



# PROVO RIVER DELTA

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



Autumn 2018

## ABOUT THE PROJECT

The purpose of restoring the Provo River's delta is to help recover the endangered June sucker, and in doing so, restore a natural ecosystem and improve recreational experiences in the lower Provo River/Utah Lake area. The project will benefit the State of Utah by ensuring important water delivery projects linked to June sucker recovery stay on track. The local community will benefit from enhanced outdoor recreation opportunities and protected open space, which contribute to a high quality of life, and attract and sustain businesses and families.

The project involves diverting most of the last reach of lower Provo River's flow north of its current location into a constructed system of braided waterways and wetlands that connect with Utah Lake. This will create habitat critical to the survival of the young June sucker hatched in the upstream portions of the lower Provo River. The old channel will continue to receive stream flow and will maintain a constant water elevation year-round. An aeration system will be installed to improve water quality, aesthetics and odor. Access to this channel will be made easier and safer and trailheads with parking and non-motorized boat access will be constructed. Additional trails and two observation towers will be constructed around the new delta area so the public can enjoy the beauty of Utah Lake and the restored delta.

### 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
- Recreation Improvements
- June Sucker Recovery News
- Mosquito Monitoring
- Seen Around Town
- Land Acquisition Update
- Bird Monitoring Study



### FOR MORE INFORMATION

This newsletter is to update you on project progress. For more background and detailed information, and to view our project video, visit our website: [provoriverdelta.us](http://provoriverdelta.us)

# PROJECT DESIGN UPDATE



*Drilling a 100-foot-deep bore hole as part of geotechnical investigations near the site of the small downstream dam.*

Since last spring, design efforts have focused primarily on collecting field data that will be used to refine final designs and inform construction sequencing plans. Details about the types of field data collected are provided below. A short video of fieldwork efforts can be viewed at our website: [www.provriverdelta.us](http://www.provriverdelta.us)

Although most of the delta project area is free of developed infrastructure that would be impacted by the project, there is a buried natural gas pipeline that traverses south to north across the project area. In July, crews carefully excavated test holes at several points along the pipeline to determine its burial depth. Based on this, we learned the gas line is shallowly buried and will need to be relocated deeper underground to allow safe excavation of planned delta channels and ponds. We are working on an agreement with Dominion Energy to initiate design work for the gas line relocation effort, which is expected to occur in 2019.

Other field work efforts have included geotechnical investigations and soil testing to get a better understanding of soil types and textures present in the project area. The geotechnical work will determine soil properties such as compaction and shear strength, which are important considerations when designing the berm, small downstream dam, and diversion structure features of the delta project. Other soil information will be useful for refining revegetation and streambank designs.

Final project designs will be completed once field data has been analyzed and all land needed for the project is acquired.

## RECREATION IMPROVEMENTS

### Provo River Delta Gateway Park

Design work is underway for the new trailhead and park that will be built on the south side of Provo River near Lakeshore Drive. With funding provided through the Provo River Delta Project, Provo City Parks and Recreation Department hired Blu Line Designs to prepare designs and construction documents for the park. Blu Line has begun developing initial concept sketches, and design input meetings will be scheduled this fall and winter. The Delta Gateway Park will provide access to existing and planned trails and will include horse trailer parking, interpretive exhibits, and play areas, as well as other amenities.



## JUNE SUCKER RECOVERY NEWS

### JSRIP Interpretive Master Plan

As part of efforts to expand outreach and education related to June sucker recovery, the June Sucker Recovery Implementation Program (JSRIP) is preparing an interpretive master plan to guide messaging and identify locations for interpretive exhibits. A draft of the plan has been prepared. Next steps include finalizing the plan and preparing detailed designs and content for specific interpretive exhibits. In 2019, the JSRIP plans to install exhibits on Hobbie Creek, which is used by June sucker as a secondary spawning location.



*Existing interpretive sign at lower Hobbie Creek restoration area.*

# MOSQUITOS IN THE DELTA PROJECT AREA

To address concerns that the Provo River Delta Project may increase mosquito numbers and the risk of West Nile Virus (WNV), we began funding two mosquito monitoring sites within the project area in 2013. These sites were added to the 32 adult mosquito monitoring sites maintained by Utah County Health Department Mosquito Abatement. Adult mosquito monitoring is conducted to monitor mosquito numbers, species, and presence of disease, the results of which are used to determine where and when to conduct treatment. CO2 traps are set out weekly, the mosquitos identified, counted and tested for WNV activity.



**CO2 Mosquito Trap.** Photo courtesy Utah Co. Health Mosquito Abatement.

When trapping data indicates increasing numbers and threat of WNV, or the increasing presence of vector mosquitos, ground Ultra Low Volume (ULV) fogging is conducted. This treatment is used along designated routes where vehicle access is available. When vector mosquito numbers reach a predetermined

threshold, or WNV has been detected in mosquito samples, the decision to air spray is made by Utah County mosquito abatement staff and the Health Department Director. Aerial spraying can treat areas unreachable on the ground. A mosquito is considered a vector if she (only female mosquitos take a blood meal) can become infected with **and** transmit a pathogen (such as a virus) during blood feeding. *Source: Utah County Mosquito Abatement website.*

This year, Utah County Mosquito Abatement has conducted mosquito control in the Delta Project area by ULV fogging on the ground, and aerial spraying. These treatments are conducted in the evenings, typically from 9 pm to 1 am, when mosquitos are active.

The Center for Disease Control and Prevention recommends steps to prevent mosquito bites and reduce your risk of disease: Use insect repellent; wear long sleeved shirts and long pants when you are outside. More information is available on their website:

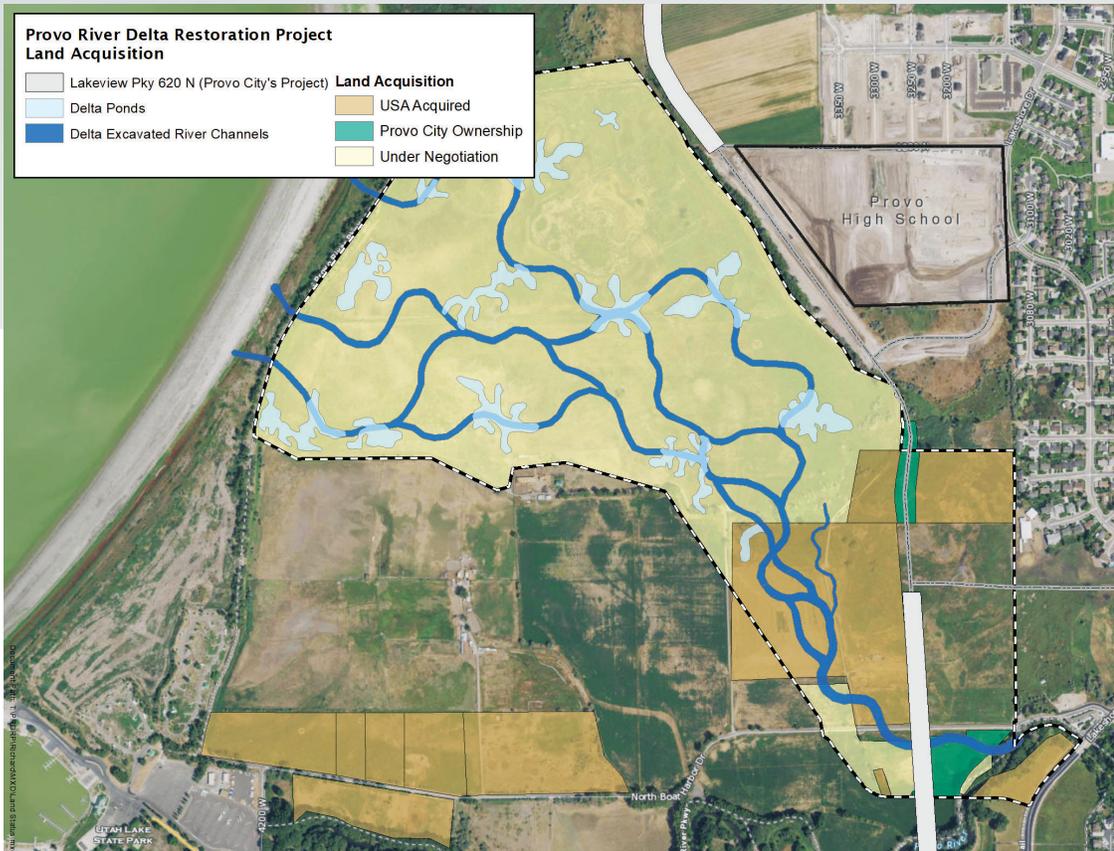
<https://www.cdc.gov/westnile/prevention/index.html>

## SEEN AROUND TOWN

You may have seen Provo River Delta project staff out and about in the local community over the past several months. We've been involved in outreach and education efforts in cooperation with the Utah Lake Commission's Utah Lake Festival and Fourth Grade Field trips, the Provo River Watershed Council's Provo River Day, and BYU classes. If you'd like our staff to host a booth or make a presentation at your next event, let us know!



# LAND ACQUISITION UPDATE



Acquisition of property needed for the Provo River Delta Project is proceeding. Land has been acquired from four of the five landowners needed. We're currently in negotiations to acquire the last and largest ownership. Supplemental land was also acquired in 2017, adjacent to the west end of Boat Harbor Drive.

## BIRD MONITORING AND MOVEMENT STUDY

We are well into our second year of monitoring avian abundance and movement at twenty locations in and around the Provo River Delta project area. We began this study in April 2017, with fantastic help from BYU student monitors under supervision of a certified airport wildlife biologist, and it will continue through and after delta project completion. A summary of first year monitoring data is available on our project website [ProvoRiverDelta.us](http://ProvoRiverDelta.us). We are now getting an early look at year-over-year changes and, so far, are seeing similar abundance and species richness, as seen in the charts below:

**YEAR 1 vs. YEAR 2**  
BIRD OBSERVATIONS COMPARISON



**YEAR 1 vs. YEAR 2**  
SPECIES RICHNESS COMPARISON

