



# Vehicle exclusion zone

## Mapping methodology report

September 2022

# Contents

<b>Introduction.....</b>	<b>3</b>
<b>Statutory context.....</b>	<b>4</b>
National policy direction.....	4
Regional policy direction.....	5
<b>Assessment methodology .....</b>	<b>7</b>
Mapping principles .....	7
<b>Assessment.....</b>	<b>10</b>
<b>Key References and Bibliography .....</b>	<b>19</b>

# Introduction

Northland Regional Council (NRC) has undertaken a mapping project to identify areas where vehicle use is likely to have an undue effect on the environment within the coastal marine area (CMA).

This work informs the development of the Regional Plan for Northland (Regional Plan) and is referred to in Regional Plan rules that manage vehicle use within the coastal marine area.

This document sets out the methodology Northland Regional Council used to identify and map vehicle exclusion zones.

# Statutory context

The following section describes and discusses the relevant national and local policy that informs the management of vehicle use on the foreshore or seabed in Northland. This direction both informs the mapping undertaken by Northland Regional Council and influenced the decisions around what is mapped and the extent of the mapping.

## National policy direction

### New Zealand Coastal Policy Statement

The Regional Plan must give effect to the New Zealand Coastal Policy Statement 2010 (NZCPS). The NZCPS states objectives and policies in order to achieve the purpose of the Resource Management Act 1991(RMA) in the coastal environment. It contains seven objectives and 29 policies.

The following objectives are relevant:

**Objective 1**, which seeks to safeguard the integrity, form, functioning and resilience of the coastal environment and sustain its ecosystems, including marine and intertidal areas, estuaries, dunes and land;

**Objective 2**, which seeks to preserve the natural character of the coastal environment and protect natural features and landscape values;

**Objective 3**, which seeks to take account of the principles of the Treaty of Waitangi, recognise the role of tangata whenua as kaitiaki and provide for tangata whenua involvement in management of the coastal environment;

**Objective 4**, which seeks to maintain and enhance the public open space qualities and recreation opportunities of the coastal environment; and

**Objective 6**, which seeks to enable people and communities to provide for their social, economic, and cultural wellbeing and their health and safety, through subdivision, use, and development.

A number of NZCPS policies are also relevant - in summary, the relevant policies of the NZCPS encourage public access, use and development in the coastal environment, subject to important environmental bottom lines. Policy 20 is of particular relevance to the use of vehicles within the CMA in Northland.

Policy 20 of the New Zealand Coastal Policy Statement 2010 (NZCPS 2010) directs control of the use of vehicles on beaches, the foreshore, the seabed and adjacent public land where there is a risk of harm to particular values in the coastal environment.

Policy 20 does not preclude the use of vehicles. Rather, it seeks to provide for vehicle access where this is appropriate – for example, for boat landing when and where vehicle access will not cause adverse effects or prevent access by emergency vehicles.

The various objectives and policies of the NZCPS are given effect in the Regional Policy Statement for Northland 2016 (RPS) and the Regional Plan, which is addressed below.

## Regional policy direction

### Regional Policy Statement and Regional Plan for Northland

The RPS was made mostly operative in May 2016.<sup>1</sup> At the time of writing this report the Regional Plan was not yet operative. Neither document contain any objectives, policies or methods specific to the use of vehicles on beaches. However, there are a number of objectives and policies in the RPS that are relevant to vehicle use on beaches.

The relevant provisions of the RPS and Regional Plan adopt an approach very similar to the NZCPS in the context of vehicle use on beaches. They encourage public access, use and development in the coastal environment while requiring that environmental imperatives in relation to the biodiversity, natural character and historic heritage are met.

### Iwi and hapū management plans

Under section 66(2A) of the Act, the Council must take into account any relevant planning document recognised by an iwi authority.

Twelve such documents have been submitted to Council in the form of iwi and hapū environmental management plans. These plans identify key issues and management measures for iwi and hapū, which are relevant to the consideration of vehicle use on beaches.

### *Te Mahere mo Te Oneroa-a-Tōhe Beach Management Plan for 90 Mile Beach*

The Te Mahere mo Te Oneroa-a-Tōhe Beach Management Plan for 90 Mile Beach (Beach Management Plan) is a beach management plan that covers the length of 90 Mile Beach, some narrow reserves on land running along next to the beach and the sea out to 12 nautical miles.

In respect of vehicles on beaches, the Beach Management Plan's desired outcomes include:

Te Oneroa-a-Tōhe can be accessed safely and all drivers respect the beach;

people are able to safely access and enjoy Te Oneroa-a-Tōhe for recreational activities in a manner that respects and preserves the mauri of the beach;

Te Oneroa-a-Tōhe is a clean and pristine taonga; and

recreational activities are consistent with Tikanga Māori.

The Board has listed the following actions to achieve the objectives:

1. Undertake changes to the Far North District Council Bylaw(s) specifying safe speed limits and other measures along Te Oneroa-a-Tōhe including<sup>2</sup>:
  - a) 30km/per hour speed limit within 200m of any beach accessway or any activity (eg. boat launching, people fishing etc) on the beach;
  - b) 60km/per hour speed limit for the remainder of the beach;
  - c) no driving vehicles along the beach in the sea except when launching boats; and
  - d) prohibiting vehicles on sand dunes.

---

<sup>1</sup> Aspects related to genetic engineering and the release of genetically modified organisms were made operative in June 2018.

<sup>2</sup> Te Mahere mo Te Oneroa-a-Tōhe Beach Management Plan for 90 Mile Beach, A38.

2. Recommend to the public that only vehicles with suitable 4x4 capabilities should access the beach.<sup>3</sup>
3. Provide signage to identify speed restrictions on the beach.<sup>4</sup>
4. Encourage the Police and Iwi-endorsed kaitiaki to actively monitor speed restrictions to ensure that they are upheld.<sup>5</sup>

In summary, the Beach Management Plan contemplates vehicle access along 90 Mile Beach provided that adequate controls are in place.

---

<sup>3</sup> Te Mahere mo Te Oneroa-a-Tōhe Beach Management Plan for 90 Mile Beach, A39.

<sup>4</sup> Te Mahere mo Te Oneroa-a-Tōhe Beach Management Plan for 90 Mile Beach, A40.

<sup>5</sup> Te Mahere mo Te Oneroa-a-Tōhe Beach Management Plan for 90 Mile Beach, A41.

# Assessment methodology

As described previously, this study was focused on implementing the direction of Policy 20 of the NZCPS, alongside the Regional Plan for Northland and methods outside the resource management system. This study is not intended to cover all elements of Policy 20, rather it is intended to complement existing provisions of the Regional Plan, Bylaws or other existing management tools and to plug any gaps.

The study was confined to the area between mean high-water springs and 50 horizontal meters seaward of mean low water springs to recognise jurisdictional boundaries of the regional council and the practical constraint of vehicles not being able to drive in deep water.

The mapping project is intended to identify and delineate locations where vehicle use on the foreshore or seabed is likely to have undue adverse effects on the environment. Identification of these areas is largely a desktop exercise drawing on existing information such as the regional council's Significant Ecological Area mapping and worksheets, information from a range of sources on breeding, roosting and feeding sites of threatened shore and wading birds, and information on locally important shellfish beds (outside SEAs). The assessment was also informed by personal observations of Northland Regional Council staff with Ornithological expertise.

This assessment does not specifically address the risk of vehicle use on sand dunes, danger to beach users or the disturbance of peaceful enjoyment. In Northland, district councils take primary responsibility for these matters through bylaws and non-regulatory actions or through district plan provisions controlling vegetation clearance.

## Mapping principles

These are the principles that guide identification of Vehicle Exclusion Zones (VEZ) and conventions around how they are mapped.

### Principles for identifying Vehicle Exclusion Zones

- This mapping only applies to of the strip from mean high-water springs to 50m seaward of MHWS. The power to regulate vehicles comes from section 12, RMA which is limited to the coastal marine area (seaward of MHWS).
- Only map Vehicle Exclusion Zones where significant values are at risk of harm by vehicle use.
- Significant Ecological Areas (SEAs) mapped in the Proposed Regional Plan will be incorporated as Vehicle Exclusion Zones, where the values of the Significant Ecological Area could be impacted by vehicle use. Significant Ecological Areas include:
  - a) indigenous taxa that are listed as threatened or at risk in the New Zealand Threat Classification System<sup>6</sup>; and
  - b) areas of indigenous vegetation and habitats of indigenous fauna, that are significant using the assessment criteria in Appendix 5 of the Regional Policy Statement for Northland; and
  - c) areas set aside for full or partial protection of indigenous biodiversity under other legislation.
- Outside Significant Ecological Areas there was a focus on significant habitat of 11A NZCPS which directs those adverse effects on threatened or at-risk species are avoided.

- Mapping outside the SEAs largely focused on shorebirds and wading birds. Table A below lists threatened NZ bird species that use the coastal areas referred to in the VEZ Assessment methodology.
- Place holder for SBA critical habitat if council and the parties agree on its inclusion in this methodology.
- The assessment focuses on where there is evidence of threatened bird species regularly using the areas and/or are in relatively high numbers, for example, the nationally critical NZ fairy tern habitat is included, as are NZ dotterel, variable oystercatcher and bar-tailed godwit (Whangārei Harbour and Ruakaka Estuary) where there are records detailing bird numbers and their breeding. In contrast, threatened species such as pied shag, which may roost on the shoreline, but aren't breeding or feeding extensively in vehicle access areas, were not assessed in detail.
- Some of the sites included for the shorebirds, such as NZ dotterel and variable oystercatcher would also cover other shorebirds present, as well as habitat covered by the Regional Plan SBA – critical habitat rules. It is also of note that many sites were covered by SEA provisions (as per VEZ Mapping principles).
- Outside Significant Ecological Areas important shellfish beds have been considered where there is evidence.

Scientific Name	Common Name
<b>Nationally critical</b>	
<i>Sternula nereis davisae</i>	New Zealand fairy tern / tara iti
<b>Nationally endangered</b>	
<i>Chlidonias albobristatus</i>	Black-fronted tern / tarapirohe
<i>Egretta sacra sacra</i>	Reef heron / matuku moana
<b>Nationally vulnerable</b>	
<i>Hydroprogne caspia</i>	Caspian tern / taranui
<b>Nationally increasing</b>	
<i>Anas chlorotis</i>	Brown teal / pāteke
<i>Charadrius obscurus aquilonius</i>	Northern New Zealand dotterel / tūturiwhatu
<b>At risk – declining</b>	
<i>Calidris canutus rogersi</i>	Lesser knot
<i>Charadrius bicinctus bicinctus</i>	Banded dotterel / tūturiwhatu
<i>Haematopus finschi</i>	South Island pied oystercatcher / tōrea
<i>Larus bulleri</i>	Black-billed gull / tārapuka
<i>Larus novaehollandiae scopulinus</i>	Red-billed gull / tārapunga
<i>Limosa lapponica baueri</i>	Eastern bar-tailed godwit / kuaka
<i>Sterna striata striata</i>	White-fronted tern / tara



Scientific Name	Common Name
<b>At risk – recovering</b>	
<i>Haematopus unicolor</i>	Variable oystercatcher / tōrea pango
<i>Phalacrocorax varius varius</i>	Pied shag / kawau

**Table A:** Threatened and at-risk coastal birds<sup>6</sup>

### Conventions for mapping Vehicle Exclusion Zones

- Landward extent of mapped zones will be mean high water spring (MHWS).
- Seaward extent of mapped zones will be c. 50m seaward of MLWS (to be confirmed), unless site specific justification for an alternative.
- Align Vehicle Exclusion Zone boundaries with existing District Council vehicle on beach bylaws where VEZ and bylaws apply in the same general area.
- Where possible align VEZ boundaries with landmarks allowing easy identification of zone boundaries for the public.

---

<sup>6</sup> Robertson, H.A.; Baird, K.A.; Elliott, G.P.; Hitchmough, R.A.; McArthur, N.J.; Makan, T.D.; Miskelly, C.M.; O'Donnell, C.F.J.; Sagar, P.M.; Scofield, R.P.; Taylor, G.A.; Michel, P. 2021: Conservation status of birds in Aotearoa New Zealand, 2021. New Zealand Threat Classification Series 36. Department of Conservation, Wellington. 43 p.

# Assessment

Location	Justification (Ecological values)	Evidence	Reference (refer Reference & Bibliography section)	Existing public vehicle access	Include in mapping	NRC Comments (To be deleted after appeal parties review)
<b>Southern East Coast – Whangārei District</b>						
<i>Mangawhai Sandspit</i>	Shorebird breeding and feeding	<ul style="list-style-type: none"> <li>- Breeding and feeding habitat for nationally critical NZ fairy tern, which numbers only c. 40 individuals; the sandspit/harbour supports the highest number of breeding pairs</li> <li>- Internationally recognised - Important Bird Area (IBA) for NZ Seabirds</li> <li>- Significant area for shorebirds and important wader site               <ul style="list-style-type: none"> <li>o NZ dotterel average winter count (2005-2019) – 137</li> <li>o Variable oystercatcher average winter and summer counts (2005-2019) – 103, 114</li> </ul> </li> <li>- Bar-tailed godwit average winter count (2004-2019) – 40; summer count (2004) – 214</li> </ul>	1, 2, 3, 8, 9, 14, 18, 29	Yes	<b>Yes</b>	
<i>Mangawhai Harbour</i>	Shorebird breeding and feeding  Shellfish values	<ul style="list-style-type: none"> <li>- Breeding and feeding habitat for nationally critical NZ fairy tern, which numbers only c. 40 individuals; the sandspit/harbour supports the highest number of breeding pairs</li> <li>- Internationally recognised - Important Bird Area (IBA) for NZ Seabirds</li> <li>- Significant area for shorebirds and important wader site               <ul style="list-style-type: none"> <li>o NZ dotterel average winter count (2005-2019) – 137</li> <li>o Variable oystercatcher average winter and summer counts (2005-2019) – 103, 114</li> <li>o Bar-tailed godwit average winter count (2004-2019) – 40; summer count (2004) – 214</li> </ul> </li> </ul>	1, 2, 3, 8, 9, 14, 18, 29	Yes	<b>Yes</b>	<b>Included as Significant Ecological Area (SEA)</b>

Location	Justification (Ecological values)	Evidence	Reference (refer Reference & Bibliography section)	Existing public vehicle access	Include in mapping	NRC Comments (To be deleted after appeal parties review)
<i>Mangawhai Heads beach</i>	Shorebird	-		No public access Controlled access at surf club for emergency vehicles	<b>No</b>	
<i>Lang's Beach</i>	Shorebird breeding and feeding  WDC vehicle ban - Risk to humans	<ul style="list-style-type: none"> <li>- Several pairs of NZ dotterel and variable oystercatcher breeding <ul style="list-style-type: none"> <li>o 2021 breeding season: 6 NZ dotterel chicks and 5 variable oystercatcher chicks fledged, (pers. comms.: KH, LS, Langs Beach CoastCare Group)</li> </ul> </li> <li>- 2011 NZ dotterel census recorded 6 birds</li> <li>- NZ dotterels and variable oystercatcher nest at the south-eastern end of the beach, which is outside of the current WDC vehicle bylaw (pers. obs.: KH, LS; pers. comms.: Langs Beach CoastCare Group)</li> </ul>	8, 9, 20, 31	Yes	<b>Yes</b>	<p><b>NRC propose to extend VEZ to align with WDC bylaw</b></p> <p>Note: Lang's VEZ missing from online maps</p>
<i>Waipū</i>	Shorebird breeding and feeding	<ul style="list-style-type: none"> <li>- Internationally recognised IBA</li> <li>- Breeding site for the critically endangered NZ fairy tern, which numbers only c. 40 birds</li> <li>- 2021-22 shorebird breeding results: 10 NZ dotterel chicks fledged; 8 variable oystercatchers fledged; 100+ white-fronted terns (pers. comms.: Bream Bay Coastal Care Trust)</li> <li>- 2011 NZ dotterel census recorded 38 birds</li> <li>- Roosting and feeding site for eastern bar-tailed godwits. Up to 110 birds recorded during 2021-22 summer (pers. comm.: Bream Bay Coastal Care Trust)</li> </ul>	1, 4, 5, 8, 9, 14, 15, 16, 21, 31	Limited access via locked access point	<b>Yes</b>	DoC suggest extending the zone south to Waipu Cove - NRC support the extension.

Location	Justification (Ecological values)	Evidence	Reference (refer Reference & Bibliography section)	Existing public vehicle access	Include in mapping	NRC Comments <i>(To be deleted after appeal parties review)</i>
<i>Ruakākā</i>	Shorebird breeding and feeding	<ul style="list-style-type: none"> <li>- Important high tide roost site for eastern bar-tailed godwits, particularly during spring tides when all the Whangārei Harbour sites are covered and all c.3000 birds roost at Ruakākā</li> <li>- 2021-22 shorebird breeding results: 4 NZ dotterel chicks fledged; 5 variable oystercatcher chicks fledged</li> <li>- 2011 NZ dotterel census recorded 6 birds</li> <li>- Shorebird breeding results for 5 seasons, 1998-2003: NZ dotterel – 29 nests and 24 chicks raised; variable oystercatcher – 127 nests, 57 chicks raised</li> </ul>	8, 9, 16, 17, 22, 31	Yes	<b>Additional area to be included:</b>  Extend southern boundary to match WDC bylaw to maintain consistency for advocacy and compliance (Note: there is a vehicle access point immediately south of the surf club)	<b>NRC propose to VEZ include existing SEA and to align with WDC bylaw</b>
<i>Whangārei Harbour</i>	Destruction of shellfish beds  Shorebird breeding and feeding	<ul style="list-style-type: none"> <li>- Wetland areas of international importance</li> <li>- Important habitat for resident and migratory waders, recorded as the tenth most important harbour in New Zealand               <ul style="list-style-type: none"> <li>o c. 3,000 bar-tailed godwit use Whangārei Harbour and Ruakākā estuary</li> <li>o 2005-2019 average counts: NZ dotterel – winter: 21; variable oystercatcher – winter: 205, summer: 171; banded dotterel: winter - 185</li> <li>o 2011 NZ dotterel census recorded: 8 birds Whangārei Harbour; 25 birds Marsden Pt refinery</li> </ul> </li> </ul>	8, 9, 14, 17, 18, 23, 33, 34	Yes	<b>Support with exclusion at</b>  Tamatarau has lower shorebird values	<b>NRC propose to exclude from VEZ an area near fisherman’s point Tamatarau. The area is used by vehicles for fishing and boat launching and doesn’t have the bird values.</b>

Location	Justification (Ecological values)	Evidence	Reference (refer Reference & Bibliography section)	Existing public vehicle access	Include in mapping	NRC Comments <i>(To be deleted after appeal parties review)</i>
<i>Ocean Beach – Kauri Mountain</i>	Shorebird breeding and feeding	<ul style="list-style-type: none"> <li>- 2011 NZ dotterel census:               <ul style="list-style-type: none"> <li>o Ocean Beach – 19 birds</li> <li>o Kauri Mountain Beach – 6 birds</li> </ul> </li> </ul>	8, 9, 25, 34	<p>Access restricted at Ocean Beach surf club.</p> <p>No current vehicle exclusion areas under the WDC vehicles on beaches bylaw.</p> <p>Some limited, current use, accessible from adjacent farm tracks.</p> <p>May be increased vehicle use over time</p>	<p><b>Yes</b></p> <p>Include Ocean Beach to Kauri Mountain SEA to CMA for consistency</p>	<p><b>Decisions version of the Proposed Plan has SEA on these beaches. The values are subtidal. NRC does not intent to roll these subtidal values into the VEZ. However, bird values are high enough value to be mapped as VEZ without SEA.</b></p>
<i>Pātaua North / Parauwanui Beach</i>	Shorebird breeding and feeding	<ul style="list-style-type: none"> <li>- 2011 NZ dotterel census recorded 15 birds</li> </ul>	8, 9, 25, 35		Yes	<p><b>Decisions version of the Proposed Plan has SEA on these beaches. The values are subtidal. NRC does not intent to roll these subtidal values into the VEZ. However, bird values are high enough value to be mapped as VEZ without SEA.</b></p>

Location	Justification (Ecological values)	Evidence	Reference (refer Reference & Bibliography section)	Existing public vehicle access	Include in mapping	NRC Comments (To be deleted after appeal parties review)
<i>Ngunguru Sandspit</i>	Shorebird breeding and feeding	<ul style="list-style-type: none"> <li>- 2011 NZ dotterel census recorded 18 birds</li> <li>- Breeding NZ dotterel and variable oystercatcher</li> <li>- Birds NZ survey records for 2021: <ul style="list-style-type: none"> <li>o November 2021: 20 NZ dotterel; 46 variable oystercatcher; 30 bar-tailed godwit; 24 red-billed gull</li> <li>o June 2021: 28 NZ dotterel; 44 variable oystercatcher; 83 red-billed gull</li> <li>o February 2021: 44 NZ dotterel; 44 variable oystercatcher; 38 bar-tailed godwit; 26 red-billed gull</li> </ul> </li> </ul>	8, 9, 10, 24, 35, 51		Yes	<p><b>Decisions version of the Proposed Plan has SEA on these beaches. The values are subtidal. NRC does not intent to roll these subtidal values into the VEZ. However, bird values are high enough value to be mapped as VEZ without SEA.</b></p> <p><b>Discussion with Hapu required before NRC confirms position</b></p>
<i>Sandy Bay</i>	Shorebird breeding and feeding	<ul style="list-style-type: none"> <li>- 2011 NZ dotterel census recorded 10 birds at Sandy Bay/Sheltered Bay</li> <li>- Breeding shorebirds/dotterel at northern end (pers. obs.: KH, LS)</li> </ul>			Yes	
<i>Te Mimiha (Helena) and Ngawai (Teal) Bays</i>	Shorebird breeding and feeding	<ul style="list-style-type: none"> <li>- 2011 NZ dotterel census recorded 6 birds at Te Mimiha</li> </ul>	8, 9, 25, 35	Public vehicle access	Yes	
<b>Bay of Islands – Far North District</b>						
<i>Elliot Bay</i>	Shorebird breeding and feeding	<p>Breeding NZ dotterel and oystercatcher</p> <ul style="list-style-type: none"> <li>- 2011 NZ dotterel census recorded 7 birds at Elliot Bay</li> <li>- neighbouring Pahi Bay supports higher numbers of shorebirds than recorded in 2011 NZ dotterel census (1 bird) (pers. obs.: LS)</li> </ul>	8, 9, 25, 35	Only access is from informal private campground	Yes (Proposed by BOIMP)	
<i>Hauai and Kaingahoa Bays</i>	Intertidal seagrass beds (two of the three)	Not surveyed in 2011 NZ dotterel census; no records from DOC (BOI map); not SEA	8, 9, 12, 26, 35	Public vehicle access,	Yes	<b>Discussion with Hapu required before NRC confirms position</b>

Location	Justification (Ecological values)	Evidence	Reference (refer Reference & Bibliography section)	Existing public vehicle access	Include in mapping	NRC Comments (To be deleted after appeal parties review)
	areas left in the Bol)			including boat launching	(Proposed by BOIMP)	
<i>Parekura Bay, including Whiorau Bay</i>	Shorebird feeding and breeding and cockle beds	<ul style="list-style-type: none"> <li>- Whiorau Bay - Not surveyed in 2011 NZ dotterel census; presence recorded by DOC (BOI map)</li> <li>- Wairoa Stream, Parekura Bay – NZ dotterel presence recorded by DOC (BOI map)</li> </ul>	8, 9, 12, 26, 35	Public vehicle access to Whiorau and Te Uenga Bays	<b>Yes</b> (Proposed by BOIMP)	
<i>Te Huruhi Bay</i>	Shorebird breeding and feeding	<ul style="list-style-type: none"> <li>- Not surveyed in 2011 NZ dotterel census; no records from DOC (BOI map)</li> <li>- DOC BOI map shows NZ dotterel present at Clendon Cove</li> </ul>	8, 9, 12, 26, 35	Public access to beach	<b>Yes</b> (Proposed by BOIMP)	
<i>Uruti Bay</i>	Cockle beds and pipi beds	<ul style="list-style-type: none"> <li>- No shorebirds recorded at Uruti Bay</li> </ul>	8, 9, 12, 26, 35	No formed public vehicle access	<b>Yes</b> (Proposed by BOIMP)	
<i>Pipiroa Bay</i>	Shorebird feeding and pipi and cockle beds	<ul style="list-style-type: none"> <li>- Not surveyed in 2011 NZ dotterel census; no records from DOC (BOI map)</li> </ul>	8, 9, 12, 26, 35	Public vehicle access	<b>Yes</b> (Proposed by BOIMP)	
<i>Te Haumi Beach</i>	Extensive shellfish beds and shorebird feeding	<ul style="list-style-type: none"> <li>- 2011 NZ dotterel census recorded 2 birds; NZ dotterels recorded by DOC (BOI map)</li> </ul>	8, 9, 12, 26, 35	Public vehicle access	<b>Yes</b> (Proposed by BOIMP)	
<i>Onewhero Bay</i>	Shorebird breeding and feeding	<ul style="list-style-type: none"> <li>- 2011 NZ dotterel census recorded 11 birds; NZ dotterels recorded by DOC (BOI map)</li> </ul>	8, 9, 12, 26, 35		<b>Yes</b>	<b>(Not SEA but include due to shorebird presence)</b> <b>Recommended September 2022 review – not yet mapped</b>
<i>Takou Bay</i>	Shorebird breeding and feeding	<ul style="list-style-type: none"> <li>- 2011 NZ dotterel census recorded 19 birds; NZ dotterels recorded by DOC (BOI map)</li> </ul>	8, 9, 12, 27, 35		<b>Yes</b>	

Location	Justification (Ecological values)	Evidence	Reference (refer Reference & Bibliography section)	Existing public vehicle access	Include in mapping	NRC Comments (To be deleted after appeal parties review)
<i>Matauri Bay</i>	Shorebird breeding and feeding	- Birds not recorded in 2011 census; NZ dotterel recorded by DOC (BOI map)	8, 9, 12, 27, 35	SEA around northern headland but not to CMA		<b>DOC to provide supporting data</b> <b>Recommended September 2022 review – not yet mapped</b>
<i>Tapuaetahi Stream / Taronui Bay</i>	Shorebird breeding and feeding	- NZ dotterel and variable oystercatchers observed during site visits (pers. ob.: KH, LS) at Tapuaetahi - NZ dotterel breeding attempts recorded by DOC - 2011 NZ dotterel census recorded 8 birds at Taronui River (likely to be Tahoranui River at Taronui Bay)	8, 9, 12, 27, 35	Public access restricted by gate at road, but residents and their guests can access beach.	<b>Yes</b>	<b>SEA has subtidal value that will not be impacted by vehicle use.</b> <b>Bird values on land/ sand spits at Tapuaetahi and Taronui/Tahoranui</b>  <b>Discussion with Hapu required before NRC confirms position</b>
<i>Te Ngaere (Taiaue Bay)</i>	Shorebird feeding and breeding	- Site recorded by DOC (BOI) and their data includes breeding pair of NZ dotterels (2016-17); 2011 NZ dotterel census records 3 birds - Attempted breeding each year. Observed nest damage from vehicle use.			<b>Yes</b>	
<i>Tauranga Bay</i>	Shorebird feeding and breeding	- Significant Far North shorebird breeding and feeding site - 2011 NZ dotterel census recorded 6 birds; breeding recorded by DOC, up to 9 breeding pairs - Orua Bay – 2021-22 NZ dotterel breeding season: 3 chicks fledged	8, 9, 12, 13, 27, 37	Yes. Most use is for launching boats but increasing issues with quads and bikes reported	Yes	VEZ on sandspit and butterfly bay



Location	Justification (Ecological values)	Evidence	Reference (refer Reference & Bibliography section)	Existing public vehicle access	Include in mapping	NRC Comments (To be deleted after appeal parties review)
<i>Taupo Bay</i>	Shorebird breeding and feeding	- 2011 NZ dotterel census recorded 6 birds; presence recorded by DOC (BOI map) (pers. obs. LS, KH)	8, 9, 12, 27, 37	Yes. Most use for launching boats.	<b>Yes</b>	
<i>Taipā</i>	Shorebird breeding and feeding	- 2011 NZ dotterel census recorded 2 birds - NZ dotterels and oystercatchers breeding at NW end (pers. obs.: LS)	8, 9, 12, 28, 38	No Vehicles public access beach at northern end.	<b>No</b>	
<i>Tokerau Beach (Awapoko River Mouth)</i>	Shorebird breeding and feeding	- 2011 NZ dotterel census recorded 6 birds (Awapoko to Tokerau Beach Rd)	8, 9, 12, 28, 38	Yes – vehicle access and activity along whole beach. Concentrated vehicle activity at northern end where most boat launching occurs	<b>Tentative Yes</b>	<b>Hapu/landowner consultation and more information required</b>
<b>Karikari Peninsula</b>						
<i>Waipapa Bay</i>	Shorebird breeding and feeding	-	8, 9, 12, 28, 38	Yes	<b>Yes</b> (Proposed by BOIMP)	
<i>Karikari Beach</i>	Shorebird breeding and feeding	- 2011 NZ dotterel census recorded 9 birds - Puheke Beach may be a possible future inclusion – shorebirds present, and Marae are keen	8, 9, 12, 28, 38	Unknown	<b>Yes</b> (Proposed by BOIMP)	

Location	Justification (Ecological values)	Evidence	Reference (refer Reference & Bibliography section)	Existing public vehicle access	Include in mapping	NRC Comments (To be deleted after appeal parties review)
<i>Waikato and Maitai Bays</i>	Shorebird feeding and breeding	-	8, 9, 12, 28, 38	Excluded except local vehicles at Waikato Bay	<b>Yes</b> (Proposed by BOIMP)	
<b>West Coast – Far North &amp; Kaipara Districts</b>						
<i>West Coast – Far North and Kaipara Districts</i>	Shorebird breeding and feeding	- 2011 NZ dotterel census recorded birds from Twilight Beach to Kelly's Bay	8, 9, 29, 30, 39-45	Yes	<b>Yes</b>	
<i>Ahipara – south of Kaka Street ramp</i>	Shorebird breeding and feeding	- NZ dotterel and variable oystercatcher breeding in the area from south of Kaka St and stream mouth – several pairs (pers. comms.: LS)			<b>To be discussed with TOAT Beach Board</b>	<b>Beach board consultation and more information required</b>
<i>Pouto Peninsula</i>	Shorebird breeding and feeding	- Pouto – Kaipara Head – North Head: 46 birds recorded in 2011 NZ dotterel census <ul style="list-style-type: none"> <li>o Kaipara Head – 44 birds</li> <li>o Kaipara Head – North Head – 2 birds</li> <li>o</li> <li>o Kellys Bay – 11 birds</li> <li>o Okaro Creek – 22 birds</li> <li>o Waikeer/Tauhere Creeks – 6 birds</li> </ul> - Pouto – nesting areas fenced by DOC/local marae is very active in shorebird protection		Yes		<b>Tangata whenua consultation required</b>

\* Pers. obs: KH – Katrina Hansen (Biodiversity Advisor), LS – Laura Shaft (CoastCare Coordinator)

# Key References and Bibliography

## Shorebirds and waders

1. BirdLife International, Internationally Important Bird Areas – Important Areas for NZ Seabirds, sites on land (rivers, estuaries, coastal lagoons and harbours): Mangawhai and Waipu Estuaries for NZ fairy tern and red-breasted dotterel

## NZ fairy tern

2. Ismar, S.M.H.; Trnski, T.; Beauchamp, T.; Bury, S.J.; Wilson, D.; Kannemeyer, R.; Bellingham, M.; and Baird, K. 2013. Foraging ecology and choice of feeding habitat in the New Zealand Fairy Tern *Sternula nereis davisae*. Bird Conservation International 24: 72 – 87.
3. NZ fairy tern evidence for Consent Application (APP.040213.01.01) by Mangawhai Historic Wharf Trust: Submitter Evidence - NZFTCT Statement of Evidence by Ian Southey.pdf and Submitter Evidence - DoC - Statement of Evidence by Dr A Beauchamp.pdf
4. Ferreira, S.M.; Hansen, K.M.; Parrish, G.R.; Pierce, R.J.; Pulham, G.A. and Taylor, S. 2005. Conservation of the endangered New Zealand fairy tern. Biological Conservation 125 (3): 345-354.
5. Hansen, K. 2006. New Zealand fairy tern (*Sterna nereis davisae*) recovery plan, 2005-15. Threatened Species Recovery Plan 57. Department of Conservation, Wellington.
6. Baling, M. 2008. Conservation of the fairy tern (*Sternula nereis* spp.) via subspecies level management. Endangered Species Update.
7. McMurdo Hamilton, T.; Canessa, S.; Makan, T.; Ewen, J.G. 2021. A structured approach for the recovery of tara iti / New Zealand fairy tern (*Sternula nereis davisae*). Department of Conservation, Wellington

## NZ dotterel

8. Dowding, J.E. 2020. Changes in the number and distribution of northern New Zealand dotterels (*Charadrius obscurus aquilonius*): results of four censuses undertaken between 1989 and 2011. Notornis, Vol. 67.
9. Northland region NZ dotterel census Northland 2011 JDowding.xlsx
10. Dowding, J.E.; Davis, A.M. 2007. New Zealand dotterel (*Charadrius obscurus*) recovery plan, 2004-2014. Threatened Species Recovery Plan 58. Department of Conservation, Wellington.
11. Dowding, J.E. 2001. Natal and breeding dispersal of northern New Zealand dotterels. Conservation Advisory Science Notes 338. Department of Conservation, Wellington.
12. New Zealand Dotterels Tūturiwhatu pukunui in the Bay of Islands factsheet. 2014. Department of Conservation, Pēwhairangi/Bay of Islands Office, Kerikeri: Dept Conservation Bay of Islands NZ dotterel sites map with labels.png
13. New Zealand dotterels at Tauranga Bay John Dowding LETTER to Heather Peat 5 May 2017.pdf

## Waders

14. Riegen, A.C.; Sagar, P.M. 2020. Distribution and numbers of waders in New Zealand, 2005–2019. Notornis, vol. 67.
15. Dowding, J.E., and Moore S.J. 2006. Habitat networks of indigenous shorebirds in New Zealand. Science for Conservation 261, Department of Conservation, Wellington.
16. Hansen, K. 2005. Protection of shorebirds at three Northland breeding sites—Mangawhai, Waipu, and Ruakākā. DOC Research & Development Series 204. Department of Conservation, Wellington.
17. Beauchamp, A.J.; Parrish, G.R. 2007. Wader (Charadriiformes) and royal spoonbill (*Platalea regia*) use of roosts in Whangārei Harbour and at Ruakākā Estuary, Northland, 1973-2000. Notornis 54(1): 1-9. Reprinted Notornis 54(2): 83-91
18. Pierce, R., J. 2005. General patterns of bird use of Whangārei Harbour, March 2005. Wildlands Report 1047 for Northland Regional Council.

## Proposed Regional Plan Significant Bird Areas information sheets

<https://www.nrc.govt.nz/your-council/about-us/council-projects/new-regional-plan/technical-reports/>

19. Significant Ecological Estuarine Area Assessment Sheet for Wading and Aquatic Birds – Mangawhai Estuary
20. Significant Ecological Estuarine Area Assessment Sheet for Wading and Aquatic Birds – Bream Tail to Waipu Cove
21. Significant Ecological Estuarine Area Assessment Sheet for Wading and Aquatic Birds – Waipu Estuary
22. Significant Ecological Estuarine Area Assessment Sheet for Wading and Aquatic Birds – Ruakākā Estuary
23. Significant Ecological Estuarine Area Assessment Sheet for Wading and Aquatic Birds – Whangārei Harbour
24. Significant Ecological Estuarine Area Assessment Sheet for Wading and Aquatic Birds – Ngunguru Estuary
25. Significant Ecological Estuarine Area Assessment Sheet for Wading and Aquatic Birds - East Coast: Taiharuru Head to Cape Brett, excluding estuaries (Taiharuru, Pataua, Horahora, Ngunguru, Matapouri, Whananaki, Whangaruru)
26. Significant Ecological Estuarine Area Assessment Sheet for Wading and Aquatic Birds – Bay of Islands
27. Significant Ecological Estuarine Area Assessment Sheet for Wading and Aquatic Birds - East Coast: Cape Wiwiki to Berghan Point, excluding Whangaroa Harbour and Cavalli and Stephenson Islands
28. Significant Ecological Estuarine Area Assessment Sheet for Wading and Aquatic Birds - Doubtless Bay, Rangaunu Bay, Great Exhibition Bay, excluding Rangaunu, Houhora and Parengarenga Harbours

29. Significant Ecological Estuarine Area Assessment Sheet for Wading and Aquatic Birds - Scott Point to Maunganui Bluff
30. Significant Ecological Estuarine Area Assessment Sheet for Wading and Aquatic Birds - Aranga Beach, south of Maunganui Bluff, to Pouto Peninsula

## **Department of Conservation's Northland Ecological Districts reconnaissance survey reports for the Protected Natural Areas Programme (PNAP)**

<https://www.doc.govt.nz/about-us/science-publications/conservation-publications/land-and-freshwater/land/northland-conservancy-ecological-districts-survey-reports/>

31. Goldwater, N., Graham, P., Holland, W. Beadel, S., Martin, T. and Myers, S. 2012. Natural areas of Rodney Ecological District (Northland Conservancy): Reconnaissance survey report for the Protected natural areas Programme. N.Z. Dept. of Conservation, Northland Conservancy, Whangārei.
32. Lux, J., Martin, T., and Beadel, S. 2007. Natural areas of Waipu Ecological District: reconnaissance survey report for the Protected C Programme. N.Z. Dept. of Conservation, Northland Conservancy, Whangārei.
33. Manning, D. 2001. Natural areas of Whangārei Ecological District: reconnaissance survey report for the Protected Natural Areas Programme. N.Z. Dept. of Conservation, Northland Conservancy, Whangārei.
34. Goldwater, N. and Beadel, S. 2010. Natural areas of Manaia Ecological District: reconnaissance survey report for the Protected Natural Areas Programme. N.Z. Dept. of Conservation, Northland Conservancy, Whangārei.
35. Booth, A. 2005. Natural areas of Whangaruru Ecological District: reconnaissance survey report for the Protected Natural Areas Programme. N.Z. Dept. of Conservation, Northland Conservancy, Whangārei.
36. Conning, L. and Miller, N. 1999. Natural areas of Kerikeri Ecological District: reconnaissance survey report for the Protected Natural Areas Programme. N.Z. Dept. of Conservation (Northland Conservancy), Whangārei.
37. Conning, L. 1999. Natural areas of Whangaroa Ecological District: Reconnaissance survey report for the Protected Natural Areas Programme. N.Z. Dept. of Conservation, (Northland Conservancy), Whangārei.
38. Conning, L. 2002. Natural Areas of Maungataniwha Ecological District: reconnaissance survey report for the Protected Natural Areas Programme. N.Z. Dept. of Conservation, Whangārei.
39. Lux, J., Holland, W., Rate, S. and Beadel, S. 2009. Natural areas of Te Pahi Ecological District: reconnaissance survey report for the Protected Natural Areas Programme. N.Z. Dept. of Conservation, Northland Conservancy, Whangārei.
40. Conning, L. and Holland, W. 2003. Natural Areas of Aupouri Ecological District: reconnaissance survey report for the Protected Natural Areas Programme. N.Z. Dept. of Conservation, Whangārei.
41. Conning, L. 1998. Natural areas of Ahipara Ecological District: Reconnaissance survey report for the Protected Natural Areas Programme. Department of Conservation, Northland Conservancy, Whangārei.

42. Conning, L., Holland, W. and Miller, N. 2004. Natural areas of Hokianga Ecological District: reconnaissance survey report for the Protected Natural Areas Programme. N.Z. Dept. of Conservation, Northland Conservancy, Whangārei.
43. Miller, N. and Holland, W. 2007. Natural areas of Tutamoe Ecological District: reconnaissance survey report for the Protected Natural Areas Programme. N.Z. Dept. of Conservation, Northland Conservancy, Whangārei.
44. Lux, J. and Beadel, S. 2006. Natural areas of Otamatea Ecological District: reconnaissance survey report for the Protected natural areas Programme. N.Z. Dept. of Conservation, Northland Conservancy, Whangārei.
45. Smale, M.C., Clarkson, B.R., Clarkson, B.D., Floyd, C.G., Cornes, T.S., Clarkson, F. M., Gilmour, D.C., Snell, T.M. and C.M. Briggs. 2009. Natural areas of Kaipara Ecological District (Northland Conservancy). Reconnaissance Survey Report for the Protected Natural Areas Programme. Dept. of Conservation, Northland Conservancy, Whangārei.

## General

46. [www.nzbirdsonline.org.nz](http://www.nzbirdsonline.org.nz) © New Zealand Birds Online 2013 – Museum of New Zealand Te Papa Tongarewa (Te Papa), The Ornithological Society of New Zealand (Inc.), New Zealand Department of Conservation.
47. Heather, B.D., and Robertson, H.A. 2015. The Field Guide to the Birds of New Zealand (4<sup>th</sup> Edition). Penguin Books. Auckland.
48. Marchant, S. and Higgins, P. J. (editors). 1993. Handbook of Australian, New Zealand and Antarctic Birds (HANZAB). Vol. 2, raptors to lapwings. Oxford University Press, Melbourne.  
Robertson, C. J. R., Hyvonen, P., Fraser, M. J. and Pickard, C. R. 2007. Atlas of Bird Distribution in New Zealand 1999-2004. Ornithological Society of New Zealand, Wellington.
49. Robertson, H.A., Baird, K., Elliott, G.P., Hitchmough, R.A., McArthur, N.J., Makan, T., Miskelly, C.M., O'Donnell, C.F.J., Sagar, P.M., Scofield, R.P., Taylor, G.A., Michel, P. 2021. Conservation status of birds in Aotearoa New Zealand birds, 2021. New Zealand Threat Classification Series 36. Wellington, Department of Conservation.
50. Kerr, V. for Northland Regional Council. 2015. Significant Ecological Marine Area Assessment Sheet. <https://www.nrc.govt.nz/your-council/about-us/council-projects/new-regional-plan/technical-reports/>
51. Birds NZ Northland Region “Amokua” Newsletter

**Northland Regional Council**

**P** 0800 002 004

**E** [info@nrc.govt.nz](mailto:info@nrc.govt.nz)

**W** [www.nrc.govt.nz](http://www.nrc.govt.nz)