

Te Hiku

Waipara / Dead Lake (Aupouri), NRC Lake No. 25



Plate: Waipara showing the margin of scrub vegetation with pine forestry behind this. Note the narrow emergent zone.

Summary	Waipara
Surveyed:	2004 and 2016
Overall ranking:	High-Moderate: Indigenous lake with indigenous scrub margin, reduced submerged vegetation due to humic staining, endangered birds present.
Threats:	Low; isolated lake, possible threat from diggers and pine harvesting activities, buffered from groundwater nutrient additions.

Description

Waipara (1586647E, 6172834N) is 1.3 ha in area and > 5 m deep. The lake is ringed by a narrow margin of manuka scrubland, a forest road and then plantation pine forestry. The surrounding pine forest had recently been harvested around the lake in 2015. No inflow or outflow streams. Access is through 7 km of forestry roads with trailer access possible at one point (bulldozed track to lake margin).

Wetland vegetation

The lake was ringed by a narrow (2 to 5 m wide) emergent band of *Machaerina articulata* (edge to 0.5 m deep) and *Eleocharis sphacelata* (0.5 to 2 m deep). Other emergent species seen were *Machaerina arthropophylla*, *M. juncea*, *Isachne globosa* and *Persicaria decipiens*.

Submerged vegetation

Submerged vegetation was native but depauperate due to low light penetration. *Chara australis* the most common charophyte extended from the edge of emergent vegetation to a maximum depth of 2.8 m. *Potamogeton cheesemanii* and *Myriophyllum propinquum* were the only tall-growing species.

LakeSPI

Reconnaissance only – no LakeSPI score generated.

Water birds

The isolated nature of this lake with a scrub margin, but relatively poorly developed emergent vegetation provides a moderate habitat for water birds. The nationally threatened bittern (*Botaurus poiciloptilus*) and regionally significant fernbird (*Bowdleria punctata vealeae*) were both recorded at this lake during the 2004 vegetation survey.

Fish

No fish were recorded.

Aquatic invertebrates

Pea mussels (*Sphaerium novaezelandiae*) and freshwater sponges were observed during the vegetation survey.

Endangered species

None seen in 2016.

Lake Ecological Value

Based on the 2004 survey a Lake Ecological Value rating of 8 (High-Moderate) was calculated. This assessment increased to 9 in 2015 due to improved emergent vegetation cover, with the lake still rated High-Moderate.

Threats

Risk of introduction is low, unless drainage machinery accesses the lake. Pest impacts would be minimal due to low light penetration. Good buffer to nutrient addition via ground water/run-off.

Management recommendations

Lake ecological assessment every 5 years.