



Wharetata Bay

Site Number:	123
Ecological District:	Rotorua Lakes
Source of Information:	Field work 2016
Digital Scale:	1:5,000
Data Source:	BOPLASS Ltd 2011
Regional Council:	Bay of Plenty
1998 Site Number:	Not identified as a site in Shaw and Beadel (1998)
Current Tenure:	Unprotected
Site Area:	3.44 ha
Altitude Range:	280-300 m
Bioclimatic Zone:	Lowland
Grid Reference:	NZTM E1896105, N5783841

VEGETATION		LANDFORM	EXTENT
CODE	TYPE		
1	Mānuka-whekī/<i>Histiopteris incisa</i>-<i>Hypolepis ambigua</i> shrubland (geothermal and non-geothermal) Mānuka forms a canopy (c.3 m) around hot springs and geothermally influenced water. Occasional whekī, radiata pine and gorse are present in the canopy. The understorey comprises <i>Histiopteris incisa</i> and <i>Hypolepis ambigua</i> with occasional Mercer grass (<i>Paspalum distichum</i>), purple-top (<i>Verbena bonariensis</i>) and Yorkshire fog. <i>Cyperus ustulatus</i> , <i>Sphagnum cristatum</i> , <i>Sphagnum falcatulum</i> , spike sedge (<i>Eleocharis acuta</i>), swamp millet, and <i>Juncus edgariae</i> are present near wet margins adjacent to springs and associated water.	Flat	0.6 ha
2	<i>Hypolepis ambigua</i>-<i>Histiopteris incisa</i> fernland (geothermal) <i>Hypolepis ambigua</i> and <i>Histiopteris incisa</i> form a dense canopy with scattered gorse, Yorkshire fog, Mercer grass, <i>Juncus edgariae</i> and <i>Juncus effusus</i> , mingimingi and mānuka.	Flat	0.8 ha
3	Narrow-leaved carpet grassland (geothermal) A dense unit of narrow-leaved carpet grass (<i>Axonopus fissifolius</i>) surrounding small patches of sinter and geothermally influenced water.	Gently sloping	<0.1 ha
4	Geothermal water (geothermal) Several hot springs flow into Lake Rotoiti at Wharetata Bay (Not mapped separately).	Stream outlet, Open water	<0.1 ha
5	Alder/Yorkshire fog-cocksfoot (<i>Dactylis glomerata</i>)-<i>Carex virgata</i>-swamp millet grassland (non-geothermal) Grassland with a mixture of exotic grasses, indigenous grass and sedges. Tall alder are scattered throughout. Blackberry is locally common.	Flat	2.04 ha

Indigenous Flora: Several indigenous species typical of geothermal habitats are present, including mānuka, *Cyperus ustulatus*, bracken, mingimingi, and *Histiopteris incisa*. No threatened or at risk species as listed in de Lange *et al.* (2013) have been recorded from this site.

Fauna: Common indigenous and exotic species typical of the habitats are present, including fantail, whitehead (*Mohoua albicilla*), grey warbler, bellbird (*Anthornis melanura*), and welcome swallow. New Zealand dabchick (Threatened-Nationally Vulnerable) and North Island fernbird (At Risk-Declining) are also present.

Notes on Overall Condition: This site appears to have improved in condition since the 1996 survey, with no grazing by farm animals in recent years. The mānuka shrubland and wetlands surrounding the hot springs are in a moderate condition and contain few pest

	plants.
	Exotic grassland and alder occur at the western side of the wetland.
Change Relative to Shaw and Beadel (1998):	The extent of geothermal vegetation and habitat at this site is similar to that recorded by Beadel <i>et al.</i> (1996); however, the quality of geothermal vegetation has probably improved since stock have been excluded from the site.
Threats/Modification/Vulnerability:	<p><i>Invasive Exotic Plants:</i> Adventive grassland is present around the hot springs and associated geothermal vegetation. Abundant alder, blackberry and gorse and scattered plants of grey willow occur with exotic grasses in the margins and the west of this site.</p> <p><i>Human Impacts:</i> Several unformed tracks are present. These are used to access the springs.</p> <p><i>Grazing:</i> The site has been grazed in the past as part of pastoral farming operations, but does not appear to have been grazed in recent years.</p> <p><i>Pest Animals:</i> Pigs are present.</p>
Risk Assessment:	<p>Pest plants: Risk to site - Medium; Timeframe - Medium.</p> <p>Pest animals: Risk to site - low; Timeframe - low.</p>
Significance Level:	Local (Appendix 8 - Table 1 - Criteria 3.1, 3.2, 3.9; Table 2 - Factor L).
Significance Justification:	This locally significant site includes geothermal vegetation and habitat (Types 1-4) - a nationally uncommon habitat type and a 'Critically Endangered' ecosystem - and provides a buffer to Lake Rotoiti from adjacent land use practises. This site has a high potential for restoration.
Field Work Required:	No field work required.
Notes:	<p>The Trust land that this site is on was farmed in the past; the surrounding land now mostly comprises plantation forestry.</p> <p>This area now combines Wharetata Bay Wetland (Site 171) with Wharetata Bay (SNA 123).</p>
References:	Beadel <i>et al.</i> (1996); Wildland Consultants (2005b); Wildland Consultants (2009).