DRAFT - WALLA WALLA BASIN INTEGRATED FLOW ENHANCEMENT STUDY	
PRELIMINARY PROJECT PROPOSAL TEMPLATE	
1. Title: Gardena Farms Irrigation District #13 (GFID #13) Upper Canal	**2. Proposal Preparer(s):** Renee Hadley with Walla Walla County Conservation District
3. Project Status: *Identify whether the proposed project is a past, ongoing or new project and briefly explain the status of the project, including the requested role of the Flow Study in further consideration of the project. If past project, some of the questions below may not be applicable.*	
■ a. NEW PROJECT □ b. ON-GOING PROJECT □ c. PAST PROJECT Upper canal would be the third and final phase of converting the open ditch to a closed and embedded pipe system. The previous phases were completed from 2002 to 2014. The project is stalled pending agency approval/support.	
4. General Description of Proposal: *Identify the category(s) and briefly explain the proposed project (e.g. location, infrastructure requirements, maintenance requirements, connection to other new, ongoing or past projects, other stakeholders, various sizing or phasing, etc.).*	
■ a. Water Conservation & Infrastructure □ b. Aquifer Recharge & Aquifer Storage and Recovery □ c. Surface – Groundwater Source Switch □ d. Surface Water Storage □ e. Pump Exchange □ f. Water Right Transactions □ g. Point of Diversion Transfers □ h. Other Upper canal would convert 11 miles of the Burlingame Ditch into a 66 inch diameter pipe. The point of diversion and beginning of the site is located on the Walla Walla River at RM 36.8 near the intersection of Beet Road, Frog Hollow Road, and Mojonnier Road, SW of College Place, WA. Project would extend 11 miles to the west and terminate at the intersection of Lower Gardena Rd and Mud Creek Rd. This project would connect to the south and north lateral sections which are piped and completed. Project would involve less maintenance than the current open ditch. Proposed maintenance is assumed to be around $10,000/yr.	
5. Source of Produced Water: *Mark all applicable and identify (water right number, shallow or deep basalt aquifer, stream name).*	
■ a. Existing Water Right #WW Adj 406 Class 30 for 7,000 acres □ b. Groundwater □ c. Surface Water □ d. Other	
6. Quantity/Timing/Location of Produced Water Instream: *Estimate average amount of water, when and where. Can project be considered at various sizes(flow outputs) and/or considered in phases?*	
<u>a. Acre-feet and/or Cubic-feet-per-second:</u> Project has estimated seepage, evaporation and tailwater discharge water loss reduction of 16.91 cfs. (per CIDMP, 2004 and per GFID #13 use logs for May 3, 2016)	
<u>b. Timeframe(s):</u> Benefits would be during irrigation season February to June and October to December.	
<u>c. Stream Reach Location(s):</u> Walla Walla River at RM 36.8	

□ d. UNKNOWN -

7. Ability to Protect Produced Water Instream: *Briefly explain how the produced water will be quantified, monitored and protected instream or why it is not currently protectable.*

■ a. YES - protection under existing regulations expected to WW River mouth. Diversion input is metered. Reduction in diversion volume will be quantifiable.

□ b. NO or

■ c. UNKNOWN – It is unsure how that water will be protected downstream from the project.

8. Cost Estimates: *Provide known and estimated costs to develop and implement the project.*

a. Project Development and Design: Design completed. Additional easement/right-of-way acquirement needed for areas where the ditch will be straightened across new land.

b. Project Construction: ~$11 to $14 million

c. Construction cost per AF and/or CFS: ~$650,500 to $828,000/ cfs in saved seepage/evaporation/tailwater discharge

d. Project Annual O&M: <$10,000/yr

□ c. UNKNOWN -

9. Secured Costs: *Has any funding been secured in the past or currently and what is source?*

Upper canal not yet funded.

10. Other Potential Project Advantages: *In addition to helping address flow targets and basin-wide flow issues (Endangered Species Act, Tribal Water Rights, Clean Water Act, etc.), briefly explain other potential benefits (e.g. reduced O&M costs, restores/mimics ecological processes, cropping flexibility,)*

Reduced power consumption for irrigators. Reduced downgradient seepage may or may not contribute to elevating groundwater levels, "floating" septic systems, impacting shallow wells. Piping the project would alleviate those concerns. Eliminate ongoing erosion at tail spill discharge location into Pine Creek. Piping would eliminate surface contaminants such as surface flow from roadways (flowing into ditch) onto agricultural ground for edible crops. Piping (irrigation efficiency improvements) would also reduce the likelihood of future ESA related litigation. Reduction in O & M costs after piping are estimated to be on the order of $200,000 per year.

11. Other Potential Project Disadvantages: *Briefly explain potential drawbacks of the proposal (e.g. reduced GW supply - recharge mitigation need, increased O&M costs, legal implications)*

Reduced downgradient seepage supply which may or may not be contributing flow to the following: Mud Creek (which transects SE to WNW of Frog Hollow Rd, Washington), the South Branch of Mud Creek (between Stateline and Sunquist Rd, Oregon), Little Mud Creek (between Short Rd in WA and Stateline), shallow wells, Mud Creek 7 Irrigation Ditch, and/or Lowden #2 irrigation ditch. Reduced discharge into Pine Creek from tailwater spill of existing ditch.

12. Estimated Time Frame to Implement Project?

Construction time frame of 2-3 years assuming no construction during irrigation season of March to May and October to November.