



Government Gardens (including Rachel Spring)

Site Number: SNA162
Ecological District: Rotorua Lakes
Source of Information: Wildland Consultants (2005c) - Geothermal Site No. 66
Digital Scale: 1:1,000
Data Source: RDAM 2006
Regional Council: Bay of Plenty
1998 Site Number: Not identified as a site in Shaw and Beadel (1998)
Current Tenure: Unprotected and Rotorua District Council Reserve. The Reserve parts are not all managed with a focus on the protection of geothermal features and vegetation.
Site Area: 0.5 ha
Altitude Range: 290 m
Bioclimatic Zone: Lowland
Grid Reference: NZTM E1885452, N5773963

VEGETATION		LANDFORM	EXTENT
CODE	TYPE		
1	Manuka-mingimingi shrubland A canopy of manuka and mingimingi to 2 m over an understorey of mown narrow-leaved carpet grass and raw-soilfield.	Flat	0.2 ha
2	Kanuka-mingimingi shrubland Mixed kanuka (to 3 m tall) and mingimingi shrubland with occasional turutu and pohutukawa which form a narrow band of vegetation surrounding geothermal features including a mudpool and geothermal water.	Gently sloping	0.1 ha
3	Geothermal water Geothermally influenced water.	Crater	<0.1 ha
4	(Kanuka)-(pohutukawa)-(mingimingi)-(silver birch) raw-soilfield An area of heated soils and steaming soils surrounding Malfroy's artificial geysers with occasional pohutukawa, kanuka, mingimingi, and silver birch seedlings.	Flat	0.1 ha
5	(Pohutukawa)-(manuka)-(Mercer grass) raw-soilfield A small area of raw-soilfield and concrete surrounding Rachel Spring with occasional pohutukawa, manuka, and paspalum.	Flat	<0.1 ha

Indigenous Flora: No threatened or at risk species as listed in de Lange *et al.* (2009) have been recorded at this site. Several species typical of geothermal habitats are present, including manuka, kanuka, mingimingi, and turutu. The pohutukawa (shrubs and seedlings) have probably originated from nearby plantings.

Fauna: Common indigenous and introduced birds typical of the habitat are present, including bellbird, pukeko, fantail, and house sparrow. No threatened or at risk species as listed in Miskelly *et al.* (2008) have been recorded from this site.

Notes on Overall Condition: Small remnants of geothermal vegetation which have been degraded by heavy human activity around the site.

Change Relative to Shaw and Beadel (1998):	The extent and composition of this site appears to be similar to that recorded in 1996 (Beadel <i>et al.</i> 1996b).
Threats/Modification/Vulnerability:	<p><i>Invasive Exotic Plants:</i> Silver birch (<1% cover) is present. The extent of vegetation is limited by surrounding reserve management activities, with mown grass, roads, and gardens.</p> <p><i>Human Impacts:</i> The site has been greatly altered as part of a recreation reserve, and nearby geothermal spring facilities. Road and tracks (formed and unformed) occur throughout. Water has been extracted from the site for bathing water for tourism. Gardens and exotic amenity trees have been planted in the geothermal site. Litter is present.</p>
Risk Assessment:	Pest plants: Risk to site - medium; Timeframe - medium.
Significance Level:	See accompanying map for demarcation of areas A and B. A. National (Appendix 10 - Table 1 - Criteria 4, 6; Table 2 - Factor N3). B. Local (Appendix 10 - Table 1 - Criteria 4, 6; Table 2 - Factor L1).
Significance Justification:	A. This area was identified as a being of national significance in Cody (1994) and Kenny & Hayward (1996). B. This area is of local significance as it contains geothermal vegetation, which is a nationally uncommon vegetation type.
Fieldwork Required:	No fieldwork is required.
Notes:	None
References:	Wildland Consultants (2005c); Beadel <i>et al.</i> (1996b).