

On Wed, Nov 9, 2022 at 3:43 PM Shannon Junior <sjunior@solitudelake.com> wrote:

Hi Holly - In follow-up to what was discussed during our meeting last month, I have provided an overview below of our recommendations for managing Lake Vista and Lake Hutter in 2023, along with cost estimates for each task. I am happy to discuss these recommendations in greater detail and can provide a contract once the budget and desired approach has been finalized.

1. Annual Lake Monitoring Services - \$8,494.00. This contract auto-renews and will renew with a 3% increase. Services will start again in April, 2023.

2. Sediment Phosphorus Testing - \$1,070.00. The sediment phosphorus testing would provide a better understanding of the water quality in Lake Vista and the potential for phosphorus release from the sediment during low oxygen conditions, which is a causative factor of the cyanobacteria blooms the lake has been experiencing. This would provide enough information to outline a nutrient remediation strategy for the lake.

3. Fish Habitat Installation - \$6,180.00. One of the most critical factors for the health of the fishery in Lake Vista would be to improve the habitat in the lake so more fish can survive and reproduce. The best way to do this would be to install artificial habitat in the lake to provide permanent and robust structures where the fish can hide. Our preliminary recommendation would be to install 6 Mossback Fish Cities in the pond, which should be done all at the same time to maximize the impact.

4. Fish Removal - \$6,400.00. We would recommend the removal of about 30 predators (largemouth bass) per acre (~840 fish total) from Lake Vista, with a minimum of 400 fish to make a notable difference. While we had discussed encouraging anglers to perform this task, it is unlikely with the low fishing pressure on the lake that this could be easily accomplished within the necessary timeframe. It would be much more efficient to utilize our electrofishing boat to perform the harvesting, which would be completed over several short electrofishing events. The number of days recommended is based on the removal goals and the catch-per-unit effort observed during the previous electrofishing event. This service would be focused on fish harvesting and would not include data collection other than reporting of the total number of fish removed and general population observations.

5. Beneficial Emergent Aquatic Plants - \$2,100.00 per 500 plants. Another strategy for fish habitat improvement that will also have water quality (and other) benefits would be to install native emergent plants in the shallow water around the perimeter of Lake Vista. We typically install 1 plant per linear feet of shoreline, although they are planted in clusters rather than evenly spaced. This price does not include the installation of predator (i.e., grass carp, Canada geese, deer) exclusion fencing, which would approximately double the cost of the project.

6. Fish Stocking - \$11,360.00. Lake Vista is extremely predator-heavy and requires a much more robust forage base to balance the fish community and improve the recreational fishing experience. We would recommend stocking 6 tanks of bluegill (approximately 6,000 4.5-5.5" fish) in the lake. However, we would not recommend completing this task until the habitat installation and fish harvesting has been completed to improve the probability of survival of the fish.

Hopefully this provides a good starting point for discussion with the Board to allocate funds for 2023. Please let me know if you want to set up a call to discuss these recommendations in greater detail. Thanks!

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