

# 5. Summary and conclusions

## 5.1 ANALYSIS OF EXISTING PROTECTED AREAS

### 5.1.1 Overview

The Protected Natural Areas network in the Northland part of the Otamatea Ecological District is summarised in Table 1.

Otamatea Ecological District covers 57,950 ha in the Northland Conservancy.<sup>16</sup> The total extent covered by natural areas in Otamatea ED Northland is 16,792 ha (29% of the ED in Northland Conservancy), of which approximately 12,346 ha falls within the estuarine habitats of the Kaipara Harbour.<sup>17</sup> Therefore, natural areas on land amount to a total of 4,445 ha (3827 ha forest, 539 ha shrubland, 77 ha freshwater wetland and 1.8 ha grassland on islands) or 9.8% of the total land extent (45,604 ha).

Approximately 1.6% (or 270.9 ha) of the natural areas of Otamatea ED Northland are formally protected (as in Table 1) which is equivalent to about 0.5% of the total extent of the ED in Northland Conservancy. The percentage of land-based natural areas protected is higher than the overall average with the study area (5.4% or 242 ha protected), and the estuarine natural areas are much less protected than average (0.2% or 28.7 ha protected, all of which falls within the extreme upper intertidal zone that overlaps with various protected land statuses).

A list of ecological units recorded in Otamatea ED Northland and their current protection status is set out in Table 2 (page 430) and a summary of the site evaluations is given in Table 3 (page 464).

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<sup>16</sup> The Auckland Conservancy part of Otamatea ED covers approximately 46,842 ha.

<sup>17</sup> Note that all of the estuary and harbour is considered 'natural area'.

TABLE 1. PROTECTED NATURAL AREAS NETWORK IN THE NORTHLAND CONSERVANCY PART OF OTAMATEA ECOLOGICAL DISTRICT.<sup>18</sup>

Areas given in ha. The extent (ha) and type of protection status within each site is identified. SL = Stewardship Land; SR = Scenic Reserve; GP = Government Purpose Reserve; RR = Recreation Reserve; MS = Marginal Strip; QEII = Queen Elizabeth National Trust Covenant.

SITE	SURVEY NO.	STATUS							TOTAL AREA PROTECTED	TOTAL SITE AREA
		SL	SR	GP	RR	MS	QEII			
<i>Terrestrial</i>										
Maungaturoto Marginal Strip and Surrounds	Q08/068							0.3	0.3	7.5
Collins Scenic Reserve and Surrounds	Q08/078		1.4						1.4	2.7
Hukatere Scenic Reserve and Surrounds	Q08/081		31.0					1.9	32.9	35.9
Te Kiakia Bay Forest Remnants	Q08/093							36.6	36.6	111.0
Raepere Creek Forest	Q08/094							0.1	0.1	116.1
Raepere Creek Coastal Forest	Q08/098							2.3	2.3	28.2
Upper Paparoa Creek Scenic Reserve and Sherwin QEII Covenant	Q08/100		1.6					9.8	11.4	16.1
Paparoa Creek Marginal Strip No. 2 and Surrounds	Q08/102							1.0	1.0	38.0
Lower Pahi River Forest Remnants	Q08/103		0.5						0.5	49.4
Hartles QEII Covenant and Surrounds	Q08/104							1.2	1.2	2.9
East Pahi Forest Remnants	Q08/106							3.5	3.5	23.0
Paparoa Creek Scenic Reserve and Surrounds	Q08/108		0.9						0.9	20.6
Upper Pahi River Scenic Reserve, Rabbit and Goat Islands and Surrounds	Q08/109		3.5						3.5	7.7
Paparoa Stream Headwaters	Q08/110							13.7	13.7	52.5
Mooney QEII Covenant	Q08/111							4.7	4.7	7.2
Paparoa Stream Riparian Forest	Q08/121							3.2	3.2	42.0
Te Opu Scenic Reserve	Q08/126		10.9						10.9	12.4
Whakapirau River Scenic Reserve and North Massey Road Forest Remnants	Q08/128		4.0						4.0	33.9
Arapaoa River Scenic Reserve and Surrounds	Q08/131		0.7						0.7	9.3
Te Kowhai Creek Scenic Reserve and Surrounds	Q08/132		0.5						0.5	26.3
Raepare Creek Headland Forest	Q08/145							43.2	43.2	46.3
Wahiwaka Creek Forest Remnants	Q08/146							2.2	2.2	44.2
Upper Wairau River Coastal Forest Remnants	Q08/151							0.7	0.7	29.0
Bickerstaffe Rail Station Forest	Q08/152							10.1	10.1	21.7
Bickerstaffe Forest and Shrubland	Q08/153							6.3	6.3	98.0
Awaroa Creek Coastal Forest Remnants	Q08/162							1.4	1.4	4.5
Takahoa Creek Forest	Q08/163							2.0	2.0	17.3
Takahoa Government Purpose Wildlife Management Reserve	Q08/164				13.0				13.0	13.0
Waiarohia Creek Forest and Wetland	Q08/165							0.6	0.6	7.2
Pahi River Headwaters	Q08/170							4.0	4.0	31.0
Titipu Island	Q08/176				1.6				1.6	1.9
Kohatutahi Forest and Wetland	Q08/178	0.6						0.6	1.2	3.8
Pukehau QEII Open Space Covenant	Q08/182							9.6	9.6	12.4
Marohemo Road Forest Remnants 2	Q08/202							11.9	11.9	28.9
Paparoa Creek Marginal Strip No. 1 and Surrounds	Q08/217							0.9	0.9	8.7
Whakapirau Creek Conservation Area and Surrounds	Q08/220	0.2							0.2	0.5

<sup>18</sup> No information was able to be obtained on Conservation Covenants administered by Kaipara District Council under the Reserves Act (1977), though a number of these are known to exist within Otamatea ED Northland.

TABLE 1 (continued).

SITE	SURVEY NO.	SL	SR	STATUS				TOTAL AREA PROT-ECTED	TOTAL SITE AREA
				GP	RR	MS	QEII		
<b>Estuarine</b>									
Otamatea River	Q08/062			0.2		11.4	0.8	12.4	2790.9
Arapaoa River	Q08/084	0.2	1.3			1.7	1.0	4.2	4957.5
Hukatere Peninsula West Coast	Q08/096				0.1	1.8		2.0	736.5
Oruawharo River North Coast	Q09/020					10.1		10.1	1984.1
TOTAL		1.0	56.4	13.2	1.7	71.4	127.2	270.9	11479.9

### 5.1.2 Ecological units protected

A summary of the protected vegetation types within protected areas (as per Table 1) is presented in the following Table 1A. Figure 1 shows the approximate proportions of different habitat types represented in the protected natural areas network, while Figure 2 shows the distribution of the same habitat types over the entire study area.

Figure 1. Approximate proportions of the main habitat types represented in the protected natural areas network of Otamatea ED Northland.

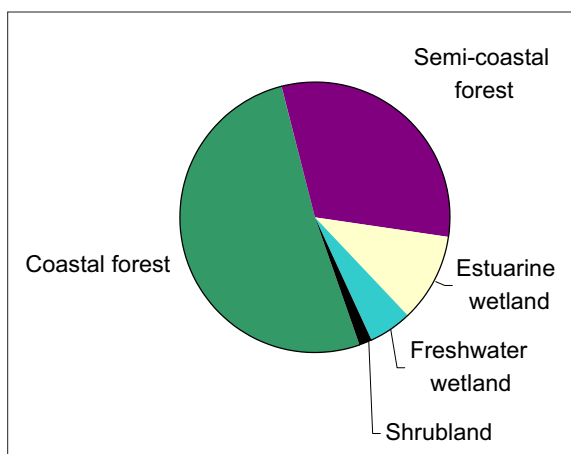


Figure 2: Approximate proportions of the main habitat types in all natural areas of Otamatea ED Northland.

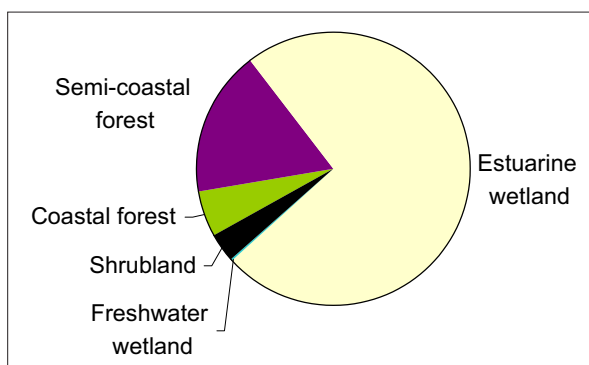


TABLE 1A: LIST OF VEGETATION TYPES WITHIN PROTECTED AREAS IN OTAMATEA ECOLOGICAL DISTRICT (NORTHLAND CONSERVANCY).

SITE	SURVEY NO.	VEGETATION TYPES WITHIN PROTECTED LAND STATUS
<b><i>Terrestrial</i></b>		
Maungaturoto Marginal Strip and Surrounds	Q08/068	Mainly weed-infested river banks
Collins Scenic Reserve and Surrounds	Q08/078	Semi-mature kauri-rimu forest
Hukatere Scenic Reserve and Surrounds	Q08/081	Mature kauri-kahikatea forest
Te Kiakia Bay Forest Remnants	Q08/093	Pohutukawa and kanuka-totara-kauri forest (coastal); kanuka shrubland (coastal)
Raepere Creek Forest	Q08/094	Totara-kanuka forest (semi-coastal)
Raepere Creek Coastal Forest	Q08/098	Puriri-kowhai-kanuka forest (coastal)
Upper Paparoa Creek Scenic Reserve and Sherwin QEII Covenant	Q08/100	Totara-kanuka, kanuka-rimu and mature totara-kahikatea forest (coastal); kauri forest (semi-coastal)
Paparoa Creek Marginal Strip No. 2 and Surrounds	Q08/102	Totara-kanuka forest (coastal)
Lower Pahi River Forest Remnants	Q08/103	Karaka-kowhai-tree privet forest (coastal)
Hartles QEII Covenant and Surrounds	Q08/104	Totara-kahikatea forest (semi-coastal)
East Pahi Forest Remnants	Q08/106	Totara-kowhai forest (coastal)
Paparoa Creek Scenic Reserve and Surrounds	Q08/108	Totara-kanuka forest with mature emergent kahikatea and rimu (coastal)
Upper Pahi River Scenic Reserve, Rabbit and Goat Islands and Surrounds	Q08/109	Totara-kanuka forest (coastal)
Paparoa Stream Headwaters	Q08/110	Taraire-totara forest (semi-coastal)
Mooney QEII Covenant	Q08/111	Totara-kanuka forest (coastal)
Paparoa Stream Riparian Forest	Q08/121	Totara-titoki forest (semi-coastal; alluvial)
Te Opu Scenic Reserve	Q08/126	Taraire-puriri, puriri-kowhai, totara-puriri and kauri-kanuka forest (coastal)
Whakapirau River Scenic Reserve and North Massey Road Forest Remnants	Q08/128	Kanuka-kahikatea forest with mature emergent kahikatea and totara-kanuka forest (coastal)
Arapaoa River Scenic Reserve and Surrounds	Q08/131	Totara-kowhai forest (coastal)
Te Kowhai Creek Scenic Reserve and Surrounds	Q08/132	Totara-puriri forest (coastal)
Raepare Creek Headland Forest	Q08/145	Taraire-puriri-totara, kanuka and kanuka-rimu forest (semi-coastal); totara-puriri-kahikatea and kauri-totara forest (coastal)
Wahiwaka Creek Forest Remnants	Q08/146	Totara forest (coastal) and totara-kahikatea forest (semi-coastal)
Upper Wairau River Coastal Forest Remnants	Q08/151	Totara-kowhai forest (coastal)
Bickerstaffe Rail Station Forest	Q08/152	Totara-kahikatea and totara-rimu forest (semi-coastal)
Bickerstaffe Forest and Shrubland	Q08/153	Taraire forest (semi-coastal)
Awaroa Creek Coastal Forest Remnants	Q08/162	Totara-kanuka-kowhai forest (coastal)
Takahoa Creek Forest	Q08/163	Totara-kowhai-karaka-puriri forest (coastal)
Takahoa Government Purpose Wildlife Management Reserve	Q08/164	Constructed freshwater lake with lake clubrush reedland
Waiarohia Creek Forest and Wetland	Q08/165	Totara-kowhai forest (coastal)
Pahi River Headwaters	Q08/170	Kahikatea forest (semi-coastal; alluvial)
Titipu Island	Q08/176	Pohutukawa- <i>Pinus radiata</i> treeland and manuka shrubland (coastal)
Kohatutahi Forest and Wetland	Q08/178	Kowhai- <i>Coprosma areolata</i> -ti kouka and kanuka-mamaku forest (coastal); puriri treeland (coastal); raupo- <i>Baumea articulata</i> -pink bindweed reedland
Pukehau QEII Open Space Covenant	Q08/182	Totara-kowhai-kahikatea-puriri and totara-puriri forest (coastal)
Marohemo Road Forest Remnants 2	Q08/202	Totara-kanuka and taraire-totara forest (semi-coastal)
Paparoa Creek Marginal Strip No. 1 and Surrounds	Q08/217	Totara forest (coastal)
Whakapirau Creek Conservation Area and Surrounds	Q08/220	Kowhai-karaka forest (coastal)

TABLE 1A (*continued*).

SITE	SURVEY NO.	VEGETATION TYPES WITHIN PROTECTED LAND STATUS
<b><i>Estuarine</i></b>		
Otamatea River	Q08/062	Extreme upper intertidal mangroves, saltmarshes, mudflats and sandflats
Arapaoa River	Q08/084	Extreme upper intertidal mangroves, saltmarshes, mudflats and sandflats
Hukatere Peninsula West Coast	Q08/096	Extreme upper intertidal sandflats
Oruawharo River North Coast	Q09/020	Extreme upper intertidal saltmarsh and mudflats

### ***FORESTS***

Most of the forest remnants in the protected natural areas network are coastal, amounting to approximately 140 ha.<sup>19</sup> Protected semi-coastal forest remnants cover approximately 85 ha. Note that the proportion of coastal to semi-coastal forest remaining in Otamatea ED Northland is about 1:3 (see Fig. 2), so protection is currently skewed to favour coastal forest. Despite this, very little of either is protected; only 6% of indigenous forest in the study area is under some form of protected land status.

Of the coastal forest types:

- totara-kowhai forest associations are protected at seven sites (three representative: Q08/151, Q08/163 and Q08/182)
- totara-kanuka forest associations are protected at six sites (one representative: Q08/128)
- totara-puriri forest associations are protected at four sites (one representative: Q08/132)
- pohutukawa forest associations are protected at two sites
- and a range of other coastal forest types are protected, twelve of which are considered representative (see Q08/093, Q08/100, Q08/103, Q08/128, Q08/145, Q08/178 and Q08/220)

Of the semi-coastal forest types:

- two alluvial forest types are protected (at one site each) (both representative: Q08/121 and Q08/170)
- taraire or taraire-totara forest is protected at three sites (two representative: Q08/110 and Q08/153)
- totara-kanuka forest is protected at two sites (one representative: Q08/094)
- totara-kahikatea forest is protected at three sites
- totara-rimu forest is protected at one site (representative: Q08/152)
- semi-mature kauri-rimu forest is protected at one site (representative: Q08/078)
- mature kauri-kahikatea forest is protected at one site (representative: Q08/081)

<sup>19</sup> Note that, according to the rapid methods used, individual vegetation types were not mapped, therefore the exact area of these vegetation types is not known.

### ***SHRUBLANDS***

Only two areas of coastal shrubland fall within protected land status. Approximately 7 ha of coastal kanuka shrubland falls within a Marginal Strip at Te Kiakia Bay Forest Remnants (Q08/093). Approximately 1 ha of manuka shrubland is within the Recreation Reserve<sup>20</sup> on Titipu Island (Q08/176). This amounts to 8 ha or 11% of coastal shrubland.

No semi-coastal shrublands are within protected lands.

### ***FRESHWATER WETLANDS***

Only two freshwater wetland areas are under protected land status. The raupo-*Baumea articulata*-pink bindweed reedland at Kohatutahi Forest and Wetland (Q08/178) is only partially within the Conservation Area (0.3 ha) which leaves most of this unique and representative wetland (a further 0.8 ha) unprotected. The 13 ha constructed lake at Takahoa Creek Government Purpose Wildlife Reserve (Q08/164) is entirely within protected land status.

### ***ESTUARINE WETLANDS***

A total of 28.7 ha of estuarine habitat is within protected areas (see Table 1), all within extreme upper intertidal habitats. In all cases, the overlap of the identified estuarine habitat with protected areas has probably more to do with boundary error (i.e. different estimations of where land ends and sea begins) than intentional protection of the estuarine environment.

What is evident is that approximately 12,318 ha of the estuary and harbour (99.8% of it) do not have any sort of special legal protection status. Although no protection status exists, it is not true that the estuary and harbour area is entirely unprotected. Most (but not all) of the land below the mean high water springs (MHWS) is owned by the Crown on behalf of all New Zealanders (Foreshore and Seabed Act 2004), and is administered by various Crown agencies which apply various protections to marine biodiversity under different laws. District Council jurisdictions end at MHWS, while Regional Councils administer both below and above MHWS (Resource Management Act 1991). The Department of Conservation administers the Marine Mammals Protection Act 1978, which provides for the conservation, protection and management of marine mammals. Under the Wildlife Act 1953 (administered by DOC) some other marine fauna are also protected. The Ministry of Fisheries is responsible for policing commercial fishing quotas, as well as non-commercial allowable take limits, which are both protection mechanisms for marine life (Fisheries Act 1996).

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<sup>20</sup> Note that the primary purpose of a Recreation Reserve is not biodiversity protection, but recreation, and that, with the exception of animals protected by the Wildlife Act 1953, recreation over-rides biodiversity protection (Reserves Act 1997).

## 5.2 PRIORITY NATURAL AREAS FOR PROTECTION IN THE NORTHLAND CONSERVANCY PART OF OTAMATEA ECOLOGICAL DISTRICT

The purpose of this section is to identify the unprotected natural areas documented in this report that best supplement the existing protected areas network, to make it more fully representative of Otamatea ED Northland's ecological diversity and character.

The Northland part of the ED is characterised by a paucity of habitats. Remaining natural areas are relatively small and fragmented, making the Northland Conservancy part of this ED one of the most modified in the Northland Region. It can be argued that all of the most important natural areas identified in this study (i.e. Level 1 sites) are worthy of protection (Level 1 sites cover only 7.8% of the total land area).

Immediate protection of all these natural areas is not a realistic expectation, so priorities for protection have been identified which would provide the greatest benefits for indigenous biodiversity. These include the following Level 1 sites:

1. Sites containing representative sequences of ecological units;
2. Natural freshwater wetlands;
3. Terrestrial sites with over 30 ha of forest habitat or over 5 ha of shrubland habitat, *and comprising three or fewer separate remnants*;
4. Sites containing representative ecological units not found at any other site in Otamatea ED Northland;
5. Sites containing forest with mature, emergent podocarps or kauri;
6. Sites with a coastal margin contiguous with estuarine natural areas;
7. **All representative ecological units within estuarine natural areas.**

Table E contains a summary of the sites which meet one or more of the above criteria.

However, whilst these are the priorities, it is important to remember that less than 10% of the land in the study area is covered by indigenous vegetation, so all remaining natural areas in Otamatea ED Northland documented in this report (and there may be others) are worthy of protection.

Any strategy to create an integrated protected areas network in Otamatea ED Northland would have to consider not only protection of remaining natural areas, but also the ecological restoration of additional corridors, linkages, and buffers to provide better connectivity between them.

TABLE E: SUMMARY OF LEVEL 1 SITES WITH IMMEDIATE PRIORITY FOR PROTECTION.

1. Representative sequence of ecological units. 2. Natural freshwater wetland. 3. Site on land with >30 ha forest or >5 ha shrubland  
 4. Representative ecological unit not found elsewhere in study area.<sup>21</sup> 5. Mature, emergent podocarps or kauri. 6. Site on coastal margin. 7. Representative estuarine ecological units

LEVEL 1 SITES (PARTLY OR FULLY UNPROTECTED)	1.	2.	3.	4.	5.	6.	7.
Arapaoa River (Q08/084)							✓
Arapaoa River Scenic Reserve and Surrounds (Q08/131)						✓	
Ararua Road Forest Remnants (Q08/099)			✓				
Bayer Road Shrubland (Q08/211)				✓			
Bickerstaffe Road Forest 2 (Q08/148)					✓		
Bushy Point Forest Remnants (Q09/046)				✓		✓	
Donaldson's Forest (Q08/157)						✓	
Eastern Boundary Forest (Q08/214)				✓			
Gittos Point Forest and Shrubland (Q09/032)			✓			✓	
Hamlin Road Shrubland (Q08/188)			✓			✓	
Hanerau Stream Forest Remnants (Q08/218)				✓		✓	
Hautakima South Forest (Q08/088)		✓	✓	✓			
Hillstone Road Forest Remnants 3 (Q08/208)				✓			
James Road Forest (Q08/147)				✓		✓	
Kaipara Forest, Puketotara (Q09/026)	✓					✓	
Linton Road West Forest (Q08/134)						✓	
Kaira Creek Forest (Q09/029)				✓	✓	✓	
Kaitara Constructed Lake (Q08/159) <sup>22</sup>		✓		✓		✓	
Kaiwhitu Island (Q08/175)				✓		✓	
Koareare Creek Forest Remnants (Q09/036)						✓	
Kohatutahi Forest and Wetland (Q08/178)		✓		✓		✓	
Kowhai Road Matai-Kahikatea Remnant (Q08/064)				✓	✓		
Kumete Bluff Forest Remnants (Q09/047)						✓	
Lower Pahi River Forest Remnants (Q08/103)						✓	
Mangaiti Creek Forest Remnants (Q08/167)		✓	✓			✓	
Mohinui Forest Remnant 1 (Q08/169)					✓		
Motuouhi Island (Q09/014)						✓	
Moturoa Island (Q09/013)						✓	
Oneriri Pa Forest (Q09/027)						✓	
Oneriri Station Homestead Forest (Q09/022)				✓	✓		
Oruawharo River North Coast (Q09/020)							✓
Oruawharo Road Stream (Q08/209)		✓		✓			
Oruawharo School Forest (Q09/033)			✓	✓		✓	
Otaiwhata Bay Forest and Shrubland (Q09/049)						✓	
Otamatea River (Q08/062)							✓
Otamatea River Confluence (Q09/021)							✓
Otara Head Forest and Shrubland (Q08/063)			✓	✓		✓	
Otuhianga Hill Forest (Q08/065)			✓	✓			
Owhareao Point Remnants (Q08/179)		✓		✓		✓	
Page Point Forest and Shrubland (Q08/140)						✓	
Pahi Coastal Strip (Q08/105)			✓			✓	
Pakaurangi Forest and Shrubland (Q08/185)			✓			✓	
Paparoa Creek Marginal Strip No. 2 and Surrounds (Q08/102)						✓	
Paparoa Creek Scenic Reserve and Surrounds (Q08/108)			✓	✓		✓	
Paparoa Mature Kauri Stand (Q08/122)					✓		
Paparoa Stream Headwaters (Q08/110)			✓	✓			

<sup>21</sup> See site descriptions for details on the representative ecological units present.

<sup>22</sup> Although originally constructed, this lake has become a major wildlife habitat and has developed extensive natural reedlands around its margins which are important to protect.



TABLE E (continued).

1. Representative sequence of ecological units. 2. Natural freshwater wetland. 3. Site on land with >30 ha forest or >5 ha shrubland  
4. Representative ecological unit not found elsewhere in study area. 5. Mature, emergent podocarps or kauri. 6. Site on coastal margin. 7. Representative estuarine ecological units

LEVEL 1 SITES (PARTLY OR FULLY UNPROTECTED)	1.	2.	3.	4.	5.	6.	7.
Paparoa Stream Riparian Forest (Q08/121)				✓			
Parry Road Wetland (Q08/215)		✓					
Payne Road Forest Remnants (Q08/192)				✓			
Point Curtis Road Coastal Forest Remnants (Q08/156)						✓	
Puketotara Forest Remnant 4 (Q09/008)	✓		✓			✓	
Puketotara Forest Remnants 2 (Q09/005)			✓				
Puketotara Forest Remnants 3 (Q09/006)				✓		✓	
Puketotara Forest Remnants 10 (Q09/017)						✓	
Puketotara Forest Remnant 15 (Q09/045)				✓		✓	
Puriri Point Forest and Shrubland (Q08/183)			✓	✓		✓	
Raepere Creek Coastal Forest (Q08/098)						✓	
Raepere Creek Forest (Q08/094)				✓			
Rangiora Road Forest Remnants (Q08/166)			✓			✓	
Ruataniwha Forest Remnant (Q09/030)				✓			
Smith's Point and Mateotetawa Creek Forest Remnants (Q08/079)							✓
Takahoa Creek Forest (Q08/163)							✓
Te Kiakia Bay Forest Remnants (Q08/093)							✓
Te Kowhai Creek Scenic Reserve and Surrounds (Q08/132)							✓
Te Mira Road Wetland (Q08/212)		✓					
Te Ope Headland Forest (Q08/119)				✓		✓	
Te Ope Stream Remnants (Q08/116)		✓					
Te Ruruku Bay Forest Remnants (Q08/089)							✓
Te Tawhiti Forest Remnants (Q08/144)					✓		
The Funnel Pohutukawa Fringe (Q09/043)							✓
Timber Bay Forest (Q09/001)	✓		✓	✓			✓
Tinopai Road Wetland (Q08/216)		✓					
Topuni River Confluence Forest (Q09/038)							✓
Topuni River Forest Remnant 1 (Q09/037)							✓
Totara Creek Forest Remnant (Q08/095)			✓	✓			
Un-named Island in Kaiwaka River (Q08/158)							✓
Upper Pahi River Riparian Forest (Q08/138)					✓		
Upper Wairau River Coastal Forest Remnants (Q08/151)							✓
Upper Whakaki River Forest Remnants (Q09/028)							✓
Wahiwaka Creek Forest Remnants (Q08/146)							✓
Waipikopiko Stream Headwaters (Q08/171)				✓	✓		
Wairau River Riparian Forest (Q08/173)					✓		
Waitieke Creek Forest (Q08/092)							✓
Whakapirau Creek Coastal Forest (Q08/127)							✓
Whakapirau Creek Conservation Area and Surrounds (Q08/220)							✓
Whakapirau North Forest (Q08/107)				✓			✓
Whakapirau River Scenic Reserve and North Massey Road Forest Remnants (Q08/128)							✓
Whakapirau/Rocky Point Forest and Shrubland (Q08/135)							✓

TABLE 2: ECOLOGICAL UNITS RECORDED IN OTAMATEA ECOLOGICAL DISTRICT (NORTHLAND CONSERVANCY) AND PROTECTION STATUS.

Key: \*=Level 2 site; bold pna numbers=representative ecological units; part of=part of site is within geological unit; pt=site is partially protected, but unknown whether ecological unit falls within the protected area, QEII=Queen Elizabeth II National Trust Open Space Covenant; RR=Recreation Reserve; SL=Stewardship Land; SR=Scenic Reserve; GP=Government Purpose Reserve; MS=Marginal Strip

GEOL. GROUP: †	A	B	C	D	E	F	G	H	I
<b>COASTAL FOREST</b>									
<b>Coastal early successional forest</b>									
Black wattle									
Kanuka					Q08/089 (part of)		Q08/089 (part of)		Q09/036 (part of)
					*Q09/015 (part of)		*Q09/015 (part of)		
					Q09/046				
Kanuka-mamaku			<b>Q08/178</b> (ptSL,MS)						
Kanuka-tree privet									
<b>Coastal broadleaved forest</b>									
Houpara-kowhai					<b>Q08/179</b>				
Houpara-kowhai-tawapou					<b>Q09/046</b>				
Kanuka-kowhai									Q09/036 (part of)
Kanuka-kowhai-puriri									
Kanuka-pohutukawa					*Q09/048				
Kanuka-puriri									
Karaka-kowhai-tree privet								<b>Q08/103</b> (part of, ptSR)	
Karaka-tawapou-harakeke					<b>Q08/175</b>				
Kowhai- <i>Coprosma areolata</i> -ti kouka			<b>Q08/178</b> (ptSL,MS)						
Kowhai-karaka									
Kowhai-puriri					Q08/089 (part of)		Q08/089 (part of)		<b>Q09/036</b> (part of)
Kowhai-ti kouka	*Q08/191 (part of)								*Q08/191 (part of)

- † **A:** Holocene alluvium and freshwater wetlands  
**B:** Pleistocene alluvial and/or estuarine sediments  
**C:** Pleistocene colluvium of basalt boulders  
**D:** Miocene dacite (Waitakere Group)  
**E:** Miocene volcanoclastic sedimentary rocks and lava flows (Waitakere Group)  
**F:** Miocene igneous conglomerate (Waitemata Group)  
**G:** Miocene sandstone and mudstone (Waitemata Group)  
**H:** Undifferentiated Eocene-Oligocene sedimentary rocks (Motatau Complex)  
**I:** Oligocene micritic limestone and calcareous siltstone (Motatau Complex)

GEOL. GROUP:†	J	K	L	M	N	O	P	NOT SURVEYED
<b>COASTAL FOREST</b>								
<b>Coastal early successional forest</b>								
Black wattle								*Q09/035
Kanuka		Q09/036 (part of)		Q08/140 (part of)	Q08/128 (ptSR)	*Q08/141 (part of)		<b>Q09/038</b>
					Q08/140 (part of)	*Q08/187		Q09/047
					<b>Q09/032</b> (part of)	<b>Q09/032</b> (part of)		
						Q09/036 (part of)		
Kanuka-mamaku								
Kanuka-tree privet				*Q08/142 (part of)		*Q08/142 (part of)		
<b>Coastal broadleaved forest</b>								
Houpara-kowhai								
Houpara-kowhai-tawapou								
Kanuka-kowhai		Q09/036 (part of)				Q09/036 (part of)		*Q09/035
Kanuka-kowhai-puriri						*Q08/187		
Kanuka-pohutukawa								
Kanuka-puriri					<b>Q09/032</b> (part of)	<b>Q09/032</b> (part of)		
Karaka-kowhai-tree privet						<b>Q08/103</b> (part of, ptSR)		
Karaka-tawapou-harakeke								
Kowhai- <i>Coprosma areolata</i> -ti kouka								
Kowhai-karaka								Q08/220
Kowhai-puriri		<b>Q09/036</b> (part of)					<b>Q09/036</b> (part of)	
Kowhai-ti kouka								

† **J:** Holocene estuaries, beaches, and intertidal rock flats

**K:** Eocene glauconitic sandstone

**L:** Cretaceous-Paleocene thinly bedded calcareous mudstone (Whangai Fmn, Mangakahia Complex)

**M:** Cretaceous siliceous mudstone (Whangai Fmn, Mangakahia Complex)

**N:** Cretaceous sandstone and mudstone (Punakitere & Motukaraka formations, Mangakahia Complex)

**O:** Northland Allochthon melange (undifferentiated Mangakahia & Motatau Complex lithologies)

**P:** Man-made pond or lake

GEOL. GROUP:	A	B	C	D	E	F	G	H	I
<b>COASTAL FOREST</b>									
<b>Coastal broadleaved forest</b>									
Pohutukawa					<b>Q08/092</b> (part of)		<b>Q08/092</b> (part of)		Q08/063 (part of)
					Q08/093 (ptMS)		*Q09/015 (part of)		
					<b>Q08/185</b> (part of)		<b>Q09/026</b> (part of)		
					*Q09/009		Q09/043 (part of)		
					Q09/013				
					<b>Q09/014</b>				
					*Q09/015 (part of)				
					Q09/043 (part of)				
					Q09/046				
Pohutukawa-akepiro- kowharawhara					<b>Q08/185</b> (part of)				
Pohutukawa-brush wattle					*Q09/019				
Pohutukawa-houpara					<b>Q09/049</b>				
Pohutukawa-houpara- kowhai									
Pohutukawa-kanuka					Q08/093 (ptMS)		<b>Q09/027</b>		
					*Q09/007				
					<b>Q09/008</b>				
Pohutukawa-kanuka-gorse					*Q09/007				
Pohutukawa-kowhai					<b>Q08/175</b>				
Pohutukawa-kowhai- puriri-taraire									<b>Q08/063</b> (part of)
Pohutukawa-radiata pine					*Q09/048				
					*Q08/176(ptRR)				
					Q08/179				
Pohutukawa-radiata pine- kanuka					Q08/185 (part of)				
Puriri			Q08/178 (ptSL,MS)		*Q09/015 (part of)		*Q09/015 (part of)		
Puriri-kanuka					Q08/185 (part of)				
					*Q09/007				
Puriri-karaka							<b>Q08/183</b> (part of)		*Q08/136 (part of)
Puriri-kowhai						<b>Q09/001</b> (part of)	<b>Q09/001</b> (part of)		

GEOL. GROUP:	J	K	L	M	N	O	P	NOT SURVEYED
<b>COASTAL FOREST</b>								
<b><i>Coastal broadleaved forest</i></b>								
Pohutukawa				<b>Q08/185</b> (part of)	Q08/134	Q08/063 (part of)		
					Q08/135	<b>Q08/185</b> (part of)		
						<b>Q09/026</b> (part of)		
Pohutukawa-akepiro- kowharawhara				<b>Q08/185</b> (part of)		<b>Q08/185</b> (part of)		
Pohutukawa-brush wattle								
Pohutukawa-houpara								
Pohutukawa-houpara- kowhai								<b>Q09/047</b>
Pohutukawa-kanuka								
Pohutukawa-kanuka-gorse								
Pohutukawa-kowhai								
Pohutukawa-kowhai- puriri-taraire						<b>Q08/063</b> (part of)		
Pohutukawa-radiata pine								
Pohutukawa-radiata pine- kanuka				Q08/185 (part of)		Q08/185 (part of)		
Puriri					Q08/135			
Puriri-kanuka				Q08/185 (part of)		*Q08/186		
						Q08/185 (part of)		
Puriri-karaka				*Q08/136 (part of)		*Q08/136 (part of)		
						<b>Q08/183</b> (part of)		
Puriri-kowhai					<b>Q08/134</b>			
					Q08/126 (ptSR)			

GEOL. GROUP:	A	B	C	D	E	F	G	H	I
<b>COASTAL FOREST</b>									
<i>Coastal broadleaved forest</i>									
Puriri-kowhai-kanuka						Q08/098 (part of, ptMS)	Q08/098 (part of, ptMS)		Q08/098 (part of, ptMS)
Puriri-pohutukawa					Q08/093(ptMS)				
Puriri-pohutukawa- kanuka					Q09/008				
Puriri-taraire									
Puriri-ti kouka						Q08/098 (part of, ptMS)	Q08/098 (part of, ptMS)		Q08/098 (part of, ptMS)
Taraire					Q08/179				
Taraire-karaka									
Taraire-puriri							Q09/026 (part of)		
							Q09/027		
Taraire-puriri-kowhai- kanuka									*Q08/168 (part of)
<i>Coastal broadleaved-podocarp forest</i>									
Kanuka-totara-kowhai							*Q08/160 (part of)		*Q08/160 (part of)
Kahikatea-kowhai									Q09/036 (part of)
Kahikatea-puriri-taraire- kanuka									
Karaka-kanuka-kahikatea							Q09/045		
Karaka-puriri-totara									*Q09/042
Kowhai-puriri-kahikatea							Q08/183 (part of)		
Kowhai-totara									Q08/079 (part of)
Kowhai-totara-kahikatea						Q08/098 (part of, ptMS)	Q08/098 (part of, ptMS)		Q08/098 (part of, ptMS)
Puriri-taraire-kahikatea- kauri									
Taraire-kahikatea									
Taraire-totara-kanuka									
Totara-kahikatea-karaka									
Totara-kanuka-kowhai		Q08/157							
Totara-kanuka-puriri									Q09/028 (part of)
Totara-kohekohe-puriri									Q08/107
Totara-kowhai									Q08/102 (part of, ptMS)

GEOL. GROUP:	J	K	L	M	N	O	P	NOT SURVEYED
<b>COASTAL FOREST</b>								
<b><i>Coastal broadleaved forest</i></b>								
Puriri-kowhai-kanuka						<b>Q08/098</b> (part of, ptMS)		
Puriri-pohutukawa								
Puriri-pohutukawa-kanuka								
Puriri-taraire					Q08/135			
Puriri-ti kouka						Q08/098 (part of, ptMS)		
Taraire								
Taraire-karaka						<b>Q08/146</b> (ptQEII)		
Taraire-puriri				Q08/140 (part of)	Q08/140 (part of)	*Q08/142 (part of)		
				*Q08/142 (part of)	<b>Q08/126</b> (ptSR)	*Q08/143		
						<b>Q09/026</b> (part of)		
Taraire-puriri-kowhai-kanuka			*Q08/168 (part of)			*Q08/168 (part of)		
<b><i>Coastal broadleaved-podocarp forest</i></b>								
Kanuka-totara-kowhai						*Q08/160 (part of)		
Kahikatea-kowhai		<b>Q09/036</b> (part of)				<b>Q09/036</b> (part of)		
Kahikatea-puriri-taraire-kanuka						<b>Q09/029</b>		
Karaka-kanuka-kahikatea								
Karaka-puriri-totara								
Kowhai-puriri-kahikatea						Q08/183 (part of)		
Kowhai-totara						Q08/079 (part of)		
Kowhai-totara-kahikatea						<b>Q08/098</b> (part of, ptMS)		
Puriri-taraire-kahikatea-kauri					<b>Q08/119</b>			
Taraire-kahikatea					Q08/147			
Taraire-totara-kanuka				*Q08/142 (part of)		*Q08/142 (part of)		
Totara-kahikatea-karaka								<b>Q08/218</b>
Totara-kanuka-kowhai								*Q08/162
Totara-kanuka-puriri						<b>Q09/028</b> (part of)		
Totara-kohekohe-puriri								
Totara-kowhai		*Q08/106 (part of, ptQEII)			Q08/131 (ptSR)	Q08/102 (part of, ptMS)		Q08/158

GEOL. GROUP:	A	B	C	D	E	F	G	H	I
<b>COASTAL FOREST</b>									
<i>Coastal broadleaved-podocarp forest</i>									
Totara-kowhai									*Q08/106 (part of, ptQEII)
									<b>Q08/151</b> (ptMS)
									*Q08/165 (part of, ptMS)
Totara-kowhai-kahikatea									<b>Q08/079</b> (part of)
Totara-kowhai-kahikatea- puriri							<b>Q08/182</b> (part of, ptQEII)		
Totara-kowhai-karaka		*Q08/191 (part of)							*Q08/191 (part of)
									<b>Q08/127</b>
Totara-kowhai-karaka- puriri									<b>Q08/163</b> (ptQEII)
Totara-kowhai-puriri					<b>Q08/185</b> (part of)				*Q08/085
									Q09/036 (part of)
Totara-puriri							Q08/182 (part of, ptQEII)		*Q08/136 (part of)
Totara-puriri-kahikatea									Q09/036 (part of)
Totara-puriri-kanuka						<b>Q09/001</b> (part of)	<b>Q09/001</b> (part of)		
Totara-puriri-kowhai								<b>Q08/103</b> (part of, ptSR)	
Totara-taraire-puriri									
Totara-ti kouka									
<i>Coastal podocarp-dominant forest</i>									
Kahikatea-totara									
Kanuka-kahikatea									



GEOL. GROUP:	J	K	L	M	N	O	P	NOT SURVEYED
<b>COASTAL FOREST</b>								
<b><i>Coastal broadleaved-podocarp forest</i></b>								
Totara-kowhai						*Q08/106 (part of, ptQEII)		
						*Q08/165 (part of, ptMS)		
Totara-kowhai-kahikatea						<b>Q08/079</b> (part of)		
Totara-kowhai-kahikatea-puriri						<b>Q08/182</b> (part of, ptQEII)		
Totara-kowhai-karaka								
Totara-kowhai-karaka-puriri								
Totara-kowhai-puriri		Q09/036 (part of)		<b>Q08/185</b> (part of)		Q09/036 (part of)		
						<b>Q08/185</b> (part of)		
Totara-puriri				*Q08/136 (part of)	Q08/126 (ptSR)	*Q08/136 (part of)		
				Q08/140 (part of)	<b>Q08/132</b> (ptSR)	Q08/182 (part of, ptQEII)		
					Q08/140 (part of)	*Q08/187		
						*Q08/184		
Totara-puriri-kahikatea		Q09/036 (part of)			Q08/145 (ptQEII)	Q09/036 (part of)		
						<b>Q08/146</b> (ptQEII)		
Totara-puriri-kanuka						*Q08/118		
						Q08/128 (ptSR)		
Totara-puriri-kowhai						*Q08/118	<b>Q08/103</b> (part of, ptSR)	
Totara-taraire-puriri						<b>Q08/131</b> (ptSR)		
Totara-ti kouka						Q08/188		
<b><i>Coastal podocarp-dominant forest</i></b>								
Kahikatea-totara						*Q08/187		
Kanuka-kahikatea						<b>Q08/128</b> (ptSR)		

GEOL. GROUP:	A	B	C	D	E	F	G	H	I
<b>COASTAL FOREST</b>									
<i>Coastal podocarp-dominant forest</i>									
Kanuka-totara									<b>Q08/151</b> (ptMS)
									*Q08/168 (part of)
Totara									<b>Q08/151</b> (ptMS)
									*Q09/004
									Q09/028 (part of)
Totara-kahikatea									<b>Q08/151</b> (ptMS)
									*Q08/106 (part of, ptQEII)
									Q08/156 (part of)
Totara-kanuka							Q08/183 (part of)	*Q08/109 (ptSR)	Q08/102 (part of, ptMS)
							*Q09/003 (part of)	Q08/111 (part of)	*Q09/003 (ptQEII)
<i>Coastal kauri-dominant forest</i>									
Kanuka-totara-kauri					<b>Q08/093</b> (ptMS)				
Kauri-kanuka									
Kauri-kanuka-tanekaha									
Kauri-totara									Q08/156 (part of)
Totara-kauri-kahikatea									<b>Q08/156</b> (part of)
<b>SEMI-COASTAL FOREST</b>									
<i>Semi-coastal early successional forest</i>									
Kanuka	*Q08/205	<b>Q08/099</b> (part of)			*Q08/086	Q09/006 (part of)	Q08/081 (part of, ptSR,QEII)		Q08/063 (part of)
					Q08/088 (part of)	Q09/016	<b>Q08/087</b> (part of)		<b>Q08/079</b> (part of)
					Q08/089 (part of)	*Q09/023	Q08/088 (part of)		*Q08/082 (part of)
					Q08/090 (part of)		Q08/089 (part of)		<b>Q08/087</b> (part of)

GEOL. GROUP:	J	K	L	M	N	O	P	NOT SURVEYED
<b>COASTAL FOREST</b>								
<b>Coastal podocarp-dominant forest</b>								
Kanuka-totara			*Q08/168 (part of)		Q08/131 (ptSR)	*Q08/168 (part of)		
					*Q08/184			
Totara					Q08/147	Q08/146 (ptQEII)		
					Q08/149	Q08/188		
						*Q08/217 (ptMS)		
						Q09/028 (part of)		
Totara-kahikatea		*Q08/106 (part of, ptQEII)			Q08/156 (part of, )	*Q08/106 (part of, ptQEII)		
					Q08/147			
Totara-kanuka		<b>Q08/105</b>	Q08/166 (part of)	*Q08/142	Q08/108 (ptSR)	Q08/102 (part of, ptMS)		
					<b>Q08/128</b> (ptSR)	*Q08/142 (part of)		
					Q08/135	Q08/183 (part of)		
<b>Coastal kauri-dominant forest</b>								
Kanuka-totara-kauri					Q08/149			
Kauri-kanuka						<b>Q08/146</b> (ptQEII)	*Q09/041	
							<b>Q09/037</b>	
Kauri-kanuka-tanekaha					Q08/147			
Kauri-totara					<b>Q08/145</b> (ptQEII)			
					Q08/156 (part of)			
Totara-kauri-kahikatea					<b>Q08/156</b> (part of)			
<b>SEMI-COASTAL FOREST</b>								
<b>Semi-coastal early successional forest</b>								
Kanuka		Q09/036 (part of)	*Q08/168 (part of)	*Q08/136	<b>Q08/099</b> (part of)	Q08/063 (part of)		Q08/116 (part of)
				*Q08/142 (part of)	*Q08/118	<b>Q08/079</b> (part of)		
				<b>Q08/185</b> (part of)	<b>Q08/145</b> (ptQEII)	*Q08/082 (part of)		
				Q08/190 (part of)	Q08/147	*Q08/136 (part of)		

GEOL. GROUP:	A	B	C	D	E	F	G	H	I
<b>SEMI-COASTAL FOREST</b>									
<b><i>Semi-coastal early successional forest</i></b>									
Kanuka					<b>Q08/092</b> (part of)		Q08/090 (part of)		*Q08/136 (part of)
					Q08/092 (part of)		<b>Q08/092</b> (part of)		*Q08/168 (part of)
					<b>Q08/093</b> (ptMS)		Q08/092 (part of)		Q09/036 (part of)
					Q08/095 (part of)		Q08/095 (part of)		Q09/039 (part of)
					*Q08/097		*Q08/114		
					Q08/179		Q08/183 (part of)		
					<b>Q08/185</b> (part of)		Q09/024 (part of)		
					Q09/006 (part of)		*Q09/025 (part of)		
					<b>Q09/008</b>		<b>Q09/026</b> (part of)		
					*Q09/009		Q09/027 (part of)		
					*Q09/010				
					*Q09/012				
					Q09/027 (part of)				
Kanuka-manuka		Q08/091 (part of)			Q08/091 (part of)		Q08/091 (part of)		
Mamaku-manuka					<b>Q08/065</b> (part of)		<b>Q08/065</b> (part of)		<b>Q08/065</b> (part of)
<b><i>Semi-coastal broadleaved forest</i></b>									
Kanuka-kowhai									*Q08/083
Kowhai-puriri					Q08/088 (part of)		Q08/088 (part of)		
Mamaku-nikau-pukatea						<b>Q09/001</b> (part of)	<b>Q09/001</b> (part of)		
Nikau	<b>Q08/171</b> (part of)	<b>Q08/171</b> (part of)							<b>Q08/171</b> (part of)
Puriri						*Q09/023			<b>Q08/161</b> (ptMS)
Puriri-kowhai-karaka		*Q08/101							
Puriri-kowhai-kanuka					Q08/179				
Puriri-nikau					<b>Q09/008</b>				
Puriri-nikau-taraire					<b>Q09/005</b> (part of)	<b>Q09/005</b> (part of)			
Puriri-taraire					Q08/089 (part of)	<b>Q09/016</b>		Q08/089 (part of)	
Puriri-taraire-karaka									
Taraire					Q08/088 (part of)		Q08/088 (part of)		*Q08/160 (part of)

GEOL. GROUP:	J	K	L	M	N	O	P	NOT SURVEYED
<b>SEMI-COASTAL FOREST</b>								
<b><i>Semi-coastal early successional forest</i></b>								
Kanuka					<b>Q09/032</b> (part of)	*Q08/142 (part of)		
						*Q08/168 (part of)		
						Q08/183 (part of)		
						<b>Q08/185</b> (part of)		
						Q08/190 (part of)		
						Q09/024 (part of)		
						*Q09/025 (part of)		
						<b>Q09/026</b> (part of)		
						<b>Q09/032</b> (part of)		
						Q09/036 (part of)		
						Q09/039 (part of)		
Kanuka-manuka								
Mamaku-manuka								
<b><i>Semi-coastal broadleaved forest</i></b>								
Kanuka-kowhai								
Kowhai-puriri								
Mamaku-nikau-pukatea								
Nikau						<b>Q08/171</b> (part of)		
Puriri								
Puriri-kowhai-karaka								
Puriri-kowhai-kanuka								
Puriri-nikau								
Puriri-nikau-taraire								
Puriri-taraire								
Puriri-taraire-karaka						Q08/208		
Taraire						Q08/170 (part of, ptQEII)	*Q08/160 (part of)	

GEOL. GROUP:	A	B	C	D	E	F	G	H	I
<b>SEMI-COASTAL FOREST</b>									
<b><i>Semi-coastal broadleaved forest</i></b>									
Taraire					Q08/090 (part of)		Q08/090 (part of)		Q08/170 (part of, ptQEII)
							*Q08/160 (part of)		
Taraire-pukatea									
Taraire-puriri		Q08/091 (part of)			Q08/091 (part of)		Q08/091 (part of)		Q09/036 (part of)
							*Q08/114		
Taraire-puriri-kanuka					*Q09/009				*Q08/136 (part of)
Taraire-puriri-karaka							Q09/022		
<b><i>Semi-coastal broadleaved-podocarp forest</i></b>									
Kahikatea-kanuka- taraire-totara									
Kahikatea-kowhai									*Q08/083
Kahikatea-pukatea							*Q08/160 (part of)		*Q08/160 (part of)
Kahikatea-puriri									
Kahikatea-puriri- totara					Q08/065 (part of)		Q08/065 (part of)		Q08/065 (part of)
Kahikatea-ti kouka		Q08/064							
Kahikatea-totara- titoki-crack willow		*Q08/068 (part of, ptMS)						*Q08/068 (part of, ptMS)	
Kanuka-kowhai-totara									
Kanuka-totara-kowhai									*Q08/113
Kowhai-kahikatea					Q08/092 (part of)		Q08/092 (part of)		
Kowhai-kanuka-kahikatea							Q09/024 (part of)		
Kowhai-totara-puriri- pukatea									
Mature matai over sec- ondary kahikatea-ti kouka		Q08/064							
Nikau-kahikatea	Q08/171 (part of)	Q08/171 (part of)							Q08/171 (part of)
Puriri-kahikatea					Q09/005 (part of)	Q09/005 (part of)			
Puriri-nikau-totara					Q08/094 (part of, ptMS)	Q08/094 (part of, ptMS)			

GEOL. GROUP:	J	K	L	M	N	O	P	NOT SURVEYED
<b>SEMI-COASTAL FOREST</b>								
<b><i>Semi-coastal broadleaved forest</i></b>								
Taraire					<b>Q08/144</b>	Q08/170 (part of, ptQEII)		
					<b>Q08/148</b>	*Q08/071 (part of)		
					<b>Q08/153</b> (ptQEII)			
					<b>Q08/137</b>			
Taraire-pukatea					<b>Q08/153</b> (part of, ptQEII)			
Taraire-puriri		Q09/036 (part of)			*Q08/150	Q09/036 (part of)		<b>Q08/116</b>
						Q08/167		
						*Q08/154		
Taraire-puriri-kanuka				*Q08/136		*Q08/136 (part of)		
Taraire-puriri-karaka								
<b><i>Semi-coastal broadleaved-podocarp forest</i></b>								
Kahikatea-kanuka-taraire-totara				*Q08/155				
Kahikatea-kowhai								
Kahikatea-pukatea				<b>Q08/190</b> (part of)		*Q08/160 (part of)		
						<b>Q08/190</b> (part of)		
Kahikatea-puriri								
Kahikatea-puriri-totara								
Kahikatea-ti kouka								
Kahikatea-totara-titoki-crack willow								
Kanuka-kowhai-totara					<b>Q08/129</b>			
Kanuka-totara-kowhai								
Kowhai-kahikatea								
Kowhai-kanuka-kahikatea						<b>Q09/024</b> (part of)		
Kowhai-totara-puriri-pukatea						<b>Q09/033</b>		
Mature matai over secondary kahikatea-ti kouka								
Nikau-kahikatea						<b>Q08/171</b> (part of)		
Puriri-kahikatea						*Q08/207		
Puriri-nikau-totara								

GEOL. GROUP:	A	B	C	D	E	F	G	H	I
<b>SEMI-COASTAL FOREST</b>									
<b><i>Semi-coastal broadleaved-podocarp forest</i></b>									
Tanekaha-tarata-mamangi								<b>Q09/022</b>	
Tanekaha-rewarewa-kanuka					<b>Q08/088</b> (part of)		<b>Q08/088</b> (part of)		
Taraire-kahikatea									
Taraire-kahikatea-nikau	<b>Q08/171</b> (part of)	<b>Q08/171</b> (part of)							<b>Q08/171</b> (part of)
Taraire-kahikatea-puriri									
Taraire-karaka-totara									
Taraire-kowhai-kahikatea							<b>Q09/024</b> (part of)		
Taraire-puriri-kahikatea					<b>Q09/006</b> (part of)		<b>Q09/006</b> (part of)		
Taraire-puriri-kahikatea-totara								Q08/120	
Taraire-puriri-totara									
Taraire-rimu-totara									
Taraire-totara									
Totara-kahikatea-kowhai		<b>Q08/124</b> (part of)							
Totara-kahikatea-puriri					<b>Q08/094</b> (part of, ptMS)		<b>Q08/094</b> (part of, ptMS)		
Totara-kahikatea-ti kouka							<b>Q08/183</b> (part of)		
Totara-karaka									
Totara-karaka-kowhai	<b>Q08/171</b> (part of)	<b>Q08/171</b> (part of)							<b>Q08/171</b> (part of)
Totara-kowhai							*Q08/160 (part of)		*Q08/160 (part of)
									*Q08/168 (part of)
Totara-kowhai-puriri									*Q09/034
Totara-puriri	*Q08/201 (part of)	Q08/099 (part of)							*Q08/139



GEOL. GROUP:	J	K	L	M	N	O	P	NOT SURVEYED
<b>SEMI-COASTAL FOREST</b>								
<b><i>Semi-coastal broadleaved-podocarp forest</i></b>								
Tanekaha-tarata-mamangi								
Tanekaha-rewarewa-kanuka								
Taraire-kahikatea				Q08/190 (part of)	<b>Q08/200</b> (part of)	*Q08/070		
						Q08/190 (part of)		
						<b>Q08/200</b> (part of)		
Taraire-kahikatea-nikau						<b>Q08/171</b> (part of)		
Taraire-kahikatea-puriri						<b>Q09/044</b>		
Taraire-karaka-totara								Q08/218
Taraire-kowhai-kahikatea						<b>Q09/024</b> (part of)		
Taraire-puriri-kahikatea								
Taraire-puriri-kahikatea-totara								
Taraire-puriri-totara					<b>Q08/145</b> (ptQEII)			Q08/117
					*Q08/204 (part of)	*Q08/204 (part of)		
Taraire-rimu-totara						*Q08/077		
Taraire-totara					<b>Q08/110</b> (part of, ptQEII)	Q08/069		
					*Q08/172 (part of)	<b>Q08/110</b> (part of, ptQEII)		
					*Q08/202 (part of)	*Q08/172 (ptQEII)		
Totara-kahikatea-kowhai						<b>Q08/124</b> (part of)		
						Q08/167		
Totara-kahikatea-puriri								
Totara-kahikatea-ti kouka						<b>Q08/183</b> (part of)		
Totara-karaka						<b>Q08/069</b>		
Totara-karaka-kowhai						<b>Q08/171</b> (part of)		
Totara-kowhai			*Q08/168 (part of)			*Q08/160 (part of)		<b>Q08/116</b>
						*Q08/168 (part of)		
Totara-kowhai-puriri								
Totara-puriri					Q08/099 (part of)	*Q08/201 (part of)		Q09/041

GEOL. GROUP:	A	B	C	D	E	F	G	H	I
<b>SEMI-COASTAL FOREST</b>									
<b><i>Semi-coastal broadleaved-podocarp forest</i></b>									
Totara-puriri									<b>Q08/194</b>
Totara-puriri-kahikatea									
Totara-puriri-kanuka									
Totara-taraire-puriri									
Totara-titoki	<b>Q08/121</b>								
	(part of, ptQEII)								
Totara-tree privet									
<b><i>Semi-coastal podocarp-dominant forest</i></b>									
Kahikatea	<b>Q08/072</b>								<b>Q08/170</b>
	(part of) ptQEII)								(part of,
Kahikatea-kanuka							<b>Q09/022</b>		
Kahikatea-totara									*Q08/075 (part of)
Kanuka-kahikatea					Q09/005 (part of)	Q09/005 (part of)	<b>Q09/022</b>		
Kanuka-manuka-rimu									
Kanuka-rimu									
Kanuka-totara					<b>Q08/092</b> (part of)		<b>Q08/092</b> (part of)		*Q08/106 (part of, ptQEII)
									*Q08/165 (part of, ptMS)

GEOL. GROUP:	J	K	L	M	N	O	P	NOT SURVEYED
<b>SEMI-COASTAL FOREST</b>								
<b><i>Semi-coastal broadleaved-podocarp forest</i></b>								
Totara-puriri					Q08/130	Q08/169		
					Q08/153 (ptQEII)			
Totara-puriri-kahikatea					<b>Q08/192</b>			
Totara-puriri-kanuka					<b>Q08/129</b>			
Totara-taraire-puriri					<b>Q08/149</b>			
Totara-titoki					<b>Q08/121</b> (part of, ptQEII)			
Totara-tree privet					*Q08/123			
<b><i>Semi-coastal podocarp-dominant forest</i></b>								
Kahikatea					<b>Q08/170</b> (part of)	<b>Q08/072</b> (part of, ptQEII)		
					Q08/134	Q08/167		
						<b>Q08/170</b> (part of, ptQEII)		
						Q08/173 (part of)		
						*Q08/201 (part of)		
Kahikatea-kanuka						*Q08/195		
Kahikatea-totara					*Q08/075 (part of)	Q08/069		
					<b>Q08/110</b> (part of, ptQEII)	*Q08/071		
					Q08/200 (part of)	<b>Q08/110</b> (part of, ptQEII)		
						*Q08/199		
						Q08/200 (part of)		
Kanuka-kahikatea					*Q08/076			
Kanuka-manuka-rimu					<b>Q08/208</b>			
Kanuka-rimu					Q08/100 (part of, ptSR,QEII)			
					<b>Q08/145</b> (ptQEII)			
Kanuka-totara		*Q08/106 (part of, ptQEII)			*Q08/172 (part of)	*Q08/106 (part of, ptQEII)		
					*Q08/203	*Q08/125		
					*Q08/204 (part of)	*Q08/172 (part of)		

GEOL. GROUP:	A	B	C	D	E	F	G	H	I
<b>SEMI-COASTAL FOREST</b>									
<b><i>Semi-coastal podocarp-dominant forest</i></b>									
Kanuka-totara									
Kanuka-totara-kahikatea						<b>Q09/001</b> (part of)	<b>Q09/001</b> (part of)		
Kanuka-totara-tanekaha						*Q09/011			
Mamaku-totara									
Mature totara-kahikatea		<b>Q08/100</b> (part of, ptSR,QEII)							
Rimu-kanuka									
Tanekaha									
Tanekaha-totara		<b>Q08/095</b> (part of)			<b>Q08/095</b> (part of)		<b>Q08/095</b> (part of)		
Totara	Q08/121 (part of, ptQEII)	Q08/159 (part of, ptMS)	Q08/094			Q08/094 (part of, ptMS)	*Q08/075 (part of)		
		<b>Q08/138</b>					<b>Q08/115</b>		Q08/161 (ptMS)
		*Q08/201 (part of)				Q08/196 (part of)		Q08/170 (part of, ptQEII)	
		*Q08/205				Q08/198		*Q09/034	
								Q09/036 (part of)	

GEOL. GROUP:	J	K	L	M	N	O	P	NOT SURVEYED
<b>SEMI-COASTAL FOREST</b>								
<b><i>Semi-coastal podocarp-dominant forest</i></b>								
Kanuka-totara					Q08/208	*Q08/193 (part of)		
						*Q08/204 (part of)		
						*Q08/077		
						*Q08/165 (part of, ptMS)		
Kanuka-totara-kahikatea								
Kanuka-totara-tanekaha <b>Q08/192</b>								
Mamaku-totara					<b>Q08/110</b> (part of, ptQEII)	<b>Q08/110</b> (part of, ptQEII)		
Mature totara-kahikatea					<b>Q08/100</b> (part of, ptSR,QEII)			
Rimu-kanuka					<b>Q08/110</b> (part of, ptQEII)	<b>Q08/110</b> (part of, ptQEII)		
Tanekaha <b>Q08/192</b>								
Tanekaha-totara								
Totara		Q09/036 (part of)		*Q08/189 (part of)	*Q08/075 (part of)	Q08/069		Q08/116
				Q08/190 (part of)	Q08/121 (part of, ptQEII)	<b>Q08/115</b> (part of)		
					*Q08/133	<b>Q08/152</b> (ptQEII)		
					Q08/134	Q08/170 (part of, ptQEII)		
					Q08/137	*Q08/189 (part of)		
					Q08/148	Q08/190 (part of)		
					*Q08/150	Q08/196 (part of)		
					Q08/153 (ptQEII)	Q08/200 (part of)		
					Q08/170pt (part of, QEII)	*Q08/201 (part of)		
					Q08/200 (part of)	Q09/036 (part of)		
						Q09/044		



GEOL. GROUP:	J	K	L	M	N	O	P	NOT SURVEYED
<b>SEMI-COASTAL FOREST</b>								
<b><i>Semi-coastal podocarp-dominant forest</i></b>								
Totara-kahikatea					*Q08/118	Q08/061 (part of)		
					*Q08/150	Q08/069		
					Q08/170 (part of, ptQEII)	*Q08/070		
					*Q08/172 (part of)	Q08/072 (part of)		
					*Q08/174	Q08/079 (part of)		
					Q08/192	*Q08/104 (ptQEII)		
					Q08/208	Q08/146 (ptQEII)		
						Q08/152 (ptQEII)		
						*Q08/165 (part of, ptMS)		
						Q08/170 (part of, ptQEII)		
						Q08/171 (part of)		
						*Q08/172 (part of)		
						Q08/173 (part of)		
						*Q08/181		
						Q08/196 (part of)		
						*Q08/206		
						*Q09/040		
Totara-kanuka		*Q08/112 (part of)			*Q08/074	Q08/061 (part of)		
					Q08/100 (part of, ptSR,QEII)	Q08/103 (part of, ptSR)		
					Q08/156 (part of)	*Q08/112 (part of)		
					Q08/200 (part of)	Q08/124 (part of)		
					*Q08/202 (ptQEII)	Q08/196 (part of)		

GEOL. GROUP:	A	B	C	D	E	F	G	H	I
<b>SEMI-COASTAL FOREST</b>									
<b><i>Semi-coastal podocarp-dominant forest</i></b>									
Totara-kanuka							Q08/196 (part of)		Q08/170 (part of, ptQEII)
							*Q09/002		*Q09/018 (part of)
							<b>Q09/017</b>		
Totara-kanuka-kahikatea		*Q08/080					*Q09/018 (part of)		
Totara-mamaku	<b>Q08/214</b>								
Totara-rimu									Q08/061 (part of)
<b><i>Semi-coastal kauri-dominant forest</i></b>									
Kanuka-kauri					<b>Q08/093</b> (ptMS)		*Q09/025 (part of)		
Kauri	<b>Q08/100</b> (part of, ptSR,QEII)	*Q08/101				<b>Q09/001</b> (part of)	Q08/067 (part of)		
							Q08/090 (part of)		
							<b>Q08/196</b> (part of)		
							<b>Q09/001</b> (part of)		
							Q09/024 (part of)		
Kauri-kanuka		Q08/095 (part of)			Q08/088 (part of)	Q09/005 (part of)	Q08/088 (part of)		
					Q08/092 (part of)	<b>Q09/006</b> (part of)	Q08/092 (part of)		
					<b>Q08/094</b> (part of, ptMS)	<b>Q08/094</b> (part of, ptMS)			
					Q08/095 (part of)		Q08/095 (part of)		
					Q08/179		*Q09/015 (part of)		
					Q08/185 (part of)		<b>Q09/026</b> (part of)		
					Q09/005 (part of)				
					<b>Q09/006</b> (part of)				
					<b>Q09/008</b>				



GEOL. GROUP:	J	K	L	M	N	O	P	NOT SURVEYED
<b>SEMI-COASTAL FOREST</b>								
<b><i>Semi-coastal podocarp-dominant forest</i></b>								
Totara-kanuka					Q08/170 (part of, ptQEII)	Q08/200 (part of)		
							Q09/033	
							Q08/170 (part of, ptQEII)	
Totara-kanuka-kahikatea						*Q08/160 (part of)		Q08/117
							<b>Q08/103</b> (part of, ptSR)	
Totara-mamaku								
Totara-rimu							Q08/061 (part of)	
							<b>Q08/152</b> (ptQEII)	
<b><i>Semi-coastal kauri-dominant forest</i></b>								
Kanuka-kauri							*Q09/025 (part of)	
Kauri					<b>Q08/100</b> (part of, ptSR,QEII)	*Q08/070		
					*Q08/074	<b>Q08/196</b> (part of)		
							Q09/024 (part of)	
Kauri-kanuka				Q08/185 (part of)	Q08/126 (ptSR)	Q08/185 (part of)		
							<b>Q09/026</b> (part of)	

GEOL. GROUP:	A	B	C	D	E	F	G	H	I
<b>SEMI-COASTAL FOREST</b>									
<b>Semi-coastal kauri-dominant forest</b>									
Kauri-kanuka					*Q09/012				
					*Q09/015 (part of)				
Kauri-kanuka-rimu									
Kauri-kanuka-tanekaha							Q09/016		
Kauri-karaka-puriri		<b>Q09/030</b>							
Kauri-tanekaha						<b>Q09/001</b> (part of)	<b>Q09/001</b> (part of)		
Kauri-totara-kanuka		Q08/091 (part of)			Q08/091 (part of)		Q08/091 (part of)		
Kauri-kahikatea-totara									
Kauri-rimu		<b>Q08/078</b> (ptSR)							
Kauri-totara-tanekaha	Q08/214								
Mature kauri-kahikatea							<b>Q08/081</b> (ptSR,QEII)		
Mature kauri							<b>Q09/022</b>		
Totara-mature kauri									
<b>Semi-coastal unknown forest type</b>									
Unknown type							Q08/115 (part of)		
<b>COASTAL SHRUBLAND</b>									
Gorse-mixed native					Q09/014				
Harakeke-manuka-pampas					Q09/049				
Kanuka					<b>Q08/089</b> (part of)		<b>Q08/089</b> (part of)		
					Q08/092 (part of)		Q08/092 (part of)		
					Q08/093 (ptMS)				
Kanuka-manuka					Q08/179				
Mahoe									
Manuka					*Q08/176 (ptRR)				
Manuka-kanuka									
Manuka-mapou									
Manuka-ti kouka-mapou									
Mapou-karamu-hangehange									
Mapou-manuka-harakeke					<b>Q08/175</b>				
Ti kouka							<b>Q08/183</b> (part of)		
Ti kouka-kanuka									<b>Q08/063</b> (part of)
Tutu									<b>Q08/063</b> (part of)
Woolly nightshade-mapou									

GEOL. GROUP:	J	K	L	M	N	O	P	NOT SURVEYED
<b>SEMI-COASTAL FOREST</b>								
<b><i>Semi-coastal kauri-dominant forest</i></b>								
Kauri-kanuka								
Kauri-kanuka-rimu <b>Q08/147</b>								
Kauri-kanuka-tanekaha								
Kauri-karaka-puriri								
Kauri-tanekaha								
Kauri-totara-kanuka								
Kauri-kahikatea-totara <b>Q08/146</b> (ptQEII)								
Kauri-rimu								
Kauri-totara-tanekaha								
Mature kauri-kahikatea								
Mature kauri								
Totara-mature kauri <b>Q08/122</b>								
<b><i>Semi-coastal unknown forest type</i></b>								
Unknown type <b>Q08/115</b> (part of)								
<b>COASTAL SHRUBLAND</b>								
Gorse-mixed native								
Harakeke-manuka-pampas								
Kanuka <b>Q08/140</b> <b>Q08/140</b> (part of) (part of)								
<b>Q08/149</b>								
Kanuka-manuka <b>Q08/134</b>								
Mahoe <b>Q08/108</b> (ptSR)								
Manuka <b>Q08/140</b> <b>Q08/140</b> <b>Q08/167</b> (part of) (part of)								
Manuka-kanuka <b>Q08/166</b>								
Manuka-mapou <b>Q08/167</b> *Q09/035								
Manuka-ti kouka-mapou <b>Q08/167</b>								
Mapou-karamu-hangehange <b>Q08/135</b>								
Mapou-manuka-harakeke								
Ti kouka <b>Q08/183</b> (part of)								
Ti kouka-kanuka <b>Q08/063</b> (part of)								
Tutu <b>Q08/063</b> (part of)								
Woolly nightshade-mapou <b>Q09/032</b> <b>Q09/032</b> (part of) (part of)								

GEOL. GROUP:	A	B	C	D	E	F	G	H	I
<b>SEMI-COASTAL SHRUBLAND</b>									
<i>Coprosma propinqua</i>	<b>Q08/209</b>								
Harakeke-manuka									
Kanuka-mamaku							<b>Q08/198</b>		
Kanuka-manuka					*Q08/086	<b>Q09/001</b> (part of)	Q08/094 (part of, ptMS)		
					Q08/094 (part of, ptMS)		<b>Q08/088</b> (part of)		
					<b>Q08/088</b> (part of)		<b>Q09/001</b> (part of)		
Kanuka-radiata pine					Q08/185 (part of)				
Mahoe		Q08/212							
Manuka		Q08/212			<b>Q09/008</b> (ptSR,QEII)		Q08/081		Q08/065 (part of)
					*Q08/097		Q08/065 (part of)		<b>Q08/102</b> (part of, ptMS)
					Q08/065 (part of)				
Manuka-kanuka							*Q08/114		
Manuka-kanuka-mahoe									
Putaputaweta		<b>Q08/211</b>							
Totara-mapou									
<b>FRESHWATER WETLAND</b>									
<i>Carex virgata</i> -pampas									
Open water (constructed freshwater farm pond)									

GEOL. GROUP:	J	K	L	M	N	O	P	NOT SURVEYED
<b>SEMI-COASTAL SHRUBLAND</b>								
<i>Coprosma propinqua</i>								
Harakeke-manuka							<b>Q08/208</b>	
Kanuka-mamaku								
Kanuka-manuka		Q08/105						
Kanuka-radiata pine				Q08/185 (part of)		Q08/185 (part of)		
Mahoe								
Manuka					Q08/128 (ptSR)		<b>Q08/102</b> (part of, ptMS)	
						<b>Q08/208</b>	<b>Q08/188</b>	
Manuka-kanuka					Q08/144			
						Q08/108 (ptSR)		
Manuka-kanuka-mahoe					Q08/153 (ptQEII)			
Putaputaweta								
Totara-mapou							<b>Q09/033</b>	
<b>FRESHWATER WETLAND</b>								
<i>Carex virgata</i> -pampas							Q09/017 (part of)	
Open water (constructed freshwater farm pond)							Q08/066	
							*Q08/070 (part of)	
							*Q08/071 (part of)	
							*Q08/073	
							*Q08/077 (part of)	
							*Q08/113 (part of)	
							Q08/115 (part of)	
							*Q08/118 (part of)	
							*Q08/123 (part of)	
							Q08/130 (part of)	

GEOL. GROUP:	A	B	C	D	E	F	G	H	I
<b>FRESHWATER WETLAND</b>									
Open water (constructed freshwater farm pond)									
Open water (constructed lake)									
<i>Baumea articulata</i>									
Soft rush									
<i>Juncus sarophorus</i>									
Lake clubrush									
Raupo									
	<b>Q08/088</b>	Q08/095							
	(part of)	(part of)							
	Q08/092	Q08/091							
	(part of)	(part of)							
	*Q08/165								
	(part of,								
	ptMS)								
	Q08/167								
	(part of)								
	*Q08/191								
	(part of)								

GEOL. GROUP:	J	K	L	M	N	O	P	NOT SURVEYED
<b>FRESHWATER WETLAND</b>								
Open water (constructed freshwater farm pond)							*Q08/168 (part of)	
							Q08/170 (part of, ptQEII)	
							*Q08/193 (part of)	
							*Q08/197	
							*Q08/219	
							Q09/017 (part of)	
							Q09/022 (part of)	
							*Q09/031	
							*Q09/041 (part of)	
Open water (constructed lake)							Q08/159	
							Q08/164 (ptGP,MS)	
							Q09/039 (part of)	
<i>Baumea articulata</i>							<b>Q08/159</b>	
Soft rush							Q08/115 (part of)	
<i>Juncus sarophorus</i>							Q08/066	
							*Q08/070 (part of)	
							*Q08/071 (part of)	
							*Q08/077 (part of)	
							*Q08/123 (part of)	
Lake clubrush							<b>Q08/164</b> (ptGP,MS)	
							*Q09/031	
Raupo							*Q08/073	
							Q08/081 (part of, ptSR,QEII)	
							Q08/115 (part of)	
							*Q08/118 (part of)	
							*Q08/155 (part of)	

GEOL. GROUP:	A	B	C	D	E	F	G	H	I
<b>FRESHWATER WETLAND</b>									
Raupo	Q08/198 (part of)								
	Q08/209								
	*Q08/210								
	<b>Q08/212</b>								
	*Q08/213								
	<b>Q08/216</b>								
	<b>Q09/006</b> (part of)								
	*Q09/015 (part of)								
Raupo- <i>Baumea articulata</i> - pink bindweed			<b>Q08/178</b> (ptSL,MS)						
Raupo- <i>Baumea articulata</i> - marsh clubrush						<b>Q08/179</b>			
Raupo-bracken	<b>Q08/215</b>								
Raupo-lake clubrush	<b>Q08/089</b> (part of)								
Raupo-ti kouka	<b>Q08/116</b> (part of)								
Raupo-willow weed									
Unknown freshwater wetland type	*Q08/180								
<b>ESTUARINE WETLAND</b>									
<i>Baumea articulata</i>									
Glasswort- <i>Suaeda novae-zelandiae</i> -sharp rush									
Mangrove									
Mangrove-sea rush									
Mudflats and sandflats									
Oioi-sea rush									
Saltmarsh ribbonwood									



GEOL. GROUP:	J	K	L	M	N	O	P	NOT SURVEYED
<b>FRESHWATER WETLAND</b>								
Raupo							<b>Q09/001</b> (part of)	
Raupo- <i>Baumea articulata</i> - pink bindweed								
Raupo- <i>Baumea articulata</i> - marsh clubrush								
Raupo-bracken								
Raupo-lake clubrush								
Raupo-ti kouka								
Raupo-willow weed							*Q08/197	
							<b>Q08/159</b>	
Unknown freshwater wetland type								
<b>ESTUARINE WETLAND</b>								
<i>Baumea articulata</i>	<b>Q08/062</b>							
Glasswort- <i>Suaeda novae-zelandiae</i> -sharp rush			<b>Q09/020</b>					
Mangrove	Q08/062							
	Q08/084							
	Q08/096							
	Q09/020							
	<b>Q09/021</b>							
Mangrove-sea rush	Q08/062							
	Q08/084							
	Q09/020							
Mudflats and sandflats	Q08/062							
	Q08/084							
	Q08/096							
	Q09/020							
	Q09/021							
Oioi-sea rush	Q08/062							
	Q08/084							
	Q09/020							
	<b>Q09/021</b>							
Saltmarsh ribbonwood	Q08/062							
	<b>Q08/084</b>							

GEOL. GROUP:	A	B	C	D	E	F	G	H	I
<b>ESTUARINE WETLAND</b>									
Saltmarsh ribbonwood									
Saltwater paspalum									
Sea primrose-arrow grass-saltwater paspalum									
Sea primrose-remuremu-saltwater paspalum-sharp rush									
Sea rush									
Sharp rush									
<i>Spartina alterniflora</i>									
<b>OTHER</b>									
Exotic grassland on islands					Q08/175				
					*Q08/177				
					Q09/014				

GEOL. GROUP:	J	K	L	M	N	O	P	NOT SURVEYED
<b>ESTUARINE WETLAND</b>								
Saltmarsh ribbonwood	Q09/020							
	<b>Q09/021</b>							
Saltwater paspalum	Q08/062							
	Q08/084							
	Q09/020							
Sea primrose-arrow grass-saltwater paspalum	<b>Q08/062</b>							
Sea primrose-remuremu-saltwater paspalum-sharp rush	Q08/084							
	Q09/020							
	<b>Q09/021</b>							
Sea rush	Q08/062							
	Q08/084							
	Q09/020							
Sharp rush	Q08/084							
<i>Spartina alterniflora</i>	Q08/062							
	Q08/084							
	Q09/020							
<b>OTHER</b>								
Exotic grassland on islands								

TABLE 3: SUMMARY OF SITE EVALUATIONS.

e.u.=ecological unit, reg.sign.=regionally significant, loc.unc.=locally uncommon.

LEVEL 1 SITES Survey no.	REPRESENT- ATIVENESS*	RARITY†/SPECIAL FEATURES	DIVERSITY AND PATTERN	NATURALNESS	BUFFER/ LINKAGE/ CORRIDOR	SIZE AND SHAPE‡
Lower Pukeareinga Forest Remnants Q08/061	Rep.site for 1 e.u.	Fauna: 1 threatened	3 e.u.s	Grazed and disturbed, but relatively healthy canopy	Adjacent to large forest block on Pukearenga in Rodney ED	16.9 ha 3 remnants
Otamatea River Q08/062	Rep.site for 2 e.u.s	Extensive mangroves and wading habitat. Flora: 1 reg.sign. Fauna: 9 threatened, 1 reg.sign.	10 e.u.s	Many natural functions, but human-modified (increased sedimentation, mudflat reclama- tion, <i>Spartina alterniflora</i> and saltwater paspalum infestations, Pacific oyster infestation, rockwork and oyster farms)	Important migratory bird habitat/corridor	2790.9 ha
Otara Head Forest and Shrubland Q08/063	Rep.site for 3 e.u.s	Limestone coastal cliff; fauna not surveyed	5 e.u.s	Diverse and regenerating	Protective buffer to coastal fringe	14.5 ha compact area
Kowhai Road Matai- Kahikatea Remnant Q08/064	Rep.site for 1 e.u.	Very tall, mature matai; fauna not surveyed	2 e.u.s	Heavily grazed and disturbed	Relatively isolated	5.4 ha
Otuhanga Hill Forest Q08/065	Rep.site for 1 e.u.		4 e.u.s	Grazed and disturbed, but regenerating in parts		21.9 ha, 3 convoluted remnants
Brynderwyn Farm Pond Q08/066		Large freshwater pond. Fauna: 1 threatened	2 e.u.s	Constructed pond, but fulfils bird habitat function	Very close to large indi- genous forest areas in Waipu ED	1.2 ha
Brynderwyn Road Forest Remnants Q08/067	Rep.site for 1 e.u.		3 e.u.s	Grazed and disturbed in parts	Catchment protection	26.4 ha 2 remnants
North Maungaturoto Forest Remnants Q08/069	Rep.site for 1 e.u.	Flora: 1 loc.unc.; fauna not surveyed	5 e.u.s	Highly disturbed and grazed	Catchment protection	16.6 ha 9 dispersed remnants
Piroa Road Forest Remnants 2 Q08/072	Rep.site for 1 e.u.	Forest on alluvium	2 e.u.s	Grazed and disturbed	Catchment protection	15.4 ha 6 remnants
Collins Scenic Reserve and Surrounds Q08/078	Rep.site	Flora: 2 loc.unc.	1 e.u.	Very small, but fenced; diverse undergrowth, some weeds		2.7 ha
Smith's Point and Mateotetawa Creek Forest Remnants Q08/079	Rep.site for 2 e.u.s	Flora: 1 reg.sign. Fauna: 1 threatened	4 e.u.s	Diverse forest, regenerating, but disturbed	Protective buffer to coastal fringe	42.7 ha 1 large and 3 small remnants
Hukatere Scenic Reserve and Surrounds Q08/081	Rep.site for 1 e.u.	Largest remnant of mature forest. Flora: 1 threatened, 2 reg.sign., 2 loc.unc. Fauna: 1 threatened	4 e.u.s	Mature, diverse forest with good regeneration, though edges and riparian margins are modified	Contiguous with other large forest areas Q08/087 and Q08/088	35.9 ha

\* Note that most sites have more than one ecological unit present. This column indicates whether or not the site has been selected as being a representative site for one or more ecological units.

† The rapid quantitative method used in this survey did not cover survey for rare species; in most cases species information in this column has been collated from other databases. It is likely that specific species surveys for all sites would reveal additional data on threatened and rare species, and in the case of Level 2 sites, a change in ranking.

‡ 'Remnants' in this column refers to the number of separate areas of habitat within the site.

LEVEL 1 SITES Survey no.	REPRESENT-ATIVENESS	RARITY/SPECIAL FEATURES	DIVERSITY AND PATTERN	NATURALNESS	BUFFER/LINKAGE/CORRIDOR	SIZE AND SHAPE
Arapaoa River Q08/084	Rep.site for 1 e.u.	Extensive mangroves and wading habitat. Flora: 1 threatened, 1 reg.sign. Fauna: 5 threatened, 1 reg.sign.	10 e.u.s	Many natural functions, but human-modified (increased sedimentation, mudflat reclamation, <i>Spartina alterniflora</i> and saltwater paspalum infestations, Pacific oyster infestation, rockwork and oyster farms)	Important migratory bird habitat/corridor	4957.5 ha
Hukatere North Forest Q08/087	Rep.site		1 e.u.	Diverse forest, regenerating, but suffers edge effects	Important buffer and habitat corridor to Q08/081 and Q08/088	21.7 ha compact area
Hautakima South Forest Q08/088	Rep.site for 3 e.u.s	Fauna: 1 threatened	7 e.u.s	Mosaic with good habitat and species diversity; grazed and disturbed	Near Q08/087 and Q08/081	55.6 ha
Te Ruruku Bay Forest Remnants Q08/089	Rep.site for 2 e.u.s	Flora: 1 reg.sign. Fauna: 1 threatened	6 e.u.s	Grazed and disturbed	Protective buffer to coastal fringe	46.5 ha 8 remnants
Quarry Forest Q08/090	Rep.site for 1 e.u.	Flora: 1 loc.unc.	4 e.u.s	Diverse, probably regenerating (fenced), but die-back from possum browse		28.3 ha compact area
Kirikiri Creek Forest and Wetlands Q08/091		Flora: 1 reg.sign. Fauna: 1 threatened	4 e.u.s	Highly disturbed and grazed	Catchment protection	40.9 ha 7 dispersed remnants
Waitieke Creek Forest Q08/092	Rep.site for 4 e.u.s	Large continuous area of coastal forest and shrubland. Flora: 2 reg.sign.	8 e.u.s	Grazed and disturbed	Protective buffer to coastal fringe	104.8 ha 4 remnants
Te Kiakia Bay Forest Remnants Q08/093	Rep.site for 4 e.u.s	Large continuous area of coastal forest and shrubland	7 e.u.s	Grazed and disturbed	Protective buffer to coastal fringe	111 ha 10 remnants
Raepere Creek Forest Q08/094	Rep.site for 4 e.u.s	Flora: 1 loc.unc. Fauna: 1 threatened	6 e.u.s	Grazed and disturbed	Catchment protection	116.1 ha 1 large and 6 sm remnants
Totara Creek Forest Remnant Q08/095	Rep.site for 1 e.u.	Fauna: 1 threatened	5 e.u.s	Grazed and disturbed	Catchment protection	34.9 ha
Hukatere Peninsula West Coast Q08/096		Fauna: 2 threatened	2 e.u.s	Many natural functions, but human-modified (increased sedimentation, mudflat reclamation, Pacific oyster infestation)	60% coastline in indigenous vegetation	736.5 ha
Raepere Creek Coastal Forest Q08/098	Rep.site for 2 e.u.s	Fauna not surveyed	3 e.u.s	Possum browse evident, may be grazed	Adjacent to Q08/094; protective buffer to coastal fringe	28.2 ha 2 narrow remnants
Ararua Road Forest Remnants Q08/099	Rep.site for 1 e.u.		2 e.u.s	Black wattle infestation along waterway	Riparian protection	35 ha 2 remnants
Upper Paparoa Creek Scenic Reserve and Sherwin QEII Covenant Q08/100	Rep.site for 2 e.u.s	Mature forest present. Flora: 1 threatened, 3 loc.unc. Fauna: 1 threatened	4 e.u.s	Diverse; emergent trees present; goats, possums, some weeds; possibly some grazing impact	Near Q08/108; protective buffer to coastal fringe	16.1 ha
Paparoa Creek Marginal Strip No. 2 and Surrounds Q08/102	Rep.site for 1 e.u.	Flora: 2 threatened, 1 reg.sign., 2 loc.unc.; fauna not surveyed	3 e.u.s	Grazed and disturbed	Protective buffer to coastal fringe	38 ha 7 remnants

LEVEL 1 SITES Survey no.	REPRESENT-ATIVENESS	RARITY/SPECIAL FEATURES	DIVERSITY AND PATTERN	NATURALNESS	BUFFER/LINKAGE/CORRIDOR	SIZE AND SHAPE
Lower Pahi River Forest Remnants Q08/103	Rep.site for 3 e.u.s	Rare e.u. Fauna: 1 threatened. Flora: 2 loc.unc.	4 e.u.s	Various threats to natural character and function, e.g. land clearance, grazing, weeds, goats	Protective buffer to coastal fringe	49.4 ha 6 remnants
Pahi Coastal Strip Q08/105	Rep.site for 1 e.u.	Flora: 1 reg.sign.	2 e.u.s	High level of weed infestation, esp. around coastal margin; grazed and disturbed	Protective buffer to coastal fringe	39.3 ha
North Whakapirau Forest Remnant Q08/107	Rep.site	Rare e.u. Fauna not surveyed	1 e.u.	Grazed by livestock and browsed by possums; likely to have other mammalian threats	Protective buffer to coastal fringe	5.9 ha
Paparoa Creek Scenic Reserve and Surrounds Q08/108	Rep.site for 1 e.u.	Fauna not surveyed	3 e.u.s	Extensive shrubland with emergent pines; grazed and disturbed	Near Q08/100 and Q08/102; protective buffer to coastal fringe	20.6 ha 3 remnants
Paparoa Stream Headwaters Q08/110	Rep.site for 4 e.u.s	Pa site on high point. Flora: 1 reg.sign., 2 loc.unc. Fauna: 1 threatened	4 e.u.s	Diverse forest with parts regenerating and parts heavily grazed	Catchment protection	52.5 ha 1 large and 1 small remnant
Mooney QEII Covenant Q08/111		Fauna: 1 threatened	1 e.u.	Small and narrow; some emergent exotic trees	Near Q08/103 and Q08/109	7.2 ha narrow remnant
Pukehuia Forest Remnants Q08/115	Rep.site for 1 e.u.	Fauna not surveyed	5 e.u.s	Heavily grazed and disturbed	Water bird habitat	36 ha 4 remnants
Te Ope Stream Remnants Q08/116	Rep.site for 3 e.u.s		5 e.u.s	Highly disturbed and grazed; crack willow infestation in adjoining wetland	Protective buffer to coastal fringe	61.6 ha 11 remnants, some tiny
Whakapirau Airstrip Forest, Q08/117		Flora: 1 loc.unc.	2 e.u.s	Highly disturbed and grazed	Protective buffer to coastal fringe	49.3 ha 10 remnants
Te Ope Headland Forest Q08/119	Rep.site	Rare e.u.	1 e.u.	Diverse, healthy forest, fenced (probably regenerating)	Protective buffer to coastal fringe	9.8 ha compact area
Te Pahi River Road Forest Remnants Q08/120		Flora: 1 loc.unc. Fauna: 1 threatened	1 e.u.	Highly disturbed and grazed	Relatively isolated	24.9 ha 10 small remnants
Paparoa Stream Riparian Forest Q08/121	Rep.site for 1 e.u.	Forest on alluvium. Fauna: 1 threatened	2 e.u.s	Narrow; grazed and disturbed; many weed and animal pest problems	Riparian protection	42 ha 5 very narrow remnants
Paparoa Mature Kauri Stand Q08/122	Rep.site	Fauna not surveyed	1 e.u.	Very small remnant (strong edge effects); grazed and disturbed	Relatively isolated	1.1 ha
Hames Road Forest Remnants Q08/124	Rep.site for 1 e.u.	Flora: 1 loc.unc.	2 e.u.s	Grazed and disturbed; weed infestation	Riparian protection	11.8 ha 4 long, narrow remnants
Te Opu Scenic Reserve Q08/126	Rep.site for 1 e.u.	Pa site on high point. Flora: 1 loc.unc. Fauna: 1 threatened	4 e.u.s	Diverse canopy; dense undergrowth in parts; tall forest to water's edge	Protective buffer to coastal fringe	12.4 ha
Whakapirau Creek Coastal Forest Q08/127	Rep.site for 1 e.u.	Fauna not surveyed	1 e.u.	Grazed and disturbed; very small (strong edge effects)	Protective buffer to coastal fringe	7.1 ha

LEVEL 1 SITES Survey no.	REPRESENT- ATIVENESS	RARITY/SPECIAL FEATURES	DIVERSITY AND PATTERN	NATURALNESS	BUFFER/ LINKAGE/ CORRIDOR	SIZE AND SHAPE
Whakapirau River Scenic Reserve and North Massey Road Forest Remnants, Q08/128	Rep.site for 2 e.u.s	Flora: 2 reg.sign. Fauna: 1 threatened	5 e.u.s	Heavily grazed and disturbed in parts; some mature emergent trees	Protective buffer to coastal fringe	33.9 ha 6 remnants
Massey Creek Forest Q08/129	Rep.site for 2 e.u.s	Fauna not surveyed	2 e.u.s	Probably grazed in parts	Riparian protection; protective buffer to coastal fringe; links various other high-value forest remnants	23.1 ha
South Massey Road Forest Remnants Q08/130		Fauna: 1 threatened	2 e.u.s	Grazed and disturbed; small	Links various other high-value forest remnants	5.2 ha
Arapaoa River Scenic Reserve and Surrounds Q08/131	Rep.site for 1 e.u.	Fauna: 1 threatened	3 e.u.s	Small; grazed and disturbed, but good undergrowth regeneration in parts	Protective buffer to coastal fringe; links various other high-value forest remnants	9.3 ha
Te Kowhai Creek Scenic Reserve and Surrounds Q08/132	Rep.site	Flora: 1 reg.sign. Fauna: 1 threatened	1 e.u.	Relatively large coastal forest remnant; some edge effects and grazing pressure likely	Protective buffer to coastal fringe; near Q08/131 and Q08/139	26.3 ha
Linton Road West Forest, Q08/134	Rep.site for 1 e.u.	Fauna not surveyed	5 e.u.s	Grazed and disturbed	Protective buffer to coastal fringe	13.3 ha 2 remnants
Whakapirau/Rocky Point Forest and Shrubland, Q08/135	Rep.site for 1 e.u.	Flora: 1 threatened. Fauna: 1 threatened	5 e.u.s	Grazed and disturbed; emergent exotic trees	Protective buffer to coastal fringe	11.7 ha 2 narrow remnants
Barton's Hill Forest Q08/137	Rep.site for 1 e.u.	Fauna: 1 threatened	2 e.u.s	Diverse, relatively healthy canopy, apparently fenced and regenerating	Contiguous with Q08/200	11.2 ha compact area
Upper Pahi River Riparian Forest Q08/138	Rep.site for 1 e.u.	Fauna not surveyed	2 e.u.s	Highly disturbed and grazed; weed infestation	Riparian protection	31.9 ha 4 narrow remnants
Page Point Forest and Shrubland Q08/140		Fauna: 1 threatened	5 e.u.s	Highly disturbed and grazed; weed infestation (gorse)	Protective buffer to coastal fringe	12.3 ha narrow remnant
Te Tawhiti Forest Remnants Q08/144	Rep.site for 1 e.u.		2 e.u.s	Grazed and disturbed; occasional mature emergent kahikatea		7.6 ha 2 remnants
Raepare Creek Headland Forest Q08/145	Rep.site for 4 e.u.s	Fauna: 1 threatened	5 e.u.s	Diverse, compact, fenced (probably regenerating); some possum browse and other mammalian threats	Protective buffer to coastal fringe	46.3 ha 1 large compact, 1 tiny remnant
Wahiwaka Creek Forest Remnants Q08/146	Rep.site for 2 e.u.s	Pa site possibly within site. Fauna: 1 threatened	6 e.u.s	Diverse but grazed and disturbed	Protective buffer to coastal fringe	44.2 ha 5 remnants
James Road Forest Q08/147	Rep.site for 1 e.u.	Fauna: 1 threatened	7 e.u.s	Diverse but grazed and disturbed	Protective buffer to coastal fringe	22 ha 6 remnants
Bickerstaffe Road Forest 2 Q08/148	Rep.site for 1 e.u.	Fauna not surveyed	2 e.u.s	Possum browse evident, may be grazed; some emergent mature podocarps	Surrounded by pine forest	23.7 ha 6 remnants
Bickerstaffe Railbridge Forest Remnants Q08/149	Rep.site for 1 e.u.	Fauna not surveyed	4 e.u.s	Grazed and disturbed; edges infested with weeds (gorse and woolly nightshade)	Protective buffer to coastal fringe	31.8 ha 6 remnants

LEVEL 1 SITES Survey no.	REPRESENT-ATIVENESS	RARITY/SPECIAL FEATURES	DIVERSITY AND PATTERN	NATURALNESS	BUFFER/LINKAGE/CORRIDOR	SIZE AND SHAPE
Upper Wairau River Coastal Forest Remnants Q08/151	Rep.site for 4 e.u.s	Fauna: 1 threatened	4 e.u.s	Highly disturbed and partially grazed but very diverse canopy with many emergent trees; weed infestation (tree privet)	Protective buffer to coastal fringe	29 ha 8 remnants
Bickerstaffe Rail Station Forest, Q08/152	Rep.site for 2 e.u.s		3 e.u.s	Disturbed; grazed in parts		21.7 ha 2 remnants
Bickerstaffe Forest and Shrubland Q08/153	Rep.site for 2 e.u.s	Fauna not surveyed	5 e.u.s	Large continuous area of forest and shrubland; parts grazed and parts regenerating	Links various smaller indigenous forest areas; large extent of pine forest on southern border	98 ha 4 remnants
Point Curtis Road Coastal Forest Remnants Q08/156	Rep.site for 1 e.u.		4 e.u.s	Highly disturbed and grazed in parts	Protective buffer to coastal fringe	27.1 ha 9 remnants
Donaldson's Forest Q08/157	Rep.site	Fauna: 1 threatened	1 e.u.	Narrow site with strong edge effects; may be grazed	Protective buffer to coastal fringe	8.1 ha narrow, convoluted area
Unnamed Island in Kaiwaka River Q08/158		Small island surrounded by mangroves in tidal river. Flora: 1 loc.unc.	1 e.u.	Very small island, with apparently healthy vegetation	Surrounding mangroves physically link site with Q08/157	0.4 ha
Kaitara Constructed Lake Q08/159	Rep.site for 2 e.u.s	Fauna: 3 threatened	4 e.u.s	Constructed lake, but fulfils bird habitat function; extensive indigenous marginal aquatic vegetation	Next to Otamatea River (Q08/062) and near forest in Q08/0157	15.8 ha
Rotokiekie Creek Forest Remnants Q08/161	Rep.site for 1 e.u.	Fauna: 1 threatened	2 e.u.s	Disturbed; grazed in parts; regenerating in parts; pest control carried out		30.8 ha 1 large and 3 small remnants
Takahoa Creek Forest Q08/163	Rep.site	Flora: 1 reg.sign., 1 loc.unc. Fauna: 1 threatened	1 e.u.	Highly disturbed and grazed; residential development between remnants	Partial protective buffer to coastal fringe; near Q08/164	17.3 ha 6 remnants
Takahoa Government Purpose Wildlife Management Reserve Q08/164	Rep.site for 1 e.u.	Fauna: 4 threatened	2 e.u.s	Constructed lake, but fulfils bird habitat function	Next to Otamatea River (Q08/062) and near Q08/163	13 ha
Rangiora Road Forest Remnants Q08/166	Rep.site for 1 e.u.	Fauna not surveyed	2 e.u.s	Grazed and disturbed; weed infestation (dally pine)		11.7 ha 3 remnants
Mangaiti Creek Forest Remnants Q08/167	Rep.site for 2 e.u.s		7 e.u.s	Much internal disturbance (e.g. numerous tracks); residential development on fringes	Protective buffer to coastal fringe	22.7 ha 2 remnants
Mohinui Forest Remnant 1 Q08/169	Rep.site for 1 e.u.	Mature emergent podocarps	2 e.u.s	Small; probably grazed; some emergent mature podocarps	Relatively isolated	4 ha
Pahi River Headwaters Q08/170	Rep.site for 1 e.u.		6 e.u.s	Highly disturbed and grazed; weed infestation	Riparian protection	31 ha 10 dispersed remnants
Waipikopiko Stream Headwaters Q08/171	Rep.site for 5 e.u.s	Rare e.u.s	5 e.u.s	Highly disturbed and grazed; weed infestation (hawthorn)	Riparian protection	24.5 ha 7 remnants



LEVEL 1 SITES Survey no.	REPRESENT-ATIVENESS	RARITY/SPECIAL FEATURES	DIVERSITY AND PATTERN	NATURALNESS	BUFFER/LINKAGE/CORRIDOR	SIZE AND SHAPE
Wairau River Riparian Forest Remnants Q08/173	Rep.site for 2 e.u.s	Forest on alluvium; fauna not surveyed	2 e.u.s	Extremely disturbed; grazed and trampled; weed infestation (tree privet, crackwillow); some tall old trees remain	Partial riparian protection	21.3 ha 10 dispersed, convoluted remnants
Kaiwhitu Island Q08/175	Rep.site for 3 e.u.s	Nearshore volcanoclastic sandstone islet. Shell middens and rock wall. Flora: 1 reg.sign. Fauna: 1 threatened	5 e.u.s	Previously burnt or cleared (?); regenerating; appears rat-free		2.6 ha
Kohatutahi Forest and Wetland Q08/178	Rep.site for 3 e.u.s	Fauna: 1 threatened	4 e.u.s	Small and disturbed; alligator weed and salt- water paspalum infest- ations in wetlands	Freshwater wetlands contiguous with mud- flats and mangroves; some forest on coastal fringe	3.8 ha 2 remnants
Owhareao Point Remnants Q08/179	Rep.site for 3 e.u.s	Flora: 1 reg.sign.	8 e.u.s	Diverse habitat types (shrubland, wetland, forest); grazed and disturbed in parts	Protective buffer to coastal fringe	18.7 ha 2 remnants
Pukehau QEII Covenant Q08/182	Rep.site for 1 e.u.	Shell middens. Flora: 1 threatened, 2 reg.sign. Fauna: 1 threatened, 1 reg.sign.	2 e.u.s	Disturbed, but dense undergrowth in fenced areas	Protective buffer to coastal fringe; near to Q08/183	12.4 ha 2 narrow remnants
Puriri Point Forest and Shrubland Q08/183	Rep.site for 2 e.u.s	Fauna not surveyed	6 e.u.s	Large area of forest and shrubland contiguous with coastline; possum browse evident	Protective buffer to coastal fringe; near to Q08/182	46.5 ha 2 remnants
Pakaurangi Forest and Shrubland Q08/185	Rep.site for 4 e.u.s	Fauna not surveyed	8 e.u.s	Large area of forest and shrubland contiguous with coastline; many emergent wilding pines	Protective buffer to coastal fringe; adjacent to very large exotic plantations	428 ha compact area
Hamlin Road Shrubland Q08/188	Rep.site for 1 e.u.	Fauna not surveyed	3 e.u.s	Fenced and regenerating; tall emergent pines present	Protective buffer to coastal fringe	12.5 ha 3 remnants
Mohinui Forest Remnant 3 Q08/190	Rep.site for 1 e.u.		4 e.u.s	Appears to be fenced; regenerating	Riparian protection	15.1 ha 2 remnants
Payne Road Forest Remnants Q08/192	Rep.site for 3 e.u.s		4 e.u.s	Highly disturbed and grazed	Riparian protection	25.9 ha 10 dispersed remnants
Otuhianga Coastal Forest Remnants Q08/194	Rep.site for 1 e.u.	Fauna not surveyed	2 e.u.s	Grazed and disturbed; strong edge effects; isolated from original formative influences		20.9 ha 2 remnants
Kaitara Creek Forest Remnants Q08/196	Rep.site for 1 e.u.	Fauna: 1 threatened	4 e.u.s	Grazed and disturbed	Partial riparian protection	18.6 ha 4 dispersed remnants
Nathan Road Forest and Shrubland Q08/198	Rep.site for 1 e.u.	Fauna not surveyed	3 e.u.s	Large area of shrubland and forest; fenced and regenerating	Contiguous with pine plantations	57.3 ha 4 remnants
Huarau Ridge Forest Remnants Q08/200	Rep.site for 1 e.u.	Fauna not surveyed	4 e.u.s	Large continuous area of forest; somewhat disturbed; grazed	Contiguous with Q08/137	44.7 ha 1 large and 3 smaller remnants
Hillstone Road Forest Remnants 3, Q08/208 8 remnants	Rep.site for 3 e.u.s		6 e.u.s	High diversity; highly disturbed and grazed	Contiguous with large pine plantation	14.5 ha

LEVEL 1 SITES Survey no.	REPRESENT-ATIVENESS	RARITY/SPECIAL FEATURES	DIVERSITY AND PATTERN	NATURALNESS	BUFFER/LINKAGE/CORRIDOR	SIZE AND SHAPE
Oruawhoro Road Stream Q08/209	Rep.site for 1 e.u.		2 e.u.s	Small area of natural vegetation (may be induced by road culvert)	In stream next to road and pine plantation; bird habitat value	0.5 ha long narrow area
Bayer Road Shrubland Q08/211	Rep.site	Rare e.u.	1 e.u.	Mostly natural, but some weed infestation (blackberry, green umbrella sedge)	In stream, surrounded by pine forest; bird habitat value	1 ha long narrow area
Te Mira Road Wetland Q08/212	Rep.site for 1 e.u.		5 e.u.s	Weed infestation (blackberry, pampas)	In stream, surrounded by pine forest; bird habitat value	4.5 ha narrow convoluted area
Eastern Boundary Forest (Carter Holt Harvey) Q08/214	Rep.site for 1 e.u.	Flora: 3 loc.unc.	2 e.u.s	Small remnant with good undergrowth due to buffering by pines	Riparian protection of stream within pine plantation	5.8 ha 2 remnants
Parry Road Wetland Q08/215	Rep.site	Rare e.u.	1 e.u.	Diverse but weed infested (Mexican devil, pampas, black wattle)	In stream, surrounded by pine forest; bird habitat value	1.6 ha long narrow remnant
Tinopai Road Wetland Q08/216	Rep.site	Fauna: 1 threatened	1 e.u.	Many environmental weeds present, especially on margins	Surrounded by pine forest; high bird habitat value	1.5 ha
Hanerau Stream Forest Remnants Q08/218	Rep.site for 1 e.u.		2 e.u.s	Highly disturbed and grazed	Partial protective buffer to coastal fringe	11.7 ha 6 small dispersed remnants
Whakapirau Creek Conservation Area and Surrounds, Q08/220		Flora: 1 threatened,	1 e.u. 1 loc.unc.	Highly disturbed and grazed	Partial protective buffer to coastal fringe	0.5 ha very narrow area
Timber Bay Forest Q09/001	Rep.site for sequence of e.u.s	Flora: 1 reg.sign., 1 loc.unc. Fauna: 1 threatened	8 e.u.s	Large, diverse forest; grazed; mammalian pests; edge effects	Riparian/catchment protection; linked with Q09/005	125.8 ha 1 large and 2 small remnants
Puketotara Forest Remnants 2 Q09/005	Rep.site for 2 e.u.s		4 e.u.s	Large, diverse forest; partially fenced; mammalian pests	Riparian/catchment protection; linked with Q09/001	75.4 ha 3 remnants
Puketotara Forest Remnants 3 Q09/006	Rep.site for 3 e.u.s		4 e.u.s	Large, diverse forest with associated wetland; heavily grazed and disturbed; mammalian pests	Riparian/catchment protection	122.4 ha 12 remnants
Puketotara Forest Remnant 4 Q09/008	Rep.site for sequence of e.u.s	Fauna not surveyed	6 e.u.s	Diverse; grazed and disturbed; mammalian pests	Riparian/catchment protection	35.4 ha compact area
Moturoa Island Q09/013		Fauna: 1 threatened	1 e.u.	Poosum browse leading to severe pohutukawa dieback	Low tide link to mainland; near to Motuouhi Island (Q09/014)	1.6 ha
Motuouhi Island Q09/014	Rep.site for 1 e.u.		3 e.u.s	Good canopy condition; regeneration	Near to Moturoa Island (Q09/013)	0.9 ha
Puketotara Forest Remnant 9 Q09/016	Rep.site for 1 e.u.		3 e.u.s	Healthy canopy; probably grazed	Catchment protection	19.8 ha compact area
Puketotara Forest Remnants 10 Q09/017	Rep.site for 1 e.u.		3 e.u.s	Diverse; fenced; probably has dense undergrowth	Partially links Q09/001 to the coast; riparian protection	14.6 ha 3 remnants

LEVEL 1 SITES Survey no.	REPRESENT-ATIVENESS	RARITY/SPECIAL FEATURES	DIVERSITY AND PATTERN	NATURALNESS	BUFFER/LINKAGE/CORRIDOR	SIZE AND SHAPE
Oruawharo River North Coast Q09/020	Rep.site for 1 e.u.	Flora: 1 reg.sign. Fauna: 2 threatened	10 e.u.s	Many natural functions, but human-modified (increased sedimentation, mudflat reclamation, <i>Spartina alterniflora</i> and saltwater paspalum infestations, Pacific oyster infestation)	Important migratory bird habitat/corridor	1984.1 ha
Otamatea River Confluence Q09/021	Rep.site for 4 e.u.s	Flora: 1 reg.sign. Fauna: 8 threatened, 1 reg.sign.	5 e.u.s	Many natural functions, but human-modified (increased sedimentation, mudflat reclamation, Pacific oyster infestation, rockwork)	Important migratory bird habitat/corridor	1878 ha
Oneriri Station Home- stead Forest Remnants Q09/022	Rep.site for 4 e.u.s	One mature emergent kauri	6 e.u.s	Disturbed and partially grazed; partially regenerating	Riparian protection	28.7 ha 2 compact remnants
Puketotara Forest Remnant 13 Q09/024	Rep.site for 2 e.u.s	Fauna: 1 threatened	4 e.u.s	Grazed and disturbed; disconnected from orig- inal formative influence	Near to Ruataniwha (Q09/030)	9.7 ha
Kaipara Forest, Puketotara Q09/026	Rep.site for 4 e.u.s		4 e.u.s	Grazed and disturbed	Protective buffer to coast fringe	25.1 ha
Oneriri Pa Forest Q09/027	Rep.site for 1 e.u.	Pa site	3 e.u.s	Many large pohutukawa in good condition; diverse; possibly grazed	Protective buffer to coast fringe	27.3 ha compact area
Upper Whakaki River Forest Remnants Q09/028	Rep.site for 1 e.u.		2 e.u.s	Variable condition; tiny remnants (strong edge effects)	Relatively isolated, but may be important 'stepping stone' between larger forest remnants; protective buffer to coastal fringe	6.7 ha 2 small dispersed remnants
Kaira Creek Forest Q09/029	Rep.site		1 e.u.	Diverse; probably grazed and disturbed	Partial protective buffer to coastal fringe	11.1 ha compact area
Ruataniwha Forest Remnant, Q09/030	Rep.site	Island in reclaimed mudflat	1 e.u.	Partial regeneration; small (strong edge effects)	Near to Q09/024	0.9 ha
Gittos Point Forest and Shrubland Q09/032	Rep.site for 3 e.u.s		4 e.u.s	Large continuous area of forest and shrubland; strong regeneration; weed infestation (woolly nightshade, gorse)	Protective buffer to coastal fringe	92.4 ha 3 remnants
Oruawharo School Forest Q09/033	Rep.site for 2 e.u.s		3 e.u.s	Diverse but has several weed infestations	Contiguous with salt marsh on coastal fringe of Q09/020	21.8 ha 2 remnants
Koareare Creek Forest Remnants Q09/036	Rep.site for 2 e.u.s		8 e.u.s	Very diverse; highly disturbed and grazed	Partial protective buffer to coastal fringe	90 ha 8 remnants
Topuni River Forest Remnant 1, Q09/037	Rep.site	Fauna: 1 threatened	1 e.u.	Fenced and regenerating	Protective buffer to coastal fringe	6 ha compact area
Topuni River Confluence Forest, Q09/038	Rep.site	Fauna not surveyed	1 e.u.	Diverse; may be grazed; one emergent pine	Protective buffer to coastal fringe	6.1 ha compact area
Wainonororo Constructed Lake Q09/039	Rep.site for 1 e.u.	Fauna not surveyed	2 e.u.s	Constructed, but serves bird habitat function; grazed and trampled around margins; no shade	Could be migratory bird habitat/corridor	22.7 ha

LEVEL 1 SITES Survey no.	REPRESENT- ATIVENESS	RARITY/SPECIAL FEATURES	DIVERSITY AND PATTERN	NATURALNESS	BUFFER/ LINKAGE/ CORRIDOR	SIZE AND SHAPE
The Funnel Pohutukawa Fringe Q09/043		Fauna not surveyed	1 e.u.	Grazed and disturbed	Protective buffer to coastal fringe	12.1 ha 7 very narrow remnants
Mohinui Forest Remnant 4 Q09/044	Rep.site for 1 e.u.		2 e.u.s	Grazed and disturbed	Near to Q08/190	13.4 ha 3 remnants
Puketotara Forest Remnant 15 Q09/045	Rep.site	Fauna not surveyed	1 e.u.	Probably grazed	Protective buffer to coastal fringe	5 ha compact area
Bushy Point Forest Remnants Q09/046	Rep.site for 1 e.u.	Flora: 1 reg.sign.	3 e.u.s	Relatively healthy canopy; high diversity; weed infestation (willow-leaved hakea, wilding pines)	Protective buffer to coastal fringe	4.7 ha long narrow area
Kumete Bluff Forest Remnants Q09/047	Rep.site for 1 e.u.	Coastal cliffs	2 e.u.s	Diverse community; pohutukawa dieback (possum browse?); weed infestation (pampas, pines)	Protective buffer to coastal fringe	10.9 ha long narrow area
Otaiwhata Bay Forest and Shrubland Q09/049	Rep.site for 1 e.u.	Fauna not surveyed	2 e.u.s	Disturbed; weed infestation	Protective buffer to coastal fringe	2.9 ha narrow area
<b>Total Level 1 sites (126 sites)</b>					<b>15926 ha (incl. estuary), 3579 ha (land only)</b>	

LEVEL 2 SITES Survey no.	REPRESENT- ATIVENESS*	RARITY†/SPECIAL FEATURES	DIVERSITY AND PATTERN	NATURALNESS	BUFFER/ LINKAGE/ CORRIDOR	SIZE AND SHAPE‡
Maungaturoto Marginal Strip and Surrounds Q08/068		Forest on alluvium	1 e.u.	Degraded, many environmental weeds	Catchment protection	7.5 ha narrow con- volutated area
Doctor Hill Road Forest Remnants Q08/070			5 e.u.s	Grazed and disturbed	Catchment protection	23.6 ha 4 remnants
Piroa Road Forest Remnant 1 Q08/071		Large taraire trees; fauna not surveyed	4 e.u.s	Grazed and disturbed	Catchment protection	11 ha compact area
Piroa Farm Pond Q08/073			2 e.u.s	Constructed pond, but fulfils bird habitat function	Relatively isolated	0.3 ha
Upper Ahuroa River Forest Remnants 2 Q08/074		Fauna not surveyed	2 e.u.s	Highly disturbed and grazed		10.1 ha 6 small remnants

\* Note that most sites have more than one ecological unit present. This column indicates whether or not the site has been selected as being a representative site for one or more ecological units.

† The rapid quantitative method used in this survey did not cover survey for rare species; in most cases species information in this column has been collated from other databases. It is likely that specific species surveys for all sites would reveal additional data on threatened and rare species, and in the case of Level 2 sites, a change in ranking.

‡ 'Remnants' in this column refers to the number of separate areas of habitat within the site.

LEVEL 2 SITES Survey no.	REPRESENT-ATIVENESS	RARITY/SPECIAL FEATURES	DIVERSITY AND PATTERN	NATURALNESS	BUFFER/LINKAGE/CORRIDOR	SIZE AND SHAPE
Dodd Road Forest Remnants, Q08/075		Fauna not surveyed	2 e.u.s	Highly disturbed and grazed	Catchment protection	12.8 ha 5 remnants
Upper Ahuroa River Forest Remnants 1 Q08/076		Insufficient information; fauna not surveyed	1 e.u.	Highly disturbed and grazed	Catchment protection	4.2 ha 2 remnants
Kirk Road Forest Remnants Q08/077			4 e.u.s	Highly disturbed and grazed		5.7 ha 3 small remnants
Matakohe West Forest Remnants Q08/080		Fauna not surveyed	1 e.u.	Grazed and disturbed	Catchment protection	18.2 ha 4 remnants
Kowhai Road Kanuka Forest Q08/082		Fauna not surveyed	1 e.u.	Heavily grazed and disturbed	Relatively isolated	13.2 ha
Waihungaru Stream Forest, Q08/083			3 e.u.s	Grazed and disturbed	Catchment protection	16.2 ha
Te Taumataka Creek Forest Remnants Q08/085		Fauna not surveyed	1 e.u.	Grazed and disturbed	Protective buffer to coastal fringe	14.8 ha 3 remnants
Hautakima East Forest Q08/086		Fauna not surveyed	2 e.u.s	Grazed and disturbed	Near Q08/088, and other large forested areas	24.4 ha
Chadwick Road Forest Remnants Q08/097		Fauna not surveyed	2 e.u.s	Highly disturbed and grazed; infestation by plantation forest species		26.5 ha 6 remnants
Matakohe River Bridge Forest Remnants Q08/101			3 e.u.s	Extreme edge effects, refuse dumping and weed infestation	Protective buffer to coastal fringe	2.4 ha 2 small narrow remnants
Hartles QEII Covenant and Surrounds Q08/104		Fauna not surveyed	1 e.u.	Grazed and disturbed; very small (edge effects)	Relatively isolated	2.9 ha
East Pahi Forest Remnants Q08/106			3 e.u.s	Highly disturbed and grazed; weed infestations around coast; many emergent exotic trees	Protective buffer to coastal fringe	23 ha 6 small remnants
Upper Pahi River Scenic Reserve, Rabbit and Goat Island and Surrounds Q08/109		Small islands surrounded by mangroves in tidal river	1 e.u.	Highly disturbed and grazed	Protective buffer to coastal fringe	7.7 ha 4 small remnants
Mooney Road Forest Remnant Q08/112		Insufficient information; fauna not surveyed	1 e.u.	Appears heavily modified by grazing and trampling	Riparian protection	29.3 ha 2 remnants
Awakino Creek Forest and Wetland Q08/113		Large pond, but insufficient information about it; fauna not surveyed	2 e.u.s	Appears heavily modified by grazing and trampling	Water bird habitat	8.9 ha
Ford Road Forest Q08/114		Fauna not surveyed	3 e.u.s	Partially grazed and disturbed		12.5 ha 3 small remnants
Te Opi Road Forest Remnants, Q08/118			6 e.u.s	Highly disturbed and grazed	Protective buffer to coastal fringe	14.6 ha 5 remnants
Hook Road Forest Remnants Q08/123			3 e.u.s	Grazed and disturbed; very small (strong edge effects); tree privet infestation	Relatively isolated	7.4 ha 2 small remnants

LEVEL 2 SITES Survey no.	REPRESENT-ATIVENESS	RARITY/SPECIAL FEATURES	DIVERSITY AND PATTERN	NATURALNESS	BUFFER/LINKAGE/CORRIDOR	SIZE AND SHAPE
Huarau Airstrip Forest Q08/125			1 e.u.	Heavily grazed and disturbed	Relatively isolated	7.4 ha
Massey Road Corner Forest Q08/133		Fauna not surveyed	1 e.u.	Small; heavily grazed and disturbed	Links various high-value forest remnants in the vicinity	3.6 ha
Hokorako Creek Forest Remnants Q08/136			4 e.u.s	Highly disturbed and grazed; weed problems; possum browse	Partial protective buffer to coastal fringe	18.1 ha 5 small convoluted remnants
Te Kowhai Creek Forest Remnant Q08/139		Pohutukawa on inner coastal fringe. Fauna not surveyed	1 e.u.	Highly disturbed and grazed; possum browse evident	Partial protective buffer to coastal fringe	6.6 ha 2 small remnants
Ngaupiko Point Forest Remnant Q08/141		Fauna not surveyed	1 e.u.	Small; grazed and disturbed; sparse vegetation without indigenous undergrowth		4.9 ha
Batley Road Coastal Forest Remnants Q08/142			5 e.u.s	Highly disturbed and grazed; weed infestation (tree privet and hawthorn)	Protective buffer to coastal fringe	25.4 ha 7 remnants
South Hokorako Creek Forest Remnant Q08/143		Fauna not surveyed	1 e.u.	Small; grazed and disturbed	Protective buffer to coastal fringe	4.1 ha
Bickerstaffe Road Forest 1 Q08/150		Insufficient information; fauna not surveyed	3 e.u.s	Disturbed	Pine forest on southern boundary	29.1 ha 2 remnants
Bickerstaffe Airstrip Forest Q08/154			1 e.u.	Very small remnants (strong edge effects); probably grazed		5.5 ha 2 small remnants
Batley Road Riparian Forest Remnants Q08/155			2 e.u.s	Highly disturbed and grazed	Limited riparian protection	3.1 ha 3 remnants
Upper Raepare Creek Forest Remnants Q08/160		Fauna not surveyed	5 e.u.s	Highly disturbed and grazed	Partial protective buffer to coastal fringe	25.6 ha 6 dispersed remnants
Awaroa Creek Coastal Forest Remnants Q08/162		Not surveyed; insufficient information	1 e.u.	Appears modified by grazing and trampling; small (strong edge effects)	Partial protective buffer to coastal fringe	4.5 ha 2 small remnants
Waiarohia Creek Forest and Wetland Q08/165		Fauna not surveyed	4 e.u.s	Highly disturbed and grazed		7.2 ha 4 small remnants
Owhei Creek Forest Remnants Q08/168		Fauna not surveyed	5 e.u.s	Highly disturbed and grazed; weed problems	Partial protective buffer to coastal fringe	26.1 ha 7 dispersed remnants
Griffin Road Forest Remnants Q08/172		Insufficient information; fauna not surveyed	3 e.u.s	Highly disturbed and grazed; weed infestation	Near Q08/200	31 ha 10 dispersed remnants
Piroa Peak Forest Remnants Q08/174		Not surveyed; insufficient information	1 e.u.	Appear grazed and disturbed		9.1 ha 4 remnants
Titipu Island Q08/176		Nearshore volcanoclastic sandstone islet	2 e.u.s	Cleared and burnt in past; partial regeneration; tall pines amongst pohutukawa	Near to Pupua Island (Q08/177)	1.9 ha
Pupua Island Q08/177		Intertidal volcanoclastic sandstone and basaltic islet	1 e.u.	Cleared and burnt; poor regeneration; probably has many mammalian pests	Near to Titipu Island (Q08/178); connected to mainland at low tide	1 ha

LEVEL 2 SITES Survey no.	REPRESENTATIVENESS	RARITY/SPECIAL FEATURES	DIVERSITY AND PATTERN	NATURALNESS	BUFFER/LINKAGE/CORRIDOR	SIZE AND SHAPE
Chadwick Road Wetland Q08/180		Not surveyed; insufficient information	?	Possibly drained?; may be exotic scrub now	Freshwater wetland bird habitat?	3.1 ha
Beatson Road Forest Remnant Q08/181			1 e.u.	Strong edge effects; weed infestation (tree privet); grazed and disturbed	Relatively isolated	7.8 ha
Massey Road Point Forest Remnants Q08/184			2 e.u.s	Highly disturbed and grazed	Near Q08/128 and Q08/130	8.7 ha 4 remnants
Tahupo Creek Coastal Forest Remnants Q08/186			1 e.u.	Disturbed	Surrounded by Tasmanian blackwood plantation; provides partial protective buffer to coastal fringe	4.4 ha 2 small remnants
Karakanui Road Forest Remnants Q08/187			4 e.u.s	Highly disturbed and grazed; weed infestations around coast (hawthorn)	Partial vegetation buffer to coastal fringe	10.7 ha 3 remnants
Mohinui Forest Remnant 2 Q08/189		Fauna not surveyed	1 e.u.	Heavily grazed and disturbed	Riparian protection	13.4 ha 3 remnants
Otairi Creek Forest and Wetland Q08/191			3 e.u.s	Highly disturbed and grazed		3.8 ha 4 small dispersed remnants
Kaira Creek Pond 1 Q08/193			2 e.u.s	Constructed pond, but fulfils bird habitat function; extensive weed infestation (woolly nightshade and gorse)		7.8 ha 2 remnants
Tana Road Forest Remnant Q08/195		Fauna not surveyed	1 e.u.	Tiny remnant (strong edge effects); partially grazed, partially regenerating	Relatively isolated	3.6 ha
Kaira Creek Pond 2 Q08/197			2 e.u.s	Small constructed pond, but fulfils bird habitat function	Relatively isolated	0.9 ha
Maungaturoto Town Forest Q08/199		Fauna not surveyed	1 e.u.	Small; probably grazed; weed infestation (elaegnus)		2.2 ha narrow remnant
Marohemo Road Forest Remnants 1 Q08/201			3 e.u.s	Grazed and disturbed; edge effects including weed threats (tree privet)		20.4 ha 5 remnants
Marohemo Road Forest Remnants 2 Q08/202		Insufficient information; fauna not surveyed	2 e.u.s grazed	Highly disturbed and	Near Q08/153	28.9 ha 4 remnants
Bickerstaffe Road Forest 3 Q08/203		Insufficient information; fauna not surveyed	1 e.u.	Large continuous area of forest; may be grazed	Contiguous with large pine plantation	19 ha
Hillstone Road Forest Remnants 1 Q08/204		Fauna not surveyed	2 e.u.s	Highly disturbed and grazed	Near Q08/203 and Q08/205	20.1 ha 5 remnants
Upper Whakapirau Creek Q08/205		Fauna not surveyed	3 e.u.s	Disturbed; grazed in parts	Riparian protection; buffered by pine forest in parts	14.8 ha 3 remnants
Marohemo Road Forest Remnant 3 Q08/206		One mature kahikatea present; fauna not surveyed	1 e.u.	Tiny remnant (strong edge effects); grazed and disturbed	Relatively isolated	1.4 ha

LEVEL 2 SITES Survey no.	REPRESENT-ATIVENESS	RARITY/SPECIAL FEATURES	DIVERSITY AND PATTERN	NATURALNESS	BUFFER/LINKAGE/CORRIDOR	SIZE AND SHAPE
Hillstone Road Forest Remnant 2 Q08/207		Fauna not surveyed	1 e.u.s	Tiny remnant (strong edge effects); grazed and disturbed	Relatively isolated	1.7 ha
Oruawharo Road Wetland Q08/210			1 e.u.	Edge effects; weed infestation (blackberry, pampas)	At gully head next to road and pine plantation; bird habitat value	0.7 ha compact area
Mud Alley Road Wetland Q08/213			1 e.u.	Extremely small; weed infestation (Mexican devil, pampas)	Bird habitat value	0.2 ha
Paparoa Creek Marginal Strip No. 1 and Surrounds Q08/217		Pohutukawa on inner coastal fringe. Fauna not surveyed	1 e.u.	Highly disturbed and grazed	Protective buffer to coastal fringe	8.7 ha 2 narrow remnants
Upper Kaitara Creek Pond Q08/219		Not surveyed; insufficient information	1 e.u.	Constructed pond; potential bird habitat value	Relatively isolated	5.8 ha
Puketotara Forest Remnant 1 Q09/002		Fauna not surveyed	1 e.u.	Disturbed and partially grazed	Riparian protection; corridor between Q09/001 and Q09/031	3.5 ha 2 narrow remnants
Stony Creek Forest Remnants Q09/003		Fauna not surveyed	1 e.u.	Small (strong edge effects); grazed and disturbed	Partial protective buffer to coastal fringe	5.6 ha 2 small remnants
Stony Creek Headland Q09/004		Fauna not surveyed	1 e.u.	Small (strong edge effects); grazed and disturbed	Relatively isolated	1 ha narrow steep remnant
Motukumara Point Forest Remnants Q09/007			4 e.u.s	Highly disturbed and grazed; possum browse leading to pohutukawa dieback	Partial protective buffer to coastal fringe	20.7 ha 6 narrow scattered remnants
Puketotara Forest Remnants 5 Q09/009		Fauna not surveyed	3 e.u.s	Highly disturbed and grazed; strong edge effects	Partial protective buffer to coastal fringe	15.5 ha 2 narrow convoluted remnants
Puketotara Forest Remnant 6, Q09/010		Fauna not surveyed	1 e.u.	Highly disturbed and grazed	Catchment protection	4.6 ha
Puketotara Forest Remnants 7 Q09/011		Fauna not surveyed	1 e.u.	Highly disturbed and razed; edge effects	Currently becoming more isolated through clearance of manuka shrubland link to two other sites	6.1 ha 3 remnants
Puketotara Forest Remnants 8 Q09/012			2 e.u.s	Highly disturbed and grazed; possum browse leading to puriri dieback	Catchment protection	12.6 ha 5 small remnants
Frenchman's Bay Forest and Wetland Q09/015		Anecdotal reports of Australasian bittern (Nationally Endangered), but fauna not surveyed	5 e.u.s	Possum browse leading to puriri and pohutukawa dieback; grazed and disturbed	Protective buffer to coastal fringe; raupo reedland linked with saltmarsh and mangroves	25.7 ha 4 convoluted remnants
Puketotara Forest Remnant 11 Q09/018		Fauna not surveyed	1 e.u.	Small (strong edge effects); grazed and disturbed	Becoming more isolated due to clearance of adjacent manuka shrubland	4.6 ha
Tinopai Coastal Margin Q09/019		Fauna not surveyed	1 e.u.	Weed infestation (brush wattle)	Relatively isolated	0.9 ha 2 narrow remnants



LEVEL 2 SITES Survey no.	REPRESENTATIVENESS	RARITY/SPECIAL FEATURES	DIVERSITY AND PATTERN	NATURALNESS	BUFFER/LINKAGE/CORRIDOR	SIZE AND SHAPE
Puketotara Forest Remnant 12 Q09/023		Fauna not surveyed	2 e.u.s	Highly disturbed and grazed	Riparian protection	18.2 ha 3 convoluted remnants
Puketotara Forest Remnant 14 Q09/025			2 e.u.s	Heavily grazed and disturbed	Erosion control, especially benefitting Q09/020	7.2 ha
Ngamotu Farm Pond Q09/031			3 e.u.s	Constructed pond, but serves bird habitat function	Adjacent to mangrove shrubland in Q08/062	1.8 ha
Wiki Brown Road Forest Remnants Q09/034			2 e.u.s	Highly disturbed and grazed	Minimal riparian and catchment protection	14.1 ha 7 small remnants
Unnamed Island in Oruawharo River Q09/035		Island in mangrove-filled inlet; fauna not surveyed	3 e.u.s	Some tall emergent black wattles on one side, otherwise entirely indigenous vegetation	Surrounded by mangroves, which are linked with Q09/036	4 ha elongated island
Oneriri Road Forest Remnant 1, Q09/040			1 e.u.	Grazed and disturbed	Riparian/catchment protection	6.4 ha
Topuni River Forest Remnant 2 Q09/041			3 e.u.s	Grazed and disturbed; very small (strong edge effects)	Partial riparian protection	2.2 ha 2 small remnants
Oruawharo River Forest Remnant 1 Q09/042		Fauna not surveyed	1 e.u.	Grazed and disturbed; very small (strong edge effects)	Protective buffer to coastal fringe	4.5 ha 2 small remnants
Komiti Bay Forest Remnant Q09/048		Coastal cliffs; fauna not surveyed	2 e.u.s	Housing on edges of forest	Protective buffer to coastal fringe	8.2 ha long narrow area
<b>Total Level 2 sites (83 sites)</b>						<b>866.7 ha</b>

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