



PROVO RIVER



Autumn 2023

ENTERING THE FINAL YEAR

Just as our days are getting shorter, so is the timeline to complete the delta restoration project as we enter its final year. With the Provo River now flowing into its new delta, our final push is focused on design and construction of recreation features and work on the original Provo River channel. One of this summer's big accomplishments was getting aeration systems up and running on the original channel in the area between Lakeview Parkway and Lakeside RV campground. Preliminary pilot-testing results show the systems have improved dissolved oxygen conditions. Monitoring will continue and will inform decisions about possible modifications or additions to aeration for next year.

Another 2023 accomplishment was “downsizing” the upstream portion of the original channel between the diversion and Lakeview Parkway. This work was done to improve habitat and aesthetics and better match a reduced flow regime. Crews continue to work to maintain and modify temporary pipes to consistently deliver the minimum flow commitment of 10 cfs. The diversion structure installed at the upstream end of the original channel - to control flows - and the small dam constructed at the downstream end - to maintain a water level for flat-water recreation and fishery management - are currently in preliminary form. “Settlement”

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FOR MORE INFORMATION

This newsletter is to update you on project progress.

For more information, visit:

provoriverdelta.us

MONITORING THE DELTA FOR SUCCESS

As the Provo River Delta project nears completion, a great amount of monitoring is being done to document its successes, understand how its habitat evolves through time, and inform future management.

Of primary importance of course is how the Delta will benefit June sucker. But the Delta is also being monitored for nonnative fish so their effects on young June sucker can be tracked and managed as conditions change. In conjunction with fisheries monitoring, researchers from Utah State University are monitoring aquatic vegetation to better understand what plants are present, their growth patterns, and how June sucker use this vegetation to evade predation by nonnative fish.

To better understand how new Delta habitat will influence avian species in the immediate area and in the vicinity of Provo City Airport, we initiated a bird monitoring and movement study in 2017. Through early 2023, over 180 different bird species had been identified in the Delta area. Other work at the Delta includes mosquito monitoring by Utah County and water quality sampling by our conservation partners to understand how water quality varies and interacts among the Provo River, Delta, and Utah Lake. Lastly, botanists from Utah State University are monitoring the Delta s riparian mounds for two important plant species -- the bog violet and the Ute ladies tresses to better understand how the Delta can provide habitat for these spectacular and rare species.

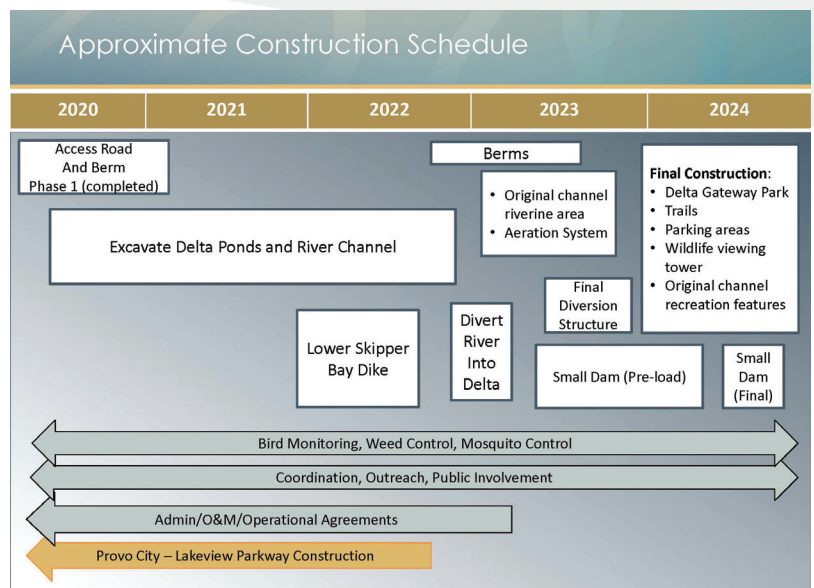


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ENTERING THE FINAL YEAR

needs to occur to stabilize the foundation areas and improve soil bearing capacity before these structures can be finalized in late 2024.

We also are planning and designing recreation access features for non-motorized boating and fishing along the original channel. In addition, a new trail being constructed in the delta area will connect to the Provo River Parkway trail, creating a 3.8-mile loop. Delta Gateway Park - a family-friendly park featuring a nature-themed playground - will be constructed in 2024 in partnership with Provo City Parks. While we are still having significant issues with trespass into the project construction area, we appreciate the public's patience with this long, multi-year restoration project and look forward to celebrating at a grand opening event in late 2024.



THE JUNE SUCKER'S DELTA JOURNEY

With the Provo River diverted into the Delta in early March, fish habitat in the area began to take shape. Inquiring minds wanted to know if June sucker would be able to find their way into the new Delta and complete spawning and production of young June sucker. With a resounding yes, June sucker found their way into the Delta, navigated upstream to spawn, and laid eggs which then hatched into larvae that ultimately drifted downstream into Delta habitat. These sheltered larvae have grown into juvenile June sucker and are now being found in limited numbers in the Delta.

Utah Division of Wildlife Resources (UDWR) detected the first tagged June sucker moving into the Delta on April 12th, and through June 1st more than 6,400 tagged individuals were seen moving through the Delta to upstream spawning habitat.

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These tagged June sucker represented only a fraction of the tens-of-thousands of adults known to have moved through the area for spawning. As larvae drifted downstream and settled into the Delta, monitoring throughout July documented hundreds of larval June sucker via capture in light traps and by observation of groups of a thousand or more near submerged vegetation. Based on these results, we know larval June sucker drifted downstream into the Provo River Delta to find protective habitat where they could grow and mature.

In August, monitoring focused on finding juvenile June sucker. Early results documented a small number of 1-to-2-inch juveniles in the Provo River Delta. Even larger numbers of juvenile June sucker were observed using restored habitat at the mouth of Hobble Creek, where restoration occurred about a decade ago. September monitoring confirmed these same general patterns, indicating the two restored deltas provide excellent conditions for growth and survival of young June sucker. UDWR will continue to monitor these juveniles next spring as they use these areas to evade predatory fish, forage for food, and grow into wild-spawned adults.



PLANTING THE SEEDS FOR HABITAT SUCCESS

This fall approximately 100,000 native plants will be planted along the new channels and ponds of the delta. We will also work with Utah Division of Wildlife Resources to seed approximately 35 acres of habitat impacted by construction with a seed mix that includes 33 different species of native plants. This extensive revegetation program restores wetland, riparian and upland plant communities and will help keep invasive weeds at bay. It began in 2020 and has continued in the fall of each year following construction.

The first three years of revegetation were challenging. Planting and seeding had to occur in anticipation of where water levels would be when the Provo River was diverted into the delta. This meant we were installing wetland plants in areas that wouldn't have wetland hydrology for more than two years. Not surprisingly, it was a challenge to keep plants alive and we had to install and maintain temporary sprinkler irrigation systems. This year will be much different. The Provo River has been flowing through the delta since March and planting locations relative to water levels are now more obvious.

This work is essential to the delta becoming a robust and resilient ecosystem that will thrive no matter what droughts or flooding comes. Also essential are the stewards we've worked with to ensure these plants have the best chance of survival and to meet our long-term objectives of creating benefits for wildlife and people into the future.



STUDENTS SINK ROOTS

We were honored to work alongside two AmeriCorps Individual Placement members on the Delta this summer. Both BYU students in conservation related fields, these land stewards were impressed by this spring's exceptionally high snowmelt runoff flows and the myriad of baby cottonwoods that sprang up in the floodwater's path. They took Nature's wisdom to heart during this big water year:



"This summer, my coworker and I assisted with land management on the Provo River and its Delta. We began the season without a strong connection to the watershed, but that relationship grew with every pounded stake, uprooted thistle, and scattered seed mix. As the willows we planted sunk roots into the riverbanks, so did we. This connection, born of time, hard work, and our supervisors' guidance, refined our professional goals and taught us to listen to the lessons that nature freely offers."
- Becca Black

"The Delta imparts a profound lesson in resilience. Life seldom adheres to our predetermined plans, often derailed by the unforeseen floods of life. It is in these moments that we may feel vulnerable and incapable of handling the sudden change of course, akin to the Delta's newly planted willows, yet every new challenge can unveil many great and unexpected opportunities. As evidenced by the Delta's story, life, beauty, and opportunity can emerge even from the most trying circumstances."
- Lauryn Dupaix

FINS AND FEET DISCOVER THE DELTA

Not only were riverbanks overflowing this year - we also had a brimming schedule of tours and outreach events on the Delta, surging above last year's tallies. In the past year, we led 470 people on 24 guided tours of the restoration project and hosted 20 work parties with wildland stewardship themes like seeding, weeding, planting and collecting washed up litter. A total of 423 volunteers donated 636 hours of their valuable time to make the Delta a better place. We also connected with well over 1,100 people through 18 local events, community celebrations and school outreach involving schools from Pre K to universities.

From April through September, we worked with two Utah Conservation Corps Individual Placement members and four field crews. These hard working young people poured over 1,000 hours of their heartfelt efforts into reinforcing the Delta's newborn banks and getting native vegetation off to a good start. The whole ecosystem will benefit from continuing interest and hands on engagement as the Delta attracts teeming life to its waters and shores.

