

APPENDIX 2

NATURAL HERITAGE

INVENTORY

a2.1 INTRODUCTION

Appendix 2 consists of three tables listing the following natural heritage items:

- Important landscapes
- Significant Natural Areas
- Wetlands

Rules throughout the district plan relate to the listed items. All items in this Appendix are also shown on the 100, 300 and 500 series planning maps. The Appendix does not include features in the Lakes A area, with the exception of two important landscapes that overlap the Lakes A Zone boundary.

a2.1.1 IMPORTANT LANDSCAPES

Four landscape assessment reports have been completed covering the Rotorua District; Lake Rotorua Catchment Landscape Assessment, Northern Lakes Landscape Assessment, Eastern Lakes Landscape Assessment and Southern Area Landscape Assessment.

The reports were prepared to meet Council's obligations under Section 6 of the Act in relation to the appropriate management of "outstanding features and natural landscapes". For ease of reference, they are referred to in this District Plan as important landscapes, and this is explained further in Part 1.

These sites were assessed against criteria listed in Appendix F of the Bay of Plenty Regional Policy Statement, which cover the following considerations:

Natural Science Factors

a2.1.1.1 1. Representativeness

Natural features and landscapes are clearly and recognisably characteristic of the area, district or region. The key components of the landscape will be present in a way that more generally defines the character of the place, but which distils this character exceptionally and in essence. Natural features in a good state of preservation are representative and characteristic of the natural geological processes and diversity of the region

2. Research and Education

Natural features and landscapes are exceptionally valued for the contribution they make to research and education

3. Rarity

Natural features are unique or rare in the district region or nationally, and few comparable examples exist.

Aesthetic Values

a2.1.1.2 1. Coherence

The patterns of land cover and land use are largely in harmony with the underlying natural pattern of the landform of the area and there are no significant discordant elements of land cover or land use

2. **Vividness**
Natural features and landscapes are widely recognised across the community and beyond the local area and remain clearly in the memory; striking landscapes are symbolic of an area due to their recognisable and memorable qualities
3. **Naturalness**
Natural features and landscapes appear largely uncompromised by modification and appear to comprise natural systems that are functional and healthy
4. **Intactness**
Natural systems are intact and aesthetically coherent and do not display significant visual signs of human modification, intervention or manipulation; exceptionally visually intact and highly aesthetic natural landscapes.

Expressiveness (Legibility)

- a2.1.1.3 Natural features and landscapes clearly demonstrate the natural processes that formed them. Exceptional examples of natural process in landscape exemplify the particular processes that formed that landscape

Transient Values

- a2.1.1.4 The consistent occurrence of transient features (for example the seasonal flowering of Pohutukawa) contributes exceptionally to the character, qualities and values of the landscape; landscapes are widely recognised for their transient features and the contribution these make to the landscape.

Shared and Recognised Values

- a2.1.1.5 Natural features and landscapes are widely known and exceptionally valued by the immediate and wider community for their contribution to a sense of place leading to a strong community association with or high public esteem for the place.

Maori Values

- a2.1.1.5 Natural features and landscapes are clearly special or widely known and exceptionally influenced by their connection to the Maori values inherent in the place.

Historical Associations

- a2.1.1.6 Natural features and landscapes are clearly and widely known and exceptionally influenced by their connection to the historical values inherent in the place.

The sites in table **a2.3.1** are listed in alphabetical order. The Eastern Landscape Assessment report covers the Lakes A area. As stated above two sites in this report straddle the Lakes A boundary and are included in this Appendix. These two sites are Tarawera Ridge and Makatiti Dome.

a2.1.2 SIGNIFICANT NATURAL AREAS

Significant natural areas (SNA) were identified, assessed and mapped in the report 'Natural Heritage and Biodiversity Review 2009'. This report was a desk top review of the report 'Natural Heritage of the Rotorua District' completed in 1998. The scope of these reports was to identify SNA located on private land and without formal protection. Table **a2.2.3** lists these sites according to their level of importance - national, regional or local. Within these categories, sites are listed in order of their site number.

a2.1.3 WETLANDS

The data used is from the Freshwater Ecosystems of New Zealand (FENZ) version 1 August 2010 wetlands GIS layer, provided by the Department of Conservation. Sites are listed in order of their site number (FENZ ID unique) with names as described in FENZ. Details on how the wetlands were mapped and classified are provided in Ausseil et al. 2008.

a2.2 IMPORTANT LANDSCAPES

PLANNING MAP NO.	REFERENCE NUMBER	ITEM
533, 508, 509	1	Hamurana Caldera Rim
303, 304, 533	2	Hamurana Springs
536, 540	3	Horohero Dome and escarpments
394, 543	4	Lake Rerewhakaaitu and margins
384, 385, 386, 387, 535	5	Lake Rotoehu and margins
357, 358, 370, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 533, 534, 535, 522, 523	6	Lake Rotoiti and margins
534, 523, 524	7	Lake Rotokawau
388, 389, 390, 391, 392, 393, 535	8	Lake Rotoma and caldera
301- 307, 309, 310, 312, 315, 317, 318, 321, 325-328, 336, 337, 357, 359, 362, 364-368, 533, 537	9	Lake Rotorua and margins
538, 539	10	Makatiti Dome: North Eastern Slopes
531, 532, 514	11	Mamaku Tors
532, 501	12	Mangorewa Forest
533	13	Mokoia Island
532, 533, 537, 515, 516, 517, 519	14	Mount Ngongotaha
538, 539, 543	15	Mount Tarawera: Tarawera Ridge
541, 545	16	Paeroa Range western scarps
542	17	Rainbow Mountain/ Maungakakamea
392, 393, 535, 539	18	Rotoma Forest
523, 534	19	Tikitere Geothermal Area
541, 542	20	Tumunui Hill
542	21	Waiotapu Geothermal area
344, 345, 351, 352, 537	22	Whakarewarewa Geothermal Area

a2.3 SIGNIFICANT NATURAL AREAS

a2.3.1 SIGNIFICANT NATURAL AREAS OF NATIONAL IMPORTANCE

Site number	Planning map no.	Item/ Site name	Geothermal Feature	Significance Rating
24	258, 533, 522	Ohau Channel Wetland	No	National Importance
29	372, 534	Te Arero Bay	No	National Importance
31	534	Lake Te Hapua	No	National Importance
35	361, 534, 523	Hell's Gate	Yes	National Importance
73	539, 543	Mt Tarawera	No	National Importance
78	379, 534, 538, 539, 543,	Okataina Scenic Reserve Extension (Eastern)	No	National Importance
81	381, 382, 383, 391, 392, 393, 534, 535, 539	Maungawakamana-Hinehopu Scenic Reserve Extension	Yes	National Importance
82	535	Hinehopu Mire	No	National Importance
84	385, 386, 387, 388, 535	Lake Rotoehu Margins	No	National Importance
87	388, 389, 390, 393, 535	Lake Rotoma Scenic Reserve Extension	No	National Importance
106	345, 537	Whakarewarewa	Yes	National Importance
108	336, 337, 537	Ngapuna	Yes	National Importance
109	325, 537	Ohinemutu	Yes	National Importance
114	325, 506	Kuirau Park	Yes	National Importance
115	357, 358, 370, 372-383, 533, 534, 535, 522, 523	Lake Rotoiti	No	National Importance
116	301-307, 309, 310, 312 315, 317, 318, 321, 325-328, 336, 337, 357, 359, 362 364, 365, 367, 368, 533 ,537	Lake Rotorua	No	National Importance
117	384-387, 535	Lake Rotoehu	No	National Importance
118	389-393, 535	Lake Rotoma	No	National Importance
119	394, 543	Lake Rerewhakaaitu	No	National Importance
145	388, 535	Waitangi Soda Springs Mire	Yes	National Importance
162	326, 506	Government Gardens (including Rachel Springs)	Yes	National Importance
178	326, 327, 336, 537	Sulphur Point	Yes	National Importance
179	533	Mokoia Island	Yes	National Importance

Site number	Planning map no.	Item/ Site name	Geothermal Feature	Significance Rating
302	538, 539	Makatiti Dome Extension	No	National Importance
305	305, 539	Maungawhakamana	No	National Importance
313	539	Mt Tarawera Northeast	No	National Importance
559	544	Orakeikorako	No	National Importance
565	544	Waihunuhunu Geothermal Area	No	National Importance
566	544	Red Hills Geothermal Area	No	National Importance
574	510, 574	Waikite Valley	No	National Importance
581	540	Lake Atiamuri	No	National Importance
584	540, 541, 544, 545, 546, 526	Lake Ohakuri	No	National Importance
599	511	Lake Ngawehea	No	National Importance
650	531, 532, 542	Capella Road Wetland	No	National Importance
654	532	Mamaku Lagoon	No	National Importance
669	371, 534	Taheke Geothermal Area	No	National Importance

a2.3.2 SIGNIFICANT NATURAL AREAS OF REGIONAL IMPORTANCE

Site number	Planning map no.	Item/ Site name	Geothermal Feature	Significance Rating
1	354, 532, 536, 537, 514, 515, 518-521	Mamaku	Yes	Regional Importance
6	536, 515-519	Mt Ngongotaha Scenic Reserve Extension	No	Regional Importance
7	319, 323, 537, 517,	Mountain Road	No	Regional Importance
8	317, 318, 533, 537	Waiowhiro Flat Wetland	Yes	Regional Importance
9	315, 317, 502, 536	Ngongotaha Railway Kahikatea	No	Regional Importance
14	532	Komutumutu Stream B	No	Regional Importance
15	532, 511, 513	Waiteti Stream	No	Regional Importance
16	532	Oturoa Road junction	Yes	Regional Importance
18	532	Upper Waiteti Stream	No	Regional Importance
20	310, 533	Hamurana Road Wetland	No	Regional Importance

Site number	Planning map no.	Item/ Site name	Geothermal Feature	Significance Rating
26	534, 374	Te Weta bay	No	Regional Importance
27	372, 375, 534	Te Ti Bay	No	Regional Importance
33	377, 534	Motuoha Point	Yes	Regional Importance
34	362, 533	Te Ngae Junction Wetland	No	Regional Importance
36	361, 534, 523	Tikitere Northwest	Yes	Regional Importance
37	376, 534, 523	Maraeroa	Yes	Regional Importance
38	534	Ruahine Springs	Yes	Regional Importance
42	534, 523	Lake Rotokawau	No	Regional Importance
43	362, 533	Te Ngae Kahikatea Stand	No	Regional Importance
44	363, 366, 533	Te Ngae Bush	No	Regional Importance
45	524, 525, 537, 538	Cookson Road	No	Regional Importance
46	305-307, 533	Hamurana Cliffs	No	Regional Importance
49	368, 369, 537	Lake Rotokawa	No	Regional Importance
58	377, 534, 538, 524, 525	Lake Okataina Scenic Reserve Extension	No	Regional Importance
61	537	Waikururu Stream Wetlands	No	Regional Importance
79	377-380, 534	Lake Okataina Scenic reserve Extension (northern)	No	Regional Importance
80	535, 538, 539	Haroharo	No	Regional Importance
83	384-386, 388	Matawhaura	No	Regional Importance
98	539	Edwards Road	Yes	Regional Importance
112	344, 345, 537	Arikikapakapa (Golf Course)	Yes	Regional Importance
113	344, 506	Tangatarua (Old Taupo Road Reserve)	Yes	Regional Importance
120	346, 537	Redwood Grove Pool	Yes	Regional Importance
121	379, 534, 523	Parengarenga Springs	Yes	Regional Importance
124	534, 523	Otutarara Springs	Yes	Regional Importance
125	534	Papakio Springs	Yes	Regional Importance
129	336, 537	Arawa Park Racecourse	Yes	Regional Importance
133	355, 537	Five Mile Gate Swamp	No	Regional Importance
144	388, 535	Waitangi Soda Springs Hot Springs	Yes	Regional Importance
177	345, 352, 537	Pohaturoa	Yes	Regional Importance
304	539	Waterfall Road Wetland	No	Regional Importance
413	531, 536	Takapuhurihuri Stream	No	Regional Importance
414	531, 536	Oraka Stream Riparian	No	Regional Importance

Site number	Planning map no.	Item/ Site name	Geothermal Feature	Significance Rating
550	536, 537, 521	Turepopo Bush	No	Regional Importance
551	536, 540	Horohero Bluff	No	Regional Importance
553	541, 542	Tumunui Bush	No	Regional Importance
555	542	Waiotapu North	No	Regional Importance
556	545	Mangamingi Stream Bush	No	Regional Importance
557	544, 545	Te Kopia Road Swamp	No	Regional Importance
558	544	Akatārewa Stream	No	Regional Importance
563	546	Hardcastle Lagoon	No	Regional Importance
564	545	Rawhiti Lagoon	No	Regional Importance
567	545	Golden Springs	No	Regional Importance
568	545	Waikato River Springs	No	Regional Importance
571	516	Wharepapa Road Thermal Areas	No	Regional Importance
573	542	Waiotapu North	No	Regional Importance
575	537	Hamil's Wetland	No	Regional Importance
595	541	Te Kopia Scenic Reserve Extension	No	Regional Importance
653	532	Upper Mangorewa River	No	Regional Importance
655	532	Mangorewa Extension	No	Regional Importance
656	532	Lagoon Road	No	Regional Importance
660	532, 533, 501-503	Mid Mangorewa Gorge	No	Regional Importance
664	533, 504, 505	Onaia Stream	No	Regional Importance
667	533, 534	Kaituna River	No	Regional Importance
668	534	Paretero	No	Regional Importance
670	534	Taheke Forest	No	Regional Importance
671	534	Pokopoko Stream	No	Regional Importance
675	534	Tekerau	No	Regional Importance
677	533, 534	Te Iringa	No	Regional Importance
678	370, 533, 534	Upper Kaituna	No	Regional Importance

a2.3.3 SIGNIFICANT NATURAL AREAS OF LOCAL IMPORTANCE

Site number	Planning map no.	Item/ Site name	Geothermal Feature	Significance Rating
2	536	Ohinenui Stream	No	Local Importance
3	536	South Road	No	Local Importance
4	536	Ohinenui Side stream	No	Local Importance

Site number	Planning map no.	Item/ Site name	Geothermal Feature	Significance Rating
5	532	Waitetahi Stream	No	Local Importance
11	532	Tupapakura Stream	Yes	Local Importance
12	532, 513	Komutumutu Steam A	Yes	Local Importance
13	532	State Highway 5	No	Local Importance
21	533, 508	Te Warenga Gorge Scenic Reserve Extension	No	Local Importance
22	306, 307, 533	Mission Bay bush	No	Local Importance
23	538, 357, 533, 522	Hamurana Road	No	Local Importance
39	534	Titoki Farm Forest	No	Local Importance
47	537, 538, 525	Rotokawa Road	No	Local Importance
85	535, 538	Rotoiti Forest Wetlands	No	Local Importance
89	386, 388, 535	Rotoma Recreation Reserve Extension	No	Local Importance
100	532, 506, 511, 512	Awahou Stream	No	Local Importance
104	538, 539	Ridgetop Road	No	Local Importance
110	336, 337, 537	Cemetery Reserve	Yes	Local Importance
111	336, 337, 537	Puarenga Park	Yes	Local Importance
122	534, 523	Te Rei Bay	Yes	Local Importance
123	534	Wharetata Bay	Yes	Local Importance
130	336, 537	Marguerita Street	No	Local Importance
134	352, 537	Waipapa Wetland	No	Local Importance
136	537	Ohineuia Stream	No	Local Importance
142	356, 537	Poplar Avenue Wetlands	No	Local Importance
163	326, 327, 537	Old Government Gardens	Yes	Local Importance
176	374, 534	Te Weta Bay Geothermal Area	Yes	Local Importance
315	539, 543	Purutai Road Forest Blocks	No	Local Importance
411	536	Mamaku South Road Bush	No	Local Importance
412	531, 536	Mangakotaha Stream	No	Local Importance
416	531	Off Road New Zealand	No	Local Importance
552	536	Horohero Geothermal Area	No	Local Importance
560	545	Whangairorohea Hot Pool	No	Local Importance
561	546	Will's Swamp	No	Local Importance
562	546	Torepatutahi Stream	No	Local Importance
572	542	Ngapouri	No	Local Importance
652	532	Galaxy Road North Forest	No	Local Importance

Site number	Planning map no.	Item/ Site name	Geothermal Feature	Significance Rating
		Remnant		
657	532	Upper Mangapouri Gorge	No	Local Importance
658	532, 533, 501, 502	Upper Pipikarihi Road	No	Local Importance
659	532, 501	Mervyn Street	No	Local Importance
661	508, 533	Te Waerenga Road	No	Local Importance
662	533, 503, 504	Kapukapu Road	No	Local Importance
663	533, 504	Lake Rotongata	No	Local Importance
665	533	Hururu Stream	No	Local Importance
666	533	Maungarangi Road A	No	Local Importance
672	534	Lichenstein Road	No	Local Importance
673	534	Maniatutu Road B	No	Local Importance
674	534	Roydon Downs Scenic Reserve Extension	No	Local Importance
676	372, 534	Maniatutu Road A	No	Local Importance

a 2.4 WETLANDS

Site number	Site reference	Planning Map No.	Item/ Site name
40216	1	537	Unnamed wetland
40217	2	538	Unnamed wetland
201013	3	534, 523	Unnamed wetland
300133	4	537	Kapenga Swamp
300134	5	536, 541	Unnamed wetland
300136	6	537, 541	Unnamed wetland
300137	7	542	Unnamed wetland
300138	8	542	Unnamed wetland
300139	9	541	Unnamed wetland
300140	10	541	Unnamed wetland
300142	11	541	Unnamed wetland
300145	12	542	Unnamed wetland
300147	13	542	Waiotapu
300151	14	542	Unnamed wetland
300160	15	544	Unnamed wetland
300162	16	546	Unnamed wetland
300164	17	546	Unnamed wetland
300166	18	546	Unnamed wetland
300168	19	546	Unnamed wetland
300173	20	545	Unnamed wetland
300175	21	545	Unnamed wetland
300179	22	545	Unnamed wetland
300181	23	544	Unnamed wetland
300442	24	372, 534	Te Karaka Bay Wetland
300524	25	546	Lowland artificial wetland
400003	26	317, 318, 533, 537	Waiowhiro flat wetland
400004	27	327, 328, 337	Ngapuna wetland
400006	28	358, 522	Ohau Channel wetland
400007	29	534	Lake Ngawhero wetlands
400008	30	534	Lake Te Hapua wetlands
400010	31	524 535	Hinehopu Mire
400011	32	534	Te Arero Bay wetland
400127	33	532	Roy Road Lagoon

Site number	Site reference	Planning Map No.	Item/ Site name
400156	34	534	Lake Rotongata wetlands
400158	35	537	Five Mile Gate swamp
400163	36	532	Big Lake wetlands
400170	37	535	Matahi Lagoon
400171	38	535	Onewhero Lagoon
400174	39	537	Otauirā (Hannah's Bay) wetland
400175	40	537	Owhatiura wetland
400188	41	532	Otuaroa Road Wetland
400189	42	309, 310, 512	Awahou wetland
400195	43	359, 362	Te Ngae recreation reserve
400219	44	542, 543	Rotomahana MAH/4/W3
400221	45	542	Rotomahana Protective Covenant Wetland
400223	46	387, 535	Otautu Bay wetlands
400242	47	501, 532	Mangorewa Forest (Southern Outlier) Wetlands
400324	48	356	Reservoir Road Wetland
400325	49	356, 537	Poplar Avenue Wetland
400328	50	535	Pungahero Stream Wetlands
400359	51	362, 365, 533, 543	Rerewhakaaitu D
400366	52	535, 538	Rotoiti Forest Wetland
400368	53	532	Upper Waiteti Stream Wetlands
400369	54	375, 534	Te Ti Bay wetlands
400370	55	532	Otuaroa Road Junction Wetlands
400371	56	539	Waterfall Road Wetland
400384	57	365, 533, 537	Ranginui Road Wetlands
400445	58	352, 537	Pohaturoa Road Wetland
400446	59	352, 537	Pohaturoa and Barker's Hollow Road Wetland
400447	60	537	Ohineuia Stream Wetland
400450	61	531, 532	Copella Road Wetlands
400475	62	539	Tarawera outlet wetland
400477	63	532	Waimangu Scenic Reserve Wetland
400478	64	535	Lake Rotoehu Scenic Reserve Wetland
400496	65	336, 337, 537	Sulphur Bay Wetlands
400499	66	538	Makatiti Wetland

Site number	Site reference	Planning Map No.	Item/ Site name
400500	67	533, 504	Lake Rotongata Wetlands (Kaharoa)
400510	68	351, 352, 355, 537	Waipa Wetland
400512	69	356, 537	Poplar Avenue wetland 2
400513	70	355, 356, 537	Long Drive wetland 1
400514	71	356, 537	Long Drive wetland 2
400515	72	388, 389, 390, 536	Whangaroa Bay wetlands
400516	73	535	Lake Rotoehu Scenic Reserve
400530	74	535	Wainikau Bay wetlands
400531	75	384, 385, 535	Te Pohue Bay wetland
400535	76	373, 374, 534	Te Weta Bay wetland
400542	77	538	Oruaroa Point wetlands (Okataina)
400561	78	309, 310, 533, 512	Mangorewa/ Kaharoa Z Block wetland
400570	79	535	Whakarewarewa Lagoon
400572	80	535	Rotoehu A
400573	81	386, 388, 535	Waitangi Soda Spring wetland
400576	82	535	Waione Bay Wetland
400577	83	535	Whareneke Bay Wetland
400579	84	535	Omahota Bay Wetland
400585	85	534	Rotoiti F
400587	86	372, 534	Te Karaka Bay Wetland B
400590	87	376, 523	Rotoiti C
400603	88	542	Rotomahana MAH/1/W1
400609	89	543	Rotomahana MAH/3/W1
400612	90	542	Rotomahana MAH/6/W1
400614	91	535	Rotoma OMA/1/W1
400615	92	535	Rotoma OMA/1/W2
400619	93	390, 391, 535	Rotoma OMA/6/W1
400621	94	537, 538	Rerewhakaaitu B
400624	95	543	Rerewhakaaitu E
400625	96	543	Rerewhakaaitu F
400626	97	394, 543	Rerewhakaaitu G
400627	98	394, 543	Rerewhakaaitu H
400629	99	543	Mangakino Stream wetland
400632	100	329, 367, 537	Rotorua B

Site number	Site reference	Planning Map No.	Item/ Site name
400633	101	328, 537	Rotorua C
400634	102	328, 537	Rotorua D
400657	103	538	Okataina A
400993	104	539	Tarawera River wetland C
400995	105	539	Tarawera River wetland C
400996	106	537	Barbour Road Wetland
401028	107	370, 373, 533, 534, 522	Okere Arm Wetlands (Rotoiti)
402001	108	538	Unnamed wetland
402002	109	537	Unnamed wetland
402003	110	534, 523	Unnamed wetland
402004	111	534	Unnamed wetland
402005	112	532	Unnamed wetland
402007	113	542	Unnamed wetland
402008	114	537	Unnamed wetland
402009	115	538	Unnamed wetland
402010	116	330, 537	Unnamed wetland
402012	117	539	Unnamed wetland
402014	118	542	Unnamed wetland
402015	119	542	Unnamed wetland
402018	120	539	Unnamed wetland