

Yuba IRWMP-BVID 01 Project Solicitation Form¹

Please fill out the following information to the best of your ability/knowledge. Once the project has been received and a preliminary review completed, the project team will work with you to develop additional information.

Project Sponsor Contact Information

Lead Agency/Organization	<i>Browns Valley Irrigation District</i>
Name of Primary Contact(s)	<i>Ryan McNally</i>
Mailing Address	<i>P.O. Box 6, Browns Valley, CA 95918</i>
Email Address	<i>ryan@bvid.org</i>
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Project Partners/Collaborators	N/A

General Project Information

Project Title	Sicard Ditch Lining Conservation Project
Project Total Budget, based on current knowledge	\$3,892,520 Materials cost only
Project Funding Match, if any	Labor
Total Project Funding Request	\$3,892,520
Can a detailed cost estimate be provided upon request?	Yes
Project Location (map if available)	<i>Latitude: 39 deg 16' 44.23" N Longitude: 121 deg 18 '42.30" W</i>
City/Community	Browns Valley
Watershed/subwatershed	Yuba River/Dry Creek
Groundwater Basin	N/A
Project Type (highlight in gray all that apply)	<ul style="list-style-type: none"> Conceptual Feasibility Study Study/Assessment Planning Engineering/Design Permitting CEQA/NEPA Facility Construction Restoration Monitoring Best Management Practices Acquisition Demonstration/Pilot Project

¹ Completed Project Solicitation Forms should be sent via email to Katie Burdick at admin@burdico.net

Project Description

Write a narrative briefly describing the project components and/or characteristics (maximum of 300 words).

The Sicard Ditch is a major conveyance for the Browns Valley Irrigation District which serves customers from the Collins Lake Reservoir. However, when the ditch was constructed, much of it was built on blasted and fractured rock which has left it susceptible to severe leakage. The project would be constructed in phases:

Phase 1a will consist of engineering work, including a needs assessment, pipe sizing, material costs and specifications for the remaining phases.

Phase 1b includes the requisite environmental work necessary to complete the entire project. This will consist of both biological and archaeological reports associated with filing a Mitigated Negative Declaration. Once that is complete, the District will file the appropriate applications with the USACE, CDFW and the RWQCB for crossing wetlands, as well as Porter Creek. Although it is estimated that the environmental process will take approximately 18 months to complete, the District may be able to begin work before that time in areas where it will remain in the ditch alignment (Phase 2).

Phase 1c will consist of another "needs" assessment to determine and memorialize the magnitude of water losses through the Sicard Ditch.

Phase 2 will consist of 6,885 feet of 30" diameter HOPE pipe that begins where Phase 1 left off (2,000 feet below the head of the Sicard Ditch). This phase will be almost entirely contained to the District's current ditch alignment and, as a result, will need to be completed entirely off-season (mid-October through mid-April).

Phase 3 will consist of 9,600 feet of 18" diameter HDPE pipe and travel in a southward direction along Gary Drive and Lanza Lane where many existing parcels will receive service and will continue until it again joins the Sicard Ditch easement after bypassing over 9 miles of open and porous ditch. This phase can be done anytime, regardless of the irrigation season.

Phase 4 will consist of a 26" diameter pipeline that will follow an existing road easement in a southwestern fashion for 6,500 feet, then transitioning to a 22" diameter HDPE pipe for another 3,400 feet before for a total of 9,900 feet. The buried pipeline will travel along an established access road through several parcels before meeting with Sicard Flat Road, paralleling Scott Forbes Road to the Gary Drive intersection where it will transition with Phase 3. This phase can be done anytime, regardless of the irrigation season.

Phase 5 will be 4,500 feet of 16" diameter HDPE pipe and tie into the existing "Too Handy Pipeline" at Highway 20 to provide service for all customers south of Highway 20. This phase can be done anytime, regardless of the irrigation season.

Phases 6a and 6b of the project will expand the service area to customers along Sicard Flat Road as well as to Nordic's Park's Bar quarry, where they have been inquiring about service to abate air quality concerns with 6,000 feet of 8" diameter HDPE pipe. This phase can be done anytime, regardless of the irrigation season.

Phase 7 of the project will install 5,200 feet of 10" diameter HDPE pipe to serve new customers on Deer Ridge Court and Wilson Way, as well as three (3) existing customers currently pumping (at their own expense) from the Sicard Ditch. This phase can be done anytime, regardless of the

irrigation season.

The above phases are numbered in order that would achieve the best results in the least amount of time. However, environmental requirements, the acquisition of easements and a need to coincide with an "off-season" work schedule might cause some deviation from those numbers.

Briefly describe the need for the project and the desired outcomes/deliverables (maximum of 200 words).

Currently BVID needs to put in 12 Cubic Feet per Second (CFS) at the head of the ditch to meet the typical demand of 4 CFS. It is estimated that the Sicard Ditch loses approximately 8 CFS through leakage at any given time, which amounts to 3,000 Acre Feet (AF) lost over the course of a year. Saving that water through replacing the open ditch with a sealed pipeline would save that water and would ultimately equate to saving 3 feet of reservoir elevation at Collins Lake.

The proposed project would replace approximately 42,000 feet of open ditch which suffers from severe leakage with High Density Poly-Ethylene (HDPE) pipe. This would virtually eliminate all leakage through the ditch and save approximately 3,000 AF per year. From a funding perspective, water transfers have yielded around \$700/AF to various Districts in Northern California for 2015. If monetized in that regard, this project would save approximately \$2,100,000 worth of supply each year. The monetary Return on Investment (ROI) would be just over a year under this proposal, but prices notwithstanding, having the security of another month's worth of supply is nearly priceless for many Yuba County residents.

By saving approximately 3,000 acre feet from Collins Lake each year, the regionally identified issues to be addressed would be "Water Storage," "Infrastructure," "Water Use Efficiency/Conservation," and "Recreation." This project would undoubtedly increase water supply by reducing loss significantly, helping to mitigate against projected future uncertainties. By replacing and retrofitting outdated infrastructure, the water supply will be considerably more reliable throughout the irrigation season. The proposed repairs would directly affect Water Efficiency and Conservation by ensuring less loss through leakage, equaling more supply and a larger volume left in Collins Lake for extended carry over storage as well as recreation such as boating, camping or fishing.

On the south end of the ditch, just above Parks Bar, the Sicard Ditch goes through the hillside by way of a very narrow, unreinforced tunnel that dates back to the 1850's. The tunnel is about 1,500 feet long, 90 feet deep and is extremely susceptible to collapse. This susceptibility is also arguably exacerbated as Nordic Industries often blasts the rock face just below it as part of their quarry operation. A collapse of this tunnel would be catastrophic to the District as it would cut off service for many customers, including the larger subdivisions known as "Valley of the Eagles," "Monument Trail" as well as Hammon Grove Park. Buried under 90 feet of rock, recovery of **a failed Sicard tunnel would potentially require millions of dollars and years to repair**. This project proposes to abandon the tunnel with a new alignment to the west of that hillside and eliminate the threat altogether, as well as the probability that BVID would eventually seek emergency funding from YWA should a failure occur.

Furthermore, the increased capacity this pipeline would create will accommodate future development on the south side of Highway 20 as well as anticipated development around the Smith Ranch all the way to Browns Valley School Road preventing very costly capital improvement expenses to BVID as future growth occurs.