

Lower Spring Lake District Board Meeting
Jefferson County Administrative Building
October 3, 2018

Attendees: **Carol Dixon, Vicki Bradford, Debby Bartolerio, Patricia Cicero** (Jefferson County Water Resources Specialist), **Susan Graham** (DNR Lakes Management Coordinator), and **Amanda Smith** (DNR Water Resources Management Specialist) attended in person. **Scott Provost** (DNR Water Resources Management Specialist) and **Laura Stremick-Thompson** (DNR Region Team Supervisor – Fish Management) participated via phone.

Lake maps indicating the areas affected by a 4-foot drawdown and the 2017 aquatic plant survey results were reviewed.

Based on historical data, it is apparent chemical treatment doesn't stay in the lake long enough to control nuisance species. The DNR will not permit whole lake treatments due to its ineffectiveness beyond seasonal control.

Both Upper and Lower Spring Lakes were created by a series of dams on the Scuppernong River. Upper Spring's dam failed in 2008. This caused a significant amount of silt to flow into Lower Spring and reduced the depth at the east end and in the smaller bays.

The last Aquatic Plant Management Plan, prepared by Patricia Cicero, provided options to control the weeds other than by chemical treatment. A drawdown was one of those options.

Scott Provost asked Laura Stremick-Thompson if Fisheries was supportive of a drawdown based on the information provided. She indicated that in general, yes. She stated that the diversity of native species that result from drawdowns is beneficial for fishing habitat. She would also like to have a little more information and time to analyze the lake.

Our main drawdown goal is to control the milfoil. Soil compaction is a secondary benefit. Improved fish habitat is another.

Scott said that our lake would definitely benefit from a drawdown. There would still be vegetation, but it would be native species that can more easily be controlled. If we have highbred milfoil, prior to refilling the lake, a chemical treatment in the areas that still have water would be beneficial. The white water lilies will initially decline, but will come back.

Up to 30% compaction of muck can occur if winter conditions are cold and dry.

The average refill rate would be about 17 days, with a low of 8 and a high of 31 days.

Limitations on the drawdown to 4 feet won't allow all the milfoil to be controlled, so a chemical treatment would be recommended to take care of the remaining plants. This should be applied prior to the native plants emerging.

Scott stated that generally a drawdown would help control algae blooms because the native plants that grow take up more phosphorous, reducing what is available to cause the blooms.

Scott made it clear that different (native) plants will grow, so we should not expect a "weed-free" lake. These plants will tend to be low-growing and more easily controlled by harvesting.

To ensure the fish have time to make their way to the remaining water, the drawdown should be limited to 6 inches per day in the beginning, then reduce that amount near the end. Daily dissolved oxygen (DO) measurements would need to be taken. Because we have a water treatment plant, it is likely the Village already has the device to measure the levels.

If the DO drops below 60%, the rate of the water leaving the lake should be reduced.

The possibility of a fish kill was questioned. The Fisheries expert, Laura, stated that gradual drawdowns significantly reduce the effect on the fish, and is not a concern. Winter drawdowns may increase the DO, which is healthier for the fish.

The DO monitoring is done downstream, not in the remaining lake water. No one expected that the DO would be negatively impacted by the water reduction.

Many drawdowns include a ban on fishing. This isn't required nor necessary. The fish are concentrated in the remaining water, but so is their food. The fishing will probably be less productive, because the fish have full bellies and aren't biting. Any fishing ban would be issued by the DNR, but they generally will abide by whatever is requested.

The municipality with 60% of the shoreline can pass an ordinance prohibiting vehicles on the ice. This is recommended because the ice is generally thinner due to the water movement during a drawdown.

It is important that relevant information be provided to the community. Laura will see if the DNR can help with stocking pike and walleye. The Lake District should consider budgeting for stocking the lake with large-mouth bass. The fish population generally is healthier several years after a drawdown. A fish survey may be requested after the completion of the drawdown.

Next steps:

1. The determination must be made whether to proceed with a 2019 winter drawdown.

2. If so, the Lake District and Village must approve.
3. The Village would either apply or be a co-applicant with the Lake District.
4. The application process should start in April of the year we want to perform the drawdown.
5. A public notice with a 30-day comment period would be published.

Laura will attend our January 19th meeting to address any fish health concerns. Patricia, Scott, and Susan may also be available to participate.

Dredging can be done with a permit, but the topic is outside this group's area of expertise. Scott did caution that milfoil will repopulate in dredged areas, and it is best to not do it if milfoil control is the objective.

It was recommended that homeowners should leave the shoreline alone during this time with the exception of removing cement seawalls and replacing them with bio bags for erosion control. Patricia can provide information and guidance on this.