

Yuba IRWMP – HIC-04

Project Short Form¹

Please fill out the following information to the best of your ability/knowledge. Contact Keri Rinne with questions: keri.rinne@gmail.com

PROJECT SPONSOR INFORMATION

Lead Agency/Organization	Hallwood Irrigation Company
Name of Primary Contact(s)	Mark Chandless
Mailing Address	P.O. Box 1349, Marysville, CA 95901
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Project Partners/Collaborators	Yuba Water Agency
YWA Liaison	Joanna Lessard; Ryan McNally

GENERAL PROJECT INFORMATION

Project Title	West Ditch Flume Replacement
Project Total Budget (Attach detailed budget, if available)	\$450,000
Budget Breakdown	Planning/Design Budget: \$0. Implementation Budget: \$450,000
Project Funding Match , if any	TBD
Total Project Funding Need	TBD
Project Location (Attach map if available)	Hallwood, Yuba County
Watershed/subwatershed	
Groundwater Basin (Select one)	<input checked="" type="checkbox"/> North Yuba Subbasin <input type="checkbox"/> South Yuba Subbasin <input type="checkbox"/> Not Applicable
Supports Yuba Groundwater Sustainability Plan (GSP)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Measurable Objective(s) Benefit (Answer If 'Yes' above) (check <i>all</i> that apply)	<input checked="" type="checkbox"/> Chronic lowering of groundwater levels <input checked="" type="checkbox"/> Reduction of groundwater storage <input checked="" type="checkbox"/> Degraded water quality <input checked="" type="checkbox"/> Land subsidence <input checked="" type="checkbox"/> Depletions of interconnected surface waters
Project Priority (Select one)	<input checked="" type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low
Project Type (check <i>all</i> that apply)	<input type="checkbox"/> Conceptual <input type="checkbox"/> Feasibility Study <input type="checkbox"/> Study/Assessment <input type="checkbox"/> Planning <input type="checkbox"/> Engineering/Design <input type="checkbox"/> Permitting <input type="checkbox"/> CEQA/NEPA <input checked="" type="checkbox"/> Facility Construction <input checked="" type="checkbox"/> Restoration <input type="checkbox"/> Monitoring <input type="checkbox"/> Best Management Practices <input type="checkbox"/> Acquisition

¹ Completed Project Short Forms should be sent via email to Keri Rinne at keri.rinne@gmail.com

	<input type="checkbox"/> Demonstration/Pilot Project
Legal Authority	

Please select the *status* of the CEQA/NEPA/Permitting for this project:

CEQA (Select one)	<input type="checkbox"/> Exempt <input type="checkbox"/> Not Started <input checked="" type="checkbox"/> Initial Study <input type="checkbox"/> EIR <input type="checkbox"/> Determination <input type="checkbox"/> Unknown if Required
NEPA (Select one)	<input type="checkbox"/> Exempt <input type="checkbox"/> Not Started <input checked="" type="checkbox"/> Environmental Assessment <input type="checkbox"/> EIS <input type="checkbox"/> Record of Decision <input type="checkbox"/> Unknown if Required
Permitting (Select one)	<input type="checkbox"/> Not Required <input type="checkbox"/> Not started <input checked="" type="checkbox"/> Identified <input type="checkbox"/> Consultations Complete <input type="checkbox"/> Application Submitted <input type="checkbox"/> Complete <input type="checkbox"/> Unknown if Required

PROJECT DESCRIPTION

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

The Hallwood Irrigation Company (HIC) received a Community Impact Grant from the Yuba Water Agency (YWA) for the HIC System Renovation Plan. The first phase of the Renovation Plan included the development of an irrigation system condition assessment, which was completed in December 2022. The condition assessment identified several recommended improvements and prioritized these improvements. The second phase of the Renovation Plan includes developing the construction documents, engineering, and permitting for the highest priority improvements. The project identified herein was identified as the 4th highest priority out of the 12 improvement projects recommended.

The West Ditch flume, which crosses over Jack Slough, is an approximately 130-foot-long reinforced concrete flume located along the West Ditch, close to the intersection of Matthews Ln and Woodruff Ln. The flume is degrading and needs repair or replacement. HIC had another similar flume that failed and required an emergency repair project to return service to irrigators. The flume has historically experienced overtopping which has spilled into Jack Slough and required an immediate operational response to reduce the flow going into the West Ditch. This flume presents operational problems as it can overtop under expected high flows and result in unsatisfactory water deliveries to downstream irrigators as the flow into the North main ditch must be decreased in response to the overtopping event. Therefore, the flume must be replaced to increase capacity and operational performance.

To increase its capacity and prevent any future overtopping, the flume would be widened to maintain the existing ditch invert. Due to a shortened construction window, the flume replacement will be constructed with prefabricated concrete sections delivered to the site to minimize duration of the system shutdown.

There is an expected 2-month window in the early spring during which the system is shut down, and this can support construction. It was also observed that heavy earthwork on the south end of the flume may shorten the length of the replacement flume, as engineered fill can be used to create more land to key the flume into.

The flume would need to be sized to accommodate peak flows of up to 93.6 CFS. To match the design of the newly built 2013 flume. It is recommended that the West Ditch flume be replaced with a wider flume to accommodate peak flows without the risk of overtopping. This option of widening the flume would require a larger form for the bottom of the flume, making it slightly more difficult to construct.

PROJECT RATIONALE/ISSUES STATEMENT

Briefly describe the need for the project and the desired outcomes/deliverables (Suggest ~ 200 words). Include an explanation of benefits and how they would be evaluated.

This project would eliminate the risk of a catastrophic failure of the deteriorating ditch flume. The project will also eliminate overtopping under normal peak flow conditions thereby boosting water conservation. Widening the flume eliminates the need for immediate operational responses to address overtopping risks thus contributing to improved water supply and water management.

The project is expected to realize the following quantifiable benefits:

1. Water supply savings resulting from avoidance of excess surface water diversion.
2. Improved groundwater conditions due to greater availability of surface water supplies and subsequent reduced demand for groundwater.

Such water savings and resiliency will allow for continued avoidance of “deficit pumping” by these agencies. Furthermore, the water savings from the project will improve water supply conditions that allow the Yuba Subbasins water suppliers to implement their groundwater substitution transfer program which provides benefits during dry years to water suppliers throughout the state.