

SLPOA Mission: *To develop the capacity within our community to provide a sustainable lake habitat that will allow all people who live, work and play within its environment an optimal North Idaho experience.*

## Conservation Spotlight

### FALLING LAKE LEVELS 2025

#### Water Level Trend



Was there a bit of anxiety, maybe some panic, to get your boat out of the lake early this year? While the lake level began high this past spring, it didn't last long. Water levels began to drop early and the trend continued throughout the summer and into fall. **Several factors could have contributed to this trend.**

**Snowpack:** This is where our lake water begins its journey. Reported snow pack in the high elevations started out average or above, but additional snow was scarce through February. According to a hydrologist from the Idaho Water Resources Research Institute, the rain-snow line—the elevation where snow falls above and rain falls below—was higher

than normal this year. That means that middle level mountains around Mt. Spokane didn't receive as much snow as usual.

**Streams and wetlands:** Streams such as Brickel Creek feed melting snow into the lake, filling it in the spring. Of course, most of that runoff stops or significantly slows as soon as the snow is all melted. Some of the water remains in wetlands around the lake. These wetlands—a significant one around Brickel Creek—store water. If those wetlands are eliminated or shrink there is less capacity to store water to be released into the lake during the low precipitation months of summer. In addition, the surrounding area becomes dryer as the water table drops.



**Temperatures and precipitation:** Early spring temperatures rose slowly this year holding some of the snowpack longer. However, those low temperatures did not last and most of our summer months saw above normal temperatures with little precipitation. According to the U.S. Drought Monitor, as of October 14, 2025, the Idaho Panhandle is experiencing severe to extreme drought conditions.

**Aquafer and Lake "Leakage":** According to reports, the Spokane Valley/Rathdrum Prairie Aquifer is being depleted faster than it is recharging (filling). As the aquifer level recedes, there is a siphon effect that pulls surface waters (lake, streams and rivers) into the aquifer. We know that there have been, and most likely remain, "leaks" in the seal of the bottom of Spirit Lake. In the 1990s a major project was undertaken by SLPOA to line the Mill Pond to stop significant leakage that was occurring. This was done under permits from the Corp of Engineers and Idaho Dept. of Lands,

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## *Falling Lake Levels 2025: continued from page 1*

The water from any remaining leaks is likely finding its way through the bedrock underground and into the aquifer.

**Human extraction:** Extracting surface water for such things as irrigation, livestock watering, commercial and residential use is one factor depleting the level of surface waters such as lakes, streams and rivers.

**Evaporation:** Evaporation can be a substantial contributor to water loss in lakes and reservoirs. The amount of evaporation depends upon several factors such as surface area, temperature, humidity and ice coverage. Research over the past 30 years shows that evaporation as a factor of surface water loss in lakes is increasing as climate change affects these various factors. Evaporation fluctuates from year to year, so long-range studies of the volume of evaporation help to determine the trend toward the increasing evaporation as a factor in surface water loss.

**Climate change:** As temperatures range higher and snowpack is diminished, available fresh water for streams, lakes and aquifers is being reduced.

The hydrology of a watershed is complex—from snow pack in the mountains to the streams that feed into our Spirit Lake. A number of factors affect the amount of water that reaches and remains in the lake.



### **Sources:**

Discussion with Meg Wolf, Idaho Water Resource Research Institute Hydrologist

Discussion with Merritt Idaho Department of Fish and Game

Discussion with Eric Burnsen, Kalispel Indian Tribe

<https://www.nrcs.usda.gov/sites/default/files/2025-02/borid225.pdf>

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<https://www.spokesman.com/stories/2025/aug/25/spokane-river-reaches-potential-water-record-lows-/>

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<https://earthobservatory.nasa.gov/images/150067/lake-evaporation-on-the-rise#:~:text=Darker%20red%20and%20orange%20indicate,year%20between%201985%20and%202018.>

<https://www.nature.com/articles/s41467-022-31125-6>

### **LATE SEASON ALGAE BLOOM**

A possible Harmful Algal Bloom (HABs) was observed and reported by SLPOA member Doug Smith in the Silver Beach on October 16, 2025. The report along with pictures were sent to Bob Steed at the Idaho Department of Environmental Quality. Here is his response:

*“...you’re not alone in seeing this minor fall bloom. I just responded to similar reports from Lower Twin Lake and Hayden Lake.*

*From your photo, it looks like a typical seasonal bloom. In late summer and fall, most of the available nitrogen in the water column has been consumed by aquatic plants and other algae.*

*This creates an opportunity for cyanobacteria, which can fix atmospheric nitrogen, to thrive. In my view, these fall blooms aren’t necessarily driven by pollution or excess phosphorus—they tend to occur naturally when the growing season is extended.*

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*Late Season Algae Bloom: continued from page 2*

*Last year, by October 15, we had experienced two solid weeks of rain, and Panhandle Health District and I lifted all Public Health Advisories due to the end of the recreational season. Based on your image, it doesn't appear that people are likely to come into close contact with the bloom, so human health concerns are minimal. However, the water may still pose a risk to pets and wildlife.*

*The current weather forecast suggests that lake mixing from wind and rain could occur in the next few days, which may help disperse the bloom. Please keep me posted if you notice any changes or progression."*

With the cool temperatures and moderate winds, the bloom dissipated by the next day. This was the only algae bloom reported this season on Spirit Lake. It is likely that the HABs season is over for this year.



**HABs can be hazardous to humans, pets and wildlife!**

**Report potential Algal Blooms to SLPOA [spiritlakepoa@gmail.com](mailto:spiritlakepoa@gmail.com) and [Idaho Department of Environmental Quality \(DEQ\)](http://Idaho Department of Environmental Quality (DEQ)) through their online reporting form or by email at [Algae@deq.idaho.gov](mailto:Algae@deq.idaho.gov)**

### **INVASIVE SPECIES REPORT**

Our resident invasive species specialist, Doug Freeland, provided us with an update on Milfoil developments in Spirit Lake.

The milfoil is primarily present from Brickel Creek south along the shoreline, particularly in the lily pads and old pilings area. Doug drops buoys to identify locations so that he can go back and harvest the milfoil he has located. This year Doug removed an estimated 150 lbs. of plants from the lake in this area.

In the Mill Pond this season several 10 - 15 ft. plants that are about three to four-year old were identified. In addition, about fifty, 6 – 24 in. plants were identified that are about one to two-years old. Doug removed about 50 lbs. of plants from the lake in this area.

Doug and SLPOA plead with people—especially paddle boarders, kayakers and property owners—to be on the lookout and notify us if you suspect you have observed milfoil. It is important to report possible milfoil sighting to Doug or through SLPOA ([spiritlakepoa@gmail.com](mailto:spiritlakepoa@gmail.com)). Do not attempt to remove it. If it is not done properly and with appropriate equipment, it can easily be spread and caused to multiply.

A videographer is working with Doug to create videos that may help us all better identify this invasive hazard to our lake, recreation and enjoyment

### **YOUR DUES AND DONATIONS AT WORK**

**SLPOA applied to the Department of Lands for a permit to repair a newly discovered leak on the east side of the narrows beyond the Maine boat launch. The repair itself is estimated to cost nearly \$750.00. The Department of Lands kindly waived the \$300.00 permit fee.**

**An application has been made to the Idaho Department of Lands for additional no-wake buoys in the narrows and millpond. Cost per buoy and installation is estimated at about \$1000.00. The Kootenai County Sheriff must also approve the buoys.**

**SLPOA has paid for removal of milfoil from the lake this season at a bargain cost of \$2500.00.**

**Thank you to SLPOA board member, Dustin Thiers, and the Boon Docks crew. They have removed a number of floating logs and other debris out of the lake as they encounter it.**



Friends of Spirit Lake  
Spirit Lake Property Owners Association  
PO Box 363  
Spirit Lake, ID 83869

## SLPOA Board Updates

**2025 Annual Meeting:** Attempting a slightly different format for the 2025 Annual Meeting, a panel of knowledgeable experts in their area discussed the hydrology of the Spirit Lake Watershed, including snowpack, streams, wetlands, the lake and aquifer. Notes from this discussion can be found and reviewed by going to the SLPOA <https://friendsofspiritlake.com/images/sitepics/board/minutes/2025-08-09.pdf> or use the QR Code to the right.



Long-time Board Directors, Brad and Linda Pendleton, were honored for their long years of service (about 35 years) as they announced their retirement from the board. A gift from the Board of Directors was presented.

The members in attendance voted to elect the existing Board Directors whose terms had expired or had been appointed during 2024. These include: Don Finney, Kurt Peterson, Ron Largent, Galen Beem and Tod Kiblen. Each are elected for a three-year term of service.

Tickets for a 50/50 raffle were sold during the social and registration period before the meeting. Erick Fitzpatrick held the winning ticket and generously donated his half back to SLPOA. **Thank you, Erick!** The proceeds will be dedicated to further restoration of the Brickel Creek and the surrounding meadows drainage and wetlands.

**Board Officer Elections:** At its October 25 meeting, the Board elected the current officers to continue for 2026. They include: Paul Sturm, president; Dan Beha, vice-president; Jane Clark, secretary; and Jerry Peterson, treasurer.