

Te Hiku

Te Kahika South (Aupouri), NRC Lake No. 30



Te Kahika South, a coastal dune lake surrounded by a narrow wetland \ scrub margin within pine plantation forestry.

Summary	Te Kahika South
Surveyed:	2010 and 2016.
Overall ranking:	High-Moderate: a small remote lake with water heavily stained water. The lake is surrounded by a fringe of emergent wetland dominated by low nutrient adapted species. Submerged vegetation sparse with <i>Utricularia gibba</i> dominant and one shoot of <i>U. australis</i> seen. Other endangered plants recorded.
Threats:	Pine harvesting impacting water quality and nutrient status. Fire risk to marginal species. Low risk of introduction and establishment of invasive pests.
Management recommendations:	Lake native biodiversity value monitoring every 5 years.

Description

The lake (2511204E, 6730451N) is small (1.43ha), shallow 3 m+ deep. Peat-stained acidic water (pH 4.7). The catchment is plantation forestry, lake and wetland. Access is through forest track with the lake situated down steep banks. No boat access.

Wetland vegetation

Emergent species encircling the lake were *Baumea arthropphylla*, *B. rubiginosa*, *B. juncea*, *B. teretifolia*, *Gleichenia dicarpa*, *Empodisma robustum*, *Eleocharis sphacelata* and *Phormium tenax* growing to a depth of 1.8 m. The endangered *Todea barbara* was common in a narrow fringe between wetland and scrub vegetation. *Drosera pygmaea* was abundant on the margins of the vehicle access track, in recently logged pine forest.



Drosera pygmaea (Nationally Vulnerable) adjacent to Te Kahika South.

Submerged vegetation

There was no submerged vegetation present in the dark tea-stained water, but scattered plants of *Utricularia gibba* were noted amongst emergent species and one plant of *U. australis* was noted.

LakeSPI

None generated.

Water birds

No birds seen.

Fish

No fish seen.

Aquatic invertebrates

Dragonfly nymphs and adults and *Sigara arguta* were noted. No mussels or koura seen.

Endangered species

The lake supports a large population of the Nationally Endangered *Todea barbara* and is one of the few Northland waterbodies still supporting the Nationally Critically Endangered *Utricularia australis* albeit in much reduced numbers from 2010. The Nationally Vulnerable *Drosera pygmaea* is a colonist of open areas created by logging and is unlikely to persist once taller vegetation develops.

Lake Ecological Value

A 2016 Lake Ecological Value rating of 8 (High - Moderate) reflects the entire fringe of emergent and wetland species and presence of nationally threatened plants. Submerged vegetation was poorly developed.

Threats

Access for vectors of pest species is difficult, and low water clarity and acid pH would make this threat unlikely. Forestry fertilising would have impacts on lake nutrients pH and clarity, although wetland and scrub vegetation is likely to buffer much of this impact.

Management recommendations

It is recommended that lake native biodiversity value monitoring is undertaken every five years.