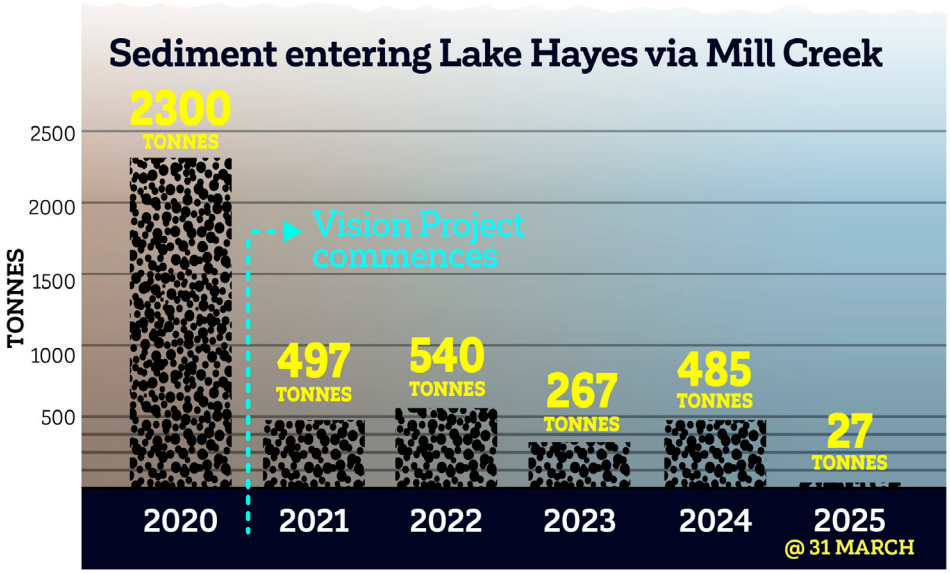
FRIENDS OF Lake Hayes

COMMUNITY UPDATE
MAY 2025

Over the past summer, many in our community have noticed signs that Lake Hayes is beginning to recover. Whether it's a blue lake on a morning walk, improved conditions for swimming, or more consistent fishing experiences, these anecdotal indicators reflect a sense of real momentum. While the scientific data continues to guide our strategy, the community's lived experience is a powerful reminder of why this work matters.
In this update, we share insights into the lake's nutrient load, the substantial efforts taking place across the catchment, and what's next for our shared mission.



Phosphorus load – from Jan–Mar 2025

Scientific monitoring continues to show that phosphorus remains the critical nutrient driving algal blooms in Lake Hayes. Encouragingly, data from the last 15 months of monitoring reveals a net improvement in total phosphorus load moving through the lake system – a sign that the cumulative effects of catchment interventions are beginning to take effect.

During this period, analysis of inflows, particularly from Mill Creek, showed that:

- Approx 524 tonnes of sediment entered the lake.
- This equates to around 524 kg of phosphorus, based on typical sediment phosphorus content.
- In contrast, 774 kg of phosphorus exited via Hayes Creek.

This means that, although input loads remain high, the lake is now exporting more phosphorus than in previous years – a marked shift from the historic trend of nutrient retention.

Looking back, in 2019 and 2020, Lake Hayes experienced massive phosphorus loadings from catchment inflows. At the time, accurate data on outflows was limited, but estimates indicated that around 1,700 kg of phosphorus became trapped in lakebed sediments. This "legacy load" continues to cycle within the lake, contributing to internal phosphorus recycling that fuels ongoing water quality issues.

The fact that recent measurements show more phosphorus exiting than before suggests progress – but it also reinforces the importance of continuing our efforts to prevent further input and support the natural flushing process.

continued on next page...

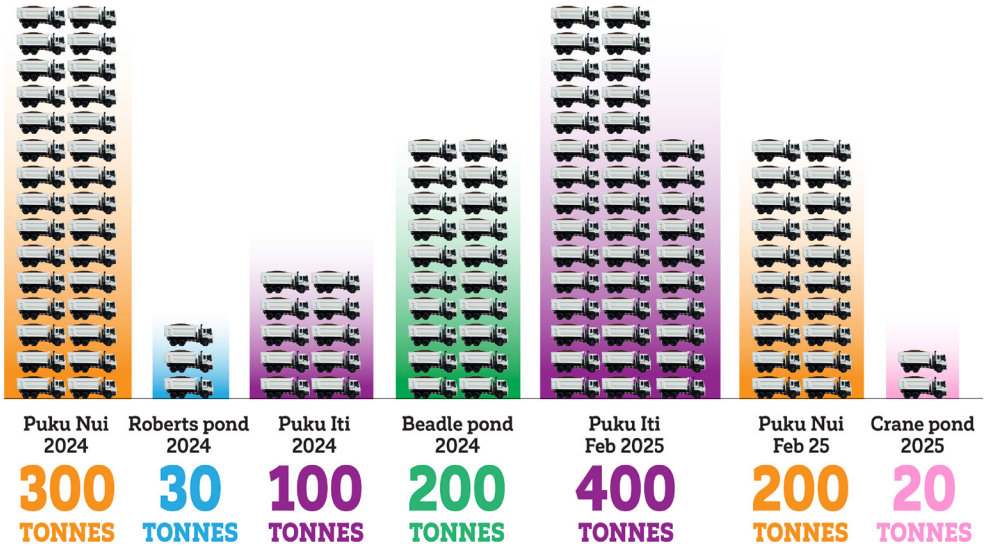
What's happening on the ground

Encouragingly, across the Lake Hayes catchment, a huge amount of practical work is underway to slow, filter, and remove sediment before it reaches the lake:

- The Dagg family removed an extraordinary 600 tonnes of sediment from Puku Iti and Puku Nui.
- Tim Roberts cleared 30 tonnes from the pond on his property last year.
- The Beadle family removed approx 200 tonnes from a key sediment trap on their land.
- Ayrburn has created a network of sediment traps that is already trapping large volumes of sediment, scheduled for removal next season.
- Millbrook is currently removing large amounts of sediment from its extensive pond system.
- Justin Crane has cleared out approx 20 tonnes from a major sediment trap and completed wetland planting at the south end of the lake...

Sediment removed from Mill Creek (@ May 2025)

= 10 TONNE PAYLOAD TRUCK




Planting and sediment trap on Justin Crane's property

In addition, **over 120,000 native plants** have been installed across the catchment in the last 3 years, thanks to the efforts of Mana Tahuna Trust – many of which are now well established and playing an important role in filtering sediment and stabilising waterways.

Hydrological progress

Last year, ORC undertook works to clear the creek flowing from the culvert at the lake's south end, improving flow through Hayes Creek. This proved critical during the record rainfall in August and September 2024, enabling increased outflow and the removal of a record quantity of phosphorus from the system.

Despite this, the reality remains: the legacy load – phosphorus-rich sediment sitting at the lakebed – will continue to recycle until it is flushed out or actively removed. This underscores the need to avoid new sediment inputs from land disturbance and unmanaged stormwater.

What lifestyle property owners can do

Every property in the Lake Hayes catchment plays a role in the health of the lake. On a typical lifestyle block of 8,000 square metres, more than half a tonne of sediment can accumulate on hard surfaces each year. If this sediment is allowed to wash into stormwater drains, it will ultimately be carried into the lake.

Here are a few practical steps for property owners:

- Encourage water to soak into the ground rather than run off. Puddles are good — they slow water down and let it soak away.
- If you have large volumes of runoff, consider creating soakage pits to hold water and allow it to seep away slowly.
- Capture rainwater in tanks and reuse it to water your garden.

The ultimate test: when it rains, check your driveway, paths, and drains. Is dirty water leaving your property? If not — you're doing your part to protect Lake Hayes.