

## 5. Summary and Conclusions

The Protected Natural Area network in the Whangarei Ecological District is summarised in Table 1.

A list of ecological units recorded in the Whangarei Ecological District and their current protection status is set out in Table 2 (page 258) and a summary of the site evaluations is given in Table 3 (page 288).

TABLE 1. PROTECTED NATURAL AREA NETWORK IN THE WHANGAREI ECOLOGICAL DISTRICT (area given in ha).

SITE	NO.	STATUS			TOTAL PROT. AREA	TOTAL SITE AREA
		QEII	WDC	SR (DOC)		
Forsythe Meander	Q06/010				13 SL	27.5
Otakairangi Peat Bog	Q06/133				266	315
Mount Hikurangi	Q06/139	1.7				47.5
Wairua River Wildlife Management Reserve	Q06/150			154	3.5	181.7
Mount Parakiore	Q06/156	8				275.7
Waitaua Stream	Q06/158	0.5				64.55
Hurupaki Cone	Q06/163		32.38	19.3		72.3
Whangarei Falls	Q06/166		14.9			37.1
Waitangi River	Q06/174	7				68.3
Parahaki	Q07/018		129			190.2
Old Parua Bay Road Bush	Q07/019		5.69			36.3
Waimahanga Walkway	Q07/020			2		13.3
Owhina Scenic Reserve	Q07/021			3		20.8
Pukenui Forest	Q07/022	12	920		593 CP	2033
Otaika Valley Bush	Q07/023			333		558.3
Maunu Mountain	Q07/026		12.94			39.2

SITE	NO.	QEII	WDC	STATUS			TOTAL PROT. AREA	TOTAL SITE AREA
				SR (DOC)	WM (DOC)	OTHER (DOC)		
Whatitiri Scientific Reserve and Remnants	Q07/028					11.44 ScR	11.44	16.7
Whatitiri Scenic Reserve and Remnants	Q07/029		9.6	1.7			11.3	20
Maungatapere Mountain	Q07/032	8.5		21			29.5	71.7
Maungatapere Walkway	Q07/033					63 CC	63	553.8
Raumanga Valley	Q07/048		2				2	72.5
Tatton Road Remnants	Q07/049	4					4	85
Simons Road Remnants	Q07/050	2					2	39.1
Cemetery Rd Remnants	Q07/056	9	7.7				16.7	25
Whangarei Harbour	Q07/058					5771WR	5771	7214
Limestone Island and Surrounding Islands	Q07/062		37.6		32.9		70.5	78.9
Maungatapere Remnants	Q07/063	2.6					2.6	13.3
Wairua Falls Scenic Reserve	P07/028			73			73	128.3
Waiotama Reserve	P07/030			100			100	100
<b>TOTAL</b>		<b>55.3</b>	<b>1171.32</b>	<b>553</b>	<b>452.9</b>	<b>6460.91</b>	<b>8687.84</b>	<b>12399.05</b>

Key: QEII = Queen Elizabeth II National Trust Covenant; WDC = Whangarei District Council Reserve; SR = Scenic Reserve (DOC); WM = Government Purpose Wildlife Management Reserve (DOC); SL = Stewardship Land (DOC); CP = Conservation Park (DOC); ScR = Scientific Reserve (DOC); CC = Conservation Covenant (DOC); WR = Government Purpose Wildlife Refuge

## 5.1 PRIORITY NATURAL AREAS FOR PROTECTION IN THIS ECOLOGICAL DISTRICT

### ***1. Habitat types and landforms that are nationally and regionally uncommon***

These sites include:

- all freshwater wetlands, in particular Otakairangi peat bog, Wairua River Wildlife Management Reserve (peripheral areas that are unprotected), and Wheki Stream swamp;
- riverine forests, especially including Pukenui Forest, Akerama Bridge riverine forest, Mangere River and Whakapara River remnants;
- swamp forests, especially Hikurangi Swamp remnant;
- salt marsh, mangrove forests and shell banks in Whangarei Harbour;
- volcanic broadleaf forests on scoria cones and volcanic soils;
- kauri forests, especially in Waipui Bush and Maungatapere Walkway.

### ***2. Sites which contribute to the retention and expansion of the range of the threatened North Island brown kiwi***

Such areas include, Parahaki, Waiotama, and Wairua Falls Scenic Reserves, Pukenui Forest (peripheral areas that are unprotected), Dunford Road bush and Riponui Road bush remnants.

### ***3. Areas containing vegetation types and associations that are uncommon in the Ecological District and in Northland***

These areas include:

- Jordan Valley forest remnants (kahikatea-kowhai forest),
- Matarau Road remnants (kahikatea-kauri forest),
- Otuhi Road bush (taraire-puriri-tawa forest), and
- Kerehunga Road remnants (puriri forest).

TABLE 2. ECOLOGICAL UNITS RECORDED IN THE WHANGAREI ECOLOGICAL DISTRICT AND PROTECTED NATURAL AREA STATUS.

Key: CP = Conservation Park; SL = Stewardship Land; SR = Scenic Reserve; ScR = Scientific Reserve; WM = Wildlife Management Reserve; WDC=Whangarei District Council Reserve; QEII = QEII Covenant; CC = Conservation Covenant; WDCC = Whangarei District Council Covenant; WR = Wildlife Refuge; UP = Unprotected; \* = Level 2 site; pt = site is partially protected, but unknown whether ecological unit falls within the protected area.

**NOTES: Species listed in bold** are dominant, i.e. “abundant” (>50 %);

**PNA site numbers listed in bold** are representative sites of the ecological unit and geological type in Whangarei Ecological District.

ECOLOGICAL UNIT	GEOLOGY							
	Harbour	Quaternary alluvial			Freshwater	Kerikeri Volcanics		
		alluvial	and estuarine deposits	and swamp deposits	wetlands on or ponded by Kerikeri Volcanics	Basaltic lava flows	Basaltic lava flows with gorge and waterfall	Arch and gorge
<b>SHRUBLAND</b>								
Bracken fernland							<b>Q06/153</b>	<b>UP</b>
Cabbage tree-Chinese privet- <i>Coprosma propinqua</i> - harakeke shrubland					<b>Q06/155</b>			<b>UP</b>
Cabbage tree-harakeke shrubland								
Cabbage tree-manuka- raupo swamp shrubland					<b>Q06/133</b>			<b>ptWM</b>
Chinese privet- <i>Coprosma</i> <i>propinqua</i> shrubland					Q06/150			ptSR/WM
Gorse-mamaku-manuka shrubland		Q06/151						UP
Gorse-mamaku-totara shrubland					Q06/133			ptWM
Gorse-Tasmanian blackwood- willow shrubland								
Exotic grassland with scattered trees								
Exotic grassland								
Kanuka/manuka shrubland					Q06/176 UP			P07/029 UP
Kanuka/manuka swamp shrubland					<b>Q06/150</b>			<b>ptSR, WM</b>
<b>Kanuka/manuka</b> - mamaku shrubland								

**GEOLOGY** *(continued)*

<b>Kerikeri Volcanics (continued)</b>			<b>Parahaki sub-group rhyolite Dome</b>	<b>Te Kuiti Group glauconite Sandstone and limest. karst</b>	<b>Torlesse Terrane grey-wacke and argillite</b>	<b>Mangakahia Complex Mudstone and/or sandstone</b>	<b>Combination</b>	<b>Motatau Complex muddy limestone</b>	<b>Artificial pond</b>
Scoria cone	Shield volcano	Dacite dome							

**Q06/158**  
**ptQEII**

**Q06/143**  
**UP**

**Q07/062**  
**ptWDC,WM**

**Q07/084 UP**

**Q06/148 UP P07/030 SR Q06/171 UP**  
**Q07/022**  
**ptCP, WDC,**  
**QEII**  
**Q07/023**  
**ptSR**

**Q07/022**  
**ptCP, WDC,**  
**QEII**

ECOLOGICAL UNIT	GEOLOGY							
	Harbour	Quaternary alluvial			Freshwater	Kerikeri Volcanics		
		alluvial	and estuarine deposits	and swamp deposits	<b>wetlands</b> on or ponded by Kerikeri Volcanics	Basaltic lava flows	Basaltic lava flows with gorge and waterfall	Arch and gorge
<b><u>SHRUBLAND</u> (continued)</b>								
Kanuka/manuka- mamaku shrubland								
Kanuka/manuka- <i>Melicytus micranthus</i> swamp shrubland					<b>Q06/150</b> <b>ptSR/</b> <b>WM</b>			
<b>Kanuka/manuka-</b> totara shrubland					P07/029 UP			
Kanuka/manuka- totara shrubland		<b>Q06/151</b> <b>UP</b>						
<b>Kanuka/manuka-</b> tanekaha shrubland								
Mahoe-mamaku- pate shrubland								
Mahoe-mamaku- tobacco weed shrubland								
<b>Mamaku-hangehange</b> shrubland								
Mamaku fernland						Q06/153 UP <b>Q06/164</b> UP		
Mamaku-manuka shrubland		<b>Q06/151</b> <b>UP</b>						
Mamaku-manuka- tobacco weed shrubland					Q06/165 UP			
<b>Mamaku-totara</b> shrubland								
Mamaku-totara shrubland								
Mamaku-towai shrubland								
Manuka shrubland			<b>Q06/151</b> UP	<b>Q06/176</b> UP			<b>P07/028</b> ptSR	

**GEOLOGY (continued)**

<b>Kerikeri Volcanics (continued)</b>	<b>Parahaki sub-group rhyolite</b>	<b>Te Kuiti Group glauconite</b>	<b>Torlesse Terrane grey-wacke</b>	<b>Mangakahia Complex</b>	<b>Combination</b>	<b>Motatau Complex muddy limestone</b>	<b>Artificial pond</b>
Scoria cone	Shield volcano	Dacite dome	Sandstone and limest. karst	Mudstone and/or sandstone			

**Q07/023  
ptSR**

Q07/022  
ptCP, WDC,  
QEII

**Q06/171 UP**      **Q07/035 UP**      **Q06/171 UP**

**Q07/018  
ptWDC**

**Q07/038  
UP**

Q07/022  
ptCP, WDC,  
QEII

**Q06/163  
ptSR/WDC**

**Q07/032  
ptSR,  
QEII**

**Q07/022  
ptCP,  
WDC,  
QEII**

**Q07/033  
ptCC**      **Q06/159  
UP**

**Q06/139  
ptQEII**

**Q06/171  
UP**

**Q07/032  
ptSR, QEII**

**Q06/156  
ptQEII**

**Q07/018  
ptWDC**

**P07/030  
SR  
Q07/033  
ptCC**

ECOLOGICAL UNIT	GEOLOGY							
	Harbour	Quaternary alluvial			Freshwater	Kerikeri Volcanics		
		alluvial	and estuarine deposits	and swamp deposits	<b>wetlands</b> on or ponded by Kerikeri Volcanics	Basaltic lava flows	Basaltic lava flows with gorge and waterfall	Arch and gorge
<b>SHRUBLAND (continued)</b>								
Manuka swamp shrubland				Q06/016 UP Q06/133 ptWM Q06/134 UP Q06/150 ptSR/WM Q06/155 UP	Q06/161 UP			
<b>Manuka</b> -bracken- gorse shrubland								
<b>Manuka</b> -cabbage tree swamp shrubland				Q06/016 UP				
Manuka-tanekaha shrubland								
<b>Manuka</b> -totara shrubland		Q06/151 UP UP					P07/028 ptSR	
Manuka-totara shrubland								
Manuka-towai shrubland								
<b>Mapou</b> -karamu shrubland								
Tanekaha shrubland								
Totara shrubland						Q06/172 UP		
<b>Totara</b> -gorse- mamaku shrubland						Q07/025 UP		
<b>Totara</b> -kanuka/manuka shrubland								
<b>Totara</b> -tanekaha shrubland								
<b>Towai</b> -totara shrubland								
Hangehange-mahoe- mapou shrubland						Q07/020 ptSR		
Harakeke flaxland								



**GEOLOGY (continued)**

<b>Kerikeri Volcanics (continued)</b>			<b>Parahaki sub-group rhyolite</b>	<b>Te Kuiti Group glauconite</b>	<b>Torlesse Terrane grey-wacke</b>	<b>Manga-kahia Complex</b>	<b>Combination</b>	<b>Motatau Complex muddy limestone</b>	<b>Artificial pond</b>
Scoria cone	Shield volcano	Dacite dome	Dome	Sandstone and limest. karst	and argillite	Mudstone and/or sandstone			

Q07/033  
ptCC

Q07/023  
ptSR

Q07/035  
UP

Q07/018  
ptWDC

Q07/032  
ptSR, QEII

Q06/148  
UP

Q07/032  
ptSR, QEII

Q06/171  
UP

Q06/159  
UP

Q06/130  
UP

Q06/139  
ptQEII

Q07/085  
UP

ECOLOGICAL UNIT	GEOLOGY								
	Harbour	Quaternary alluvial			Freshwater	Kerikeri Volcanics			
		alluvial	and estuarine deposits	and swamp deposits	<b>wetlands</b> on or ponded by Kerikeri Volcanics	Basaltic lava flows	Basaltic lava flows with gorge and waterfall	Arch and gorge	
<b>SHRUBLAND (continued)</b>									
Kanuka/manuka-mamaku-totara shrubland									
Kanuka/manuka-totara shrubland									
<b>PODOCARP FOREST</b>									
Kahikatea forest		<b>Q07/052</b> <b>UP</b>		<b>Q06/011</b> <b>UP</b> <b>Q06/016</b> <b>UP</b> Q06/024 UP Q06/132 UP Q06/150 ptSR, WM Q06/154 UP	<b>Q06/169</b> <b>UP</b>		Q06/138* UP Q06/153 UP Q06/170 UP <b>Q06/172</b> <b>UP</b> <b>Q07/025</b> <b>UP</b> Q07/030 UP <b>Q07/051</b> <b>UP</b> Q07/052 UP Q07/057 UP Q07/060 UP <b>Q07/063</b> <b>ptQEII</b> Q06/173* UP		
Kahikatea swamp forest		<b>P07/024</b> <b>UP</b>		<b>Q06/016</b> <b>UP</b>	Q07/061 UP		<b>Q07/060</b> <b>UP</b>		
<b>Kahikatea</b> -totara forest				<b>Q06/010</b> <b>ptSL</b> Q06/133 ptWM			<b>P07/032</b> <b>UP</b>		
Kahikatea-totara forest		<b>Q06/151</b> <b>UP</b>		<b>Q06/007</b> <b>UP</b> Q06/132 UP <b>Q07/053</b> <b>UP</b> P07/032 UP UP			Q06/136 UP <b>Q06/142</b> <b>UP</b>		
Kahikatea-rimu- totara forest							<b>Q07/025</b> <b>UP</b>		

**GEOLOGY (continued)**

<b>Kerikeri Volcanics (continued)</b>			<b>Parahaki sub-group rhyolite</b>	<b>Te Kuiti Group glauconite</b>	<b>Torlesse Terrane grey-wacke</b>	<b>Manga-kahia Complex</b>	<b>Combination</b>	<b>Motatau Complex muddy limestone</b>	<b>Artificial pond</b>
Scoria cone	Shield volcano	Dacite dome	Dome	Sandstone and limest. karst	and argillite	Mudstone and/or sandstone			

**Q07/046**  
**UP**

**Q07/046**  
**UP**

<b>Q07/059</b> <b>UP</b> Q06/152* <b>UP</b>	<b>Q07/028</b> <b>ptScR</b>	<b>Q07/048</b> <b>ptWDC</b>	<b>Q07/022</b> <b>ptCP, WDC,</b> <b>QEII</b> <b>Q07/023</b> <b>ptSR</b>	Q06/140 <b>UP</b> <b>Q07/031</b> <b>UP</b> <b>Q07/033</b> <b>ptCC</b> <b>Q07/035</b> <b>UP</b> Q07/038 <b>UP</b>
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**Q07/065**  
**UP**

Q06/139 <b>ptQEII</b> <b>Q06/156</b> <b>ptQEII</b>	<b>Q07/023</b> <b>ptSR</b>	<b>Q06/140</b> <b>UP</b> Q06/146 <b>UP</b> <b>Q07/031</b> <b>UP</b> Q07/034 <b>UP</b> Q07/035 <b>UP</b> Q07/041 <b>UP</b>	Q06/149 <b>UP</b> Q06/159 <b>UP</b>	Q06/141 <b>UP</b>
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**Q06/139**  
**ptQEII**

ECOLOGICAL UNIT	GEOLOGY							
	Harbour	Quaternary alluvial			Freshwater	Kerikeri Volcanics		
		alluvial	and estuarine deposits	and swamp deposits	<b>wetlands</b> on or ponded by Kerikeri Volcanics	Basaltic lava flows	Basaltic lava flows with gorge and waterfall	Arch and gorge
<b>PODOCARP FOREST (continued)</b>								
Matai-totara forest					<b>Q06/176</b> <b>UP</b>			
Matai-totara forest					Q06/176 UP			
Rimu forest								
Rimu-tanekaha forest								
Rimu-totara forest								
Tanekaha forest								
Tanekaha- <i>Pinus</i> forest								
<b>Tanekaha</b> -totara forest								
Tanekaha-totara forest						Q07/053 UP		
Totara forest		<b>Q06/151</b> <b>UP</b> Q07/039 UP <b>Q07/045</b> <b>UP</b> Q07/052 UP P07/024 UP P07/031* UP	<b>Q07/047</b> <b>UP</b>	<b>Q06/007</b> <b>UP</b> Q06/011 UP Q06/134 UP Q06/150 ptSR, WM Q06/176 UP		Q06/138* UP Q06/142 UP Q06/151 UP Q06/153 UP Q06/157* UP Q06/164 UP <b>Q06/172</b> <b>UP</b>	<b>Q06/166</b> <b>ptWDC</b>	<b>P07/025</b> <b>UP</b>
(continued)								

**GEOLOGY (continued)**

<b>Kerikeri Volcanics (continued)</b>			<b>Parahaki sub-group rhyolite</b>	<b>Te Kuiti Group glauconite Sandstone and limest. karst</b>	<b>Torlesse Terrane grey-wacke and argillite</b>	<b>Mangakahia Complex Mudstone and/or sandstone</b>	<b>Combination</b>	<b>Motatau Complex muddy limestone</b>	<b>Artificial pond</b>
Scoria cone	Shield volcano	Dacite dome	Dome	Sandstone and limest. karst	and argillite	and/or sandstone			

Q07/022  
ptCP, WDC, QEII  
Q07/023  
ptSR

Q07/023  
ptSR

Q06/130  
UP

Q07/018  
ptWDC

Q06/148  
UP  
Q07/022  
ptCP, WDC, QEII  
Q07/023  
ptSR

Q07/018  
ptWDC

Q07/023  
ptSR  
Q06/148  
UP

Q06/148  
UP  
Q07/022  
ptCP, WDC, QEII  
Q07/023  
ptSR

Q07/033  
ptCC

Q06/159  
UP  
Q07/019  
ptWDC

Q06/161  
UP  
Q06/163  
ptSR, WDC  
Q06/167  
UP  
Q07/059  
UP  
Q06/152\*  
UP

Q06/139  
ptQEII  
Q06/156  
ptQEII

Q06/158  
ptQEII

Q06/137  
UP  
Q06/148  
UP  
Q07/023  
ptSR  
Q07/022  
ptCP, WDC, QEII

Q06/130  
UP  
Q06/140  
UP  
Q06/146  
UP  
Q07/031  
UP  
Q07/033  
ptCC  
Q07/034  
UP  
Q07/035  
UP

Q06/149  
UP  
Q06/169  
UP  
Q06/171  
UP

ECOLOGICAL UNIT	GEOLOGY							
	Harbour	Quaternary alluvial			Freshwater	Kerikeri Volcanics		
		alluvial	and estuarine deposits	and swamp deposits	wetlands on or ponded by Kerikeri Volcanics	Basaltic lava flows	Basaltic lava flows with gorge and waterfall	Arch and gorge
<b><u>PODOCARP FOREST</u></b> (continued)								
Totara forest (continued)						Q06/173* UP Q07/023 ptSR <b>Q07/025</b> <b>UP</b> <b>Q07/030</b> <b>UP</b> Q07/037 UP Q07/048 ptWDC Q07/052 UP Q07/053 UP Q07/054 UP Q07/057 UP Q07/060 UP		
Totara-kahikatea forest		<b>Q07/045</b> <b>UP</b>				Q07/025 UP Q07/060 UP		
Totara-tanekaha forest								
Totara-rimu forest								
<b><u>COASTAL PODOCARP FOREST</u></b>								
Kahikatea forest						<b>Q07/021</b> <b>ptSR</b>		
<b><u>BROADLEAF FOREST</u></b>								
Cabbage tree- <i>Coprosma propinqua</i> swamp forest		<b>P07/024</b> <b>UP</b>						
Crack willow forest		Q06/151 UP				Q07/053 UP		
Crack willow-kanuka/manuka forest		Q06/151 UP						

**GEOLOGY (continued)**

<b>Kerikeri Volcanics (continued)</b>			<b>Parahaki sub-group rhyolite</b>	<b>Te Kuiti Group glauconite</b>	<b>Torlesse Terrane grey-wacke</b>	<b>Manga-kahia Complex</b>	<b>Combination</b>	<b>Motatau Complex muddy limestone</b>	<b>Artificial pond</b>
Scoria cone	Shield volcano	Dacite dome	Dome	Sandstone and limest. karst	and argillite	Mudstone and/or sandstone			

**Q07/040**  
UP  
Q07/065  
UP  
**P07/030**  
SR

Q06/139  
ptQEII

Q06/137  
UP  
**Q07/022**  
ptCP, WDC,  
**QEII**

Q07/031  
UP  
Q07/034  
UP  
Q06/135\*  
UP  
Q07/040  
UP

Q06/169  
UP

Q07/033  
ptCC

**Q06/137**  
UP

Q06/149  
UP

ECOLOGICAL UNIT	GEOLOGY							
	<b>Harbour</b>	<b>Quaternary alluvial</b>			<b>Freshwater</b>	<b>Kerikeri Volcanics</b>		
		alluvial	and	and	<b>wetlands</b>	Basaltic	Basaltic	Arch
			estuarine	swamp	on or	lava	lava flows	and
			deposits	deposits	ponded by	flows	with gorge	gorge
					Kerikeri		and	
					Volcanics		waterfall	
<b><u>BROADLEAF FOREST</u> (continued)</b>								
Kanuka forest								
Kanuka-karaka-tawa forest						P07/028 ptSR		
<b>Kanuka</b> -manatu forest						P07/028 ptSR		
<b>Kanuka</b> -manuka forest				Q06/150 UP				
Kanuka/manuka forest		Q06/151 UP P07/024 UP		Q06/176 UP		Q06/174 ptQEII		
Kanuka/manuka-puriri forest								
Kanuka/manuka-towai forest								
Karaka-puriri forest								
Karaka-taraire forest						Q07/049 ptQEII		
<b>Kowhai</b> -karaka forest								
<b>Maire tawake</b> -pukatea swamp forest								
Mamaku-towai forest								
Manatu-manuka forest						P07/028 ptSR		
Pukatea-maire tawake swamp forest						Q07/037 UP		
Puriri forest						Q07/051 UP		



**GEOLOGY (continued)**

<b>Kerikeri Volcanics (continued)</b>			<b>Parahaki sub-group rhyolite</b>	<b>Te Kuiti Group glauconite</b>	<b>Torlesse Terrane grey-wacke</b>	<b>Mangakahia Complex</b>	<b>Combination</b>	<b>Motatau Complex muddy limestone</b>	<b>Artificial pond</b>
Scoria cone	Shield volcano	Dacite dome	Dome	Sandstone and limest. karst	and argillite	Mudstone and/or sandstone			

**Q07/022**  
ptCP, WDC,  
QEII

Q07/022 ptCP, WDC, QEII  
**Q07/023** ptSR  
Q07/033 ptCC Q07/038 UP  
Q06/149 UP

**Q07/023**  
ptSR

Q07/022 ptCP, WDC, QEII  
**Q07/023** ptSR  
Q07/038 UP  
Q06/171 UP

**Q07/023**  
ptSR

**Q07/048**  
ptWDC

**Q07/032**  
ptSR, QEII

**Q06/156**  
ptQEII

**Q07/023** ptSR  
Q06/169 UP

ECOLOGICAL UNIT	GEOLOGY							
	Harbour	Quaternary alluvial			Freshwater	Kerikeri Volcanics		
		alluvial	and estuarine deposits	and swamp deposits	wetlands on or ponded by Kerikeri Volcanics	Basaltic lava flows	Basaltic lava flows with gorge and waterfall	Arch and gorge
<b>BROADLEAF FOREST (continued)</b>								
Puriri-taraire forest				<b>Q06/133</b> <b>ptWM</b>		<b>Q06/164</b> <b>UP</b> <b>Q06/172</b> <b>UP</b> Q07/030 <b>UP</b> <b>Q07/050</b> <b>ptQEII</b> Q07/051 <b>UP</b>		
Puriri-towai forest								
Rewarewa-taraire forest						<b>Q07/049</b> <b>ptQEII</b> <b>Q07/054</b> <b>UP</b>		
Taraire forest	<b>P07/024</b> <b>UP</b>				<b>Q07/061</b> <b>UP</b>	Q07/049 <b>ptQEII</b> <b>Q07/050</b> <b>ptQEII</b> Q07/054 <b>UP</b> Q07/055 <b>UP</b> Q07/056 ptQEII, WDC Q07/057 <b>UP</b> Q07/059 <b>UP</b> Q07/060 <b>UP</b> Q07/061 <b>UP</b> <b>Q07/063</b> <b>ptQEII</b> <b>P07/032</b> <b>UP</b>		
<b>Taraire-pukatea</b> forest								
<b>Taraire-puriri</b> forest						Q07/027 <b>UP</b>		
<b>Taraire-puriri-tawa</b> forest								
<b>Taraire-rewarewa</b> forest						<b>Q07/027</b> <b>UP</b> Q07/029 ptWDC, SR		

**GEOLOGY (continued)**

<b>Kerikeri Volcanics (continued)</b>			<b>Parahaki sub-group rhyolite</b>	<b>Te Kuiti Group glauconite</b>	<b>Torlesse Terrane grey-wacke</b>	<b>Manga-kahia Complex</b>	<b>Combination</b>	<b>Motatau Complex muddy limestone</b>	<b>Artificial pond</b>
Scoria cone	Shield volcano	Dacite dome	Dome	Sandstone and limest. karst	and argillite	Mudstone and/or sandstone			

Q06/164  
UP  
Q07/023  
ptSR

Q07/023  
ptSR

Q06/148  
UP  
Q07/023  
ptSR

Q06/167 UP Q07/026 ptWDC Q07/032 ptSR, QEII Q07/059 UP	Q07/028 ptScR	Q07/048 ptWDC	Q06/164 UP Q07/023 ptSR Q07/022 ptCP, WDC, QEII	Q06/131 UP Q06/140 UP Q07/031 UP Q07/065 UP	Q07/024 UP
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Q07/028  
ptScR

Q06/135\*  
UP

Q07/034  
UP

Q07/034  
UP

Q07/026  
ptWDC

ECOLOGICAL UNIT	GEOLOGY							
	Harbour	Quaternary alluvial			Freshwater	Kerikeri Volcanics		
		alluvial	and estuarine deposits	and swamp deposits	wetlands on or ponded by Kerikeri Volcanics	Basaltic lava flows	Basaltic lava flows with gorge and waterfall	Arch and gorge
<b><u>BROADLEAF FOREST (continued)</u></b>								
Taraire-tarata-towai forest								
<b>Taraire</b> -tawai forest								
<b>Taraire</b> -titoki forest								
						<b>P07/028 ptSR</b>		
<b>Taraire</b> -towai forest								
Taraire-towai forest						Q06/136 UP Q06/153 UP		
Towai forest								
<b>Towai</b> -rewarewa-taraire forest								
<b><u>COASTAL BROADLEAF FOREST</u></b>								
Kanuka forest						<b>Q07/020 ptSR</b>		
Pohutukawa forest								
Towai forest						<b>Q07/021 ptSR</b>		
<b><u>PODOCARP-BROADLEAF FOREST</u></b>								
<b>Crack willow</b> -totara forest						Q06/174 ptQEII		
<b>Kahikatea</b> -cabbage tree forest				Q06/150 ptSR, WM				
Kahikatea-kanuka forest		<b>P07/024 UP</b>			<b>P07/028 ptSR</b>			
<b>Kahikatea</b> -kanuka/manuka forest								
Kahikatea-kanuka/manuka-tanekaha forest								

**GEOLOGY (continued)**

<b>Kerikeri Volcanics (continued)</b>			<b>Parahaki sub-group</b>	<b>Te Kuiti Group</b>	<b>Torlesse Terrane</b>	<b>Mangakahia Complex</b>	<b>Combination</b>	<b>Motatau Complex</b>	<b>Artificial pond</b>
Scoria cone	Shield volcano	Dacite dome	rhyolite Dome	glaucinite Sandstone and limest. karst	grey-wacke and argillite	Complex Mudstone and/or sandstone		muddy limestone	

**Q07/023**  
ptSR

**Q07/026**  
ptWDC  
**Q07/032**  
ptSR, QEII

Q07/022  
ptCP, WDC,  
QEII

**Q06/168**  
UP

**Q06/139**  
ptQEII  
Q06/156  
ptQEII

**Q07/022**  
ptCP, WDC,  
QEII

**Q06/140**  
UP

**Q06/159**  
UP

Q07/022  
ptCP, WDC,  
QEII  
**Q07/023**  
ptSR

**Q07/033**  
ptCC

**Q06/171**  
UP

**Q07/022**  
ptCP, WDC,  
QEII

**Q07/085**  
UP

**Q07/033**  
ptCC

**Q07/024**  
UP

ECOLOGICAL UNIT	GEOLOGY							
	Harbour	Quaternary alluvial			Freshwater	Kerikeri Volcanics		
		alluvial	and estuarine deposits	and swamp deposits	<b>wetlands</b> on or ponded by Kerikeri Volcanics	Basaltic lava flows	Basaltic lava flows with gorge and waterfall	Arch and gorge
<b>PODOCARP–BROADLEAF FOREST (continued)</b>								
<b>Kahikatea</b> -kowhai forest					<b>Q06/154</b> <b>UP</b>			
Kahikatea-manuka forest		Q06/175*						
Kahikatea-manuka- totara forest					<b>P07/029</b> <b>UP</b>			
Kahikatea-pukatea swamp forest						<b>Q07/057</b> <b>UP</b>		
Kahikatea-puriri forest								
Kahikatea-rewarewa- taraire-totara forest						Q07/029 ptWDC, SR		
<b>Kahikatea</b> -taraire forest								
Kahikatea-taraire forest						<b>Q07/063</b> <b>ptQEII</b>		
Kahikatea-taraire- totara forest						Q06/173* UP Q06/174 ptQEII <b>Q07/025</b> <b>UP</b> Q07/060 UP		
Kahikatea-towai forest								
<b>Kanuka/manuka</b> -cabbage tree- totara swamp forest					<b>Q06/150</b> <b>ptSR, WM</b>			
Kanuka/manuka-rimu- totara forest								
<b>Kanuka/manuka</b> - tanekaha forest								
Kanuka/manuka- tanekaha forest								
<b>Kanuka/manuka</b> - totara forest		<b>Q07/036</b> <b>UP</b>			<b>Q06/010</b> <b>ptSL</b>			

**GEOLOGY (continued)**

<b>Kerikeri Volcanics (continued)</b>			<b>Parahaki sub-group rhyolite</b>	<b>Te Kuiti Group glauconite Sandstone and limest. karst</b>	<b>Torlesse Terrane grey-wacke and argillite</b>	<b>Manga-kahia Complex Mudstone and/or sandstone</b>	<b>Combination</b>	<b>Motatau Complex muddy limestone</b>	<b>Artificial pond</b>
Scoria cone	Shield volcano	Dacite dome	Dome						

**Q07/040**  
UP

**Q07/044**  
UP

**Q06/174**  
ptQEII

**Q07/042**  
UP

**Q07/065**  
UP

**Q07/022**  
ptCP, WDC, QEII

**Q07/065**  
UP

**Q07/023**  
ptSR

**Q07/041**  
UP

Q07/023  
ptSR

**Q07/023**  
ptSR

Q07/022  
ptCP, WDC, QEII  
**Q07/023**  
ptSR

**Q06/149**  
UP  
Q07/019  
ptWDC

ECOLOGICAL UNIT	GEOLOGY							
	Harbour	Quaternary alluvial			Freshwater	Kerikeri Volcanics		
		alluvial	and estuarine deposits	and swamp deposits	wetlands on or ponded by Kerikeri Volcanics	Basaltic lava flows	Basaltic lava flows with gorge and waterfall	Arch and gorge
<b>PODOCARP–BROADLEAF FOREST (continued)</b>								
Kanuka/manuka-totara forest		Q06/151 UP Q07/039 UP <del>P07/024</del> UP	<b>Q07/047</b> UP	Q06/176 UP	<b>Q06/165</b> UP			
Kanuka/manuka-tanekaha-totara forest							<b>Q06/166</b> ptWDC	
Kanuka/manuka-tanekaha-towai forest								
Kanuka/manuka-towai forest								
Karaka-totara forest								
Kowhai-matai forest				<b>Q06/176</b> UP				
Kowhai-totara forest				<b>Q06/176</b> UP				
Mamaku-taraire-totara forest					<b>Q06/161</b> UP			
<b>Manuka</b> -kahikatea-totara forest							<b>Q06/142</b> UP	
<b>Manuka</b> -totara forest								
Manuka-totara forest		<b>Q06/151</b> UP					<b>Q06/142</b> UP	
Matai-taraire-totara forest								
Puriri-rewarewa-totara forest								
Puriri-tanekaha-taraire forest								
Puriri-taraire-totara forest								
Puriri-totara forest							<b>Q07/025</b> UP	
Rimu-taraire-totara forest								



**GEOLOGY (continued)**

<b>Kerikeri Volcanics (continued)</b>			<b>Parahaki sub-group rhyolite</b>	<b>Te Kuiti Group glauconite Sandstone and limest. karst</b>	<b>Torlesse Terrane grey-wacke and argillite</b>	<b>Mangakahia Complex Mudstone and/or sandstone</b>	<b>Combination</b>	<b>Motatau Complex muddy limestone</b>	<b>Artificial pond</b>
Scoria cone	Shield volcano	Dacite dome	Dome	Sandstone and limest. karst	and argillite	and/or sandstone			

Q07/023  
ptSR  
Q07/038  
UP  
Q07/040  
UP  
Q07/033  
ptCC  
Q07/043  
UP

Q07/018  
ptWDC  
Q07/023  
ptSR  
Q07/033  
ptCC

Q07/018  
ptWDC  
Q07/023  
ptSR

Q06/171  
UP

Q07/018  
ptWDC

Q07/033  
ptCC

Q07/023  
ptSR

Q07/019  
ptWDC

Q07/023  
ptSR

Q07/022  
ptCP, WDC, QEII  
Q07/042  
UP

Q07/048  
ptWDC  
Q07/023  
ptSR  
ptWDC  
Q07/019

Q06/137  
UP

ECOLOGICAL UNIT	GEOLOGY							
	Harbour	Quaternary alluvial			Freshwater	Kerikeri Volcanics		
		alluvial	and estuarine deposits	and swamp deposits	<b>wetlands</b> on or ponded by Kerikeri Volcanics	Basaltic lava flows	Basaltic lava flows with gorge and waterfall	Arch and gorge
<b>PODOCARP–BROADLEAF FOREST (continued)</b>								
Tanekaha-kanuka/manuka-forest								
Tanekaha-kanuka/manuka-rewarewa forest								
Tanekaha-kanuka/manuka-rimu forest								
Tanekaha-taraire-totara forest								
Tanekaha-totara-towai forest								
Taraire-karaka-totara forest						<b>Q06/174 ptQEII</b>		
Taraire-totara forest						Q07/049 ptQEII Q07/053 UP P07/032 UP		
Taraire-totara forest		Q07/039 UP P07/024 UP P07/031* UP			Q06/146 UP Q06/153 UP <b>Q06/174 ptQEII Q07/037 UP</b> Q07/054 UP Q07/057 UP <b>Q07/060 UP</b> P07/032 UP			
Taraire-totara-towai forest								
Taraire-totara-towai forest						Q06/146 UP <b>Q06/153 UP</b>		
Tawa-totara forest						<b>P07/028 ptSR</b>		
Totara-crack willow forest						Q06/174 ptQEII		

**GEOLOGY (continued)**

<b>Kerikeri Volcanics (continued)</b>			<b>Parahaki sub-group rhyolite</b>	<b>Te Kuiti Group glauconite Sandstone and limest. karst</b>	<b>Torlesse Terrane grey-wacke and argillite</b>	<b>Mangakahia Complex Mudstone and/or sandstone</b>	<b>Combination</b>	<b>Motatau Complex muddy limestone</b>	<b>Artificial pond</b>
Scoria cone	Shield volcano	Dacite dome	Dome	Sandstone and limest. karst	grey-wacke and argillite	Mudstone and/or sandstone			

**Q07/018**  
ptWDC

Q07/023  
ptSR

**Q07/018**  
ptWDC

**Q07/022**  
ptCP, WDC,  
QEII

**Q06/137**  
UP

**Q07/022**  
ptCP, WDC,  
QEII

Q07/042  
UP  
**P07/030**  
SR

Q06/163  
ptSR, WDC  
Q06/167  
UP  
**Q06/168**  
UP  
Q07/032  
ptSR, QEII

**Q06/139**  
ptQEII

**Q06/137**  
UP  
Q07/022  
ptCP, WDC,  
QEII  
**Q07/023**  
ptSR

Q06/130  
UP  
Q06/159  
UP  
**Q06/149**  
UP  
Q07/033  
ptCC  
Q07/040  
Q06/169  
UP

**Q06/131**  
UP

**Q06/168**  
UP  
Q07/032  
ptSR, QEII

ECOLOGICAL UNIT	GEOLOGY			
	<b>Harbour</b>	<b>Quaternary alluvial</b>	<b>Freshwater</b>	<b>Kerikeri Volcanics</b>
		alluvial and estuarine deposits	and swamp deposits	Basaltic lava flows with gorge and waterfall
			on or ponded by Kerikeri Volcanics	Basaltic lava flows with gorge and waterfall
				Arch and gorge
<b><u>PODOCARP–BROADLEAF FOREST (continued)</u></b>				
<b>Totara-kanuka/manuka forest</b>		Q06/151 UP		
Totara-kanuka/manuka forest		<b>Q07/039</b> <b>UP</b>		
<b>Totara-puriri forest</b>				<b>Q06/166</b> <b>ptWDC</b>
<b>Totara-tanekaha-towai forest</b>				
<b>Totara-taraire forest</b>				Q06/174 ptQEII Q07/057 UP
<b>Totara-titoki forest</b>		<b>Q07/045</b> <b>UP</b>		
<b>Totara-towai forest</b>				
Totara-towai forest				
Totara-weeping willow forest		P07/024 UP		
<b>Towai-mamaku-totara forest</b>				
<b>Towai-totara forest</b>				<b>Q07/060</b> <b>UP</b>
<b>Kanuka/manuka-totara forest</b>				
<b><u>KAURI FOREST</u></b>				
Kauri forest				
<b><u>KAURI–PODOCARP FOREST</u></b>				
<b>Kahikatea-kauri forest</b>				<b>Q06/136</b> <b>UP</b>
Kahikatea-kauri forest				

**GEOLOGY (continued)**

<b>Kerikeri Volcanics (continued)</b>	<b>Parahaki sub-group</b>	<b>Te Kuiti Group</b>	<b>Torlesse Terrane</b>	<b>Manga-kahia Complex</b>	<b>Combination</b>	<b>Motatau Complex</b>	<b>Artificial pond</b>
Scoria cone	Shield volcano	Dacite dome	rhyolite Dome	glaucanite Sandstone and limest. karst	grey-wacke and argillite	muddy limestone	

Q07/033 ptCC	Q06/149 UP	Q06/141 UP
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**Q06/156  
ptQEII**

Q06/167 UP	<b>Q07/048 ptWDC</b>	Q06/137 UP	Q06/159 UP
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Q06/137  
UP

<b>Q07/059 UP</b>	<b>Q06/156 ptQEII</b>	<b>Q07/022 ptCP, WDC, QEII</b>	Q07/031 UP	<b>Q06/171 UP</b>
			<b>Q07/033 ptCC</b>	Q07/019 ptWDC

<b>Q07/032 ptSR, QEII</b>	<b>Q06/148 UP</b>
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Q06/169  
UP

**Q07/046  
UP**

<b>Q07/018 ptWDC</b>	<b>Q06/148 UP</b>	<b>Q07/033 ptCC</b>
	<b>Q07/022 ptCP, WDC, SR QEII</b>	<b>P07/030</b>
	<b>Q07/023 ptSR</b>	

**Q06/142  
UP**

ECOLOGICAL UNIT	GEOLOGY							
	Harbour	Quaternary alluvial			Freshwater	Kerikeri Volcanics		
		alluvial	and estuarine deposits	and swamp deposits	<b>wetlands</b> on or ponded by Kerikeri Volcanics	Basaltic lava flows	Basaltic lava flows with gorge and waterfall	Arch and gorge
<b><u>KAURI-PODOCARP FOREST (continued)</u></b>								
Kauri-rimu forest								
Kauri-tanekaha forest								
Kauri-totara forest								
Q06/166 ptWDC								
<b>Rimu-kauri forest</b>								
<b>Tanekaha-kauri forest</b>								
<b><u>KAURI-PODOCARP-BROADLEAF FOREST</u></b>								
Kanuka/manuka-kauri-tanekaha forest								
<b><u>FRESHWATER WETLAND</u></b>								
Bamboo spike-sedgeland								
Q06/165 UP								
<i>Baumea</i> sedgeland								
Q06/160 UP								
<i>Baumea-juncus</i> sedgeland								
Q06/150 ptSR, WM								
<i>Baumea rubiginosa-juncus</i> - willow weed-sphagnum association								
Q06/161 UP								
<i>Baumea</i> -willow weed- parrot's feather association								
Q06/150 ptSR, WM								
<b>Burr reed</b> -beggars' ticks- willow weed association								
Q06/150 ptSR, WM								
<i>Carex</i> sedgeland								
P07/029 UP								
<i>Carex</i> -willow weed wetland								
Q06/176 UP								
Harakeke wetland								
Q06/016 UP Q06/133 ptWM								
<b>Harakeke</b> -cabbage tree association in wetland								
Q06/007 UP								

**GEOLOGY (continued)**

<b>Kerikeri Volcanics (continued)</b>			<b>Parahaki sub-group rhyolite</b>	<b>Te Kuiti Group glauconite Sandstone and limest. karst</b>	<b>Torlesse Terrane grey-wacke and argillite</b>	<b>Manga-kahia Complex Mudstone and/or sandstone</b>	<b>Combination</b>	<b>Motatau Complex muddy limestone</b>	<b>Artificial pond</b>
Scoria cone	Shield volcano	Dacite dome	Dome	Sandstone and limest. karst	and argillite	and/or sandstone			

**Q07/018  
ptWDC**

**Q07/019  
ptWDC**

**Q07/018  
ptWDC**

**Q07/023  
ptSR**

**Q06/171  
UP**

**Q06/149  
UP  
Q07/019  
ptWDC**

**Q07/022  
ptCP, WDC,  
QEII**

**Q07/023  
ptSR**

**Q07/033  
ptCC**

ECOLOGICAL UNIT	GEOLOGY							
	Harbour	Quaternary alluvial			Freshwater	Kerikeri Volcanics		
		alluvial	and estuarine deposits	and swamp deposits	wetlands on or ponded by Kerikeri Volcanics	Basaltic lava flows	Basaltic lava flows with gorge and waterfall	Arch and gorge
<b><u>FRESHWATER WETLAND</u></b> ( <i>continued</i> )								
Harakeke-sweetgrass wetland					Q06/145 UP			
Manuka-raupo association in wetland					Q07/061 UP			
Pacific azolla-duckweed aquatic herbland					P07/029 UP			
Parrot's feather-willow weed aquatic herbland					P07/029 UP			
Raupo reedland					Q06/133 ptWM Q07/064 UP	Q06/146  Q07/051 UP		
<b>Raupo-Baumea-</b> <i>Scirpus</i> association						Q07/060 UP		
<b>Raupo-harakeke-</b> willow weed wetland								
<b>Raupo-Juncus</b> reedland						Q06/174 ptQEII		
Raupo-willow weed wetland								
<b>Willow weed-harakeke</b> wetland					P07/029 UP			
Willow weed aquatic association					P07/029 UP			
<b><u>ESTUARIES</u></b>								
<i>Baumea juncea</i> salt marsh					Q07/058 ptWR			
<i>Juncus-Baumea</i> salt marsh								
Mangrove forest					Q07/058 ptWR			
Oioi-sea rush salt marsh					Q07/058 ptWR			



**GEOLOGY (continued)**

<b>Kerikeri Volcanics (continued)</b>			<b>Parahaki sub-group rhyolite</b>	<b>Te Kuiti Group glauconite</b>	<b>Torlesse Terrane grey-wacke</b>	<b>Manga-kahia Complex</b>	<b>Combination</b>	<b>Motatau Complex muddy limestone</b>	<b>Artificial pond</b>
Scoria cone	Shield volcano	Dacite dome	Dome	Sandstone and limest. karst	and argillite	Mudstone and/or sandstone			

**Q07/059**  
**UP**

**Q06/137**  
**UP**

**Q06/176**  
**UP**

**Q06/143**  
**UP**

**Q06/149**  
**UP**

Q07/022  
ptCP, WDC,  
QEII

**Q07/062**  
**ptWDC, WM**

**Q07/062**  
**ptWDC, WM**

TABLE 3. SUMMARY OF SITE EVALUATIONS (e.u. = ecological unit).

SITE	SITE NO.	REPRESENTATIVENESS	RARITY/SPECIAL FEATURES
<b>LEVEL 1 SITES</b>			
Akerama Bridge Riverine Forest	Q06/007	Rep. site for 3 e.u.s. Best example of alluvial riverine forest.	Uncommon vegetation type. Flora: 1 regionally significant.
Forsythe Meander	Q06/010	Rep. site for 1 e.u.	Uncommon vegetation type.
Waiotu Riverine Remnants	Q06/011	Rep. site for 1 e.u.	Uncommon vegetation type. Flora: 1 regionally significant.
Hikurangi Swamp Remnant	Q06/016	Rep. site for 4 e.u.s.	Uncommon vegetation types. Flora: 1 regionally significant. Fauna: 1 threatened.
Otonga Kahikatea Remnant	Q06/024		Uncommon vegetation type.
Te Ngau Trig Bush	Q06/130	Rep. site for 3 e.u.s.	
Crows Nest Road Remnants	Q06/131	Rep. site for 1 e.u.	
Riponui Road Bush Remnants	Q06/132		Uncommon vegetation type.
Otakairangi Peat Bog	Q06/133	Rep. site for 5 e.u.s. The largest remaining area of undrained peat bog on the Hikurangi flood plain.	Rare vegetation type. Flora: 1 regionally significant. Fauna: 3 threatened, 2 regionally significant.
Apotu Swamp Shrubland	Q06/134	Rep. site for 1 e.u.	Rare vegetation type; 1 threatened and 2 regionally significant bird species.
Matarau Road Remnants	Q06/136	Rep. site for 1 e.u.	Flora: 1 regionally significant.
Heaton Road Bush	Q06/137	Rep. site for 5 e.u.s.	Wetland area is a rare vegetation type. Fauna: 2 threatened.
Mount Hikurangi	Q06/139	Rep. site for 5 e.u.s.	1 regionally significant flora species. 1 threatened bird species.
Hodges Bush	Q06/140	Rep. site for 3 e.u.s.	Fauna: 2 threatened, 1 regionally significant.
Dunford Road Bush	Q06/141		Fauna: 1 threatened.
Worsnop Road Bush	Q06/142	Rep. site for 5 e.u.s.	Uncommon vegetation type.
Hodge Road Dams	Q06/143		Waterfowl habitat.
Kara Road Wetland	Q06/145	Rep. site for 1 e.u.	Rare habitat type. Fauna: 1 regionally significant.

DIVERSITY & PATTERN	NATURALNESS	BUFFER/LINKAGE	SIZE & SHAPE
	Remnants.		
3 e.u.s.	Remnants.	Riparian.	95 ha.
2 e.u.s.	Remnant.	Riparian.	27.5 ha.
2 e.u.s. Rare association of riverine species.	Remnants.	Riparian.	20.6 ha.
4 e.u.s. Swamp forest and swamp shrubland habitats.	Remnants.		77.4 ha.
1 e.u.	Grazed.		3.8 ha.
5 e.u.s.	Burning at edges.	Corridor linkage.	34.6 ha.
2 e.u.s.	Remnants.	Corridor linkage between kiwi habitat to the west and other areas of vegetation.	13.8 ha.
2 e.u.s.	Remnants.		5 ha.
7 e.u.s.	Mostly intact.		315 ha.
2 e.u.s.	Partly drained.		38.9 ha.
3 e.u.s.	Remnants.		27.5 ha.
9 e.u.s.	Partly fragmented.		123.3 ha.
7 e.u.s.	Part of mountain has been planted in pines.		47.5 ha.
5 e.u.s.	Grazed.	Linkage between other kiwi habitats.	43.6 ha.
2 e.u.s.	Remnants; one partially fenced with good understorey.	Linkage to other kiwi habitats.	18.8 ha.
7 e.u.s.	Several remnants.	Riparian.	39.8 ha.
3 e.u.s.	Artificial.		6.9 ha.
1 e.u.	Water weeds present.	Riparian.	5 ha.

SITE	SITE NO.	REPRESENTATIVENESS	RARITY/SPECIAL FEATURES
Mirowhakatiki Trig Bush	Q06/146		Uncommon vegetation types. Fauna: 1 threatened.
Waipui Bush	Q06/148	Rep. site for 6 e.u.s.	Uncommon vegetation type. Fauna: 1 threatened.
Mangere River	Q06/149	Rep. site for 5 e.u.s.	Uncommon vegetation type. Flora: 1 threatened, 2 historical. Fauna: 1 threatened, 1 regionally significant.
Wairua River Wildlife Management Reserve	Q06/150	Rep. site for 8 e.u.s.	Uncommon habitat type. Flora: 2 threatened, 1 regionally significant. Fauna: 1 threatened, 2 regionally significant.
Wairua River	Q06/151	Rep. site for 8 e.u.s.	Uncommon vegetation type, waterfowl habitat. Flora: 1 regionally significant. Fauna: 1 regionally significant.
Vinegar Hill Road Bush	Q06/153	Rep. site for 4 e.u.s.	Fauna: 1 threatened, 1 regionally significant, kiwi reported.
Jordan Valley Forest Remnants	Q06/154	Rep. site for 1 e.u.	Uncommon vegetation type. Flora: 1 regionally significant.
Jordan Valley Shrubland	Q06/155	Rep. site for 1 e.u.	Rare vegetation type. Flora: 1 threatened. Fauna: 1 threatened.
Mount Parakiore	Q06/156	Rep. site for 5 e.u.s.	Uncommon vegetation type.
Tikipunga Golf Course	Q06/157		Fauna: 1 threatened.
Waitaua Stream	Q06/158	Rep. site for 2 e.u.s. Excellent example of limestone riverine forest association.	Regionally important geological site.
Finlayson Stream	Q06/159	Rep. site for 5 e.u.s.	Uncommon vegetation type.
Church Road Wetland	Q06/160	Rep. site for 1 e.u.	Rare vegetation type. 1 threatened bird species.
Rotomate Road Volcanic Cones	Q06/161	Rep. site for 3 e.u.s.	Rare habitat type. Regionally important geological site.
Church Road Remnants	Q06/162		Rare vegetation type.
Hurupaki Cone	Q06/163	Rep. site for 3 e.u.s.	Fauna: 1 threatened, 1 regionally significant. Regionally important geological site.
Lower Whau Valley Forest	Q06/164	Rep. site for 2 e.u.s.	Fauna: 1 threatened.
Lake Ora	Q06/165	Rep. site for 2 e.u.s.	Rare habitat type. Fauna: 1 threatened.

DIVERSITY & PATTERN	NATURALNESS	BUFFER/LINKAGE	SIZE & SHAPE
6 e.u.s.	Remnants.		78.1 ha.
9 e.u.s.	Remnants.		53.1 ha.
9 e.u.s.	Forested along most of its length.	Riparian.	167.5 ha.
13 e.u.s.	Unmodified.	Riparian.	178.4 ha.
14 e.u.s.	Fragmented vegetation.	Riparian.	131.3 ha.
8 e.u.s.	Remnants.		97.2 ha.
2 e.u.s.	Remnants.		6.3 ha.
2 e.u.s.	Remnants; weeds.		10 ha.
9 e.u.s.	Discontinuous.		275.7 ha.
1 e.u.	Remnants; pine present.		27.5 ha.
3 e.u.s.	Relatively unmodified.	Riparian.	33.25 ha.
7 e.u.s.		Riparian.	38.8 ha.
1 e.u.	Mostly fenced; weeds on margin.		1.9 ha.
5 e.u.s.	Jetty has been built in pond.		25.5 ha.
1 e.u.	Remnants.		10 ha.
3 e.u.s.	Scoria cone, mostly forested but quarry one side; Onoke SR: weedy.		72.3 ha.
5 e.u.s.	Discontinuous; weeds present.		42.3 ha.
4 e.u.s.		Linkage to Pukenui Forest.	6.25 ha.

SITE	SITE NO.	REPRESENTATIVENESS	RARITY/SPECIAL FEATURES
Whangarei Falls	Q06/166	Rep. site for 4 e.u.s. Best example of mature kauris in e.d.	Uncommon vegetation type. Fauna: 2 threatened, 1 regionally significant. Regionally important geological site; nationally important soil site.
Ngunguru Volcanic Hill Reserve	Q06/167	Rep. site for 2 e.u.s.	Rare vegetation type. Fauna: 2 threatened. Regionally important geological site.
Puketotara Hill Bush	Q06/168	Rep. site for 3 e.u.s.	2 uncommon vegetation types. Regionally important geological site.
Mangakino Stream	Q06/169	Rep. site for 1 e.u.	Uncommon vegetation type. 1 threatened flora species.
Smithville Road Remnants	Q06/170		Uncommon vegetation type.
Hukerenui Road Shrublands	Q06/171	Rep. site for 9 e.u.s. Best rep. example of manuka shrubland.	Regionally important geological site.
Ngunguru Road Bush	Q06/172	Rep. site for 4 e.u.s.	2 uncommon vegetation types. Fauna: 2 threatened.
Waitangi River	Q06/174	Rep. site for 5 e.u.s.	2 uncommon vegetation types. Fauna: 1 threatened, 1 regionally significant.
Whakapara River Remnants	Q06/176	Rep. site for 6 e.u.s.	Uncommon vegetation type. Flora: 1 regionally significant. Fauna: 1 threatened.
Crows Nest Road Pond	Q06/177	Rep. site for 1 e.u.	Fauna: 1 threatened, 1 regionally significant.
Parahaki	Q07/018	Rep. site for 13 e.u.s.	Uncommon vegetation type. Flora: 1 threatened, 1 regionally significant. Fauna: 3 threatened, 3 regionally significant.
Old Parua Bay Road Bush	Q07/019	Rep. site for 4 e.u.s.	Uncommon vegetation type. Fauna: 1 threatened.
Waimahanga Walkway	Q07/020	Rep. site for 2 e.u.s.	Uncommon vegetation type.
Owhina Scenic Reserve	Q07/021	Rep. site for 2 e.u.s.	Uncommon vegetation type. Flora: 1 regionally significant, 1 at southern limit. Fauna: 2 threatened.
Pukenui Forest	Q07/022	Rep. site for 20 e.u.s.	Flora: 1 threatened species, 4 regionally significant, 1 nearing southern limit. Fauna: 5 threatened, 2 regionally significant. Regionally important soil site.
Otaika Valley Bush	Q07/023	Rep. site for 27 e.u.s.	Flora: 1 regionally significant. Fauna: 3 threatened, 1 regionally significant.

DIVERSITY & PATTERN	NATURALNESS	BUFFER/LINKAGE	SIZE & SHAPE
4 e.u.s.	Exotics present.	Riparian and linkage to Parahaki.	37.1 ha.
4 e.u.s.	Volcanic cone is fenced with a good understorey.		35.6 ha.
3 e.u.s.	Remnants.	Riparian.	35.8 ha.
7 e.u.s.	Remnants; one part is fenced, another part is badly browsed.	Riparian.	58.3 ha.
1 e.u.	Remnants.		Small, 5 ha.
9 e.u.s.	Fragmented.		258.3 ha.
6 e.u.s.	Fragmented.	Riparian.	39.2 ha.
10 e.u.s.	Remnants.		68.3 ha.
10 e.u.s.	Remnants.	Riparian.	35.7 ha.
2 e.u.s.	Surrounded by pines.		1.25 ha.
13 e.u.s.	Pines present.	Riparian.	190.2 ha.
7 e.u.s.	Residential development on edge, pines present.	Coastal linkage to mangrove forest.	36.3 ha.
2 e.u.s.	Weeds.	Coastal linkage to mangrove forest.	13.3 ha.
2 e.u.s.	Residential development on edge that is encroaching into site.	Coastal linkage to salt marsh and mangrove forest.	20.8 ha.
33 e.u.s.	High.	Upper catchment of Mangere River and Whau Valley dam.	2033 ha.
39 e.u.s.	Exotics have taken over northern portion of reserve.	Riparian.	558.3 ha.

SITE	SITE NO.	REPRESENTATIVENESS	RARITY/SPECIAL FEATURES
Kai Goose Quarry Bush	Q07/024	Rep. site for 1 e.u.	Uncommon forest type on limestone.
Jackson Road Bush	Q07/025	Rep. site for 5 e.u.s.	Uncommon vegetation type. 1 threatened bird species.
Maunu Mountain	Q07/026	Rep. site for 3 e.u.s.	Rare vegetation type. Fauna: 1 threatened, 1 regionally significant. Regionally important geological site.
Kokopu Block Road Bush	Q07/027	Rep. site for 1 e.u.	Rare vegetation type. Fauna: 1 threatened. Regionally important geological site; nationally important soil site.
Whatitiri Sci. Reserve & Remn.	Q07/028	Rep. site for 3 e.u.s.	Rare vegetation type. Fauna: 1 threatened.
Whatitiri Scenic Res. & Remn.	Q07/029	Rep. site for 2 e.us.	1 rare vegetation type. Fauna: 1 threatened.
Whatitiri Road Remnants	Q07/030	Rep. site for 1 e.u.	Rare vegetation type. Fauna: 1 threatened.
Baker Road Bush	Q07/031	Rep. site for 5 e.u.s.	Rare vegetation type. Fauna: 1 threatened.
Maungatapere Mountain	Q07/032	Rep. site for 7 e.u.s.	Rare vegetation type. Fauna: 1 threatened, 1 regionally significant. Regionally important geological site; nationally important soil site.
Maungatapere Walkway	Q07/033	Rep. site for 13 e.u.s.	Fauna: 1 threatened, 1 regionally significant.
Otuhi Road Bush	Q07/034	Rep. site for 1 e.u.s.	Fauna: 1 threatened.
Codlin Road Bush	Q07/035	Rep. site for 2 e.u.s.	Fauna: 2 threatened.
Waionepe River	Q07/036	Rep. site.	Uncommon vegetation type.
Bint Road Bush	Q07/037	Rep. site for 3 e.u.s.	3 rare vegetation types. Fauna: 2 threatened, 1 regionally significant.
Mangarotiti Stream	Q07/038	Rep. site for 3 e.u.s.	
Wheki Stream Bush	Q07/039	Rep. site for 1 e.u.	Uncommon vegetation type. Fauna: 1 threatened, 1 regionally significant.
Pukehinau Bush	Q07/040	Rep. site for 2 e.u.s.	Fauna: 1 threatened.
Limeworks Bush Remnants	Q07/041	Rep. site for 1 e.u.	
Hayward Road Bush	Q07/042	Rep. site for 1 e.u.	Fauna: 1 threatened



DIVERSITY & PATTERN	NATURALNESS	BUFFER/LINKAGE	SIZE & SHAPE
2 e.u.s.	Grazed.	Linkage between Otaika Valley Bush and Maungatapere Forest.	10 ha.
8 e.u.s.	Road through forest.	Riparian.	66.7 ha.
3 e.u.s.	Remnants.		39.2 ha.
3 e.u.s.	One of remnants has severe dieback.		24.2 ha.
3 e.u.s.	Fenced.		16.7 ha.
3 e.u.s.	Remnants.		20 ha.
4 e.u.s.	Remnants.		52.5 ha.
7 e.u.s.	Partially logged, but retains some old-growth forest.	Upper catchment.	41.3 ha.
9 e.u.s.	Volcanic cone with complete forest cover.		71.7 ha.
18 e.u.s.	Enclaves of fragmented native forest and shrubland within pine forest.	Riparian.	553.8 ha.
5 e.u.s.	Remnants; 1 is fenced.	Upper catchment.	34.2 ha.
5 e.u.s.	Remnants with edges cleared.	Upper catchment.	48.4 ha.
1 e.u.	Thin ribbon of riverine forest.	Riparian.	17.5 ha.
5 e.u.s.	Remnants.	Riparian.	40.8 ha.
5 e.u.s.	Grazed.	Upper catchment.	22.1 ha.
2 e.u.s.	Grazed; exotics present.	Riparian.	11.7 ha.
5 e.u.s.	Partly fenced with good regeneration.		73.3 ha.
2 e.u.s.	Remnants; exotics present.		11.6 ha.
3 e.u.s.	Remnants.		17.5 ha.

SITE	SITE NO.	REPRESENTATIVENESS	RARITY/SPECIAL FEATURES
McCullough Road Bush	Q07/043		Uncommon vegetation type. 1 threatened bird species.
Portland Quarry Bush	Q07/044	Rep. site.	Uncommon forest type.
Tauraroa River	Q07/045	Rep. site.	Uncommon vegetation type.
Mangapai Bush	Q07/046	Rep. site.	Uncommon vegetation type.
Waikokopa Stream	Q07/047	Rep. site.	Uncommon vegetation type.
Raumanga Valley	Q07/048	Rep. site for 6 e.u.s.	Uncommon vegetation type. Flora: 1 regionally significant. Fauna: 1 threatened.
Tatton Road Remnants	Q07/049	Rep. site for 2 e.u.s.	Rare vegetation type. Fauna: 1 threatened.
Simons Road Remnants	Q07/050	Rep. site.	Rare vegetation type. Fauna: 1 threatened.
Kerehunga Road Remnants	Q07/051	Rep. site for 3 e.u.s.	2 rare vegetation types.
Waipao Stream	Q07/052	Rep. site for 1 e.u.	Uncommon vegetation type.
Kauritutahi Stream	Q07/053	Rep. site for 4 e.u.s.	Uncommon vegetation type. Fauna: 1 regionally significant.
Newton Road Remnants	Q07/054	Rep. site for 1 e.u.	Rare vegetation type.
Millington Road Remnants	Q07/055		Rare vegetation type
Cemetery Road Remnants	Q07/056	Rep. site	Rare vegetation type. 1 threatened bird species.
Tauraroa Road Remnants	Q07/057	Rep. site for 2 e.u.s.	3 rare vegetation types. Fauna: 1 threatened.
Whangarei Harbour	Q07/058	Rep. site.	2 rare vegetation types. Habitat supports over 10 000 seabirds. Fauna: 11 threatened, 3 regionally significant, 1 historical. Regionally important geological site.
Maungakaramea Mountain	Q07/059	Rep. site.	2 rare vegetation types. Fauna: 2 threatened. Geological site of regional importance.
Te Hihi Stream	Q07/060	Rep. site for 3 e.u.s.	3 rare vegetation types. Fauna: 1 threatened, 1 regionally significant.
Mannington Road Wetland	Q07/061	Rep. site for 1 e.u.s.	3 rare vegetation types. Fauna: 1 regionally significant (historical).

DIVERSITY & PATTERN	NATURALNESS	BUFFER/LINKAGE	SIZE & SHAPE
1 e.u.	Remnants.	Riparian.	25 ha.
1 e.u.	Remnant.		24.2 ha.
3 e.u.s.	Grazed.	Riparian.	64 ha.
3 e.u.s.	Mosaic of shrubland and forest.	Coastal linkage to mangrove forest.	61.6 ha.
2 e.u.s.	Remnants.	Linkage between Ruakaka forest and Takahiwai forest.	30 ha.
6 e.u.s.	Weeds present.	Riparian.	72.5 ha.
4 e.u.s.	Remnants.		85 ha.
2 e.u.s.	Remnants; some fenced.		39.1 ha.
4 e.u.s.	Remnants.		25.2 ha.
4 e.u.s.	Remnants.	Riparian.	10.8 ha.
5 e.u.s.	Willows present.	Riparian.	50 ha.
4 e.u.s.	Remnants.		12.5 ha.
1 e.u.	Remnants.		22.5 ha.
1 e.u.	Remnants; weeds.		25 ha.
7 e.u.s.	Remnants.	Riparian.	27.5 ha.
3 e.u.s.	Some areas of reclamation; new port development at entrance of harbour.	Mangrove forests and saltmarsh areas form buffer between land and sea.	7214 ha.
5 e.u.s.	Pine plantation on remainder of volcanic cone.		24.55 ha.
9 e.u.s.	Urban development on edge.	Riparian.	24.55 ha.
3 e.u.s.	Wetland partially drained.	Riparian.	Small, 3.75 ha.

SITE	SITE NO.	REPRESENTATIVENESS	RARITY/SPECIAL FEATURES
Limestone Island and Surrounding Islands	Q07/062	Rep. site for 2 e.u.s	Rare vegetation type. Flora: 2 regionally significant. Fauna: 3 threatened, 1 regionally significant.
Maungatapere Remnants	Q07/063	Rep. site for 3 e.u.s.	Rare vegetation type. Fauna: 1 threatened.
Wheki Stream Swamp	Q07/064	Rep. site.	Rare vegetation type. Fauna: 2 regionally significant.
McDonalds Island	Q07/084		Fauna: 2 threatened bird species.
Weke Road Remnants	Q07/065	Rep. site for 2 e.u.s.	Fauna: 1 threatened.
Calliope Island	Q07/085	Rep. site.	Rare vegetation type. Fauna: 2 threatened.
Mangakahia River	P07/024	Rep. site for 4 e.u.s.	Rare vegetation type. Flora: 2 reg. significant.
Waitomotomo Stream	P07/025	Rep. site	Uncommon vegetation type. Geological site of national significance: best example of a natural bridge in NZ.
Wairua Falls Scenic Reserve	P07/028	Rep. site for 4 e.u.s.	Uncommon vegetation type. Flora: 1 regionally significant, 3 historical. Fauna: 1 threatened.
Draffin Farm Wetland	P07/029	Rep. site for 3 e.u.s.	Rare habitat type. Fauna: 2 threatened (historical).
Waiotama Reserve	P07/030	Rep. site for 5 e.u.s.	Fauna: 3 threatened.
Hanham's Bush	P07/032	Rep. site for 1 e.u.	2 uncommon veg. types. Fauna: 3 threatened.
<b>LEVEL 2 SITES</b>			
206 Mound	Q06/135		
Corbett Road Bush	Q06/138		
Kauri School Bush	Q06/152		
Mangaharuru Bush	Q06/173		Uncommon vegetation type.
Wairua River Oxbow	Q06/175		Uncommon vegetation type.
Waiotama River	P07/031		Uncommon vegetation type.

DIVERSITY & PATTERN	NATURALNESS	BUFFER/LINKAGE	SIZE & SHAPE
3 e.u.s.	Limestone I. is being replanted and fauna introduced as part of a restoration scheme. Rat I. and the Hewett Point sand islands have intact mangrove forest.		78.9 ha.
3 e.u.s.	Remnants including 2 fenced protected areas.		13.3 ha.
1 e.u.	Swamp reduced in size due to drainage, remainder intact.		7.5 ha.
1 e.u.	Pohutukawa trees dead, now kikuyu throughout.		Small, 0.2 ha.
5 e.u.s.	Remnants.	Upper catchment.	27.5 ha.
2 e.u.s.	Some weeds; rabbit browse.		Small, 0.28 ha.
9 e.u.s.	Willows at northern end of river.	Riparian.	48.1 ha
1 e.u.	Remnants.	Riparian.	17.5 ha.
9 e.u.s.	Some secondary shrubland.	Riparian.	128.3 ha.
8 e.u.s.	Artificially constructed; willows present.	Riparian.	40.2 ha.
5 e.u.s.	Enclave within pine forest.		100 ha.
3 e.u.s.	Remnants.	Riparian.	13.3 ha.
2 e.u.s.	Remnant.		13.3 ha.
3 e.u.s.	Remnants.		40.5 ha.
2 e.u.s.	Remnants.	Riparian.	34.2 ha.
3 e.u.s.	Remnants.	Riparian.	36.7 ha.
1 e.u.	Artificial oxbow.	Riparian.	6.9 ha.
2 e.u.s.	Remnants; willows present.	Riparian.	12.5 ha.

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