Poutō Peninsula

Wairere (Poutō), NRC Lake No. 339 & Round Hill Lake 2.

Round Hill Lake 2 (top), and **Wairere** north end (middle) and further south (bottom). Raupo (*Typha orientalis*) dominated emergent vegetation.

Summary

Surveyed 2005 and 2014.

Overall ranking

High: Isolated and set within a mostly indigenous catchment with diverse native aquatic vegetation, but subject to algal blooms. Endangered bird species present.

Threats

Moderate risk of introduction of invasive weeds. Water quality variable.

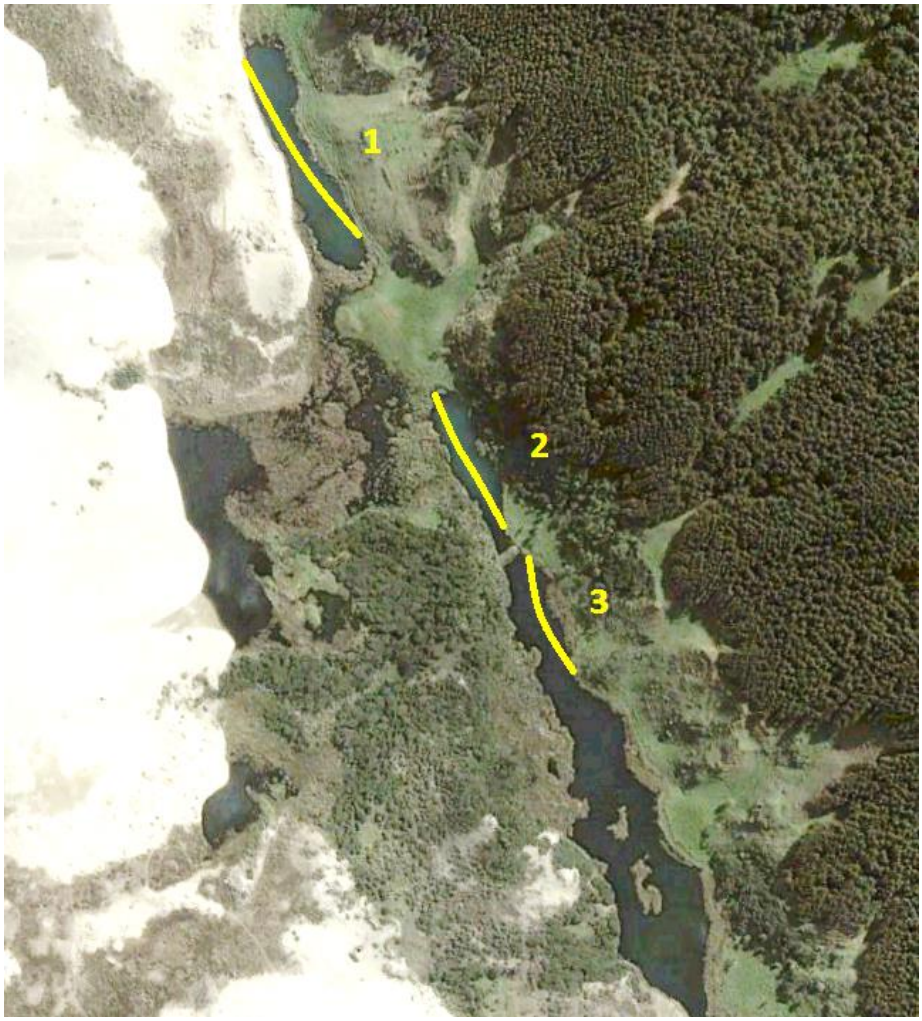
Management recommendations

Lake ecological assessment monitoring every 5 years.

Consider nutrient issues.

Description

This narrow (~2 km long, <100 m wide) dune lake (1691256E, 5985189N) is 16.5 ha in size and around 2 m deep. There are two small cut-offs to the north. Roundhill lake 2 (1690678E, 5986484N) was situated just north of Wairere. Wairere has a margin of steep scrub covered cliff to the east and rough pasture, wetland and mobile sand dunes to the west. Access is through 3 km of pine forestry roads and rough pasture, mostly on a well-formed track requiring 4-WD, or via the West Coast traversing the sand dunes. Difficult boat access.



Wairere lakes surveys (2014). Line 1 is Round Hill Lake 2, and lines 2 & 3 are paths swum in Lake Wairere (north end).

Wetland vegetation

Extensive wetlands occurred in the south west of the lake with *Typha orientalis, Schoenoplectus tabernaemontani, Machaerina articulata, M. arthrophylla, Eleocharis acuta, E. sphacelata* and *Carex secta* common. The southern end of the lake was fringed with a dense 5-10 m bed of raupo (*Typha orientalis*).

Additional native emergent species seen in 2014 were *Machaerina juncea, Carex virgata, C. maorica, Cyperus ustulatus, Isachne globosa, Isolepis prolifera, Persicaria decipiens* and *Juncus pallidus* and the exotic grass *Paspalum distichum*.

Submerged vegetation

In 2014 in Round Hill Lake 2 *Chara australis* was the dominant species to 2.8 m deep. Also present were *Potamogeton cheesemanii* (1.6 m) and *Potamogeton ochreatus* (2.5 m).

In the northernmost cut-off section of Lake Wairere, *Chara australis* was also the dominant species to 1.2 m deep, with *Potamogeton ochreatus* (2.1 m), and *Potamogeton cheesemanii* (1.8 m).

In the northern end of Lake Wairere the water depth was only 1 m and it was vegetated with *Chara australis*, *C. globularis*, *Utricularia gibba*, *Potamogeton cheesemanii, P. ochreatus* and *Myriophyllum triphyllum* all attaining high covers.

LakeSPI

Reconnaissance only – no LakeSPI scores were generated.

Water birds

The lake and surrounding wetlands provide excellent bird habitat. DOC SSBI (1977) recorded the Nationally Threatened bittern (*Botaurus poiciloptilus*) and regionally threatened dabchick (*Poliocephalus rufopectus*) and scaup (*Aythya novaezeelandiae*). A spotless crake (*Porzana tabuensis plumbea*) was seen in the wetland during the 2014 field visit.

Fish

Eels were seen.

Endangered species

No endangered plant, fish or aquatic invertebrate species were recorded in 2014, although At Risk Declining longfin eel (*Anguilla dieffenbachii*) were potentially present (eel species were not determined during the ecological survey). Spotless crake (*Porzana tabuensis plumbea*) are assessed as At Risk Declining.

Lake Ecological Value

Lake Wairere was first surveyed in 2005 with a heavy algal bloom (0.3 m of visibility) and some remnant plant communities. Water clarity was considerably better in 2014 (around 2.5 m) and more extensive submerged vegetation was present. An increase of species richness has resulted in an improved Lake Ecological Value of 10 “High”.

Threats

The isolation of the lake was initially thought to pose a low risk of introduction of invasive weeds but establishment is likely should this occur. However, an unnamed lake ~ 1 km south of Wairere (Lake# 344) was found to be invaded by the two most invasive submerged species hornwort (*Ceratophyllum demersum*) and egeria (*Egeria densa*) in 2020. Introduction is likely to have occurred through contaminated eel nets, potentially the same vector could introduce those species to Wairere.

Water clarity is variable, probably due to nutrient additions from the forestry area to the east. While conditions were suitable for macrophyte growth in 2014, nutrient losses from land management practices are likely cause periodic algal blooms that threaten water quality and ecological health.

Management recommendations

Lake ecological assessment monitoring every 5 years.