

## North of Dargaville

### Waingata (Waipoua) NRC Lake No. 200A



**Waingata.** Photo from the west, showing the steep, pampas dominated catchment (Photo: Lisa Forester, NRC 3 May 2018).

#### Summary

**Surveyed** 2006 and 2018.

#### Overall ranking

**Low:** A small steep sided lake, within recently harvested plantation pine forestry in the catchment. No submerged vegetation noted, lake very brown-stained.

#### Threats

Very low risk of pest plant introduction due to very difficult access, with subsequent impact likely to be low due to lack of favorable habitat. Moderate risk of increased nutrient loading dependent on forestry management.

#### Management recommendations

No regular monitoring.

#### Description

A small (0.9 ha) dune lake (1642935E, 6053750N), with a maximum depth ~3 m. Pine plantation forest catchment, all but the southern end of lake had been harvested prior to 2018 visit, now dominated by pampas (*Cortaderia selloana*). No outflows or outflows are apparent. Access is via forestry roads, then by walking down a steep bank through dense pampas, with no access for boats/canoes.

## Wetland vegetation

The lake had a narrow (2-5 m) wide fringe of emergent vegetation dominated by *Eleocharis sphacelata* and locally common *Machaerina articulata*, with a larger emergent area at the northern end, which also contained *M. arthropphylla*, *M. juncea* and *Isachne globosa*.

## Submerged vegetation

In 2006, the *Eleocharis sphacelata* extended with a high cover into about 2.5 m of water. Submerged vegetation was all native but generally sparse throughout the lake down to 5-6 m deep, with most in the north end where the slope was much less. *Chara australis* was the dominant charophyte but *C. fibrosa* and was also present with some *Potamogeton ochreatus*.

In 2018, the lake was highly tannin-stained, with poor underwater visibility and no submerged vegetation was noted.

## LakeSPI

In 2006, no invasive species were present, but the low cover of native species accounted for the LakeSPI Index score of 80. Submerged vegetation was absent in 2018 with a zero score.

## Water birds

None recorded.

## Fish

Eels were probably present as holes were frequent in the bottom sediment in 2006.

## Aquatic invertebrates

None noted.

## Endangered species

No threatened species were observed in and around Waingata.

## Lake Ecological Value

Waingata ecological value rating is assessed as 2 "Low", a small water body, with poorly buffered habitat, low biodiversity and lacking submerged vegetation, possibly as a result of pine felling and consequent increased staining due to the release of tannic acids from decomposing pine roots/mycorrhizae.

## Threats

There is a very low risk of pest plant introduction due to the difficult access, with subsequent impact likely to be low due to lack of favorable habitat. The felling of pines around much of lakes steep catchment is likely to have led to the loss of an already sparse submerged vegetation. There is a moderate risk of increased nutrient loading dependent on forestry management, but the lake is already degraded.

## Management recommendations

No regular monitoring is recommended.