

UPPER COLORADO RIVER ENDANGERED FISH RECOVERY PROGRAM

FY 2020 ANNUAL REPORT

PROJECT: 171

Project Title

Protecting flows in the Price River, Utah

Bureau of Reclamation Agreement Number:

N/A

Project/Grant Period:

N/A

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Abstract:

The proposed project will reconstruct an off-river reservoir to allow for the strategic release of stored water to supplement flows to the Price River for endangered species fish habitat, as well as aid agriculture demands. Associated upgrades to the Carbon Canal will reduce the risk of flooding, and an innovative water management agreement will direct approximately 1,200 AF/yr to Olsen Reservoir. Investments in future water infrastructure improvements that create additional “saved” water could be used for environmental benefits. A contractual water bank may help to shepherd water downstream to the Woodside gauge.

Study Schedule:

Ongoing; see forward-looking timelines below under ‘2020 Accomplishments’.

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Relationship to RIPRAP:

Green River: I. C.3. Work with State of Utah and local water users to provide and enhance summer base flow conditions (either increase average daily flow thresholds or increase the frequency that those flows occur) in the lower Price River that are conducive to pikeminnow use. For example, consider securing an emergency pool of water to avoid periods of dewatering in the lower Price River.

Accomplishment of FY 2020 Tasks and Deliverables, Discussion of Initial Findings and Shortcomings:

Proposed Action

The Utah Division of Wildlife Resources (UDWR) has a near-term goal of guaranteeing delivery of water from Olsen Reservoir to the Price River, maintaining a base flow that prevents desiccation of that river. This includes working with two to three water users below Olsen Reservoir to ensure that released water would reach the Price River. One water user sold his property and water rights to The Nature Conservancy (TNC), who in turn are working to either donate the water to the UDWR to hold as instream flow rights or place them in a water bank that can be leased by UDWR for instream purposes

UDWR, in partnership with other interests including TNC is seeking funding to secure tailwater from the Carbon Canal Company (CCC) that would be delivered to the reservoir. Delivery of water in the spring and fall would fill much of the wetland and provide valuable nesting habitat for waterfowl and other marsh birds.

This pool of water could be released periodically during dry periods (July-Sept) to maintain flows, improve water quality, and ultimately prevent Price River fish kills that have occurred in the past. The reservoir is also being investigated as a location for roundtail chub (*Gila robusta*) propagation.

Carbon Canal upgrades (replacement of a water overflow structure, installation of canal flow measurement) and a water management agreement to store canal carrier water would allow for increased inflow to the reservoir. An Environmental Assessment (EA) is underway to determine the preferred alternative for water conveyance from CCC to Olsen Reservoir, location of dam, and conveyance from Olsen to the Price River, as well system efficiencies (e.g. canal piping). Concurrently, alternatives to supply agricultural water to downstream users are being discussed which include on-farm upgrades, delivery agreements and water banking. TNC is negotiating to purchase a second farm, just upstream of the Woodside gauge. If successful, TNC would acquire an additional 890 AF of water that could be used for environmental flows and enhancement of wetland habitat.

Concurrently, an Environmental Impact Statement (EIS) is underway upstream to possibly develop a reservoir on the Garley Wash tributary to the Price River near Price, Utah, and make associated improvements to the existing irrigation system, including piping and pressurizing the currently open and unlined water delivery canals. An anticipated potential benefit of these improvements would be substantial water savings, a portion of which could be delivered under a long-term agreement to Olsen Reservoir (e.g., 600 acre-feet/year) for purposes of controlled release when needed to support in-stream Price River flows. TNC is working with legal counsel

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to determine suitability of water savings for environmental flows.

Accomplishments in FY2020

CCC Agreement

Pellentesque habitant morbi tristique senectus In August TNC and the Carbon Canal Company (CCC) signed a Water Infrastructure and Supply Agreement (the Agreement). The Agreement directs the CCC to manage their system in a way that delivers carrier water to Olsen Reservoir in exchange for funding for system efficiencies such as head gates and measuring devices to increase environmental flows. TNC will pay \$10/AF to CCC for water delivered to Olsen Reservoir.

NEPA

Funding under NRCS's Watershed Protection and Flood Prevention Act (PL-566) was secured to complete an Environmental Assessment of the Olsen Reservoir project and watershed plan. Jones and DeMille Engineering was the contractor selected to develop the EA. We anticipate that the initial EA draft will be ready for sponsor and state NRCS review January/February 2021, and the EA will be finalized after national NRCS review between June and August 2021.

Milestones Accomplished

- Stakeholder meetings (public and agency) were held in the summer. Follow-up land owner meetings held through the summer of 2020, and are ongoing
- Engineering completed to 95%, including a detailed water balance analysis, geotechnical field work and analysis, hydrologic and hydraulic analysis, sedimentation analysis, 30% design of project components, etc.
- Economics analysis at 50%
- Project alternatives developed and finalized, except for one alternative that considers a downstream water user
- Project maps and exhibits are at a 90% draft
- Plan-EA is at a 75% draft

Additional noteworthy observations:

Endangered and Imperiled Fish Use.

In January 2017, the USGS Utah Cooperative Fish and Wildlife Research Unit and the Department of Watershed Science and Ecology Center at Utah State University published the results of a multi-year study, "Tributary habitat use of endangered and imperiled fishes in the Price River, Utah" (Budy et al.2017). This effort was funded under U.S. Bureau of Reclamation Grant Number R11AC40021. Overall project goals were to (1) investigate and document tributary (Price River) habitat use by Colorado pikeminnow, (2) explore movement patterns and habitat use of the "three species" within the Price River, while obtaining ancillary information on population abundance and distribution, and (3) characterize and quantify fish habitat within the Price River to guide restoration planning. Among the report findings were the detection of

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“several magnitudes more native fish use and movement than anticipated”, and “more than twice the number of pikeminnow utilizing the Price River relative to the San Rafael River.” Dr. Budy and her associates have subsequently developed a draft *Restoration and Monitoring Plan* for the lower Price River, identifying priority areas for restoration activities, and identifying activities that may best accomplish restoration goals.

Price Watershed Enhancement Proposal.

The Price Municipal Corporation submitted has acquired funds from the NRCS Watershed Protection and Flood Prevention Program (PL-566) for planning and preliminary design of the “Price River Watershed Restoration and Enhancement Project.” Activities proposed by the Corporation revolve around plans to construct a new reservoir at Garley Wash, replace open irrigation canals with pressurized pipelines, and upgrade to more efficient irrigation systems. Among the potential benefits are removal of diversion structures in the Price River that inhibit fish passage, removal of invasive plant species from the riparian corridor, and provision of higher and more consistent base flows in the late summer months that could significantly benefit native fishes, including Colorado pikeminnow. While the Program Director's Office and the FWS Utah Ecological Services Office take no position regarding the Corporation's proposed reservoir, we do wish to be in a position to assist in developing plans to control any non-native fish that may be introduced into that reservoir, and also assist with the development of strategies that could significantly enhance late summer base flows in the lower Price River, should this reservoir project move forward.

Water Banking Legislation

In 2020 the Utah passed water banking legislation, The Act is a 10-year pilot project that promotes the creation of voluntary local water banks to coordinate the temporary leasing and optimization of local water rights including for instream benefit. The Price River has been selected as one of three pilot projects to test the feasibility of water banking.

Recommendations:

The Recovery Program supports the efforts by UDWR, TNC, the Walton Family Foundation, Utah Water Users, the Price River Enhancement Committee, NRCS, USGS, USU, USFWS, and others to improve and maintain summer base flow conditions that support Colorado pikeminnow seasonal use of the lower Price River, and to remove three fish barriers. We recommend that the Program continue to maintain contact with those organizations and their efforts as described for Project FR-171 in the 2020-21 Program Work.

Project Status:

Based on discussions with the Carbon Canal Company and initial engineering assessment, project proponents have selected the option to install a 15” pipe above terminal pond for the Carbon Canal; this pipe will run approximately 6,000 feet to an ephemeral wash that flows into Olsen Reservoir. With this pipe in place, there will be an ability to route excess carrier water from the canal to Olsen Reservoir.

In August TNC and the Carbon Canal Company (CCC) signed a Water Infrastructure and Supply Agreement (the Agreement). The Agreement directs the CCC to manage their system in a way that

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delivers carrier water to Olsen Reservoir in exchange for funding for system efficiencies such as head gates and measuring devices to increase environmental flows. TNC will pay \$10/AF to CCC for water delivered to Olsen Reservoir. CCC estimates they can deliver approximately 1,000 to 2,500 AF annually to Olsen Reservoir.

Significant progress has been made establishing a roundtail chub propagation pond in Emery County. 58 roundtail chub from the upper San Rafael River are now in the pond. The intention is to use progeny from this source to populate Olsen Reservoir and in the future use the water releases from the reservoir to introduce roundtail to the Price River. Roundtail Chub have not been found in the Price River since the late 1970's.

TNC is in the process of negotiating a second water transaction to acquire 500-900AF of water that could also be used to meet base flow targets.

FY 2020 Budget Status

Funds UCREFRP Funds Provided: \$0

UCREFRP Funds Expended: \$0

Difference: --

Signed:

<u>Dan Keller</u>	<u>12/14/2020</u>
Principal Investigator	Date

<u>Don Anderson</u>	<u>12/14/2020</u>
	Date