

PALMERSTON LAKES WATER QUALITY REPORT CARD 2026

AT A GLANCE

- ✓ Low presence of Salvinia in most lakes
- ✓ Dissolved oxygen levels were good in most lakes
- ✓ Some lakes showed improvements from the last quarter's rating
- ✓ Low turbidity recorded in most lakes
- ✗ High nutrient load present in most lakes which may lead to algae growth



LAKE CONDITION RATING



GOOD

Lake is well oxygenated, has low turbidity, low nutrients and low Salvinia coverage



FAIR

Lake is moderately to well oxygenated but shows some evidence of low water quality, such as high nutrients, turbidity and Salvinia coverage



POOR

Lake is moderately to poorly oxygenated with other signs of poor water quality, such as high nutrients, high turbidity, algae and Salvinia coverage



VERY POOR

Lake is poorly oxygenated, has high nutrients, high turbidity, algae and Salvinia growth



Water quality surveys were undertaken across 19 Palmerston Lakes, including the newly added Aspire Zuccoli lake on 23 April 2026.

Salvinia presence was low in all surveyed lakes.

The only lakes to experience a deterioration in water quality was 6, 8, Sanctuary B, and Sanctuary C.

Water quality at lakes 1A, 1B, 7C and Sanctuary A have improved since the last monitoring round and now meets the criteria to be listed as good.

No high turbidity levels were recorded in any of the lakes during the recent survey.

High nutrient loads were recorded in lakes 1B, 3, 6, 8, 9, 10A, Marlow Lagoon, Sanctuary A, Sanctuary B, Sanctuary C, Durack heights and the newly added Aspire Zuccoli.



How does this report card work?

Each of the 19 lakes are surveyed and assessed based on factors such as dissolved oxygen and turbidity, nutrient concentrations (nitrogen, phosphorus), amount of *Salvinia* surface coverage, and other notable findings relevant to lake condition.

Each lake is given a condition rating based on the characteristics of the lake during the survey. The criteria for this rating is derived from the features of a healthy lake outlined in the *Townsville Constructed Lakes Design Guideline* (Design Flow and RPS 2010).

A healthy lake is typically dominated by macrophytes (i.e. emergent and submerged rooted water plants); as opposed to floating water plants (e.g. algae, the declared weed *Salvinia molesta*), microscopic algae (phytoplankton), and cyanobacteria. Macrophyte-dominated lakes help maintain low turbidity via uptake of nutrients and prevention of re-suspension of sediments.

Note that lake characteristics will change seasonally as water plants cycle through periods of growth and die-back. The rating given to each lake will differ between quarterly surveys and consistently poor or very poor ratings will require management action.

