



- + **RECOVERING** the June Sucker
- + **RESTORING** the Natural Ecosystem
- + **IMPROVING** Recreational Experiences

Autumn 2017

ABOUT THE PROJECT

The purpose of recreating the Provo River's delta is to help recover the endangered June sucker, and in doing so, restore the area's natural ecosystem, provide and improve recreational experiences in the new delta area and along the existing lower Provo River, and help ensure important water projects linked to June sucker recovery stay on track. The local community will also benefit from the outdoor recreation opportunities and protected open space, which are considered key ingredients to healthy communities—they contribute to a high quality of life, and attract and sustain businesses and families.

*See inside for more information
about the project elements.*

IN THIS ISSUE

This newsletter is to provide an update on the Provo River Delta Restoration Project progress since last spring. The following project aspects are highlighted in this newsletter:

- Project Design Update
- Land Acquisition Update
- New Project Video
- Bird Monitoring Study
- Project Elements
- JSRIP News
- Provo River West Trailhead



FOR MORE INFORMATION

This newsletter is to update you on project progress. For more background or detailed project information, visit our website: provoriverdelta.us

PROJECT DESIGN UPDATE

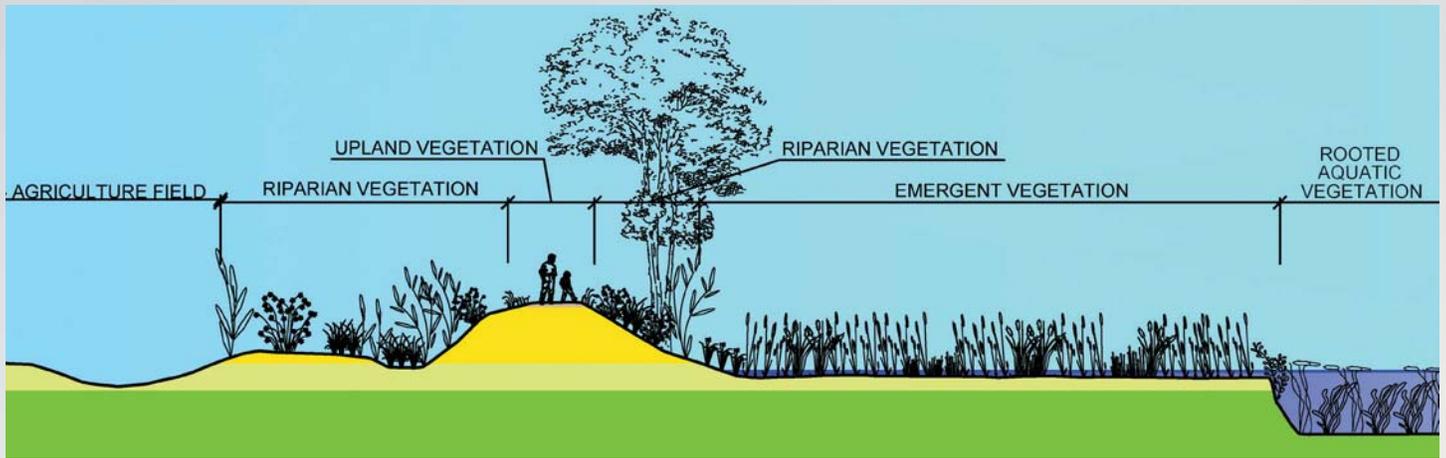


Illustration of expected vegetation communities within the restored delta area. Upland species will establish on the berm, emergent plants like bulrush will grow in the shallower parts of the delta, and rooted aquatic species will be present in the deeper delta ponds.

Work continues on engineering designs for a berm that will surround the new delta area, and for a small downstream dam and water diversion features on the existing lower Provo River. These draft designs and cost estimates are scheduled to be completed later this fall.

Draft engineering designs are also being prepared for a portion of Boat Harbor Drive that will be realigned to accommodate the new Provo River channel and connect to Provo City's planned Lakeview Parkway.

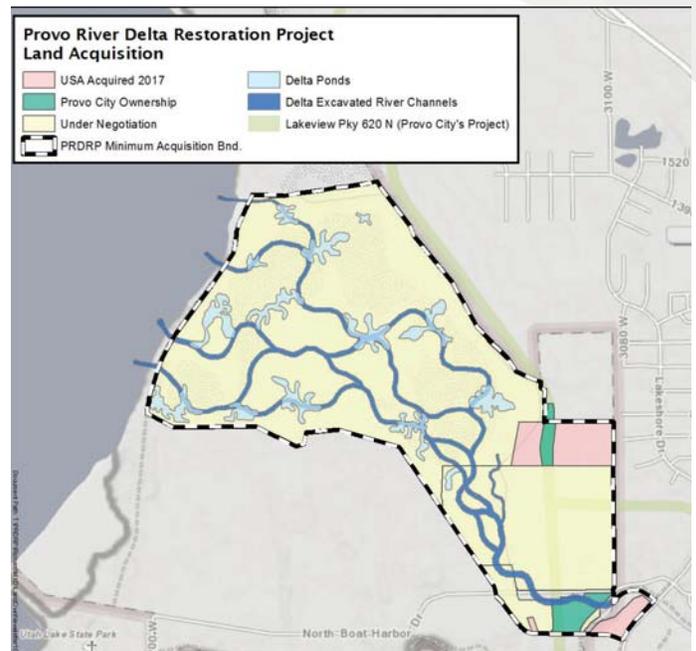
Designs for the new river channel and delta area continue to progress. A hydraulic model has been developed to assess and predict water inundation depths under different lake and river level scenarios. Model runs are also being used to inform a revegetation plan being prepared for the delta. (see illustration above)

Designers have met with agency biologists to get input on design elements to maximize the amount of larval June sucker rearing habitat, and to consider long-term monitoring needs. Coordination with Federal Aviation Administration, USDA Wildlife Services, and Provo Airport on design strategies to help reduce bird-aircraft strike risk will be ongoing this fall.

Final designs will be completed once all land needed for the project is acquired. We anticipate a 3-4 year construction period, which would begin no sooner than summer 2019.

LAND ACQUISITION UPDATE

Acquisition of property needed for the Provo River Delta Project is proceeding. Land needed for the project has been acquired from three of the five landowners. Offers have been presented to the two remaining property owners and negotiations are underway.



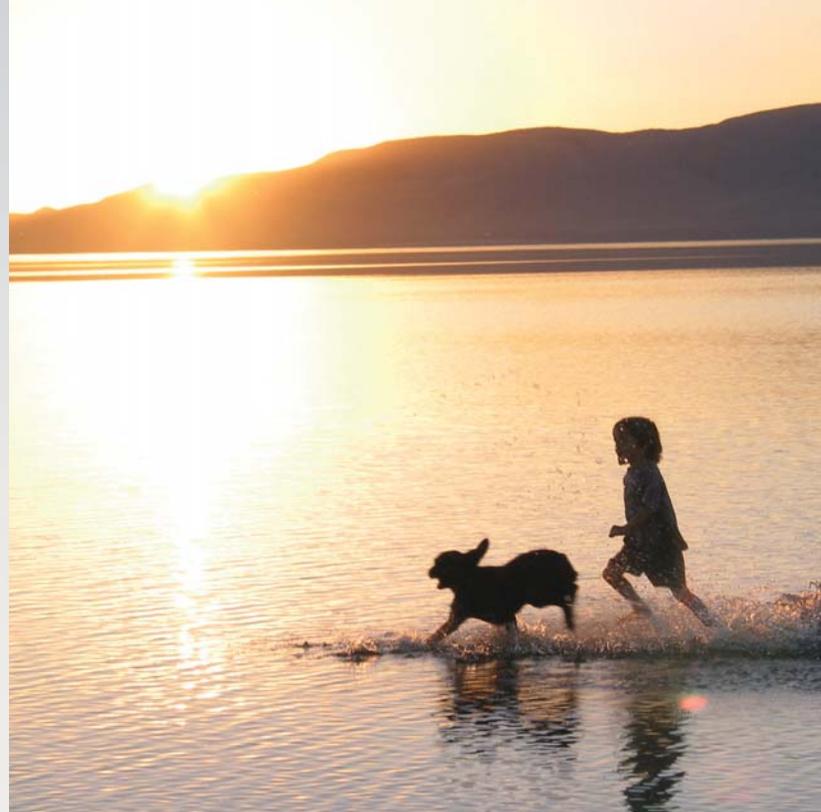
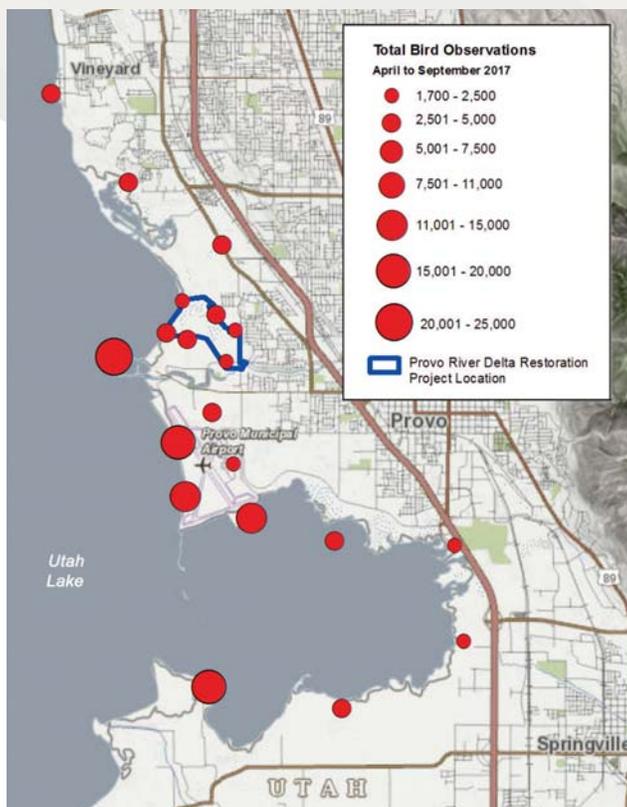
VIDEO RELEASE

A new informational video about the Provo River Delta Restoration Project is available! To watch the video, go to our website: provoriverdelta.us

BIRD MONITORING AND MOVEMENT STUDY

In our last newsletter we described our Bird Monitoring and Movement Study, which was just getting underway. The purpose of the study is to gather baseline data on the abundance and movement patterns of bird species utilizing habitats in and around the project area and Provo Airport. The study plan includes 20 different monitoring sites, each of which are monitored three times per week (once in the morning, once in the afternoon and once in the evening) for a period of 10 minutes each visit. The first six months of data are now available—can you guess what the top five bird species we observed are? The answer along with other results can be found on our website www.ProvoRiverDelta.us.

This study will continue up to and during project construction, and for a period after construction is completed. The graphic below briefly summarizes overall results from the first six months. Getting to each of the 20 sites 3 times a week has been a significant effort. We would like to recognize Brigham Young University and their highly skilled and dedicated crew of students who have been helping us collect this data. If you happen to see them along the road, iPad in hand and eyes to the sky, give them a thumbs up.



PROJECT ELEMENTS:

DELTA CREATION

Most of the current lower Provo River's flow will be diverted north of its current channel into a constructed system of braided waterways and wetlands flowing into Utah Lake. Skipper Bay dike will be lowered along the project area so a small portion of Utah Lake can expand eastward to more closely approach its historic shoreline. Trails and two observation towers will be constructed in this area so the public can enjoy the beauty of Utah Lake and the restored delta.

LOWER PROVO RIVER CHANNEL ENHANCEMENT

The existing lower Provo River channel will continue to receive stream flows and a small dam will be constructed at its downstream end to maintain constant water elevation year-round. Access to this channel will be made easier and safer. Trailheads with parking and non-motorized boat access will be constructed. An aeration system will be installed to improve water quality, aesthetics and odor.

PROVO RIVER WEST TRAILHEAD COOPERATIVE PARTNERSHIP



We have finalized an agreement with Utah Lake State Park to contribute funding towards the design and construction of an improved trailhead parking area just east of the State Park entrance. Project partners also include Utah County and the Utah Lake Commission, and designs are being developed in cooperation with Provo City and the Utah Division of Forestry Fire and State Lands. The U.S. Bureau of Reclamation has been assisting with field data collection. Initial clearing and grubbing work at the site is scheduled this fall. The new trailhead will be free to the public and amenities will include parking, restrooms, and trail and river access.

OTHER JUNE SUCKER RECOVERY IMPLEMENTATION PROGRAM ACTIVITIES

June Sucker 2017 Spawning Data Collected

In 2017, Utah Division of Wildlife Resources biologists operated and maintained PIT tag readers on four Utah Lake tributaries: the Provo River, Hobble Creek, American Fork and Spanish Fork River. Data was collected on the four tributaries from March/April through June/July of this year. More than 1,500 individual fish were detected by their PIT tags in 2017, with 1,148 of those detected in the Provo River.

PIT, passive integrated transponder tags, or 'microchips,' allow researchers to safely mark and later identify animals. In fish, the tag is detected when the fish moves over or near a PIT tag reader antenna, eliminating the need to handle the fish. In almost all cases the tag will stay with the animal for its entire life cycle. The small size of PIT tags virtually eliminates negative impact on animals with little or no influence on growth-rate, behavior, health, or predator susceptibility.

Utah Lake Carp Removal Effort

In 2002, a study on Utah Lake nonnative species effects on June sucker indicated that carp, the dominant fish species in the lake, had the greatest impact on June sucker's in-lake habitat. The study recommended a carp removal program to reverse this trend. Utah Lake carp removal began in 2010 to also increase Utah Lake's overall ecosystem health.

From 2012 to 2017, Utah State University researchers conducted a large scale sampling effort during the autumn season to determine how the carp population was responding to the removal program. The study found that carp density, weight and length declined during the study period. Carp density was significantly lower in 2017 than in any prior year.



For data and study results, or more information on these efforts, contact Mike Mills at Mikem@cuwcd.com or visit the June Sucker Recovery Implementation Program's website: junesuckerrecovery.org