STANSBURY LAKE & MILLPOND MANAGEMENT PLAN 2020-2024

I. EXECUTIVE SUMMARY

Overall, the lake and millpond currently have a moderately healthy ecosystem and good water quality. Aesthetics and recreation are somewhat inhibited by excessive plant growth. The shallow depth, averaging 3.5 feet, low out-flows and circulation, and uncontrolled nutrient loading are among several factors that, if left unchecked, will push the lake toward unhealthy eutrophication. Monitoring and prompt response to changing factors is important for maintaining good water quality and keeping costs of remediation low.

Upon considering the History of Stansbury Lake (Appendix A) and many options for improvement, including those discussed in the Survey of Possible Actions (Appendix B), this report makes several specific recommendations to be carried out in this and subsequent years. It also recommends procedures for monitoring and reviewing data, future projects, and possible outreach.

II. LAKE MAINTENANCE BY SEASON

Spring

- Make final adjustments to current year's project list.
- Train sufficient number of staff to be certified herbicide applicators.
- Apply pre-emergent herbicide in lake and millpond, targeted on Milfoil and other invasive and undesirable plants.
- Monitor activities as described below in Section III.
- Tune-up lake mowers and begin mowing lake plants by April 1.
- Test soil and use fertilizers with the minimum amount of phosphorus/nitrogen needed; apply fertilizers sparingly and away from water and runoff areas.
- Hire deputy or security guard as "park ranger" to educate users and deter bad behavior.

Summer

- Continue prescribed herbicide treatment, mowing and monitoring activities.
- Collect water samples and send to lab for nutrient testing.
- Rake surface deposits of plant clippings and filamentous algae in problem areas.
- Work with Department of Wildlife Resources to manage wildlife population to appropriate levels (e.g. fish, muskrats, geese).

Fall

- Continue mowing, raking and monitoring activities,
- Focus on invasive species removal. Spray phragmites with aquatic glycosphate when tasseling (late August/September) and cut to ground six weeks later. Cut tamarisk trees and treat stump within highly concentrated glycosphate within one minute of cutting.
- Support community groups and private residents in eradicating invasive species on private property.
- In October, remove and winterize lake mowers and other equipment.
- In October/November, assess previous season effectiveness, request budget adjustments for following year.

Winter

- Continue eradicating tamarisks and other undesirable shore plants and trees
- Begin projects for the year as early as practicable (e.g. fishing dock, shoreline restoration project).

Immediate action should be taken if toxic algae develop or other monitoring data show such action is needed.

III. ONGOING DATA MONITORING

Participate in Utah State Water Watch Tier 1 Lake Monitoring.

- Training: Two or more staff members should be trained and certified with Utah State Water Watch Tier 1 Lake Monitoring.
- Additional Metrics: In addition to the information collected on the Tier 1 Form, staff should also note in the "comments" section Dissolved Oxygen levels at surface, lake bed and every 12 inches in between.
- Frequency: Monitoring should occur at each site semi-monthly April-September and monthly October-March.
- Minimum of Four Sites: Clubhouse complex, west side of causeway, Delgada boat ramp and east side of Millpond.

Test water samples annually.

- Lab tests should determine nutrient loads from phosphorus and nitrogen.
- Record results in comments to Water Watch data.

Perform additional tests for e coli, toxic algae etc. as needed.

IV. PROJECTS BY YEAR

2020	Purchase and install conveyor for more efficient plant harvesting.
	Design, build and install signage/kiosks (as promised to residents in 2018).
	Plant bulrushes (provided by grant money secured by Jerry Cauldwell of Tooele County) in appropriate locations.
2021	Purchase and install fishing dock by Delgada Park to provide fisher-people with an alternative to the swimming areas near the Clubhouse and to deter trespassing on private property around the lake.
2022-24	Continue shoreline restoration project around Clubhouse, Millpond, Millpond trail, greenbelts and causeway to minimize erosion and provide more responsible runoff landscaping. This could include a ramp on the causeway to facilitate plant harvesting.
2024	Update Lake Depth Map, Lake Sediment Map and Lake Vegetative Biomass Map, current versions of which are shown in Appendices C-E. Draft new Stansbury Lake & Millpond Management Plan 2025-2029.

V. POSSIBLE OUTREACH

- Messaging to Residents (See Appendix F Sample Outreach Information and Materials)
  - Eliminate invasive species, primarily phragmites, tamarisk and Russian olive trees
  - Responsibly fertilize
  - Responsibly landscape
  - Take pride in this resource; help keep it clean
- Means: mailings, website, social media, volunteers, volunteer organizations (e.g. Friends of Stansbury Lake, announcements at Stansbury Park Community Events' events) and/or any other available means to educate residents, local vendors and lawn-care service providers.

VI. HOW TO USE THIS PLAN GOING FORWARD

The Service Agency General Manager should review data semi-annually in March and October and present a summary to the Service Agency Board of Trustees. In November, budget recommendations for the following year should be made to the Finance Trustee. In March, the General Manager should propose to the Service Agency Board of Trustees any final adjustments to the current year projects and maintenance plan. A brief memo summarizing this review and any adjustments to be made should be attached to this plan and filed with the Service Agency Office Manager. A new plan should be drafted every five years.