Lily Pond, Washington Park: A Public Children's Fishing Pond Under a Toxic Algae Advisory

Denver, Colorado | Denver Parks and Recreation, Lake Management Program | 2026 season

After a single inoculation in late May, ammonia and phosphate in this historically cyanobacteria prone municipal pond fell to zero within four weeks. It had a toxic algae advisory when Hydralife was requested to assist the situation. Denver lifted the toxic algae advisory shortly after treatment, and the pond held zero ammonia and phosphate from the spring through August with no further advisories.

1. Site overview

Water body	Lily Pond, a small aerated pond in the northeast quarter of Washington Park, along Smith's Irrigation Ditch on the north side of Smith Lake.
Size	About 1 surface acre, per a public park listing. Average depth not recorded, so acre-feet are not stated.
Water source	Sits at the end of the park's raw water supply line, which leaves it prone to high nutrients.
Use	Designated children's fishing pond in one of Denver's most visited parks.
The problem	A history of cyanobacteria. In mid-May 2026 the pond carried a posted public health advisory asking visitors and pets to stay out of the water because of toxic algae.
Site lead	Denver's Lake Manager, who has run the city's Lake Management Program for nearly three decades and selected Lily Pond for Hydralife because it constantly has cyanobacteria issues.

2. Approach

- May 17, 2026: site confirmed with Denver's Lake Manager; baseline recorded, showing elevated nutrients with cyanobacteria present.
- May 22, 2026: one full inoculation of 100 gallons of Hydralife Compete, concentrated phytoplankton, timed to a warm, sunny stretch to give the culture the fastest possible start against the cyanobacteria.
- Late May through August: follow-up testing through the growing season. No algaecides or other chemical treatments were used by the Lakes Management Program or Hydralife.

3. Results

Date	NH4	NO2	NO3	PO4	Notes
May 17 (baseline)	0.25 to 0.5	0	0	0.25	Cyanobacteria present; public toxic algae advisory posted.
May 29	0.25	0	0	under 0.25	One week after inoculation; however, the region had cloudy and cooler weather during this time period.
June 12	near 0	0	under 5	near 0	Nutrients dropping significantly.
June 19	0	0	0 to 5	0	Ammonia and phosphate consumed to zero.

Date	NH4	NO2	NO3	PO4	Notes
Late June					The City of Denver's Lake Manager reported the advisory lifted after inspection.
July 8	near 0	0	near 0	near 0	Stable and close to undetectable nutrient levels across all measurements.
August 19	0	0	5	0	Ammonia and phosphate held at zero through peak summer; no further advisories.

Lily Pond, Washington Park, Denver, 2026

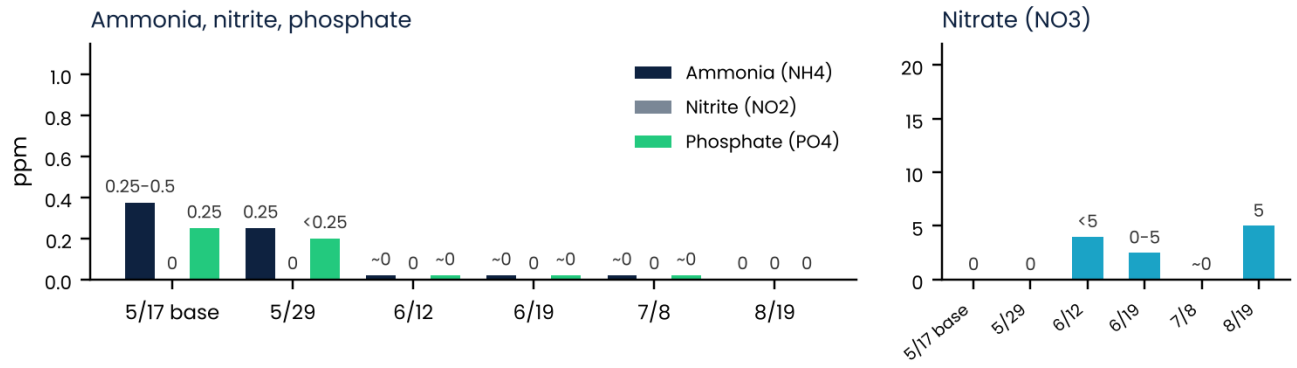


Figure 1. Nutrient readings in ppm, Lily Pond, 2026. Baseline ammonia is shown as the recorded range of 0.25 to 0.5 ppm. Source: Hydralife field testing, including readings beyond those shown on the 2026 U.S. Symposium on Harmful Algae poster.

Field readings are taken on site with a color-comparison freshwater test kit and reported in parts per million (ppm). Text readings such as "under 0.25" or "almost 0" are shown as recorded; in the charts they are drawn at an approximate height and labeled with the recorded wording. Weather, water temperature and irrigation schedules influence individual readings. The trend across the season is the measure of the work.

Within four weeks of a single inoculation, ammonia and phosphate, the two nutrients most closely tied to cyanobacteria growth, were consumed to zero. By late June, Denver's Lake Manager reported that the cyanobacteria was no longer toxic upon inspection and the advisory was lifted. The pond then held zero ammonia and zero phosphate through the spring and into August, with no further advisories or signs of cyanobacteria for the rest of the season. Nitrate moved between zero and 5 ppm over the summer, a normal range for an aerated pond on a raw water supply with active aerobic nitrifying bacteria.

The pond also became visibly productive. In July, three different types of fish fry and fingerlings and a juvenile crayfish were observed along a single short stretch of shoreline, evidence of a food web fed from the bottom up.

> *"We only have a visual inspection of the cyanobacteria and whether it is toxic. It is not toxic, so it has been at least neutralized."*
>
> Lake Manager, Denver Parks and Recreation, June 2026

> *"Hi Ryan, I appreciate the update. At least something is behaving (Lilly Pond). We will look to add another pond or two next year."*
>
> Lake Manager, Denver Parks and Recreation, August 2026

A note on method: the advisory decision rested on the Lake Manager's visual inspection and determination with the city's environmental team. Hydralife was not involved in this process. The nutrient readings are Hydralife field measurements.

4. Takeaways for similar sites

- Small, aerated, high-use public ponds are a strong fit: a single inoculation can reach the whole water body quickly, and the public benefit is immediate.
- Starving the bloom works where the bloom is fed. Lily Pond's cyanobacteria depended on ammonia and phosphate; once the phytoplankton consumed them, the advisory was lifted and did not return that season.
- Aeration and phytoplankton work together. The aerator keeps water moving and oxygenated; the phytoplankton adds dissolved oxygen through photosynthesis while feeding zooplankton and fish.
- Pair the program with the city's own monitoring. The Lake Manager's inspection and Hydralife's nutrient testing told the same story.

5. About Hydralife Solutions

Hydralife Solutions Inc. is a Denver, Colorado company that grows and ships live, multi-species beneficial phytoplankton for lakes, ponds, reservoirs and irrigation water. Hydralife Compete, concentrated phytoplankton, works by competitive exclusion: the excess nitrogen and phosphorus that feed nuisance algae and cyanobacteria become the food source for a beneficial culture that consumes them 24-7 and outcompetes bloom-forming organisms for the nutrients they need. It thrives in high-nutrient water, where most alternatives struggle, and it feeds the zooplankton and fish that depend on a healthy food web.

Hydralife was founded by Ryan Philipsborn, who brings nearly 30 years of professional aquatic work from reef keeping, pond maintenance and coral propagation to commercial phytoplankton, copepod and macroalgae production.

To discuss a water body of your own: service@hydralifesolutions.com, 303.219.0623, or visit hydralife.org.