# GFID/Lowden Ditches 10 cfs Pump Loop Project

## Proposal Preparer(s)
- Brian Wolcott

## Project Status
- NEW PROJECT
- ON-GOING PROJECT
- PAST PROJECT

A BPA funded conceptual design determined a draft layout, construction costs, and annual pumping costs.

## General Description of Proposal
- Water Conservation & Infrastructure
- Aquifer Recharge & Aquifer Storage and Recovery
- Surface – Groundwater Source Switch
- Surface Water Storage
- Pump Exchange
- Water Right Transactions
- Point of Diversion Transfers
- Other

GFID developed a Local Water Plan with the Walla Walla Water Management Partnership that would include leaving 10 cfs of the existing GFID water right instream at their Burlingame Diversion near Beet Road to improve stream flows for fish. The water would travel downstream to improve flows for fish down to the Touchet River Confluence, and especially at the low flow reach in the vicinity of McDonald Road Bridge. This study determined costs for the fish screen, pumps, and pipe necessary to pump the 10 cfs out of the Walla Walla River just downstream of the Touchet River Confluence and bring that water up to Gardena Hill where it will connect with the North and South Laterals to serve farms at the downstream end of the GFID irrigation use area. The Study also determined annual pumping costs. It is anticipated that this system would be used in June and again in October, with a public entity compensating GFID members for the pumping cost in exchange for a 10 cfs streamflow improvement for 21 miles of the river. The study also looked at this functioning as a pump loop for 10 cfs of the 4 Lowden Ditches summer water rights during the summer months after GFID’s junior water rights are cut off. There would not be a need for any additional booster pumps for getting the water from Gardena Hill down to the Diversion for the 4 Lowden Ditches.

## Source of Produced Water
- Existing Water Right
- Groundwater
- 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:
   10 cfs for one month during the Spring up until July 15, and one month in the Fall, likely October, from Burlingame Diversion past McDonald Bridge to the Touchet River confluence, a total of 21 miles. Timing of use can be adjusted based on migratory needs.
   1200 AF over a total of two months. 10 cfs would then be available during July and August for another 1200 AF from Lowden Diversion down to just past the Touchet River confluence, improving flows in the McDonald Bridge reach, a total of 15 miles. 2400 AF if run at 10 cfs for 4 months.

b. **Timeframe(s):**
   Spring Summer Fall

c. **Stream Reach Location(s):**
   Burlingame Diversion/Beet Road/McDonald Road/ Touchet River Confluence

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 more design work needed

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?
   Protection may be specified in Local Water Plan. Protection based on seniority.
   □ b. **NO** or  X c. **UNKNOWN** – Results and implementation of flow protection study likely necessary to ensure flow protection.
   Protection based on seniority.

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

a. **Project Development and Design:**
   $15,000 (study)

b. **Project Construction:**
   Estimated $510,000 for fish screens, pump station, 7600 feet of 21” PVC pipe, and installation.

c. **Construction cost per AF and/or CFS:**
   $51,000/cfs, $212.50/AF, $4.25/AF over 50 years

d. **Project Annual O&M:**
   $85,200 Per year, $35.50/ AF over 50 years
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<th><strong>9. Secured Costs:</strong> Has any funding been secured in the past or currently and what is source?</th>
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<td>$15,000 secured. This paid for the completed conceptual design and report with costings.</td>
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<th><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,)</th>
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<td>Would also provide seasonal recreation and wildlife benefits.</td>
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<th><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)</th>
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<td>Accounting for riverbed seepage losses.</td>
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<th><strong>12. Estimated Time Frame to Implement Project?</strong></th>
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<td>1-2 years. Need to get agreements and Implementation funding to build infrastructure.</td>
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