

Mapping methodology report ¹

Significant Bird Area – Critical Bird Habitat

Please refer to the Northland Regional Council (Council) Proposed Regional Plan of Northland (Proposed Plan) Significant Bird Area assessment sheets² for specific attributes and values for Australasian Bittern; White Heron; and NZ Fairy Tern.

Significant Ecological Areas and Significant Bird Areas

The Proposed Plan includes map overlays identifying areas that meet the significance criteria for indigenous biodiversity set out in Appendix 5 of the Regional Policy Statement for Northland (RPS) (Significant Ecological Areas [SEA], Significant Bird Areas [SBA] and Significant Marine Mammal and Seabird Areas).³

The Proposed Plan's mapping is a mechanism for achieving the requirements of section 6(c) of the RMA, Policy 11(a) of the New Zealand Coastal Policy Statement 2010 (NZCPS) and the relevant provisions of the RPS.

The SEAs that have been identified and mapped in the Proposed Plan meet one or more of the Appendix 5 criteria for significance. As noted in decisions on the Proposed Plan⁴, it has been generally agreed that not all SEAs in the coastal marine area (CMA) have yet been identified and mapped.⁵

The approach taken to SBA mapping means that much of Northland's coastline has been identified as SBA from Mean High-Water Springs up to about 1 kilometre offshore. Some identified SBAs will contain very high ecological bird values, whereas other parts will contain lesser or more transient values.

During the Environment Court process on the Proposed Plan, parties agreed to identify a subset of SBAs (SBA – critical bird habitats) based on areas identified as having nationally or locally important feeding or breeding areas for bird species identified as threatened to nationally critical in the NZ threat classification system and include a corresponding mapped layer in the Proposed Plan. Parties agreed, and the Environment Court endorsed, this as a more nuanced approach that will ensure that bird species identified as threatened to nationally critical in Northland will be adequately protected.¹

SBA – critical bird habitats

In terms of SBAs, because of the coarse approach taken to SBA mapping (discussed above), the Environment Court parties considered that including reference to SBAs in some of the rules as sought by the Appellants would “over protect” some areas, but without changes some areas may be “under protected”. The following approach identified a subset of SBAs (SBA – critical bird habitats) based on areas identified as having nationally or locally important feeding or breeding values for bird species identified as threatened to nationally critical in the NZ threat classification system.

¹ Based on Environment Court decision May 2023 Topic 1 – Significant Ecological Areas (SEA) and Significant Bird Areas (SBA) <https://www.nrc.govt.nz/media/1hghayf5/topic-1-significant-ecological-areas-and-significant-bird-areas-may-2023.pdf>

² Linked through online maps and the Proposed Plan technical reports <https://www.nrc.govt.nz/your-council/about-us/council-projects/new-regional-plan/technical-reports/>

³ Appendix 5 of the RPS provides the methodology for identifying areas of significant indigenous vegetation and significant habitats of indigenous fauna in Northland's terrestrial, freshwater and marine environments.

⁴ Including Topic 11 Environment Court Decisions:

- April 2021 <https://www.nrc.govt.nz/media/rdiczxbm/consent-order-topic-11-biodiversity-significant-ecological-areas-and-natural-character-objectives-policies-f-1-3-f-1-11-d-2-16-d-2-17-and-sea-maps.pdf>
- March 2021 <https://www.nrc.govt.nz/media/o0dmut5g/consent-order-topic-11-biodiversity-marsden-point-port-zone-and-sea.pdf>;
- July 2021 <https://www.nrc.govt.nz/media/slghor5u/2021nzenvc-093-cep-services-matauwhi-ltd-v-northland-regional-council-002.pdf> CEP Services Matauwhi Limited v Northland Regional Council [2021] NZEnvC 093.

⁵ CEP Services Matauwhi Limited v Northland Regional Council [2021] NZEnvC 039 at [64].

In Northland, SBA assessment sheets for estuary / harbour and open coast identify nationally and locally important feeding or breeding areas for three species:

1. Australasian bittern;
2. White heron; and
3. NZ Fairy Tern.

As noted above, SBA mapping is broad and can capture the majority of the CMA in each harbour and estuary.⁶ White heron, Australasian bittern and NZ fairy tern do not utilise the entirety of these areas. Therefore, the parties and the Court agreed that only certain areas are identified in the proposed SBA – critical bird habitats mapping.

Australasian bittern | Matuku-hūrepo | *Botaurus poiciloptilus*

For Australasian bittern, SBA assessment sheets identify nationally and locally important breeding and feeding areas in the following harbours throughout Northland:

Bay of Islands	Hokianga	Houhora
Mangawhai	Matapōuri	Ngunguru
Kaipara	Parengarenga	Pātaua
Rangaunu	Taiharuru	Whananaki
Whangape-Herekino	Whangārei	Whangaruru

In the CMA, this species primarily utilises a network of wetlands including mineralised and semi-mineralised wetlands⁷ that in the CMA comprise mostly saltmarsh and mangrove vegetation. Bitterns are extremely cryptic and rarely seen and evidence of CMA habitat use limited.⁸

The Council has mapped areas of mangrove and saltmarsh throughout Northland. The parties and court agreed that the SBA – critical bird habitat mapping for Australasian bittern in the relevant harbours comprise of the areas that the existing SBA overlaps with saltmarsh and mangrove mapping.

White heron | Kōtuku | *Ardea alba*

For white heron⁹, SBA assessment sheets identify nationally and locally important feeding areas for this species in Hokianga, Kaipara and Parengarenga harbours.

White heron favour enclosed creeks retaining water at low tide, away from open sea and human disturbance.¹⁰ They also use mangrove swamps along coasts, estuaries and tidal reaches of watercourses, saltmarsh, bare salt pans, and offshore reefs.¹¹

The parties propose to use harbour specific SBA mapping, while excluding a narrow 100m wide strip of CMA adjoining coastal settlement areas. This is because white heron is a shy species, rarely seen and unlikely to be found in the immediate vicinity of waterfront settlements / urban areas in these harbours.¹²

⁶ Mangawhai Harbour Restoration Society Inc v Northland Regional Council [2022] NZEnvC 157. See Rules C.1.4.1 and C.1.4.2.

⁷ New Zealand Birds online <https://www.nzbirdsonline.org.nz/species/australasian-bittern>

⁸ Bell J and Blayney A 2017. Use of mangrove habitat by threatened or at risk birds. Waikato Regional Council Technical Report 2017/23 <https://www.waikatoregion.govt.nz/assets/WRC/WRC-2019/TR2017-23-Use-of-mangrove-habitat-by-threatened-or-at-risk-birds.pdf>

⁹ Adams, R. 2013 [updated 2023]. Kōtuku | white heron. In Miskelly, C.M. (ed.) New Zealand Birds Online. www.nzbirdsonline.org.nz

¹⁰ Owen, K.L., & M.G. Sell. 1985. Notornis 32: 271-309. https://nzbirdsonline.org.nz/sites/all/files/146_White%20Heron.pdf

¹¹ Crawford, D. 1975. S. Aust. Om. 26: 193-5.; Corrick, A.H., & F.I. Norman. 1980. Proc. R. Soc. Viet. 91: 1-15.; Gosper, D.O. 1981. Corella 5: 1-18.; Abbott, I. 1982. Corella 6: 119-22.; Corrick, A.H. 1982. Proc. R. Soc. Viet. 94: 69-87.; Schulz, M. 1989. Import. Wetlands Kakadu NP Waterbeds. Rep. to ANPWS.

¹² Hokianga: Horeke; Parengarenga: Te Hapua and Kaipara: Tinopai, Pahi, and Whakapirau.

NZ Fairy Tern | Tara iti | *Sternula nereis*

For NZ fairy tern, SBA assessment sheets identify nationally and locally important breeding and feeding areas in Mangawhai and Kaipara harbours, and the Waipū estuary.

This species primarily utilises open water and channels for foraging and unvegetated open ground for breeding and roosting.^{13,14} Council saltmarsh and mangrove vegetation mapping is used to exclude areas unlikely to be utilised by NZ fairy tern in the CMA, therefore, reducing the mapped extent to the most critical habitat.

The SBA – critical bird habitat consists of the existing SBA mapping for Mangawhai Harbour, Kaipara Harbour and the Waipū estuary, excluding areas of mangrove and saltmarsh. Where the Kaipara Harbour mapped area coincides with the 100m exclusion adjoining coastal settlements for white heron (Tinopai, Pahi, and Whakapirau), the fairy tern maps also replicate the excluded areas.

¹³ Pulham, G.; Wilson, D. 2013 [updated 2023]. Fairy tern | tara iti. In Miskelly, C.M. (ed.) New Zealand Birds Online www.nzbirdsonline.org.nz

¹⁴ <https://www.cambridge.org/core/journals/bird-conservationinternational/article/foraging-ecology-and-choice-of-feeding-habitat-in-the-new-zealandfairy-tern-sternula-nereis-davisae/DC2E33BA3F0DC749AA25CC218FE8F4ED> .