



## CENTRAL OREGON IRRIGATION DISTRICT

1055 SW LAKE COURT, REDMOND, OR 97756

PHONE: 541.548.6047 FAX: 541.548.0243

[www.coid.org](http://www.coid.org)

A MUNICIPAL CORPORATION OF THE STATE OF OREGON

December 13, 2011

Mike Britton  
North Unit Irrigation District  
2024 NW Beech St  
Madras, OR 97741

Re: Letter of support for the North Unit Irrigation District South Juniper Butte Feasibility Study

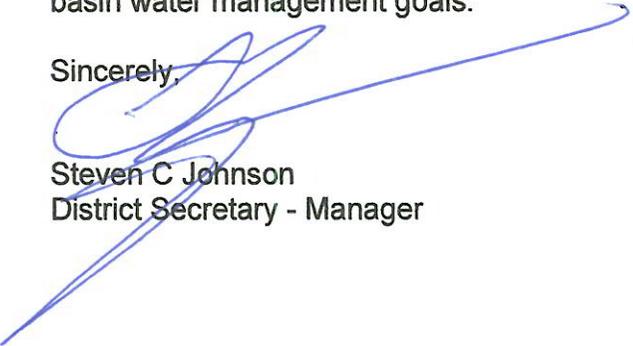
Central Oregon Irrigation District (COID) wishes to express its support for the South Juniper Butte Feasibility Study and corresponding Oregon Water Resources Department 2011 Water Conservation, Reuse and Storage Grant as proposed by the North Unit Irrigation District (NUID) and the Jefferson County Soil & Water Conservation District.

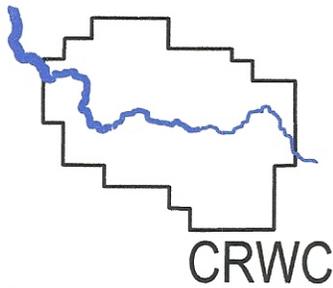
NUID and COID are neighbouring irrigation districts located in Central Oregon with district boundaries being shared and separated by the Crooked River. COID's support for the South Juniper Butte Feasibility Study is validated by the district's ongoing relationship and collaboration with NUID to improve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

As I understand it, the South Juniper Butte Feasibility Study as proposed by NUID will determine the amount of water that could be conserved by piping open delivery systems while also considering improvements to on-farm irrigation efficiency and irrigation management. The study will also identify where adequate pressure for on-farm energy conservation exists through piping of the open delivery systems, and what options exist for expanded above ground water storage and tailwater management for irrigation reuse.

COID therefore fully supports NUID's project proposal and encourages the Oregon Water Resources Department to fund this project in support of meeting district and basin water management goals.

Sincerely,

  
Steven C Johnson  
District Secretary - Manager



CROOKED RIVER WATERSHED COUNCIL

498 SE Lynn Blvd.  
Prineville, Oregon 97754

Phone: (541) 447-8567 Fax: (541) 233-0744

contact@crwc.info  
www.crookedriver.deschutesriver.org

**December 1, 2011**

**Oregon Water Resources Department  
Attention: Bill Fujii  
725 Summer Street NE, Suite A  
Salem, OR 97301**

Dear Bill,

Please accept this letter of support for the South Juniper Butte Water Conservation Feasibility Study as part of the application materials for the Water Conservation, Reuse, and Storage grant program in your agency.

The Crooked River Watershed Council fully supports investigating the feasibility of piping open ditches in this section of North Unit Irrigation District's network of canals. This area experiences some of the highest leakage rates and the potential for water conservation is high.

While our own projects typically do not address water conservation directly, we are partners with the Deschutes River Conservancy and others, like our regional Soil & Water Conservation Districts that do conduct this work. These are important projects for Central Oregon and the Crooked River specifically as our restoration and fish passage work directly benefits from increased water in streams, creeks, and rivers. These aquatic linkages 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. It goes without saying, but all the different types of investments and improvements across the basin work best in concert to fully support successful re-colonization by these species. Additional benefits are derived from increasing available water to producers served by NUID as some portion of any conserved water may also be reused on farms.

We realize this first step addresses just the feasibility question, but it is the most important action that can be taken at this juncture and must be done before we can move to the next step.

Please contact me directly if you have any questions about our support level, role in this project, or our work in general.

Chris Gannon, Director  
Crooked River Watershed Council  
498 SE Lynn Blvd., Prineville, OR 97754  
541.447.8567 [chris@crwc.info](mailto:chris@crwc.info)



Bill Fujii  
Oregon Water Resources Department  
725 Summer Street NE, Suite A  
Salem, OR 97301

December 12, 2011

Bill,

This letter indicates the Deschutes River Conservancy's (DRC's) support for North Unit Irrigation District's *South Juniper Butte Feasibility Study*. The DRC is a non-profit organization focused on restoring stream flow and improving water quality in Oregon's Deschutes Basin. The DRC uses collaborative approaches to achieve its goals.

The proposed study aligns directly with the DRC's goals. The study will evaluate the potential to conserve water in the South Juniper Butte area through on-farm and conveyance efficiency improvements. It will evaluate options for managing and re-using tailwater in the area. Improving tailwater management will reduce any potential inputs of nutrients or bacteria into the lower Crooked River.

Over the past three years, the district and the Deschutes River Conservancy have worked together to meet their mutual needs. North Unit Irrigation District has consistently emerged as the most efficient agricultural water user on the Deschutes and Crooked Rivers. The district has demonstrated a strong commitment to improving conditions for resident and anadromous fish in the lower Crooked River. The DRC fully supports the proposed study as it further demonstrates this commitment.

Sincerely,

Brett Golden  
Program Manager

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[www.deschutesrc.org](http://www.deschutesrc.org) / [info@deschutesrc.org](mailto:info@deschutesrc.org)



**Thomas J. Bennett**  
District Conservationist

**625 SE Salmon Ave. Ste. 4**  
**Redmond, OR 97756**

**Phone: (541) 923-4358 ex. 123**

**Fax: (541) 923-4713**

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**December 12, 2011**

Jefferson County SWCD  
625 SE Salmon Ave  
Redmond, OR 97756

Re. North Juniper Butte Water Conservation Feasibility Study

Please accept this as my letter of support for your application to the Oregon Dept. of Water Resources Water Conservation, Reuse and Storage Grant Program. The USDA Natural Resources Conservation Service (NRCS) is in the process of working with our partners to focus our efforts on locally identified priorities. Water conservation has been a priority for several years and we have tried to target specific areas when projects there were proposed. This study will provide a good framework to target improvements that are coordinated and measurable. A combination of irrigation district infrastructure and on farm improvements has proven to be successful model for water conservation.

If you have any questions, please let me know,

Thanks,

Thomas J. Bennett  
District Conservationist  
(541) 923-4358 ext 123  
fax: (541) 923 4713  
[tom.bennett@or.usda.gov](mailto:tom.bennett@or.usda.gov)



December 14, 2011

Mr. Mike Britton, Manager  
North Unit Irrigation District  
2024 NW Beech Street  
Madras, OR 97741

**SUBJECT: SOUTH JUNIPER BUTTE FEASIBILITY STUDY**

Dear Mr. Britton:

I would like to extend my support for the South Juniper Butte Feasibility Study project by the North Unit Irrigation District.

As you know, the NUID irrigators currently receive inadequate water delivery to fully irrigate all 58,000 acres in the District. Piping projects that result from studies and then funded projects have been proven to eliminate water losses due to percolation and evaporation, and reduce the need for "carry-water". The result is a more certain supply to the entire District, reduced demand on Wickiup Reservoir, and enhancement to fisheries in the basin. Additionally, main and lateral piping projects reduce annual maintenance and increase the ability to control flows to the District irrigators.

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 of 2,000 CFS/season through conservation of on-farm irrigation and water delivery system, along with tail water reuse. By determining the amount of water that could be conserved by piping open delivery canals, on farm ditches, and improved on-farm operations, level of potential pressurization and energy conservation, and what options exist for tail water management for re-use of irrigation water, the project will provide significant direction to the District for potential design and construction of a very beneficial project. This is truly a project where the irrigation District and its farmers may provide multiple benefits to their operation and to the local fishery in the Crooked River, Deschutes Basin.

As a Water Resources engineer and irrigator in the basin, I wholeheartedly support the South Juniper Butte Feasibility Study and as an engineering participant on the project I am cost sharing a total of \$3,000 through contributed services for this study.

Sincerely,

BLACK ROCK CONSULTING

A handwritten signature in black ink, appearing to read "Kevin L. Crew".

Kevin L. Crew, P.E.

*20380 Halfway Road Suite #1  
Bend, Oregon 97701  
(541) 480-6257 (866) 591-1513 Fax*



2024 N.W. Beech Street  
Madras, Oregon 97741

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(541) 475-3652  
Fax (541) 475-3905  
nuid@northunitid.com

November 25, 2011

Jefferson County SWCD  
625 SE Salmon Avenue ~ Suite 6  
Redmond, OR 97756

Re: Letter of Support for the South Juniper Butte Feasibility Study

This letter of support is being submitted in collaboration for a project proposal to Oregon Water Resources Grant application "2011 Water Conservation, Reuse and Storage Program".

I the undersigned, confirm on behalf of my organization, North Unit Irrigation District, our interest in the above mentioned project.

North Unit Irrigation District has a history of initiating proactive measures to address issues critical to the implementation of the State of Oregon's Water Resource mission to restore and protect streamflows and watersheds in order to ensure the long-term sustainability of Oregon's ecosystems, economy, and quality of life. North Unit Irrigation District believes that the South Juniper Butte Feasibility Study is in line with the goals and objectives of the 2011 Water Conservation, Reuse and Storage grant RFP, and is consistent with the goals and water strategies of North Unit Irrigation District.

North Unit Irrigation District therefore fully supports this project proposal and encourages the Oregon Water Resources Department to fund this project in support of the Department's mission and for the accomplishment of the proposed work.

Sincerely,

A handwritten signature in black ink, appearing to read "Mike Britton".

Mike Britton  
General Manager



# Oregon

John A. Kitzhaber, MD, Governor

Department of Agriculture

635 Capitol St NE  
Salem, OR 97301-2532



December 6, 2011

Oregon Water Resources Department  
Attention: Bill Fujii  
725 Summer Street NE, Suite A  
Salem, OR 97301

To whom it may concern:

This letter is in support of the South Juniper Butte Water Conservation Feasibility Study being proposed by the Jefferson County SWCD. They are proposing to redesign the water distribution system and implement a water conservation and re-use strategy in the South Juniper Butte area. The project would determine water savings from piping open delivery ditches and implementing on-farm irrigation water management and options for re-use of irrigation water.

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 instream 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 this silty tailwater with clean water left instream is also a benefit.

This project also benefits the landowners and the North Unit Irrigation District (NUID). Landowners are hoping a pressurized delivery system will reduce their pumping costs. The NUID will have reduced maintenance with a piped delivery system, would be able to use a portion of the conserved water to provide water to patrons in low water years, and eliminate pumping costs from the Crooked River.

This project fully supports the Middle Deschutes Agricultural Water Quality Management Area Plan, which promotes “cost-effective agricultural activities that improve and protect water quality”.

The Oregon Department of Agriculture applauds the North Unit Irrigation District, the Jefferson County SWCD, landowners, and all other partners for working together on this beneficial project.

Sincerely,

*Ellen L Hammond*

Ellen Hammond, Regional Water Quality Specialist  
Oregon Department of Agriculture  
475 NE Bellevue Drive, Suite 110  
Bend, OR 97701





**625 S.E. Salmon Ave. Suite4  
Redmond, Oregon 97756-9580**

**Phone: (541) 923-4358 x 115  
Fax: (541) 923-4713**

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November 29, 2011

Oregon Water Resource Department  
2011 Water Conservation, Reuse and Storage Grant Application

RE: South Juniper Butte Water Conservation Feasibility Study

To Whom It May Concern:

This letter is in support of the Jefferson County Soil & Water Conservation District's proposed feasibility study of piping open irrigation canals and the construction of tail water ponds near South Juniper Butte.

The project will improve Resource Management conditions, including sediment control within tributaries of the Deschutes River. Efficiency in irrigation water management will also improve due to the increase in water quality, resulting in water and energy conservation.

The project will benefit from an engineering feasibility study that will evaluate hydraulic parameters and site specific conditions.

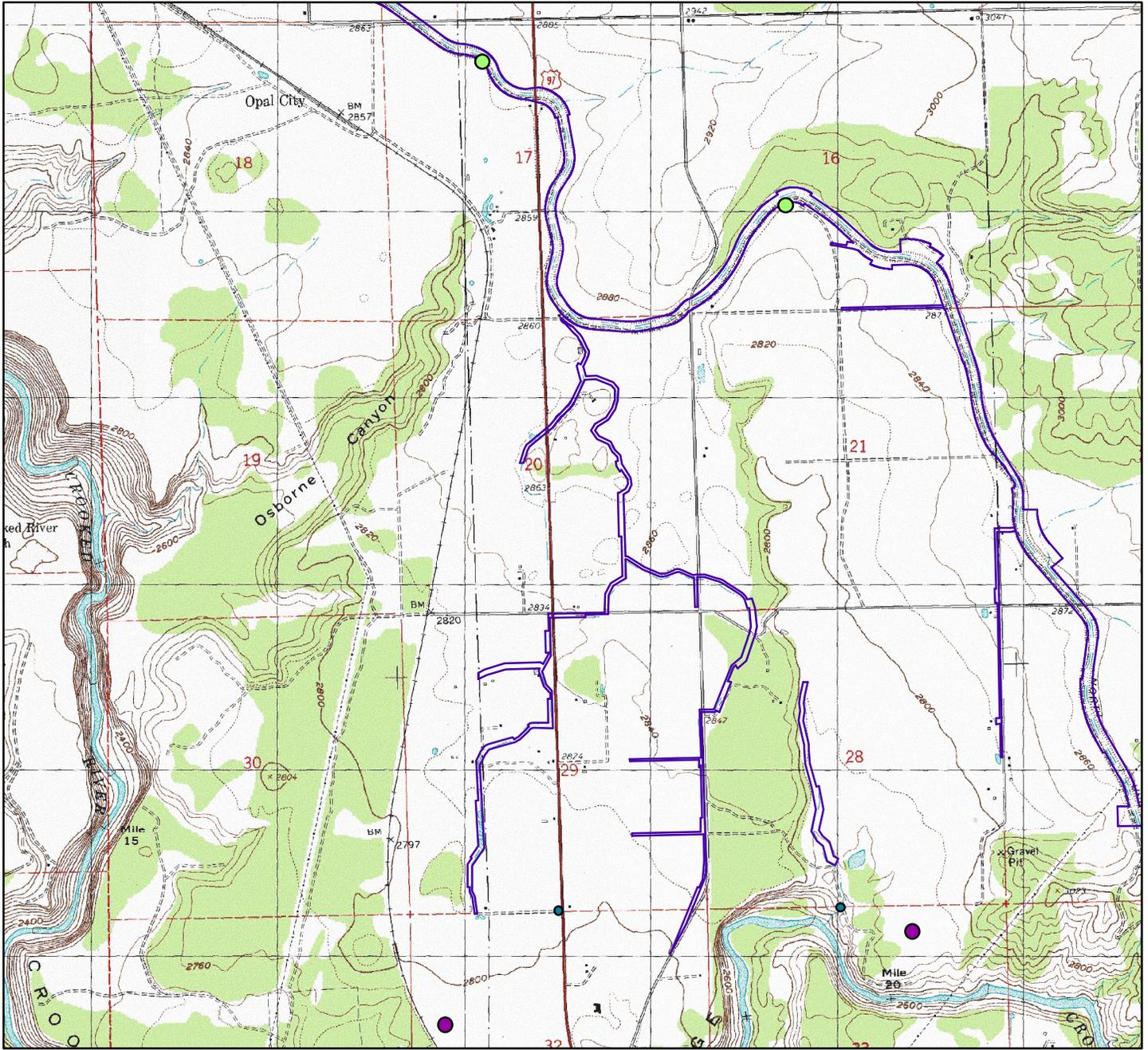
Sincerely,

Nicholle Kovach  
Deschutes Basin Engineer  
USDA-Natural Resources Conservation Service

# Plan Map

District: JEFFERSON SOIL & WATER CONSERVATION DISTRICT

Field Office: REDMOND SERVICE CENTER  
Agency:  
Assisted By: Roofener, Jan L



## Legend

- Pipe End approx. location
- Pipe beginning
- GPS points
- CANALS

