### 1. Title: Irrigation Efficiency
Berghen Williams/ Old Lowden consolidation diversion and irrigation piped conveyance system

### 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**
  Completed 2013.

### 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

Consolidated two points of diversion located on the north side of the Walla Walla River at RM 29 & RM 31.5, SW of College Place, WA. Project constructed or modified 18 pump stations, installed 11 metering stations for flood outlets, and converted 9.6 miles of ditch to buried pipeline.

### 5. Source of Produced Water: Mark all applicable and identify (water right number, shallow or deep basalt aquifer, stream name).

- a. Existing Water Right: multiple individual water rights (20+)
- b. Groundwater
- c. Surface Water: Walla Walla River
- 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?
- a. Acre-feet and/or Cubic-feet-per-second:
  Project had estimated water loss reduction of 4.5 cfs (~1/3 of diversion).

- b. Timeframe(s):
  Yearround

- c. Stream Reach Location(s):
  Walla Walla River at RM 29 & 31.5

- 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 - Water was placed in trust
☐ b. NO or
☐ c. UNKNOWN –

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

   a. **Project Development and Design:** Completed

   b. **Project Construction:** $2,905,632 (2013)

   c. Construction cost per AF and/or CFS: $645,696/cfs in saved water

   d. **Project Annual O&M:** O & M paid for by BWOL group, annual amount not provided.

   ☐ c. UNKNOWN -

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

   Bonneville Power Admin. & WA ECY

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 and O & M costs (ditch had instability, historical failure areas). Removal of gravel push up dams which acted as fish barriers.

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)*

   Reduction of subsurface flow which post-piping would require additional surface irrigation to compensate. No other disadvantages described to date.

12. **Estimated Time Frame to Implement Project?**

   Completed.