1. Title: Huffman Ditch and Richartz Ditch Piping

2. Proposal Preparer(s): Brian Wolcott

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
   - X c. PAST PROJECT

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.).
   - X 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

The Huffman Ditch (1 mile) and Richartz Ditch (3.4 miles) are ditches in the HBDIC system that were piped starting in 2001 and completed in 2003. OWEB funding $68,064 for Huffman Piping and $170,000 for Richartz Piping (OWEB total was $238,064 matched with $228,728 in HBDIC funding and in-kind construction cost share paid for this Walla Walla River flow improvement project. HBDIC water savings were 9.61 cfs, totaling 2877 acre feet/year. Actual Conserved Water in the Conserved Water Agreement totaled 5.349 of HBDIC water rights to remain in the Walla Walla River. The CBWTP (CTUIR and The Freshwater Trust) made an offer for the rest of the conserved water at around $70,000 a cfs. HBDIC rejected the offer as they wanted a higher price. Since HBDIC contributed 49% of project costs, HBDIC was able to hold on to that portion of the conserved water and have continued to use it.

5. Source of Produced Water: Mark all applicable and identify (water right number, shallow or deep basalt aquifer, stream name).
   - X a. Existing Water Right
   - □ b. Groundwater
   - X c. Surface Water
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:
      5.349 cfs spring through July 1, Fall September-November Milton-Freewater (Nursery Bridge)

   b. Timeframe(s):
      Spring early Summer Fall

   c. Stream Reach Location(s):
      Milton-Freewater/Nursery Bridge

   d. UNKNOWN - Need more work (engineering/design/modeling, etc.) to estimate potential instream flow outputs of project. Will results of this work be concluded within one year to inform potential project flow outputs? Describe additional work needed and cost estimate.
      No additional work needed. Can rest of conserved water be purchased for instream use?

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 or in limited reach?
   □ b. NO or X c. UNKNOWN – Results and implementation of flow protection study likely necessary to ensure flow protection.
      Protection is unknown

8. Cost Estimates: Provide known and estimated costs to develop and implement the project.
   a. Project Development and Design:
      Project completed.

   b. Project Construction:
      $466,792

   c. Construction cost per AF and/or CFS:
      $48.574/CFS and $162.25/acre foot based on total water conserved
      $87,267/cfs based on actual portion of water rights transferred to instream through Conserved Water Program

   d. Project Annual O&M:
      $0 public (HBDIC will cover O&M as part of their annual operations)
   □ c. UNKNOWN - Need final engineering/design work to estimate costs
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
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<td><strong>9. Secured Costs:</strong> Has any funding been secured in the past or currently and what is source?</td>
<td>Project completed</td>
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<td><strong>10. Other Potential Project Advantages:</strong> 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&amp;M costs, restores/mimics ecological processes, cropping flexibility,)</td>
<td>Reduced O&amp;M costs</td>
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<td><strong>11. Other Potential Project Disadvantages:</strong> Briefly explain potential drawbacks of the proposal (e.g. reduced GW supply - recharge mitigation need, increased O&amp;M costs, legal implications)</td>
<td>Reduced GW supply requires recharge mitigation from existing and planned sites.</td>
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<td><strong>12. Estimated Time Frame to Implement Project?</strong></td>
<td>Project completed</td>
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