Provo River Delta Restoration Project
PUBLIC SCOPING MEETING HANDOUT

WELCOME!

Welcome to the public scoping meeting for the Provo River Delta Restoration Project. The Utah Reclamation Mitigation and Conservation Commission, the U.S. Department of the Interior's Central Utah Project Completion Act Office, and the Central Utah Water Conservancy District, in partnership with the June Sucker Recovery Implementation Program (JSRIP), are preparing an Environmental Impact Statement (EIS) for public review on a proposed stream channel and delta restoration project for the lower Provo River and its interface with Utah Lake. The JSRIP is a multi-agency cooperative effort intended to coordinate and facilitate recovery of the June sucker. The EIS will be prepared under the provisions of the National Environmental Policy Act (42 U.S. C. 4321 et seq.) and the Council on Environmental Quality regulations (40 CFR 1500). The map below shows the proposed study area.





BACKGROUND



In 1986 the June sucker (*Chasmistes liorus*) was listed as an endangered species by the U.S. Fish and Wildlife Service. The June Sucker Recovery Plan (Recovery Plan), a requirement of the Endangered Species Act, was finalized in 1999. June sucker are native to and occur naturally only in the Utah Lake system. The lower Provo River, representing the only known spawning location for the species in its native habitat, was designated as critical habitat at the time of listing. Habitat alteration, presence of nonnative fishes, and water development were identified as major threats to the June sucker. By 1998 the wild June sucker population was estimated at only approximately 300 individuals.

Monitoring indicates that June sucker are recruitment limited, meaning that young June sucker are not surviving to the adult stage. Fish reared in captivity to several inches in length and introduced into Utah Lake are capable of surviving to adulthood. Some June sucker that were stocked into Utah Lake have survived and now enter the Provo River along with wild fish to spawn in the spring and early summer. Recovery measures to acquire and provide adequate stream flows in lower Provo River have allowed June sucker to spawn successfully in most years, as indicated by the presence of larval fish collected in standard monitoring efforts. However, fish older than 20 days, the age at which young June sucker have consumed their yolk sac and must begin actively feeding, have not been found.

It is believed that first-year fish do not survive the larval stage due to the inadequacy of existing habitat in the lower Provo River and Utah Lake, which is compounded by predation by nonnative fishes. About 7 to 10 days after spawning, June sucker eggs hatch. Seven to ten days after hatching, larvae swim up out of the cobble substrate and drift downstream. Historically, larvae would drift into a shallow, warm, complex wetland habitat at the mouth of the Provo River. Dredging and channelization eliminated the historic habitat of the Provo River delta at Utah Lake. The river now exists in a single, homogenous U-shaped channel unsuitable for young June sucker survival. Under current conditions, larvae cannot reach Utah Lake in most years. Instead, as they drift downstream they come in contact with the slack-water interface created by Utah Lake, which causes water to backup into the lower Provo River. There they are either eaten by non-native predators, or starve and die.

In 1999 the joint lead agencies completed the Diamond Fork System 1999 Final Supplement to the 1984 Diamond Fork Power System Final Environmental Impact Statement, FEIS 99-25. The joint lead agencies subsequently issued Records of Decision (RODs) that included environmental commitments " . . . [to] participate in the development of a Recovery Implementation Program for June Sucker," and that . . . "Any future development of the Bonneville Unit of CUP (Cental Utah Project) will be contingent on the RIP [Recovery Implementation Program] making 'sufficient progress' towards recovery of June sucker." Those commitments were reaffirmed in 2004 through RODs by the joint lead agencies on the Utah Lake Drainage Basin Water Delivery System Final Environmental Impact Statement, FES 04-41. The June Sucker Recovery Implementation Program was established in 2002. The joint lead agencies for this proposed EIS are among the many agencies and organizations participating in the recovery of June sucker.

WHAT IS THE NEED FOR THE PROJECT?

- To restore, enhance or create habitat conditions in the lower Provo River and its interface with Utah Lake (the delta) that are essential for spawning, hatching, larval transport, survival, rearing and recruitment of June sucker to the adult stage.

WHAT ARE THE PURPOSES OF THE PROJECT?

- To preserve and improve fish, wildlife, riparian and wetland habitats at the lower Provo River and its interface with Utah Lake.
- To expedite recovery of the endangered June sucker by re-establishing essential June sucker habitat through restoring the lower Provo River ecosystem, at the Provo River/Utah Lake interface, to a more natural condition.
- To provide recreational improvements and opportunities associated with the habitat restoration project.
- To provide for continued development of the Central Utah Project (CUP).

WHAT IS SUITABLE JUNE SUCKER SPAWNING HABITAT?

- Access to spawning habitat in the Provo River from Utah Lake is provided (i.e., no barriers).
- Staging habitat is provided for adult June sucker in and around the mouth of the Provo River.
- Low-velocity, deep-pool resting habitat is provided for adult June sucker near spawning areas.
- Large deposits of clean, coarse gravel and small cobble substrate in run and riffle habitats are provided for adult June sucker to spawn.

WHAT IS SUITABLE JUNE SUCKER REARING HABITAT?

- June sucker eggs hatch and the emergent larvae drift downstream in the river.
- Larvae are sometimes found in the river, primarily in low-velocity, pool-type habitats.
- June sucker larvae require shallow, vegetated habitat with abundance of small zooplankton food.
- A combination of emergent and submergent vegetation types would likely provide available food supplies for young fish, lateral water temperature gradients, and escape cover from predators.

WHAT ARE THE POTENTIAL ENVIRONMENTAL IMPACT ISSUES?

- Public Access
- Flood Control
- Recreational Opportunities
- Nuisance Species Control
- Hydrological Changes
- Conflicts with Local Planning
- Land Acquisition
- Agriculture
- Others?



CONCEPTUAL PLANNING APPROACH

The JSRIP has identified that restoring, creating, and enhancing the ecological character of the historic Provo River delta and Utah Lake interface are the means to achieve the need and purposes for this project. This would be accomplished by developing a new river channel that will provide suitable instream habitat and sufficient gradient to transport young fish to Utah Lake. A new bay or delta would be developed at Utah Lake, with depths and vegetative cover suitable for June sucker rearing and recruitment. Preliminary investigations indicate the most feasible approach would be to create these conditions north of the existing lower Provo River channel, west of 3100 West Street.

Although alternative concepts for the channel and delta restoration project would be similar in many ways, there could be significant differences due to land acquisition needs, impacts on existing development, and local planning efforts. The following will be considered when alternative concepts are developed to meet the need and purposes of this project. Where equal or nearly equally viable options exist, alternative concepts should do the following:

- emphasize low operation and maintenance (O&M) costs
- minimize impacts to existing home and business owners
- avoid or minimize conflicts with existing or planned transportation infrastructure
- adhere to desires of the local community
- minimize adverse impacts on existing recreational opportunities

WE WANT YOUR INPUT!



You can get involved in this project by letting us know your thoughts regarding the proposed project, suggesting other ideas or solutions to solving this problem, and/or identifying your concerns or questions about the project. This will help us plan the best solution possible to solve the June sucker recruitment problem in Utah Lake. Please give us your comments in writing using the comment form provided. Alternatively, submit comments by e-mail to urmcc@ usbr.gov or in writing to Utah Reclamation Mitigation and Conservation Commission, 230 South 500 East, Suite 230, Salt Lake City, Utah, 84102-2045. **All comments must be received by April 30, 2010.** For more information on the JSRIP, please visit www.juneSuckerRecovery.org.