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Waikato River Springs¹

Site Number:	SNA568
Ecological District:	Atiamuri
Source of Information:	Wildland Consultants (2014a)
Digital Scale:	1:5,000
Data Source:	Bay of Plenty 0.25m Rural Aerial Photos (2015-17)
Regional Council:	Waikato
1998 Site Number:	Not identified as a site in Shaw and Beadel (1998).
Current Tenure:	Unprotected
Site Area:	<0.1 ha
Altitude Range:	300 m
Bioclimatic Zone:	Lowland
Grid Reference:	NZTM E1877503, N5731826
Description and Assessment:	The description and assessment below covers the entire natural area, which is mainly within a protected area. The Waikato River Springs SNA comprises a small unprotected area adjacent to the larger natural area and this area is shown on the SNA site map. The significance assessment is based on the ecological values of the entire natural area which the Waikato River Springs SNA is a part of. Note: vegetation types not present in the SNA are not shown in this site sheet, however they are presented in Wildland Consultants 2014a.

VEGETATION		LANDFORM	EXTENT
CODE	TYPE		
1	Reed sweet grass-raupō-lake clubrush grassland Reed sweet grass (<i>Glyceria maxima</i>), raupō, and lake clubrush dominate the margins of a geothermally influenced pool (temperatures up to 45 °C in the northern pools in 2011), with emergent grey willow, blackberry, harakeke, Chinese privet, bracken, and radiata pine on the drier margins. Other species present include <i>Cyperus ustulatus</i> , and mercer grass.	Stream margins, pond margins	<0.1 ha
4	Geothermal water Hot spring, hot stream, pools. In cooler water, water lily (<i>Nymphaea alba</i>) is common.	Stream, pools	<0.1 ha

Indigenous Flora: *Christella* aff. *dentata* (“thermal”) (At Risk-Declining) has previously been recorded at this site (Wildland Consultants 2006). No specimens were located during the 2011 survey but the entire site could not be inspected due to high river conditions so the population is still likely to be present.

Fauna: North Island fernbird (At Risk-Declining) were present in 2006 (Wildland Consultants 2006). Common indigenous and exotic species including tūī, fantail, California quail, greenfinch, Eurasian blackbird, yellowhammer, and goldfinch are also present.

Notes on Overall Condition: This site is in a moderate condition. Weed species such as reed sweetgrass dominate the wetland areas of this site.

Change Relative to Shaw and Beadel (1998): Unknown. Probably little change.

¹ The information on this site is based on Wildland Consultants (2006). Part of the site described in this report extends outside the Rotorua District and these areas have not been mapped as part of this project.

Threats/Modification/ Vulnerability:	<p><i>Invasive Exotic Plants:</i> Reed sweetgrass is the dominant vegetation within this site (75-100% cover). Chinese privet (1-5% cover), radiata pine <1% cover), grey willow (1-5% cover), buddleia (1-5% cover), and blackberry (1-5% cover) are also present.</p> <p><i>Human Impacts:</i> Radiata pine plantations border the southern area of this site and forestry operations (silt and sediment runoff, harvesting and replanting) may result in further degradation of its ecological values.</p> <p><i>Grazing:</i> Site is not accessible to stock.</p> <p><i>Adjoining Land Use:</i> Waikato River, mixed indigenous and exotic scrub, plantation forest.</p>
Risk Assessment:	<p>Willows: Risk to site - medium; Timeframes - medium. Other pest plants: Risk to site - medium; Timeframes - medium.</p>
Significance Level:	Regional (Appendix 7 - Table 1- Criteria 3, 5, 6, 9; Table 2 - Factor 7).
Significance Justification:	This site is regionally significant because is protected under the Reserves Act 1977 as a Scenic Reserve. The site also contains a small population of an 'At Risk' plant species (<i>Christella</i> aff. <i>dentata</i> ("thermal")); <i>Christella</i> is only known from 15 sites in New Zealand, therefore this site is important for the conservation of this species.
Field Work Required:	This site is a medium priority for fieldwork.
Notes:	<p>Part of this site were recorded as Lake Ohakuri/Tainui Road in Beadel and Bill (2000) and Wildland Consultants (2004b).</p> <p>The water temperature in one spring was 65 °C with a flow rate of 1 m/second. The spring was depositing small amounts of sinter. The water temperature in one stream was 54°C, with a water flow of c.2 m/second (Wildland Consultants 2006).</p> <p>This site was formerly identified as being of national significance (Wildland Consultants 2006) due to the presence of <i>Christella</i> aff. <i>dentata</i> ("thermal") which, at that time, was classified as 'Chronically Threatened' (de Lange <i>et al.</i> 2004).</p>
References:	Beadel and Bill (2000); Wildland Consultants (2004c, 2006, 2009, 2012, & 2014).