

On August 5, 2025, while out for a mountain bike ride, I observed what I thought was excessive vegetation in Chuck Slough on the downstream side of Pine Street. I stopped to take a closer look and took a couple of photos that I e-mailed to the IDEQ algal section. DEQ sent staff to take a look and collect samples. Most of the vegetation was duckweed, which is a “good” kind of scum. It’s common on wastewater lagoons. Observation under a microscope showed the presence of colonies of “bad cyanobacteria”, and analysis of the samples showed high enough levels of cyanobacteria for IDEQ to issue a Harmful Algal Bloom (HAB) public advisory for Chuck Slough. The HAB lasted through the rest of the summer.

I did a search for “Algal” on the Daily Bee’s website and found articles about HABs on Boyer Slough, Sagle Slough, Lake Cocallala, Morton Slough, etc. I asked CoPilot AI the following question: What water bodies in Bonner County Idaho have experienced Harmful Algal Blooms? I got the following answer:

“Several water bodies in Bonner County, Idaho, have experienced harmful algal blooms (HABs), particularly during late summer when conditions favor their development. Notably affected water bodies include Morton Slough, which had documented visual indications of HABs in 2022, as well as Lake Pend Oreille and Priest Lake, where periodic HAB occurrences and advisories have been reported. These blooms are monitored by the Idaho Department of Environmental Quality and local health districts, which issue health advisories when toxin levels pose risks to humans and pets. Public awareness and reporting efforts are ongoing to help manage and mitigate these blooms.”

I asked CoPilot AI: How do harmful algal blooms affect real estate prices? The response is copied below:

Harmful algal blooms (HABs) reliably *depress waterfront property values, sometimes dramatically, because they degrade water quality, reduce recreation, and create health concerns.* Studies from Ohio and the U.S. EPA show multi-year, multi-million-dollar losses in affected lake communities, with declines tied directly to bloom severity. ¹²

How HABs Affect Real Estate Prices

1. Direct Impacts on Property Values

- **Waterfront homes lose value when blooms occur**, primarily due to foul odors, visible scum, and health advisories.
- The U.S. EPA notes that **clean water can raise home values by up to 25%**, implying that degraded water quality can erode that premium. ²
- In Ohio, HABs at Grand Lake St. Marys and Buckeye Lake caused **\$152 million in lost property value over six years.** ¹
- Properties within **10 miles of Lake Erie** were shown to be at risk, with **24,000–210,000 parcels potentially affected** depending on bloom severity. ¹

Why values fall

- Loss of recreational use (swimming, boating, fishing)
 - Aesthetic degradation (green water, surface mats)
 - Health concerns (toxins, pet safety, drinking water worries)
 - Reduced tourism and local economic activity
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2. Indirect Impacts on Housing Markets

Even when homeowners don't sell, HABs change behavior:

- A 2025 study found homeowners near Lake Erie **increased backyard pool construction** as a substitute for lake recreation. ³
 - This suggests HABs reduce the utility of natural amenities, pushing people to invest in alternatives—an implicit cost that doesn't show up in sale prices alone.
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3. Local Economic Spillovers That Feed Back Into Real Estate

- Tourism losses from nutrient pollution and HABs approach **\$1 billion annually** in the U.S. (fishing, boating, lake closures). ²
 - Reduced visitor spending hurts restaurants, marinas, and rental markets—further softening demand for waterfront homes.
 - Communities face higher water treatment costs, which can translate into **higher taxes or utility fees**, indirectly affecting affordability and desirability.
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Summary Table: HAB Effects on Real Estate

Impact Type	Effect on Property Values	Evidence
Aesthetic degradation	Lower sale prices, reduced buyer interest	EPA: waterfront values decline with algal blooms ²
Recreation loss	Reduced demand for lakefront homes	Ohio studies show major value losses ¹
Health concerns	Buyers discount properties due to toxin risk	EPA & Ohio research
Economic spillovers	Tourism decline → weaker local housing market	EPA tourism loss estimates ²

Homeowner adaptation

Increased private amenities (pools) instead of lake use

Lake Erie study³

If You're Evaluating Property Near a Lake (including Idaho)

Given your interest in land use and environmental impacts, here's how to assess HAB risk for a specific parcel:

- **Check historical bloom maps** (state DEQ, EPA CyAN satellite data).
 - **Review nutrient sources** nearby (ag runoff, septic density).
 - **Look at lake management plans**—active mitigation can stabilize values.
 - **Consider seasonality**—late-summer blooms hit hardest.
 - **Assess well or intake vulnerability** if the property uses surface water.
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References (3)

1 *Financial Losses in Real Estate and Tourism Due to Algal Blooms*. <https://www.lgsonic.com/cost-of-algal-blooms/>

2 *The Effects: Economy* | US EPA. <https://www.epa.gov/nutrientpollution/effects-economy>

3 *From the Beach to the Backyard: How Harmful Algal Blooms Impact Housing ...*
<https://link.springer.com/article/10.1007/s10640-025-00972-4>

I contacted Dr. Frank Wilhelm at the University of Idaho ([Frank Wilhelm | University of Idaho](#)) regarding the HAB and asked him if he would be interested in coming to Sandpoint and giving a talk on the subject. He has worked extensively on the Fernan Lake HAB issue and other HAB issues in the region. He expressed interest in our situation, but he's a busy man and the semester started and I have not followed up on it.

A big part of my work as a hydrogeologist involved analysis of the effects of proposed or existing wastewater treatment/disposal systems on ground water and surface water. That work was driven largely by the establishment of a TMDL for phosphorus in the nearshore waters of Lake Pend Oreille in 2002 ([Total Maximum Daily Load \(TMDL\) for Nutrients for the Nearshore Waters of Pend Oreille Lake, Idaho](#)). The goal of the TMDL is to protect water quality and to prevent the growth of algae. The Lake Pend Oreille TMDL process began because people living in Hope were concerned about all of the algae growing on the shoreline of Ellisport Bay. This led to an investigation by EPA ([93e54.pdf](#)) of the Clark Fork River – Lake Pend Oreille system.

I have conducted numerous Nutrient-Pathogen Evaluations ([Nutrient Pathogen Evaluation Program for On-Site Wastewater Treatment Systems](#)) of proposed developments, including The Crossing at Willow Bay and the Idaho Club at Trestle Creek, and have done hydrogeologic evaluations of wastewater reuse

systems at Ellisport Bay, Garfield Bay, and Bottle Bay and others on Lake Coeur D’Alene and Priest Lake as part of the permitting process for wastewater reuse sites.

HABs, from my perspective, represent failures of the systems that we are supposed to have in place to protect water quality.

I did an analysis of Syringa Heights Water District using one of the spreadsheet tools DEQ provides for conducting N-P evaluations. The spreadsheet uses the mass-balance approach to calculate an average concentration of a chemical constituent (usually Nitrate) in down-gradient ground water after the effluent from septic systems mixes with the ground water from up-gradient ground water and recharge to ground water from precipitation that falls in the subdivision area. The spreadsheet doesn’t calculate the concentration of Nitrate at any one place. The goal that is sought is an increase in Nitrate concentration at the down-gradient property boundary of 1 mg/L or less.

I treated the entire district as if it was a big (1800-acre) subdivision with 240 homes (Syringa Heights website says they have 239 connections).

the Chuck Slough HAB issue suggests that part of the problem is that the City of Sandpoint sells about 20,000,000 gallons of drinking water to Syringa Heights Water District, who distributes it to customers, all of whom use on-site septic systems: the standard septic tank/drain field system. Sandpoint sells water to Syringa Heights, and Syringa Heights releases some percentage of it (probably most of it) back into the subsurface as wastewater, which eventually ends up in Syringa Creek and Chuck Slough, providing the nutrients that HABs feed on. This has been going on since 1968.

I think that the Sustainability Committee should investigate the City’s practice of delivering drinking water to areas lacking wastewater treatment from a sustainability perspective.

John Monks

Daily Bee Search for “algal” results:		
Date:	Subject:	Link:
10/17/2020	Lakes Commission meeting	Algal blooms on commission's agenda Bonner County Daily Bee
6/13/2024	ICL Awareness	ICL raises awareness about algal blooms Bonner County Daily Bee
10/1/2023	Cocalalla Lake HAB	Public health advisory issued for Cocalalla Lake Bonner County Daily Bee
9/4/2020	Lake Cocalalla HAB	Probable harmful algal bloom reported on Lake Cocalalla Bonner County Daily Bee
10/2/2020	Round Lake HAB	Health advisory issued for Round Lake Bonner County Daily Bee
8/20/2022	Morton Slough HAB	Health advisories issued for Avondale Lake and Morton Slough Bonner County Daily Bee
8/8/2025:	Chuck Slough	HAB advisory issued for Chuck Slough Bonner County Daily Bee
11/24/2020:	UI Researcher Dr. Wilhelm	U of I researchers tackle North Idaho water issues Bonner County Daily Bee
8/20/2021	Boyer Slough HAB	Toxic algae bloom hits Boyer Slough Bonner County Daily Bee
9/1/2022	Cocalalla HAB	Health advisories issued for Spirit, Cocalalla lakes Bonner County Daily Bee
8/5/2021	Sagle Slough	Health advisory issued for Sagle Slough Bonner County Daily Bee
8/29/21	Chuck Slough, Priest Lake outlet	Health advisories issued for Chuck Slough, PL Outlet Bonner County Daily Bee

Additional References:

[Bloom and bust: Toxic algae's impact on nearby property values - ScienceDirect](https://www.sciencedaily.com/releases/2017/08/170817141720.htm)

<https://www.sciencedaily.com/releases/2017/08/170817141720.htm>

[Tracking the Bad Guys: Toxic Algal Blooms | U.S. Geological Survey](#)

[Socioeconomic – Harmful Algal Blooms](#)

[Property values and cyanobacterial algal blooms: Evidence from satellite monitoring of Inland Lakes](#)

<https://ui.adsabs.harvard.edu/abs/2024WASP..235...71I/abstract>

[DeChurch2023](#)

[Cyanobacteria Harmful Algal Blooms - Idaho Department of Environmental Quality](#)

[Harmful Algal Blooms: Contributing Factors and Impacts | Harmful Algal Bloom \(HAB\)-Associated Illness](#)

[| CDC](#)

[Mitigating and Managing Harmful Algae Blooms - Montrose Environmental](#)

[IDEQ Final 2024 305\(b\) Status Report](#)

<https://www2.deq.idaho.gov/admin/LEIA/api/document/download/12142> (DEQ beneficial use)