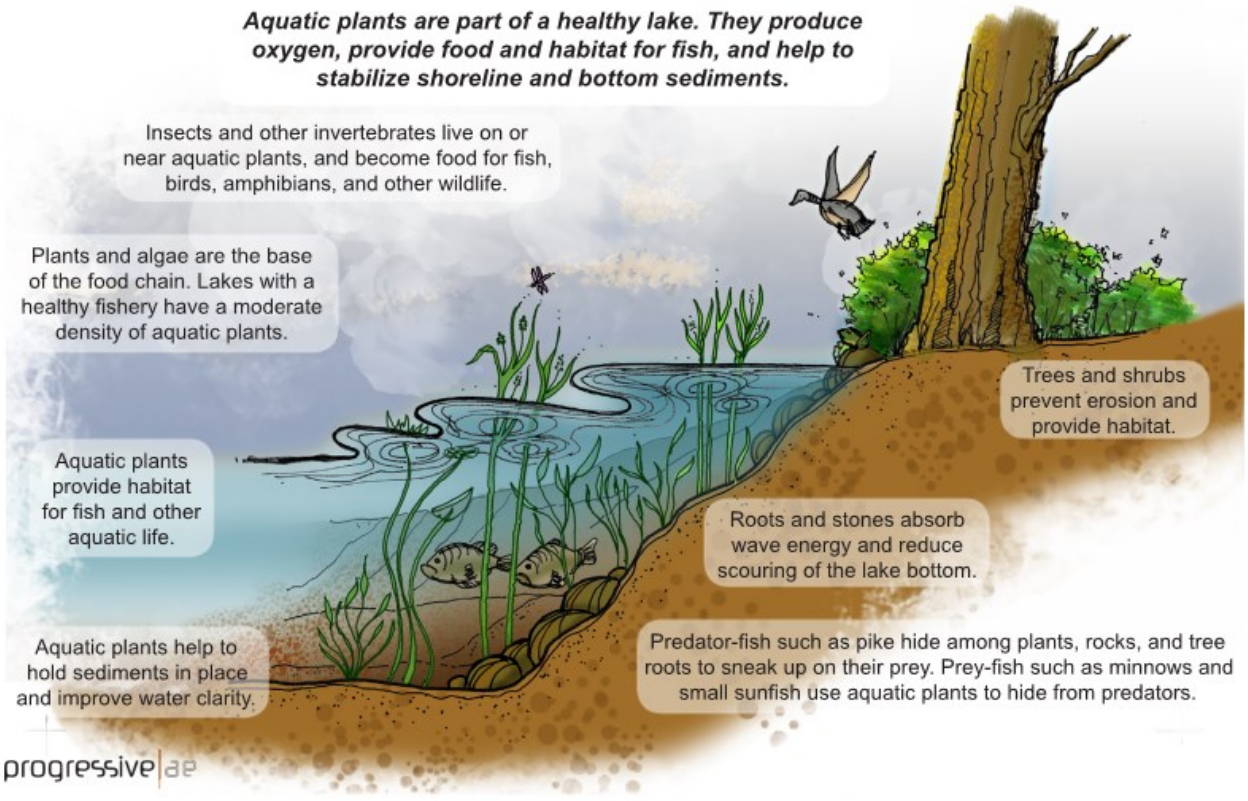
Lake Evaluation Summary

Ann Lake, Benzie County

July 11, 2025

AVAS Survey



Ann Lake was surveyed on 11 July 2025, by experienced PLM scientists. The goal of this survey was to identify any exotic species and document native plant diversity. July through September are ideal months for finding peak biomass in this geographical area. 21 different native plant species were identified growing within Ann Lake, great diversity!

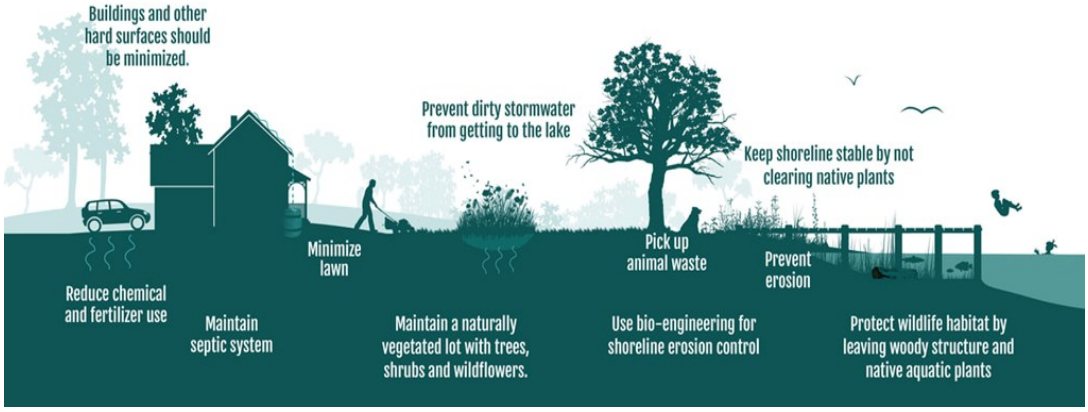
No submerged exotic species were found growing within Ann Lake. Native milfoil was found growing throughout the drop off of the lake. Phragmites was found in two small areas on the shoreline. We did not test to see if it was native or exotic, but the way in which it was growing represents more native.

PLM also drove into the connecting lakes to search for any exotic/invasive species. We did not find anything of concern within the other channel areas that we could access, which is a great sign!

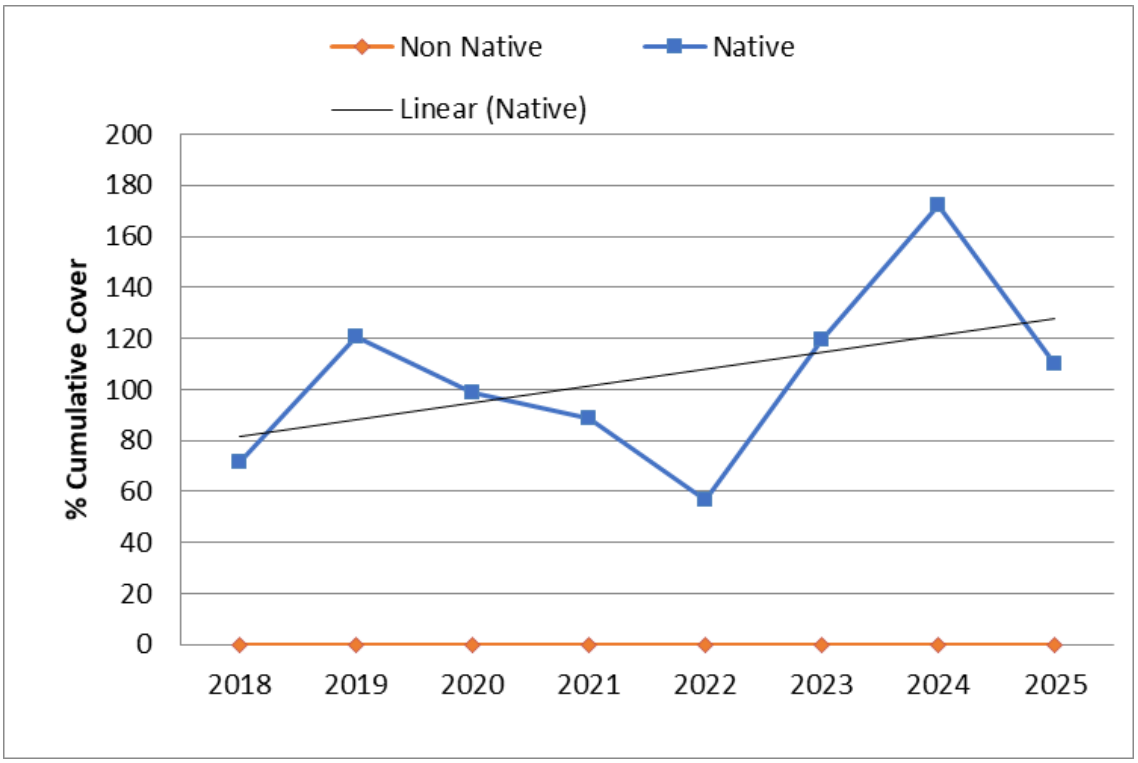
The most species rich and dense area was in the southern bay which may indicate excess nutrients.

Shoreline protection

Shoreline development has led to habitat degradation and as lakes continue to become more and more developed, the impacts continue to be damaging to the lake ecosystem. From mowed grass and sandy beaches, to seawalls and riprap to wake boat waves and fertilizer, development has negatively impacted a lake in all ecological aspects.



By working to reduce the human footprint around the lake, the health of the lake will be improved. Natural shoreline restoration is helpful from reducing nutrient loading and runoff to providing habitat for frogs and fish to naturally defending against Canada geese congregating in your yard, it is important that action is taken to minimize development impact and restore natural features.



The graph above represents the percent coverage of plants within Ann Lake. Seasonal coverage varies based on multiple factors such as; plant biology, nutrient or light availability, surveyor technique and seasonal temperatures. Though we see a drop in the coverage from 2024 to 2025, reviewing the actual hard data we can see no major change in plant distribution or presence.

It is important to continue AVAS surveys even if there are no exotic plants yet found. These types of surveys allow for early detection/rapid response (treatment) of an exotic species if found in a lake. We can also track plant trends over time in order to make the best management decision, when necessary.

Ann Lake's Recommended Management Program:

- Survey Program including:

  Annual AVAS Survey
- Water quality evaluation (optional)
- Exotic plant control if found (EWM, SSW & CLP)

PLM
LAKE & LAND
MANAGEMENT CORP