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

I. Grant Information

Study Name: *South Juniper Butte Water Conservation Feasibility Study*

Type of Grant Requested: ☒ Water Conservation ☒ Reuse ☐ Above Ground Storage
☐ Storage Other Than Above-Ground [Including Aquifer Storage and Recovery (ASR)]
Note: A Water Conservation and Reuse study may be submitted as a joint application. All other applications must only include one application type.

Program Funding Dollars Requested: $ 15,350.00 Total cost of planning study: $ 30,700.00
Note: Request may not exceed $500,000

II. Applicant Information

Applicant Name: ***Jefferson Co Soil & Water Conservation Dist***		**Co- Applicant Name:** ***North Unit Irrigation District***	
Contact:	*Jan Roofener*	Contact:	*Mike Britton, General Manager*
Address	*625 SE Salmon Ave*	Address:	*2024 NW Beech Street*
	Redmond, OR 97756		*Madras, OR 97741*
Phone	*541-923-4358 Ext 128*	Phone:	*541-475-3625*
Fax:	*541-923-4713*	Fax:	*541-475-3905*
Email:	*jan.roofener@or.nacdnet.net*	Email:	*nuid@northunitid.com*

Fiscal Officer Name: ***Debbe Chadwick***		**Principle Contact:** ***Gary Calhoun, Water Master***	
Organization:	*Jefferson Co Soil & Water Conservation District*	Organization:	*North Unit Irrigation District*
Address:	*625 SE Salmon Ave*	Address:	*2024 NW Beech Street*
	Redmond, OR 97756		*Madras, OR 97741*
Phone:	*541-923-4358 Ext 101*	Phone:	*541-475-3625*
Fax:	*541-923-4713*	Fax:	*541-475-3905*
Email:	*Debbe.Chadwick@oacd.org*	Email:	*nuid@northunitid.com*

Certification:
I certify that this application is a true and accurate representation of the proposed work for a project planning 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 and are prepared to conduct the planning study if awarded.

Applicant Signature: Debbe Chadwick Date: *12/14/2011*

Print Name: *Debbe Chadwick* Title: *JCSWCD Manager/ Fiscal Manager*

III. Planning Study Summary

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

North Unit Irrigation District, partnering with Jefferson County Soil and Water Conservation District, are proposing to redesign and implement a water conservation and re-use project in South Juniper Butte Area. The area is 4,700 estimated acres with potential water savings: 2,000 CFS/season through conservation of on farm irrigation and water delivery system, along with tail water reuse.

South Juniper Butte Feasibility Study will determine: 1) the amount of water that could be conserved by piping open delivery canals and on farm ditches along with improved on farm irrigation equipment and management 2) where adequate pressure for on farm energy conservation exists, and 3) what options exist for tail water management for re-use of irrigation water. NEPA evaluation will be completed if needed for Federal project implementation funds. The consequence of this study is helping farmers help the fish in the Crooked River, Deschutes Basin.

IV. Grant Specifics

Section A. Common Criteria

Instructions: Answer all questions in this section by typing the answer below the question. It is anticipated that completed applications will result in additional pages.

1. Describe how the planning study will be performed. Include:

   a. A description of the planning schedule/timeline, which includes identifying all key tasks. (Section VI provides an opportunity for a "graphical" representation of the schedule.)

   1. Beginning preparation: June 15 – July 15, 2012:

   a. *Mark anticipated start/stop points of project and areas of concern/interest within the project area – NUID & JCSWCD personnel*
   b. *Document and develop a Base Map of project area with areas of concern for engineering and environmental work - NUID & JCSWCD personnel*
   c. *Schedule engineering work with Kevin Crew, Engineer - Black Rock Consulting, LLC*

   2. Engineering work: July 1, 2012 - February 28, 2013:

   a. *Engineer, NRCS survey, JCSWCD Ortho-imagery map of complete field study for project area*
   b. *Engineer - complete report documenting engineering feasibility of desired Irrigation Water Conservation project and submit to NUID & JCSWCD. Report will include:*

   1) *Base map Ortho-imagery (LiDAR) of key irrigation water delivery and strategic tail water pond location*
   2) *Reconnaissance level profile of proposed pipe location and energy potential on farm for landowners*
   3) *Piping alternative description for the 4,700 acres of irrigated land*
   4) *Hydraulic Analysis for each alternative using Hazen-Williams equation and friction coefficient*
   5) *Water Conservation using NRCS soil type seepage method and actual records from North Unit ID*

   3. Rights of Way research: June 15, 2012 - May 1, 2013:

   a. *Based on Engineer's findings, research rights of way changes necessary along with pipe and landowner on farm water management opportunities – NUID, NRCS & JCSWCD personnel*
   b. *Complete report to include cost, materials, labor requirements, contracting requirements, etc – NUID, NRCS & JCSWCD personnel*
   c. *Complete plans/drawings for project - Kevin Crew*

   4. Environmental Evaluation: April 1, 2012 - June 1, 2013:

   a. *Schedule environmental analysis work with NRCS and JCSWCD*
   b. *NRCS and JCSWCD to complete report and any required federal paperwork documenting environmental impacts of piping proposed buried pipe for delivery and on farm irrigation project and submit to other appropriate entities as required for federal funds to implement the project*

5. ***Final Report for Grant: June 15, 2013:***

   a. *Determine if project will be completed based on all findings, funding opportunities and cost summary - NRCS & JCSWCD personnel*

   b. *Complete final report for this grant showing feasibility study, environmental study, and project costs/details and submit to OWRD - NUID & JCSWCD personnel*

2. When the planning study could begin.

   a. When the planning study could begin.

      July 2012 as grant funds become available.

3. Provide a description of the relevant professional qualifications and/or experience of the person(s) that will play key roles in performing the planning 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 planning study.

   - *Kevin Crew, Engineer PE -Black Rock Consulting, President*
   - *Jan Roofener - Jefferson Co SWCD planning specialist - NRCS Certified Planner -10 years*
   - *Tom Bennett - NRCS District Conservationist - NRCS Certified Planner - 30 years*
   - *Mike Britton - North Unit Irrigation District General Manager – 6 years*
   - *Gary Calhoun -North Unit Irrigation District Water Master – 5 years*
   - *Nichole Kovach –NRCS - Deschutes Basin Engineer*

4. What local, state or federal project permitting requirements/issues do you anticipate in order for the planning study to be conducted?

   No permitting requirements/issues are anticipated. Landowners in this area requested this study in order to better utilize and meet the growing need for water for fish in the Deschutes Basin and sustained agriculture in Central Oregon. North Unit Irrigation District, Deschutes River Conservancy and Oregon Water Resource Department are currently working on an agreement to put Crooked River water allocated for irrigation back into the river as conserved water allows.

5. Are permits/governmental approvals required for the planning study? If yes, indicate whether you have obtained the necessary permits/governmental approval. If you have not obtained the necessary permits/governmental approval, describe the steps you have taken to obtain them.

   No permits are necessary to complete the feasibility study.

6. Describe your goal (which must be based on evaluating the feasibility of developing a water conservation, reuse or storage project) and how this study helps to achieve the goal.

   The goal for this project is to determine the potential to re-distribute irrigation water to improve fish habitat in the Crooked River, Deschutes Basin through irrigation efficiency on productive agricultural land in Central Oregon. The estimated water conservation is approximately 2,000 CFS per season (see attached Irrigation Estimate spreadsheets). Irrigation season daily CFS would be calculated as 2000/180days = 11 CFS potential daily flow saved; then multiplied by the percent of funding from public funds would equal the flow of water that could remain in stream. (See attached NUID conserved water statute resolution)

   River discharge and temperature records indicate water savings that increase minimum river flow (during irrigation season) above 100 CFS stabilize cooler water temperatures which provides improved survival rate for fish in the Crooked and Deschutes Rivers. The cost of pumping irrigation water up the steep slope to serve as irrigation water is very expensive in today's economy. NUID would like to eliminate the need for pumping water from the Crooked River for irrigation rights benefiting both fish and farms.

7. Describe the technical aspects of the planning study and why your approaches are appropriate for accomplishing the goal of the planning study.

   The technical aspects of the feasibility study are centered on Natural Resource Conservation in Agriculture. In order to effectively decide the feasibility of improved irrigation delivery and on farm use a complete study of the problems, opportunities and landscape should be done. The existing irrigation delivery and on farm water use was designed 70 years ago when electricity and natural resource values were dramatically (less concern) different than current agricultural resource management activities.

   With assistance of North Unit ID, Jefferson Co SWCD, and NRCS staff the engineer; Kevin Crew will assess and document viable options through engineering practices for improved water management on 4700 acres of agricultural production land as follows:

   a.) Map elevation and terrain in the planning area (4,700 acres.) LiDAR imagery is available for the Lower Crooked River through JCSWCD and NRCS engineering will assist with survey equipment as needed.
   b.) Define Bureau of Reclamation Rights of Way to abandon and document necessary new Rights of Way held by North Unit Irrigation District and BOR for this area.
   c.) Assess potential benefits to agricultural and environmental interests for each landowner in the project area.
   d.) Find and pinpoint tail water pond locations that will provide water to landowners that re-use irrigation water for irrigation.
   e.) Identify irrigation delivery system to eliminate approx. 29,000 feet (includes drain ditch) of open ditch delivery and replace it with approximately 19,000' of piped irrigation delivery.
   f.) Determine the amount of current spill of silted irrigation water into the Crooked River and offset the elimination of spill water by conserved water left in-stream at the Crooked River pump station.

   The goal of helping farmers help the fish is the motivation for all entities involved in this study.

8. Describe the level of involvement; interest and/or commitment of different entities associated with the planning study (attach letters of support). Describe how these entities will benefit or be impacted by the planning study.

   Letters of support attached are:

   - ***North Unit Irrigation District, Mike Britton, General Manager***

     North Unit Irrigation District's letter of support emphasizes the need for this planning study to meet a shared goal with the State of Oregon's Water Resource Department to restore and protect stream flows and watersheds in order to ensure the long term sustainability of Central Oregon's ecosystems, economy and quality of life. The planning study will require cooperation and staff time to complete and the benefit will be an improved irrigation delivery system with less maintenance, and less pumping costs from the Crooked River pumps. The cost savings can be passed on to all the agricultural patrons in reduced cost per acre of water. The re-introduction of steelhead and Chinook salmon to the Crooked River currently exists because a new fish ladder technology supported by the Confederated Tribes of Warm Springs, Portland General Electric and USFWS/ODFW was recently implemented. Historically, Crooked River was home to Chinook salmon and steelhead; however with the Pelton Complex dam in place fish passage was not available in the Crooked River until now.

- ***Natural Resources Conservation Service, Nicholle Kovach, Basin Engineer***

  NRCS Basin Engineer's support for the project survey and engineering in the feasibility study as needed.

- ***Crooked River Watershed Council, Chris Gannon, Director***

  Support for the project because the aquatic link connecting one habitat area to another are particularly important in light of the significant efforts and investment in our basin to re-introduce both steelhead and Chinook Salmon.

- ***Natural Resource Conservation Service, Tom Bennett, District Conservationist***

  NRCS Area conservation planning support for on farm irrigation improvements works to satisfy the feasibility study and begin to meet the natural resource issues for Jefferson County irrigated acres

- ***Oregon Department of Agriculture, Ellen Hammond, Water Quality Specialist***

  This project benefits the Crooked and Deschutes Rivers. Poor water quality and impaired fish habitat due to low flows are of concern in both rivers, which are the sources for irrigation water in the project area. Any project that leaves water in-stream benefits the rivers and the fish. Currently, excess used irrigation water leaves the South Juniper Butte area and flows into the Crooked River laden with eroded soil and probably nitrates and phosphorus. Replacing the flow from the silt tail water with clean water left in-stream is also a benefit.

- ***Deschutes River Conservancy:***

  The proposed study aligns with the DRC's goals. Over the past three years the District and the DRC have worked together to meet their mutual needs of improving conditions for resident and anadromous fish in the lower Crooked River.

- ***Gary Calhoun – North Unit Irrigation District Water Master:***

  Gary states support of the feasibility study and the opportunity of working with the landowners to capture and store tail water that is currently flowing into the Crooked River. Gary was previously the ditch rider with North Unit Irrigation District.

- ***Central Oregon Irrigation District:***

  NUID and COID are neighboring irrigation districts located in Central Oregon with District boundaries being shared and separated by the Crooked River. COID's support for the South Juniper Butte Feasibility Study is validated by the District's ongoing relationship and collaboration with NUID to improve water resources in the Crooked River.

Section B. Unique Criteria

Instructions: Answer the set of questions below that applies to the type of planning study that this grant will fund.

☒ Water Conservation or ☒ Reuse

1. Water Conservation or Reuse projects that may result from this planning study are requested to be included in the Water Resources Department's "Inventory of Potential Conservation Opportunities". Though you may have already submitted this information earlier in the year through a separate survey, we ask that all applicants complete the information on the form provided at the end of this application.
   ☒ I have filled out the application or ☐ I have not filled out the application. *Attached*

2. Describe the water supply need(s) that the project associated with the planning study is intended to meet. Applicant should reference supporting documentation that would be available upon request.

   *2006 - **North Unit Irrigation District Water Conservation Plan proclaims the following**:*
   *Diverted flow from the Deschutes River (*1) at the North Dam in Bend, and flows from the Crooked River (*2) pumps, are both measured with continual flow recording devices. The following data is taken from OWRD / NUID records. The project area considered in the proposed 4700 acre planning area is approximately .09 of the approximate 59,000 irrigated acres that NUID serves.*

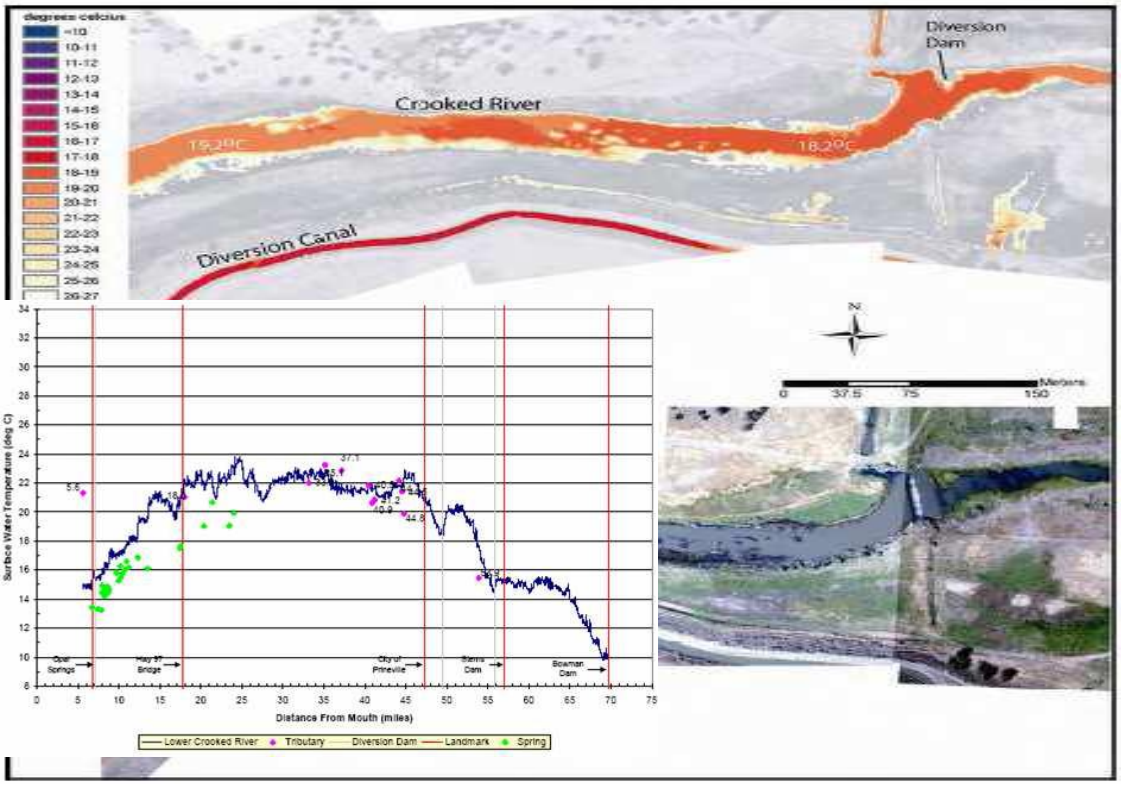
Full Seasonal Total diverted water records are as follows:
Average year, 1994-2003 189,313 AF
From that calculation given that the planning area is .09 x 189,313 = 17,038 AF delivered to project area.
*(*1) Flow measurements taken at diversion location at the North Dam in Bend, NUID Main Canal, #14069000, provided by Oregon Water Resources Department (OWRD)*
*(*2) Flow measurements taken at Crooked River pump location using flow meter, provided by OWRD*

***Summary – Conveyance and Distribution Seepage Analysis** (*1)*
North Unit Irrigation District for Lateral Canals in the proposed project area
Lateral Seepage estimated for project area delivery canals (not on farm)

Item	*Length (miles)*	*Seepage Rate (conservative estimate) ($ft^3/ft^2/day$)*	*(AF / year)*
Laterals in the Project Area			
Lateral M-31	*0.9*	*0.97*	*150*
Lateral M-32	*0.6*	*0.97*	*110*
Lateral M-34	*2.0*	*1.40*	*700*
Spill Canal	*1.0*		*177*
			1,137 AF total est.

1 Acre Foot (AF) is equal to 43,560 cubic feet (1 acre covered with 1 ft deep water)

Additional spill water lost in NUID's spill canal and pond for project area estimated to be approximately 2% of the total delivered water or 177 AF/season or 92 CFS divided by 180 days = .5 acre feet per day.



Thermal infrared and color aerial imagery and longitudinal temperature profiles for the Lower Crooked River at the People's Irrigation Diversion (Watershed Sciences 2006). For the Lower Crooked River impairment--- based on Clean Water Act compliance

Information taken directly from Lower Crooked River Assessment (LCRA), Chapter 8, Water Quality

KEY FINDINGS:

- *Water courses in the assessment area do not meet state water quality standards for a number of parameters requiring the development of a Total Maximum Daily Load (TMDL) models for temperature, pH, total dissolved gas, and possibly bacteria and dissolved oxygen.*
- *The state also lists flow and habitat modifications as water quality concerns in the assessment area; however, these do not require TMDL development.*
- *Nitrate in groundwater is an additional water quality concern that requires further investigation.*
- *The TMDL development process is ongoing. Completed TMDL models will assist in determining actions needed to meet state water quality standards."*

The primary causes of poor water quality are related to flows, the damming and diversion of water for irrigation, resource conditions in uplands and riparian corridors, and stream channels characterized by unstable banks and disconnected floodplains. (LCR Assessment, 2008; Chapter 8, pg 161)

Table 8-2. Water Quality Limited Stream Segments in the Lower Crooked Assessment Area for the project area is RM 19 – 20 and is 303d listed for the following parameters:

Segment	*Listed Parameters*	*Criteria*
Crooked River (RM 0-51)	*pH (year around)*	*pH range of 6.5-8.5*
	Temperature (summer)	*Fish Rearing 17.8oC (64oF)*

(Source: DEQ Water Quality Assessment, http://www.deq.state.or.us/wq/assessment/rpt0406.htm)(LCRA, Chapter 8, pg 163)

3. Explain how the associated project will mitigate the need to develop new water supplies and/or 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.

When looking at the infamous "Whale Diagram" that shows the water flows of the Deschutes River, you can see low water flow in the Middle Deschutes River during peak (summer/irrigation) season. By piping Lateral 34 and 31, we will be conserving an estimated 33% of the water delivered to farms and a minimum of 37.8% water savings on farm. This will increase the stream flow improve fish habitat during peak (summer/irrigation) season.

The associated project will mitigate the need to develop new water supplies through improved irrigation water management for on farm and delivery of water. The net irrigation water requirement (NIR) has been determined in North Unit Irrigation District Conservation Plan (NUID Cons Plan). The amount of irrigation required for crops grown range between 19 and 26 Ac Ft per season; the amount of water varies by crop.

Reference: OSU Extension Misc 8530, 1999, Oregon Crop
Water Use and Irrigation Requirements
NIR value represents 5 out of 10 years, or for average year.

The NUID Conservation plan analyzes crop need and irrigation efficiencies on farm and in the irrigation delivery system. Most of the proposed project area is irrigated with open ditch delivery and wheel or old hand line sprinkler irrigation. See attached NRCS Water Savings estimator for irrigation planning (spreadsheet attached). The annual water savings estimated for this project is 49.2% if all farms were converted to pivot sprinkle irrigation and the ditch is piped or 36.8% if upgrade to on farm irrigation systems and piped delivery are provided.

4. Explain how the project associated with the planning study 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% of your need will be met).

The feasibility study will determine how to best meet the water supply available and the need to be met. There is a need for increased flow in the Crooked River for improved river water temperature. The LCR Assessment, 2008 addresses that issue and resolution. The agricultural production in this area is important to the local economy, recreation opportunity (Smith Rock State Park is adjacent to planning area) and Net Irrigation Requirements for the area. There is estimated to be at least a 33% improvement in water delivery and use on farm. The water supply need is estimated at least 4 acre feet per acre or 18,800 AF for the planning area; so the water conserved is estimated at 1,100 AF. This area is approximately .09 of the total irrigated acres for NUID. This project template will apply to other areas of NUID irrigated acres.

5. Provide data and information on the associated project and the project's sources of water supply:

a. The location of the associated project. (Include the basin, county, township, range and section.)

The Deschutes basin, Jefferson County, Township 13 South, Range 13 East, sections 16, 17, 20, 21, 29, 28 and 27.

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

The Crooked River at RM 19 tributary to Deschutes River; flows into Deschutes River at Lake Billy Chinook.

c. Environmental flow needs and water quality requirements of supply source water bodies and water bodies downstream of associated and/or affected return flows.

This project benefits the Crooked and Deschutes Rivers. Poor water quality and impaired fish habitat due to low flows are of concern in both rivers, which are the sources for irrigation water in the project area. This project leaves water in-stream for the benefit of the rivers and the fish. Currently, excess used irrigation water leaves the South Juniper Butte area and flows into the Crooked River laden with eroded soil and probably nitrates and phosphorus. Replacing the flow from this silty tail water with clean water left in-stream is also a benefit.

d. Reliance on return flows by downstream water right holders.

No downstream user return flow water right holders.

6. Provide a review of the local, state, and/or federal permitting requirements and issues posed by the implementation of the project associated with the planning study.

There would be no federal or state permitting requirements and Jefferson County Land Use requirements will be met for land in Agricultural production.

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 resources, b) previously expended resources, and/or c) pending resources. For secured funding, you must attach a letter of support from the match funding source that specially 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. For resources that have been previously expended, the expenditure must have occurred on or after July 1, 2011. Resources expended prior to July 1, 2011 are not eligible for match purposes.

The Type of matching funds may include:	The Status of matching funds may include:
• Field Technicians	• Secured funding commitments from other sources.
• Cash is direct expenditures made in support of the planning study by the applicant.	• Associated and documented expenditures for the planning study from non-program sources incurred on or after July 1, 2011.
	• 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 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)*
Engineering and Environmental field technical services - Jefferson Co SWCD	☐ cash ☒ in kind	☒ secured ☐ expended ☐ pending	*$3,950*	*June 2012*
Engineering and Environmental Evaluation Services - Natural Resource Conservation Service	☐ cash ☒ in kind	☒ secured ☐ expended ☐ pending	*$2,400*	*June 2012*
Engineering Contractual Services Black Rock Consulting	☐ cash ☒ in kind	☒ secured ☐ expended ☐ pending	*$3,000*	*June 2012*
North Unit Irrigation District Labor and administrative costs, staff wages and benefits paid by NUID to negotiate with BOR on R/W changes and new easement agreements.	☐ cash ☒ in kind	☒ secured ☐ expended ☐ pending	*$6,000*	*March 2012*
	☐ cash ☐ in kind	☐ secured ☐ expended ☐ pending		
	☐ cash ☐ in kind	☐ secured ☐ expended ☐ pending		
	☐ cash ☐ in kind	☐ secured ☐ expended ☐ pending		
	☐ cash ☐ in kind	☐ secured ☐ expended ☐ pending		
	☐ cash ☐ in kind	☐ secured ☐ expended ☐ pending		
	☐ cash ☐ in kind	☐ secured ☐ expended ☐ pending		

VI. Project Planning Study Schedule

Estimated Project Duration: July 2012 to July 2013

Place an "X" in the appropriate column to indicate when each element (key task) of the project will take place.

South Juniper Butte Feasibility Study	**2012**		**2013**			
Project Planning Study Element (Key Tasks)	**3rd Qtr**	**4th Qtr**	**1st Qtr**	**2nd Qtr**	**3rd Qtr**	**4th Qtr**
Project area reconnaissance and marking known hot spots for analysis	X					
Schedule Engineering Work with Contractor and NRCS/JCSWCD for feasibility of project area	X					
Research existing Rights of Way held by Bureau of Reclamation to be abandoned and re – establish new rights of way and document for NUID to hold with landowners	X	X	X	X		
Research environmental analysis required and schedule		X				
Enroll landowners in cost share programs for improved irrigation delivery and practices on farm where appropriate			X			
Engineering field work accomplished for project area			X	X		
Feasibility study completed and approved				X		
Final Report for this grant					X	

VII. Project Planning Study Budget

Section A

Please provide an estimated line item budget for the project planning study. An example would include: labor, materials, equipment, contractual services and administrative costs.

Line Items *Note: Administrative costs may not exceed 10% of the total funding requested by the Department.*	**Unit * Number** *(e.g. # of hours)*	**Unit Cost** *(e.g. hourly rate)*	**In-Kind Match**	**Cash Match Funds**	**OWRD Grant Funds**	**Total Cost**
Engineering Contractual Services for re-design of project area irrigation systems.	*120 hrs*	*$125/hr*	*$3,000*		*$12,000*	*$15,000*
Environmental Analysis and Engineering support for federally funded projects; NRCS , JCSWCD and Landowners	*120 hrs* *60 hrs* *30 hrs*	*$30/hr* *$40/hr* *$34/hr*	*$3,600* *2,400*		 *$1,000*	*$7,000*
North Unit Irrigation District Staff for project administration and BOR Rights of Way changes	*200 hrs*	*$40/hr*	*$6,000*		*$2,000*	*$8,000*
Administrative Costs – *Jefferson SWCD*			*350*		*350*	*700.00*
Total for Section A			*$15,350*		*$15,350*	*$30,700*
Percentage for Section A			***50%***		***50%***	***100%***

** Note: The "Unit" should be per "hour" or "day" – not per "project" or "contract."*

Section B

If Grant amount requested is $50,000 or greater, you MUST complete Section B. Elements (key tasks) in Section B should be the same as the elements (key tasks) in Section VI (Project Planning Study Schedule).

Project Planning Study Element (Key Tasks)	**In-Kind Match**	**Cash Match Funds**	**OWRD Grant Funds**	**Total Cost**
N/A less than $50,000				
Total for Section B				

Totals in Section B must match the totals in Section A

APPLICATION CHECKLIST

Instructions: Use this form as an important cross-check 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 – Planning 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 planning study is Water Conservation, Reuse or Storage Other Than Above-Ground, a Request to be added to the Oregon Water Resources Department's Inventory of Potential Conservation Opportunities has been completed. (Form is located at the end of this document.)
- ☒ All applicable questions for the type of grant requested have been answered.

Section V – Match Funding Information

- ☒ Applicant has identified that at least 50% 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 – Project Planning Study Schedule

- ☒ Estimated project duration dates have been supplied.
- ☒ All elements (key tasks) of the project are listed.

Section VII – Project Planning Study Budget

- ☒ Section A is complete.
- ☒ Administration costs do not exceed 10% of the requested OWRD Grant Funds.
- ☐ If grant amount requested is $50,000 or greater, Section B has been completed.
- ☐ All elements (key tasks) listed in Section B mirror the elements 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 **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	**South Juniper Butte redesigned irrigation delivery**
Project Description	Re-design and pipe irrigation water delivery and on farm existing open ditch
Estimated Future Savings	Future water savings potential = 2000 AC Ft per year during low flow season (peak summer irrigation)
Seasonality	Summer low flow
Estimated Future Costs	$1,000,000
Implementation Schedule	2013 – 2015 potential; not set
What are the barriers to implementation, e.g. funding?	available public 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 -

NORTH UNIT IRRIGATION DISTRICT
Jefferson County, Oregon

RESOLUTION No. 2008-16

A RESOLUTION ADOPTING A CONSERVED WATER POLICY

The Board of Directors of the North Unit Irrigation District (Jefferson County, Oregon) (hereinafter referred to as "the District") hereby adopts the following Conserved Water Policy.

"North Unit Irrigation District
Conserved Water Policy"

Authority & Purpose for Policy
The Board of Directors (Board) of the District is required to adopt a Conserved Water Policy pursuant to Oregon Administrative Rule (OAR) 690-018-0025. The rule requires that the District adopt a policy that, at a minimum:

- Describes how water saved by conservation measures will be allocated by the District;
- Describes how the District will address the allocation of conserved water percentages under ORS 537.470;
- Provides District patrons the opportunity to fund a share of the conservation project that is proportionate to the patron's share of the water rights involved in the allocation of conserved water and to receive a corresponding share of the conserved water;
- Provides District patrons an opportunity to petition for a vote by all district patrons on the Policy pursuant to applicable statutes governing elections or recalls in the subject districts; and
- Provides District patrons an opportunity to appeal a proposed District conservation project to the District Board for failure to follow this Policy.

Conserved Water Program
Oregon's "conserved water program" is a voluntary program under which the District may develop a water conservation project and then apply for use of the conserved water. ORS 537.455 through 537.500. This Policy directs how the District will assess proposed water conservation projects and details the required elements of OAR 690-018-0025.

District water conservation efforts benefit all patrons within the District. Water conserved by improving or modifying the District's water delivery system or practices shall be considered water conserved by the District. All conserved water allocations resultant from District conservation efforts shall be made to the District, subject only to the right of District patrons to fund water conservation efforts as described below.

Conserved Water Application
As a prerequisite to utilizing conserved water under Oregon's conserved water program, the District must submit an application to the Oregon Water Resources Department (WRD) requesting an allocation of conserved water. ORS 537.465. The application must be accompanied by the appropriate fee and there may be costs required to provide notice. There is a state public review process for such applications.

To initiate a water conservation project proposal, District staff shall prepare either (i) the state application form according to WRD requirements, or (ii) a project summary including all project specifications, and an analysis of projected water savings, to the Board for review and approval. Because every conserved water project is unique, each Board approval shall specify how conserved water shall be used within the District and will describe the allocation of conserved water percentages under ORS 537.470. If approved by the Board, the District may submit the application to WRD for its review.

Allocation of Conserved Water
The Board will observe Oregon law when allocating conserved water, including without limitation the following regulations:

OAR 690-018-0020(4) "Conserved Water" means that amount of water that results from conservation measures, measured as the difference between:

> (a) The smaller of the amount stated on the water right or the maximum amount of water that can be diverted using the existing facilities; and
> (b) The amount of water needed after implementation of conservation measures to meet the beneficial use under the water right certificate.

OAR 690-018-0012(1) Pursuant to ORS 537.470(3), after determining the quantity of conserved water, if any, required to mitigate the effects on other water rights, the Commission shall allocate 25 percent of the remaining conserved water to the state and 75 percent to the applicant, unless the applicant proposes a higher allocation to the state or more than 25 percent of the funds used to finance the conservation measures comes from federal or state public sources. If more than 25 percent of the funds used to finance the conservation measures comes from federal or state public sources and is not subject to repayment, the Commission shall allocate to the state a percentage equal to the percentage of public funds used to finance the conservation measures and allocate to the applicant a percentage equal to the percentage of other funds used to finance the conservation measures. In no event, however, shall the applicant receive less than 25 percent of the remaining conserved water unless the applicant proposes a higher allocation to the state.

OAR 690-018-0012(2) A water right affected by an allocation of conserved water under this program shall retain its original priority date. The priority date of the conserved water rights shall be either the same as or one minute after that of the original right.

Patron Funding
District patrons may fund a water conservation project in an amount that is proportionate to the patron's share of the water rights involved in the allocation of Conserved Water. Patrons that provide funding to the District for a water conservation project in advance, or within one year of, the District first making expenditures for the conservation project shall be a "Funding Patron" and receive the portion of the conserved water allocated to the District by the Commission (the "District Allocation") to which the Funding Patron is entitled under this Policy.

Except for a Funding Patron, no patron shall be entitled to any of the District Allocation other than the amount necessary to maintain the patron's full rate and duty at its regular turn out(s). A Funding Patron shall be entitled to a portion of the District Allocation equal to the percentage of the funding for the water conservation project paid to the District by the Funding Patron.

Appeal Process
If the Board approves a particular proposed water conservation project, any District patron in good standing may appeal the Board's decision.

Form of Request for Appeal: A District patron wishing to appeal a Board decision to pursue a water conservation project must submit to the Board a request for appeal. All such requests must:

- ☐ be in writing;
- ☐ be submitted within two weeks following the date of the Board's decision;
- ☐ include the name, address, and telephone number of the District patron appealing the Board's decision and a concise statement of the reasons the patron believes the proposed water conservation project should be modified to comply with this Policy.

Upon receiving a properly submitted request, the Board shall consider the appeal at one of the next two regularly scheduled meetings. The District shall provide notice to the requesting patron of the date the appeal will be heard.

Grounds for Appeal: The Board shall limit its consideration to whether the proposed water conservation project complies with this Policy. The District patron appealing the Board's decision shall have an opportunity to address the Board concerning the appeal.

Decision by the Board: On appeal, the Board may make one of the following determinations:

- ☐ grant the appeal and reject the proposed water conservation project;
- ☐ modify the proposed water conservation project as proposed by the appealing water user;
- ☐ direct the District manager to work with the applicant to modify the proposed water conservation project so as to comply with this Policy; or
- ☐ reject the appeal and approve the proposed water conservation project as proposed.

Petitions to Vote on Policy
District patrons may petition the Board to hold a vote of all District patrons on the approval of this Policy. The petition must be signed by fifteen percent of the total number of votes that may be cast in an election for a director pursuant to ORS 545.189(1) to be valid and to cause the District to hold a vote. Upon receiving a valid petition, the District shall hold a vote of all District patrons. The vote shall be whether to approve or reject this Policy. The vote shall be conducted according to the laws and procedures that govern District elections.

Policy Review and Updates
The Board shall review and update this Policy at the first regularly scheduled Board meeting following every fifth anniversary of the Board either adopting or reviewing and updating this Policy. The Board may, in its sole discretion, review and update this Policy at any other Board meeting. The Board shall follow the process and provisions of this Policy, as required by OAR 690-018-0025(2), whenever reviewing and updating this Policy.

Applicability
This Policy applies to all applications for allocations of conserved water filed with WRD by the District following the date of adoption described below. Pursuant to OAR 690-018-0025(3), this Policy does not apply to applications for allocations of conserved water filed by individuals, including District patrons.

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THIS RESOLUTION SHALL TAKE EFFECT IMMEDIATELY.

ADOPTED BY THE BOARD OF DIRECTORS OF NORTH UNIT IRRIGATION DISTRICT AT A REGULAR MEETING HELD ON THE 7TH DAY OF OCTOBER, 2008, BY THE FOLLOWING VOTES.

AYES: 5
NAYS: -0-

ABSENT:

RICHARD MACY, Chairman

ATTEST:

MIKE BRITTON, Secretary-Manager