

Yuba IRWMP – YWA-04

Project Short 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	Yuba Water Agency
Name of Primary Contact(s)	Scott Matyac
Mailing Address	Yuba Water Agency 1220 F Street Marysville, CA 95901
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Project Partners/Collaborators	YWA member units

General Project Information

Project Title	North Area Irrigation Water Reuse
Project Total Budget, based on current knowledge	TBD
Project Funding Match, if any	TBD
Total Project Funding Request	Component #1: \$175,000 Component #2: between \$20,000-\$80,000 (depending on choice of design) Component #3: \$90,000 (rough estimate)
Can a detailed cost estimate be provided upon request?	No
Project Location (map if available)	Jack Slough
City/Community	Hallwood Irrigation Company District Boundary
Watershed/subwatershed	Yuba
Groundwater Basin	Yuba Groundwater Basin/ North Yuba Sub-basin
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 <li style="background-color: #cccccc;">Facility Construction Restoration Monitoring <li style="background-color: #cccccc;">Best Management Practices Acquisition

¹ Completed Project Short 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).

This irrigation system improvement project would accomplish the following:

1. Operate the canal, ditches, and laterals in a much more flexible and reliable manner.
2. Simplify the operation for the ditch-tender.
3. Reduce spills at the ends of laterals.
4. Recirculate water that is presently entering the district in Jack Slough.
5. Replace two aging flumes.
6. Reduce diversions from the Yuba River. A rough estimate of this reduction is 40-50 CFS, based on additional well usage, decreased spill, and pumping from Jack Slough.

A summary of project components is as follows:

1. Changing the Main Ditch Crossing of the Jack Slough: This project component entails several physical changes, all of which would work together to provide flexibility.

- a. If excess flow came down the Main Ditch, it would spill into Jack Slough.
- b. If insufficient flow came down the Main Ditch, a pump would automatically deliver water from Jack Slough.

2. Modification of Main Ditch Check Structures: The second major change would be a modification of Main Ditch check structures between the split point to the Handy and Hwy 20 Ditches and the Drier Ditch.

Key elements include:

- Sluice gates installed at the entrance to the Handy and Hwy 20 Ditches.
- A long-crested weir installed in the Main Ditch where the Main Ditch diverges from the Handy and Hwy 20 ditches. The impact of the sluice gates at the Handy and Hwy 20 Ditches, and this long-crested weir, would be that all fluctuations in flow would go down the Main Ditch towards the Jack Slough crossing.
- The Main Ditch check structure at the Drier Ditch entrance converted to a long-crested weir.
- Perhaps 3-5 other check structures enroute would be converted to long-crested weirs or to ITRC Flap

3. Real-Time Management of Well Pumps as a Buffer Supply: The third major modernization change would involve real-time management of well pumps as a buffer supply. Active manipulation of wells along the Main Ditch (downstream of Hwy 20) to add/subtract water as needed, plus other wells along some laterals could provide excellent flexibility plus conserve water.

The additional measures for long term include the following:

- SCADA for remote monitoring. This would be relatively simple monitoring of water levels over weirs at the downstream ends of laterals and ditches, monitoring of spill and pumping at the Jack Slough crossing under the Main Ditch, and monitoring wells in option #3. Technology now allows the ditch-tender to see the status of these points via a Palm Pilot, cell phone, or hardened laptop.
- Pipelining some additional laterals. In particular, some of the laterals in the permanent crop areas are small and difficult to manage.

I. Project Rationale/Issues Statement

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

Word Count 125

The project addresses the following identified regional issues:

Infrastructure

Develop new infrastructure as well as repair, replace and retrofit aging infrastructure to ensure adequate and reliable water supply

Water use Efficiency and Conservation

Promote and implement policies and practices to increase water use efficiency and water conservation in municipal and agricultural sectors

Groundwater

Promote integrated management of groundwater and surface water

Water Quality Contamination: Urban and Agricultural Run-off

Maintain and improve water quality by mitigating for urban and agricultural runoff

Environmental Flows

At minimum, maintain quantity, timing, and quality of stream-flows required to restore and protect freshwater ecosystems

Climate Change

Respond to projected climate change impacts on water supply reliability, water quality, public safety and watershed health and develop regional and inter-regional adaptive management strategies