water Piping**
Project Description	The CLWID has a Water Right Certificate (76669) which allows them to withdraw 75 cfs from the Umatilla River, when available, for recharge. The authorized POD is the Westland Irrigation District's (WID) diversion dam. The WID conveys water through their canals to the recharge area. This project would establish a new POD on the Umatilla River approxiamtely 15 river miles downstream of the authorized POD. A pumping station would be built along with a pipeline to divert and convey water to the recharge area.
Estimated Future Savings	The measured seepage losses from the canals total around 24%. In addition, there is a "loss" of water due to operational limitations. The WID has both a minimum flow rate and duration under which they will not deliver water. The proposed system would allow all available flows to be diverted and delivered.
Seasonality	The very minimum savings from seepage losses would be in the range of 500 ac-ft. However, from a preliminary review of CLWID yearly storage volumes and Umatilla River flow records, the probable increased deliveries could range from 8,500 ac-ft to 14,000 ac-ft by eliminating current operational limitations.
Estimated Future Costs	Preliminary estimated capital costs suggest a range between $9,000,000 and $11,500,000. Estimated power costs will be between $15 to $12 per acre-foot of water pumped. There would be other O&M costs that are yet to be determined, but not atypical of any large pumping station.
Implementation Schedule	Work would be during the period of time from December 15th through March 15th, once permits, easements, and funding were secured.
What are the barriers to implementation, e.g. funding?	Amended Water Right adding a new POD, Permits (Corps of Engineers, ODOT, Umatilla County Road Department), easements where required, and 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 -