The State Of Utah Division Of Forestry, Fire And State Lands EXCHANGE APPLICATION



| APPLICATION NO: | Fund: | | DATE: | November 1 | 3, 2017 | |
|---|--|-------------------------|--|-----------------------------|----------|--|
| APPLICANT INFORMATION: | | | | | | |
| Name(s Lake Restoration Solutions, Inc. | | | For Agency use only: | | | |
| Address | | Les | Lessee Number: Legal Description Number: | | | |
| Address | | | | | | |
| Phone: | | | | | | |
| (we) hereby make application, pursual exchange the following described privious described sovereign lands si | ate lands situated in tuated in <u>Uta</u> h | U U | tah C unty. | ounty for the | | |
| Subdivision | Township | Range | Meridian | Section(s) | Acres | |
| | | | | | | |
| | | | 1 | | | |
| (Attach additional sheets if necessa | ru) | | 1 | Total Acres | | |
| SOVEREIGN LAND: | 172 | | | 10((00))10.100 | | |
| Subdivision | Township | Range | Meridian | Section(s) | Acres | |
| Utah Lake | | | | | TBD | |
| | | | | | | |
| (Attach additional sheets if necessa | ry) | | <u> </u> | Total Acres | TBD | |
| hereby acknowledge that submission provides no right of priority. The Divisorior to the conveyance of properties patent. further acknowledge that information or to the conclusion of the compet submitted in writing (see reverse). | Applicants acquired no contained on this litive period unless of Applicants. | application evidence of | this application of the rights prior to the may become business continues. | ion at any timo issuance of | a ord | |
| | Chie | f Executive C | Officer | | | |

Title

Utah Lake Restoration

One of the largest natural lakes in the Western United States, Utah Lake, is a significant freshwater resource for the State of Utah. When pioneers arrived in the valley in the mid 1800's, Utah Lake was a clear water lake with a vibrant ecosystem of freshwater vegetation, aquatic and terrestrial species, shorebirds, and waterfowl. Since then, the water quality and ecological integrity of the lake has significantly deteriorated.

The importance of Utah Lake, both ecologically and from a resource standpoint cannot be overstated. Utah Lake Commission guidance documents explain the importance of the Lake, "Utah Lake is a focal point of natural resource systems that contribute to the environmental health, economic prosperity and quality of life of area residents and visitors."

In addition to being a significant water storage and supply resource, the lake is important ecologically. The lake is home to many endemic fish, aquatic, and terrestrial species. Utah Lake is also an important part of the Great Basin Flyway for migratory bird species. Tens of thousands of birds utilize the lake every year for nesting, brood rearing, and during spring and fall migrations. The Lake's potential as a recreational, ecological, and water resource cannot be overstated.

In recent years, the ecological impairment of Utah Lake has become a significant concern. During the summer months water quality degradation, including significant algal blooms and e-coli outbreaks, has led to weeks-long closures of the lake. This past year, during the prime recreational summer months, there were only between 10 and 30 boats on the lake most days. What this means, is that despite its easy accessibility to 2 million residents along the Wasatch Front, Utah Lake is significantly underutilized as a recreational destination.

The concerns on the lake are not limited to algal blooms. Loss of aquatic plant species from invasive carp on the lake, heavy phosphorous and nitrogen loading, invasive plant species, and other factors have transformed the lake. Instead of a clean, clear water lake, Utah Lake is now considered to be a turbid, hyper-eutrophic lake with significantly degraded water quality. This not only presents significant challenges from a water supply standpoint, the water has also degraded to the point where it is impacting the natural lake ecosystem. Many of the terrestrial and aquatic species that utilize Utah Lake have been adversely affected by the diminished water quality, loss of native plant and animal species, algal blooms, and fluctuating lake levels. Despite the efforts by the Utah Lake Commission and the State of Utah, Utah Lake continues to further degrade. Without significant and comprehensive restoration efforts, the future of Utah Lake, its plants, animal species, and use of the lake by residents of the State of Utah remains uncertain.

Recognizing the challenges on the lake and the need for restoration of the lake, during the 2016 legislative session the Utah Legislature passed a Concurrent Resolution urging restoration of Utah Lake. The resolution, H.C.R. 26, sponsored by Representative Mike McKell and Senator Deidre Henderson passed with significant bi-partisan support. The resolution reads as follows:

Be it resolved by the Legislature of the state of Utah, the Governor concurring therein:

WHEREAS, the state of Utah is committed to conserving Utah Lake, restoring Utah Lake's water quality, improving habitat for fish and wildlife, and enhancing recreational opportunities for Utah's citizens;

WHEREAS, Utah Lake is the largest natural freshwater lake in the state of Utah;

WHEREAS, Utah Lake has an extensive shoreline, offers prime recreational opportunities, and serves a vital water storage and supply function to residents of the Wasatch Front, which includes Utah County and Salt Lake County;

WHEREAS, multiple factors have presented significant challenges to Utah Lake, including algal blooms, loss of native vegetation, invasive fish and plant species, loss of littoral zone plants, suspended silt on the lake bottom, and reduced water clarity;

WHEREAS, the state of Utah has begun experimental restoration of various aspects of Utah Lake, including removing invasive Phragmites, removing non-native carp, restoring the native June sucker, and other efforts, to improve water quality through partnerships between the Department of Natural Resources, the Division of Wildlife Resources, the Division of Water Quality, and the Utah Lake Commission;

WHEREAS, more comprehensive and extensive restoration investment, planning, and implementation are needed to address the issues facing Utah Lake; and

WHEREAS, the state of Utah is committed to work in collaboration with local stakeholders to speed the restoration of Utah Lake for the benefit of aquatic species, wildlife, and Utah's citizens:

NOW, THEREFORE, BE IT RESOLVED that the Legislature of the state of Utah, the Governor concurring therein, urges an acceleration of comprehensive solutions to restore Utah Lake and improve its water quality.

BE IT FURTHER RESOLVED that the Legislature and the Governor urge solutions to address challenges to Utah Lake, including water clarity, water quality, invasive species, and preserving the storage and water supply functions.

BE IT FURTHER RESOLVED that the Legislature and the Governor urge solutions to restore a vibrant fishery, including restoring the Bonneville cutthroat trout population and recovering the June sucker, while improving habitat for waterfowl and other wildlife species.

BE IT FURTHER RESOLVED that the Legislature and the Governor urge solutions to remove invasive plant species, restore littoral zone plant communities, and restore native plant species on Utah Lake's shoreline should be accelerated.

BE IT FURTHER RESOLVED that the Legislature and the Governor urge solutions to maximize and ensure recreational access and opportunities on Utah Lake, while also improving the use of the lake for Utah and its citizens.

BE IT FURTHER RESOLVED that copies of this resolution be forwarded to the Department of Natural Resources, the Division of Wildlife Resources, the Division of Water Quality, and the Utah Lake Commission, to encourage pursuit of all reasonably available solutions to accelerate comprehensive and lasting restoration of Utah Lake.

The promise of a fully restored Utah lake is significant. However, restoration of Utah Lake will require tremendous financial and infrastructure investments to implement the comprehensive solutions needed. These solutions must address challenges presented by the shallow lake, nutrient loading, algal blooms, and invasive plant and animal species on the lake.

The Arches proposes a comprehensive and accelerated restoration of Utah Lake called the Utah Lake Comprehensive Restoration Project. This application is submitted to start the formal process of applying as the contractor for the State of Utah to begin the process of comprehensive lake restoration. The Utah Lake Comprehensive Restoration Project will restore Utah Lake in a manner that meets all of the objectives set forth by the Utah Legislature in H.C.R. 26.

The Utah Lake Comprehensive Restoration Project is designed to protect and promote public trust values on Utah Lake. The public trust values enhanced by the Utah Lake Restoration Project include, but are not limited to:

- Restoring water clarity and water quality
- Conserving water resources in and around the lake
- Preserving the water storage and water supply functions of the lake
- Removing invasive Phragmites and carp species from the lake
- Restoring littoral zone and other plant communities
- Restoring and conserving native fish and other aquatic species including the Bonneville Cutthroat Trout and June Sucker
- Increasing the suitability of the lake and its surrounding areas for shore birds, waterfowl, and other avian species
- Improving navigability of the lake
- Maximizing and ensuring recreational access and opportunities on Utah Lake
- Enhancing recreational opportunities on the lake and otherwise improving the use of the lake for residents and visitors

The Utah Lake Comprehensive Restoration Project will likely become the largest environmental restoration project in the country. At the appropriate time and at the direction of the Utah Department of Forestry, Fire, and State Lands, we will submit a detailed proposal outlining the Utah Lake Comprehensive Restoration Project, including the engineering and infrastructure aspects of the project and the likely cost associated with fully implementing design, infrastructure, engineering, and environmental restoration of Utah Lake.

The Comprehensive Lake Restoration Project will involve significant infrastructure activities and design including dredging and creation of one or more islands within the lake. This will require significant planning, permitting, and related activities before these activities can begin. The exact acreage will be determined based on engineering requirements and in consultation with the State of Utah. Some of the new real-estate will remain open to the public while a portion will be exchanged to generate revenues to help pay for the costs of restoration activities. As a result, a component of this project involves the disposition of sovereign lands as well as the creation of additional recreation areas for the public. As such, this application is for consideration not only of the dredging of Utah Lake, but also the disposition of some land to pay for a portion of these restoration activities.

As daunting and intractable as many of the challenges on the lake currently are, through years of research and study, our team has developed the engineering, design, and infrastructure solutions necessary to comprehensively restore Utah Lake with all of its original vibrancy and ecological integrity. In addition to the work of our team, we recognize that successful restoration of the lake will also require significant collaboration by the state, local governments, stakeholders, and Utah residents. We are committed to working with all state, local government agencies and interested stakeholders on an ongoing basis throughout this process.

Restoring Utah Lake is long overdue. Considering the size, location, and ecological importance of Utah Lake, the promise of comprehensive restoration is an objective worthy of such monumental collaboration and investment by the state and its citizens.