

Te Hiku

Te Kahika Ponds and outlet stream (Aupouri), NRC Lake No. 30A



The Nationally Critically Endangered *Utricularia australis* (yellow arrow) in the Te Kahika outlet stream, 2016.



The Nationally Endangered fern *Todea barbara* next to Andrew Townsend (DOC) adjacent to the Te Kahika eastern pond, 2016.

Summary	Te Kahika Ponds and Stream
Surveyed:	2016 and 2019
Overall ranking:	Moderate-Low: Small ponded areas and pools within the outlet stream, mostly in a harvested pine catchment, no submerged vegetation. <i>Utricularia australis</i> not relocated in 2019.
Threats:	Pine harvesting impacting water quality and nutrient status. Low risk of introduction and establishment of invasive pests
Management recommendations:	Monitoring for <i>Utricularia australis</i> in the Te Kahika outlet stream every five years.

Description

There are several ponded areas on the eastern side of Te Kahika that appear to have been dry before forest harvesting in 2013 (Google Earth photograph series), the largest being a narrow pond, extending for 60 m (1600380E, 6169210N). These ponds did not contain any submerged species but are surrounded by some wetland plants. The outlet stream runs from the eastern edge of Lake Te Kahika (1600260E, 6168700N) discharging into Great Exhibition Bay (1601100E, 6168770N). The catchment is in harvested pine plantation forestry. Access is through forest tracks.

Wetland vegetation

Wetland species in surrounding vegetation included *Isolepis inundata*, *Machaerina teretifolia*, *Dianella haemata*, *Empodisma robustum*, *Gleichenia dicarpa* and *Eleocharis sphacelata*. The endangered fern *Todea barbara* was noted amongst *G. dicarpa* dominated vegetation.

Submerged vegetation

There were no submerged species in the ponded areas, but a significant population of *Utricularia australis* was located in ponded areas of the outlet stream in 2016. No plants were found in this area during the 2019 visit.

LakeSPI

No LakeSPI score could be generated.

Water birds

No birds seen.

Fish

No fish seen.

Aquatic invertebrates

No invertebrates were noted.

Endangered species

The Nationally Endangered fern (*Todea barbara*) is occasional in suitable habitats in the Te Kahika/Morehu area. The population of the Nationally Critically Endangered *Utricularia australis* in ponded areas of the outlet stream was probably the second largest remaining population of this species in Northland in 2016, but this species was not found in 2019.

Lake Ecological Value

Based on the 2019 survey a Lake Ecological Value rating of Moderate to Low (score = 4). The catchment is highly modified by pine plantation forestry and submerged vegetation was lacking.

Threats

Fluctuating water tables and input of nutrients associated with plantation forestry are likely to be the main threats to these wetlands.

Management recommendations

It is recommended that monitoring for *Utricularia australis* in the Te Kahika outlet stream is undertaken every five years.