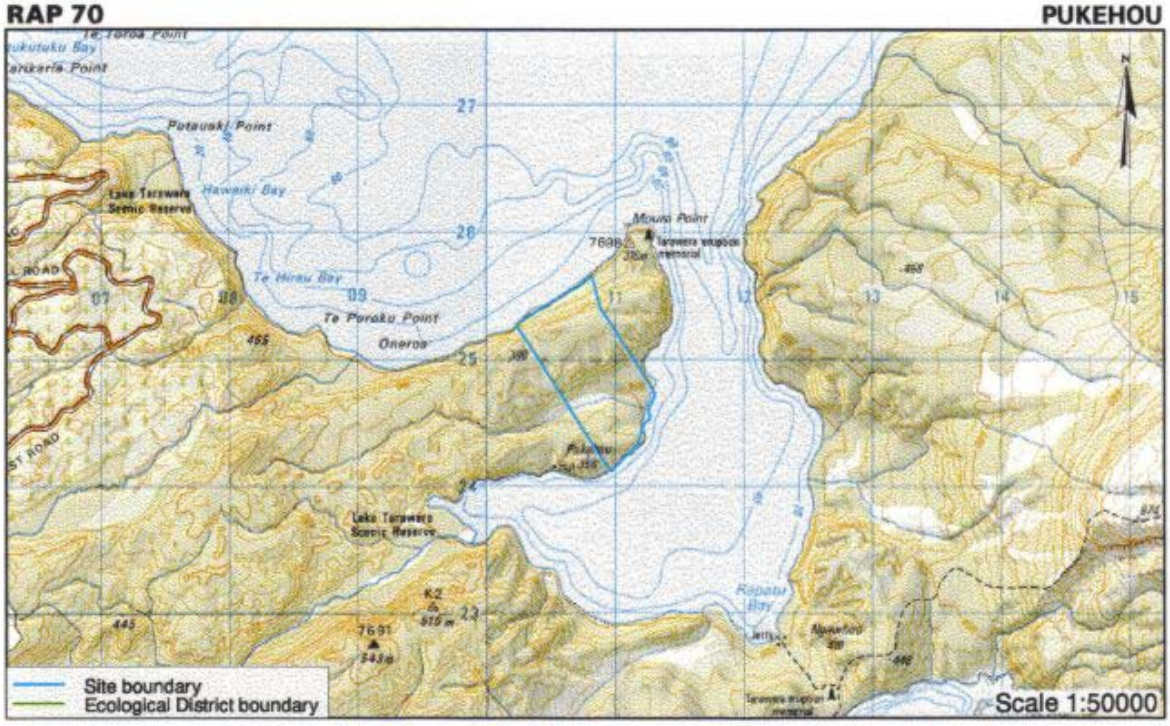
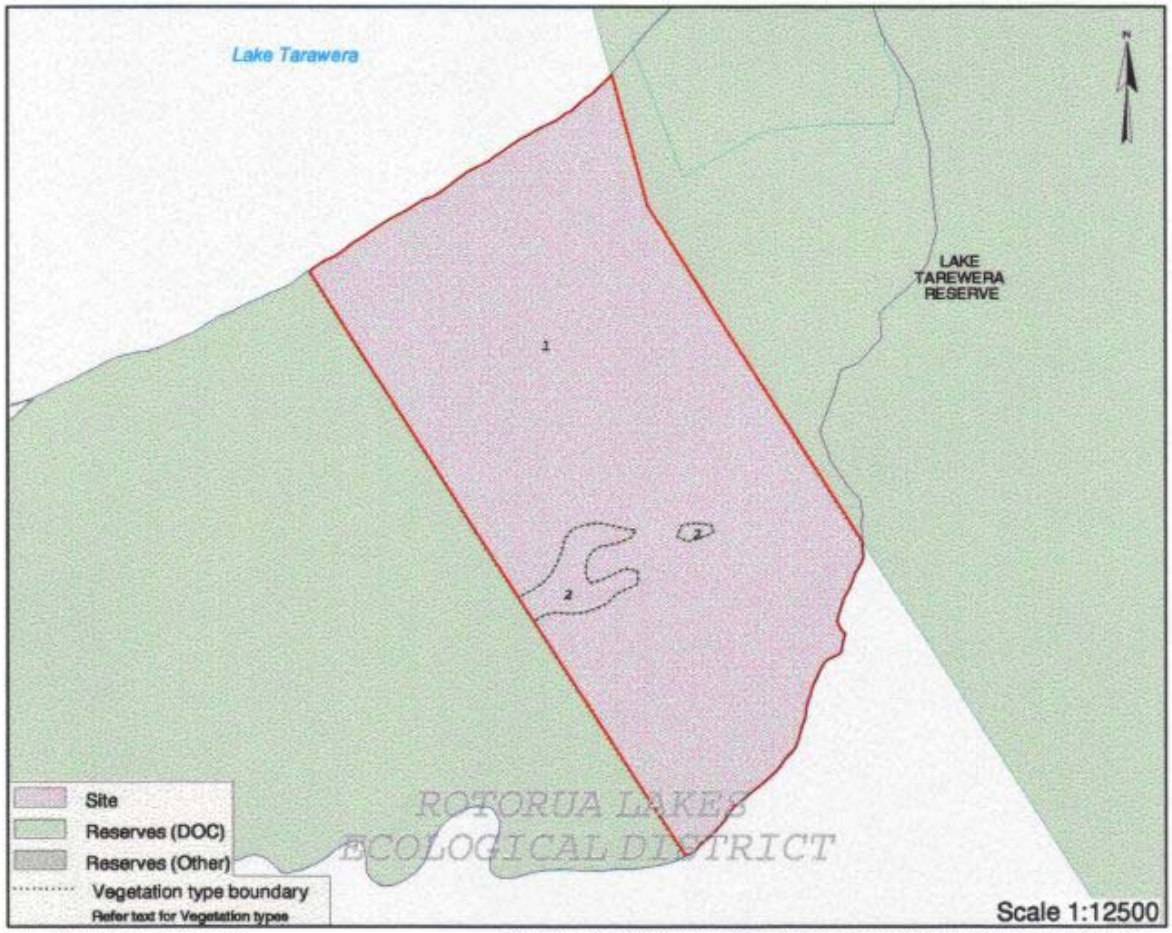
RAP 70 **PUKEHOU**





LINZ Licences - Crown Copyright Reserved

Produced on CIVIC INFO, Rotorua District Council's Geographic Information System on 23 Jul 98 11:49:47 Thursday

PUKEHOU

RAP No.	70
PNAP Survey No. (1996/97)	241
Area	78.6 ha
Altitudinal Range	300 - 390 m
Grid Reference	NZMS 260 V16 106248
Landform Unit	Hills; lakes
Status	Unprotected

BIOCLIMATIC ZONE	VEGETATION TYPE	LANDFORM
Lowland	1. Kanuka forest and scrub ≒ kohuhu-mahoe-mamaku forest (with local pohutukawa around lake margins). 2. Clearing.	hillslopes flat

Vegetation Secondary forest which has regenerated since the 1886 Tarawera eruption.

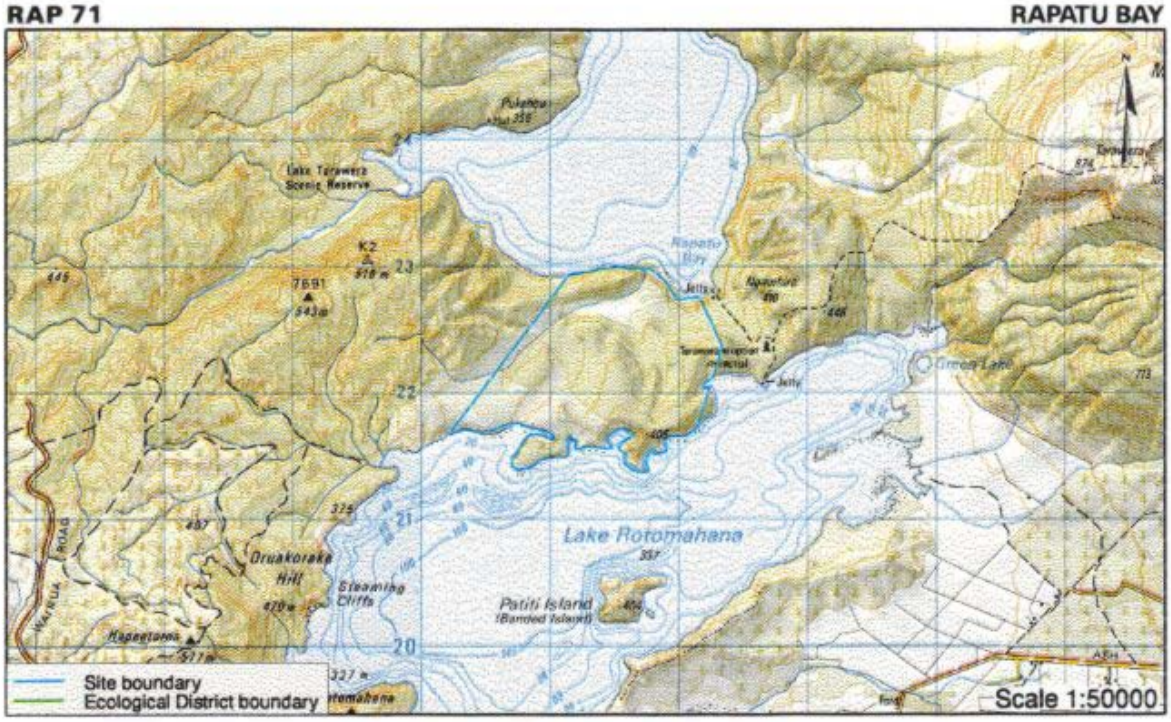
Flora Typical species only were noted.

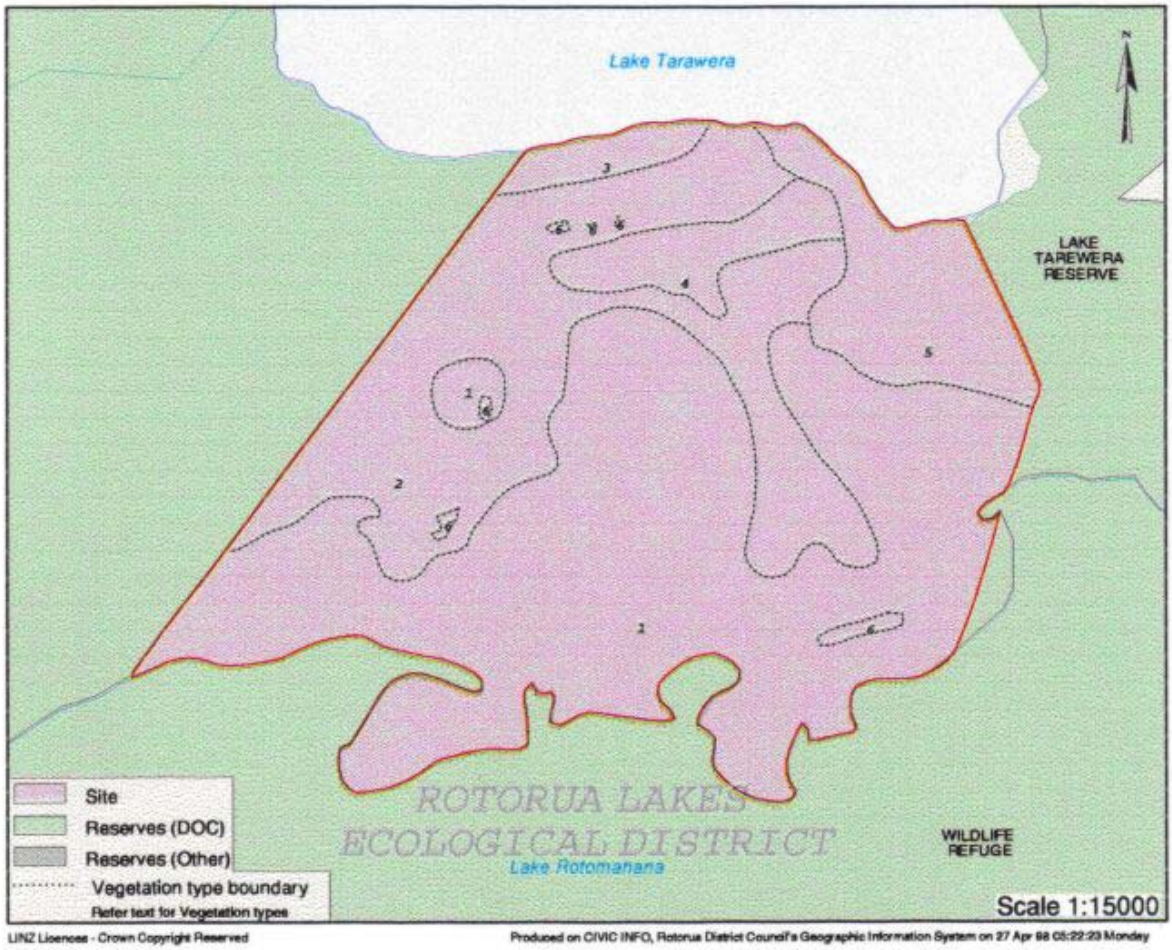
Fauna Common forest bird species are present. Lake birds use the margins of this RAP.

Threat/Modification A relatively small area along a valley floor has been cleared for a campsite.

Justification This RAP contains good quality secondary vegetation which is surrounded by Lake Tarawera and a larger protected area of significant conservation value.

RAP 71 **RAPATU BAY**





LINZ Licences - Crown Copyright Reserved

Produced on CIVIC INFO, Rotorua District Council's Geographic Information System on 27 Apr 68 05:22:23 Monday

RAPATU BAY

RAP No.	71
PNAP Survey No. (1996/97)	104
Area	206.8 ha
Altitudinal Range	300 - 406 m
Grid Reference	NZMS260 V16 115224
Landform Unit	Undulating to hilly; hills; lakes
Status	Unprotected

BIOCLIMATIC ZONE	VEGETATION TYPE	LANDFORM
Lowland	1. Kanuka-kohuhu-whauwhaupaku-mamaku forest (kanuka is dominant, other species are scattered and locally common). Toetoe, karamu, kiokio are common along lake margins with local pohutukawa. There are a few local black wattle and pines.	rolling hillslopes
	• Raupo-(*Schoenoplectus validus*)-(*Baumea articulata*) reedland (not mapped; occurs locally along lake margins).	wetland
	2. Kanuka forest and scrub (with local wattle and pines).	rolling hillslopes
	3. Kanuka-pohutukawa forest (with local black wattle and mamaku).	rolling hillslopes
	4. (Black wattle)/manuka-kanuka shrubland (this area is sparsely vegetated; there is local Spanish heath, lupin, *Morelotia affinis*, broom, *Pomaderris phylicifolia* and emergent radiata pine).	flat
	5. Black wattle-kanuka forest.	rolling hillslopes
	6. Clearings (Yorkshire fog-cocksfoot-lotus grassland with local toetoe, broom, Spanish heath, kohuhu, lupin, California thistle and ragwort).	flat

Vegetation Secondary forest developed following Tarawera eruption. A few small grassy clearings. Small example of wetland vegetation occurs around lake margins.

Flora *Muehlenbeckia axillaris*, akeake, *Pimelea prostrata*, *Raoulia* sp. (unnamed aff. *R. australia*), and plume grass were recorded.

Fauna Common forest birds occur in the RAP and several lake birds use its margins.

Threat/Modification Deer have a high impact on the vegetation, maintaining several small grassy clearings.

Justification This RAP is bounded on three sides by reserves, and on the fourth by Lake Tarawera. Together with the adjacent reserves, it comprises a large

representative example of the indigenous vegetation of the ecological district.

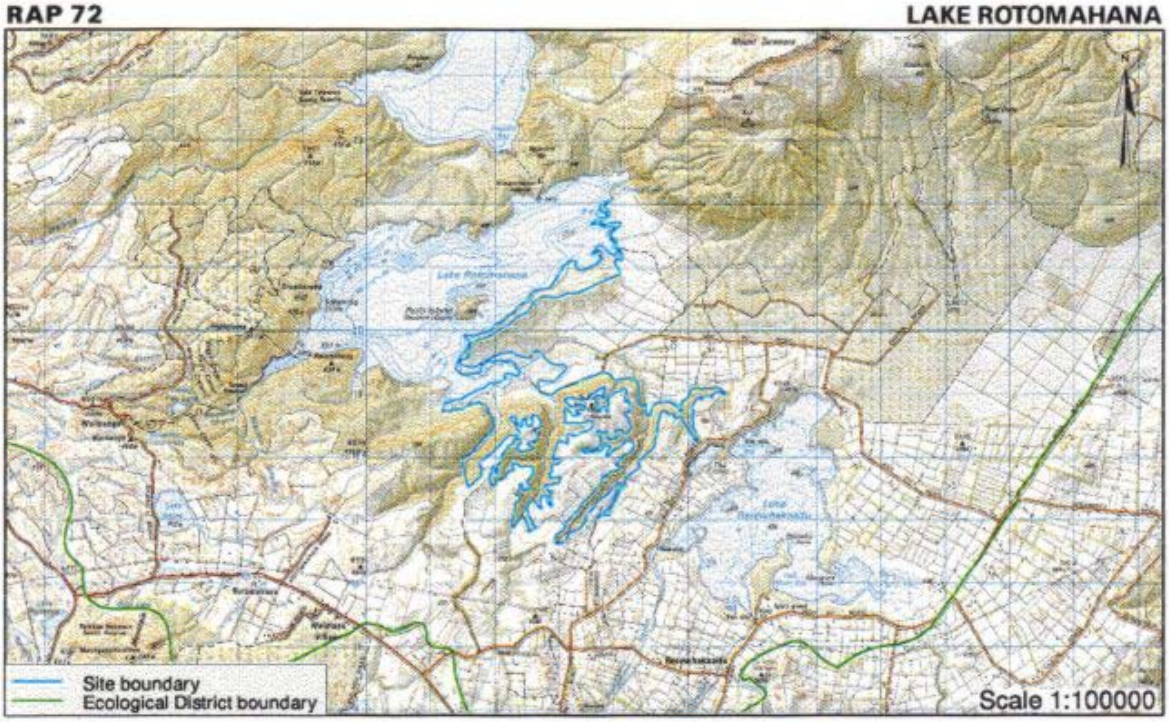
Lake Rotomahana is of special value in that it, together with Lakes Waikareiti and Rotopounamu, are the only large central plateau lakes that have not been invaded by the hydrocharatacean water weeds such as *Lagarosiphon major*, *Elodea canadensis* or *Egeria densa*. This makes it a special lake botanically and the vegetation between 1 and 6 m depth is a reminder of what communities the other lakes used to contain.

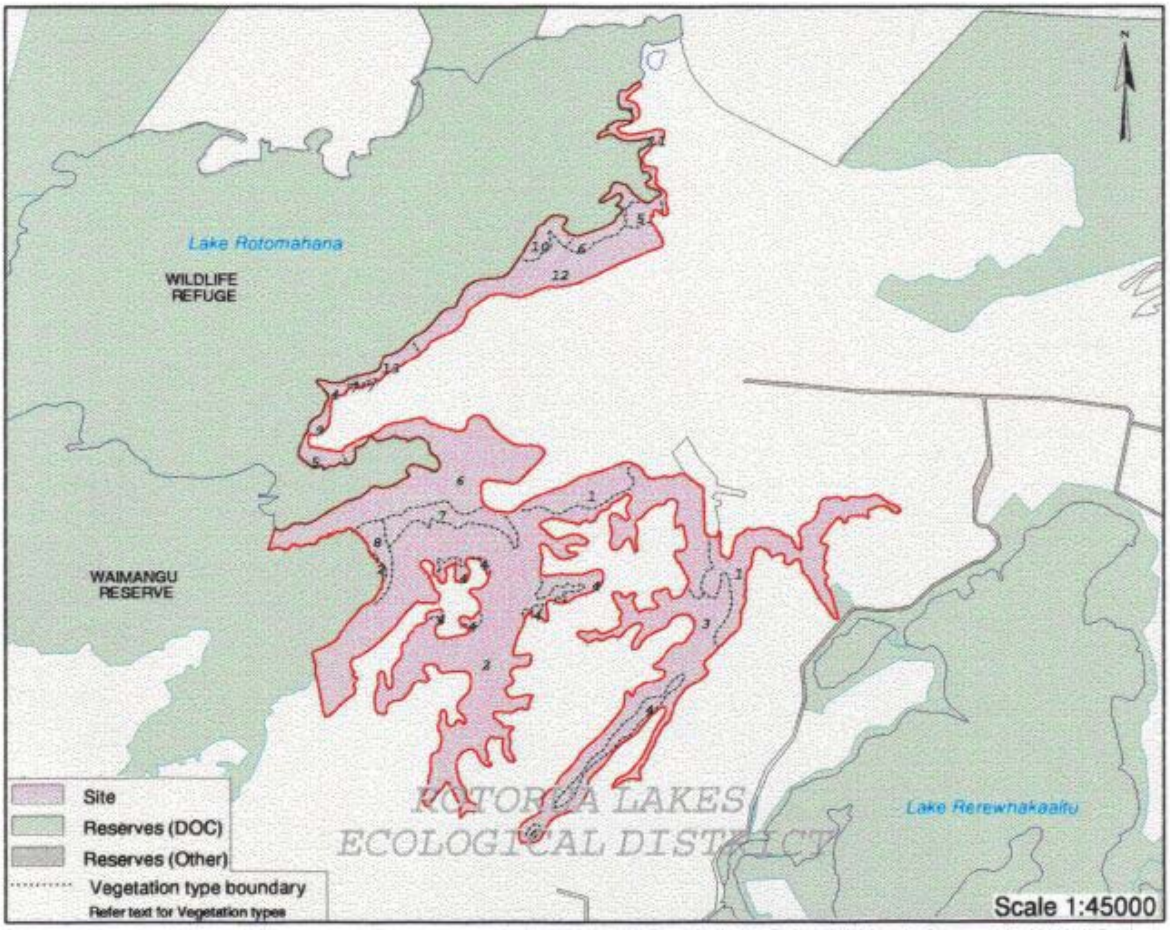
(Howard-Williams and Ecroyd 1991)

Notes

This RAP is of high cultural value. It includes the site of Moura Village which was buried in the 1886 eruption of Mt Tarawera.

RAP 72 **LAKE ROTOMAHANA**





LINZ Licences - Crown Copyright Reserved

Produced on CIVIC INFO, Rotorua District Council's Geographic Information System on 11 Aug 98 17:29:28 Tuesday

LAKE ROTOMAHANA

RAP No.	72
PNAP Survey No. (1996/97)	92
Area	442.2 ha
Altitudinal Range	360 - 460 m
Grid Reference	NZMS 260 V16 128185
Landform Unit	Gullies; hills; volcanic fan; scarps; flats; undulating to hilly; wetlands; lakes

BIOCLIMATIC ZONE	VEGETATION TYPE	LANDFORM
Lowland	1. Kanuka forest.	steep hillslopes
	1a. Kanuka forest (with local emergent pines and wattle, local kohuhu, scattered mamaku, toetoe, tutu, broom, karamu, rarahu, blackberry common along lake margins). (Shown as 12 on the vegetation map.)	steep hillslopes
	2. Kohuhu-mahoe-karamu forest and shrubland (local kanuka forest; whauwhaupaku and mamku locally common; scattered emergent wilding pines, wheki ponga, wheki, kiokio, pate, makomako and broom; blackberry locally common).	scarp, steep hillslope
	3. Kamahi-mahoe-kotukutuku-kohuhu forest and scrub (whauwhaupaku and karamu are common; scattered kanuka, ti touka and emergent pines; local kiokio-rarahu fernland on eroded gully faces).	steep hillslopes in gully
	4. Rarahu fernland and rank pasture (with indigenous species including local kanuka, wheki ponga, *Muehlenbeckia australis*, mahoe and kohuhu).	steep hillslopes
	5. (Toetoe)/blackberry shrubland (with local kanuka, karamu, rarahu, broom; raupo around lake margins).	flat
	6. Crack willow-toetoe-broom shrubland (with local blackberry and raupo reedland, local *Juncus gregiflorus* and manuka) ⇋ Grey willow-(toetoe)-(broom)-(kanuka) forest and shrubland (with local raupo reedland and *Schoenoplectus validus* around lake margins).	flat
	7. Blackberry scrub (with scattered indigenous trees and shrubs, including kohuhu).	
	8. Toetoe tussockland (with scattered shrubs).	
	9. Broom-karamu-kanuka-exotic grasses shrubland (with scattered koromiko, toetoe and mamaku).	steep hillslopes and scarps around lake margin
	10. Broom scrub and shrubland (with scattered karamu, toetoe, black wattle, Montpellier broom, blackberry, kohuhu).	flat; lake margin
	11. Grazed pasture (sweet vernal, lotus, red clover, ryegrass, Yorkshire fog, and plantain are common; with local *Juncus* sp., starwort and *Eleocharis sphacelata*).	flat
	13. 1 ⇋ 2.	

Vegetation	Secondary vegetation developed following Mt Tarawera eruption and subsequent farming operations.
Flora	No significant species recorded during this survey.
Fauna	Common forest bird species are present. Lake birds use the margin of this site, including dabchick, scaup, coot, pukeko, and black shags. Other species include pied stilts, white faced heron, and black-billed gulls.
Threat/Modification	The margins of most of this RAP are fenced. In places the fences are not stock proof and these should be repaired. However parts of this site are grazed and these areas should be fenced to exclude grazing.
Justification	This RAP comprises part of the largest representative example of the indigenous vegetation of the ecological district (comprising several reserves and RAP's; refer to Figure 6). Lake Rotomahana is of special value in that it, together with Lakes Waikareiti and Rotopounamu, are the only large central plateau lakes that have not been invaded by the hydrocharatacean water weeds such as *Lagarosiphon major*, *Elodea canadensis* or *Egeria densa*. This makes it a special lake botanically and the vegetation between 1 and 6 m depth is a reminder of what communities the other lakes used to contain. (Howard-Williams and Ecroyd 1991) This RAP includes significant areas of wetland vegetation. Wetland vegetation has been significantly reduced in the ecological district and is under represented in the existing reserve system. Two other landform units which are under represented in the existing reserve system also occur in the RAP (flats (43 ha) and volcanic fan (68 ha)).
Notes	Permission to conduct a field inspection was refused for the central portion of this RAP which has been surveyed using aerial photographs, and binoculars. The lake level was relatively high during the field inspection. The vegetation map has been reduced to a scale where some of the vegetation type numbers are difficult to read. These are available from the RDC GIS.