

BEFORE THE ENVIRONMENT COURT
AT AUCKLAND
I MUA I TE KŌTI TAIAO O AOTEAROA

IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of appeals under Clause 14 of Schedule 1
of the Act

BETWEEN **BAY OF ISLANDS MARITIME PARK
INCORPORATED**

**ROYAL FOREST AND BIRD
PROTECTION SOCIETY OF NEW
ZEALAND INCORPORATED**

Appellants

AND **NORTHLAND REGIONAL COUNCIL**

Respondent

AGREED STATEMENT OF FACTS – ECOLOGY [AMENDED FOLLOWING THE
COMPLETION OF THE JOINT WITNESS STATEMENT FOR ECOLOGY](#)

24 June 2021

[The Joint Witness Statement for Ecology \(dated 10 June 2021\)](#) has [superseded](#)
the struck out sections in this agreed statement of facts.

The proposal

1. The appellants (Bay of Islands Maritime Park Incorporated (**BOI Maritime Park**) and Royal Forest and Bird Protection Society of New Zealand (**Forest and Bird**)), Ngati Kuta ki te Rawhiti hapū (**Ngati Kuta**) and Te Uri o Hikihiki hapū seek provisions in the proposed Regional Plan for Northland (**Proposed Plan**) to protect areas in the Bay of Islands and Mimiwhangata from the potential adverse effects of fishing activities.
2. BOI Maritime Park, Forest and Bird and Ngati Kuta seek to introduce objectives, policies and rules based on the “Te Hā o Tangaroa Protection Areas” spatial layer, which includes the following sub-areas:
 - a. Sub-Area A: Maunganui – Oke Bay Rāhui Tapu;
 - ~~b. Sub-Area A Buffer: Maunganui – Oke Bay Rāhui Tapu Buffer Area;~~
 - ~~e.b.~~ Sub-Area B: ~~Ipipiri Benthic Protection Area~~ Ipipiri Moana Mara Tipu Rohe; and
 - ~~d.c.~~ Sub-Area C: ~~Ipipiri Rakaumangamanga Protection Area~~ Moana Mara Tipu Rohe.
3. The proposed spatial layers for Te Hā o Tangaroa Protection Areas are ~~attached as Appendix 1.~~ in the Joint Witness Statement -Ecology
4. Te Uri o Hikihiki seek to introduce objectives, policies and rules based on the “Te Mana o Tangaroa Protection Areas” spatial layer, which includes the following sub-areas:
 - a. Sub-Area A: Mimiwhangata Rāhui Tapu;
 - b. Sub-Area A Buffer: Mimiwhangata Buffer Areas (Mimiwhangata Buffer Area East and Mimiwhangata Buffer Area West); and
 - c. Sub-Area CB: Te Au o Morunga Protection Area.
5. The proposed spatial layers for Te Mana o Tangaroa Protection Areas are attached as **Appendix 2**.

Proposed marine protected areas

6. There is currently a temporary closure area (rāhui) at Maunganui Bay imposed under section 186A of the Fisheries Act 1996. The temporary closure area has been renewed biannually since ~~December~~ **November** 2010. On 23 July 2020, the Minister of Fisheries renewed and approved the closure to the take of all fisheries resources (except kina). This temporary closure will expire on 13 October 2022.
7. There is a long-term fishing restriction at Mimiwhangata Marine Park (enforced under the Fisheries Act) that was established in ~~1983~~ **1984** which prohibits **all** commercial fishing. **In addition there are special rules that apply to recreational fishing in the Park, including the use of specified methods and the take of certain species of fish and shellfish.** ~~nets or long lines and taking some fish species, but otherwise allows recreational fishing.~~
8. Several areas within the proposed marine protection areas are mapped as Significant Ecological Areas (**SEAs**) by Northland Regional Council (**Council**) in the Proposed Plan. The SEA maps and assessment worksheets can be found here:
- a. <https://www.nrc.govt.nz/media/rutcgllle/easternboiandcapebrettcoastsignificantecologicalmarineareaassessmentsheet.pdf>
 - b. <https://www.nrc.govt.nz/media/cydfiy4g/easternboibiogenicsoftbottomcomplexsignificantecologicalmarineareaassessmentsheet.pdf>
 - ~~c.~~ <https://www.nrc.govt.nz/media/xgsd0ovx/blackrocksandtopahiislandssignificantecologicalmarineareaassessmentsheet.pdf>
 - ~~d.c.~~ <https://www.nrc.govt.nz/media/eurdvcb3/pickmerechannelshellfishsignificantecologicalmarineareaassessmentsheet.pdf>
 - ~~e.d.~~ <https://www.nrc.govt.nz/media/raxkeays/blandbaycoastsignificantecologicalmarineareaassessmentsheet.pdf>
 - ~~f.e.~~ <https://www.nrc.govt.nz/media/vwpcw5i0/mimiwhangatasignificantecologicalmarineareaassessmentsheet.pdf>
- ~~9. The SEA identification in Northland was a desktop exercise, informed by evaluation by an expert group. The identification process assessed~~

Commented [VAF1]: Deleted as not within the new boundaries for Te Hā o Tangaroa Protection Areas

estuaries and estuarine areas, reef habitat (down to 100m deep) and reef edge habitats.⁴

Ecology values of proposed areas

~~10.9.~~ Each of the proposed marine protection areas contain some taxa or benthic communities that meet the criteria in NZCPS Policy 11(a) or (b). However, the presence and type of taxa or benthic communities is not uniform throughout the ~~areas~~.

~~11.~~ All ecology expert witnesses agree that the following areas are ecologically important:

- ~~a.~~ Te Hā o Tangaroa Area A (Maunganui Oke Bay Rāhui Tapu);
- ~~b.~~ Te Hā o Tangaroa Area B (Ipipiri Benthic Protection Area);
- ~~c.~~ Te Mana o Tangaroa Area A (Mimiwhangata Rāhui Tapu).

~~12.~~ Parts of the following areas are ecologically important:

- ~~a.~~ Te Hā o Tangaroa Area C (Ipipiri Rakaumangamanga Protection Area);
- ~~b.~~ Te Mana o Tangaroa Area B (Te Au o Morunga Protection Area).

~~13.~~ Appendix 3 provides a non-exhaustive summary of benthic species, habitats or ecosystems that are present within the proposed Te Hā o Tangaroa and Te Mana o Tangaroa Protection Areas. As noted above, the presence and type of taxa or benthic communities is not uniform throughout the areas.

~~14.10.~~ Appendix 4 provides a summary of seabird species present in the Cape Brett to Mimiwhangata area and their conservation status.

~~15.11.~~ Particular values (which are not present or uniform throughout all areas) include:

- a. The presence of subtidal sea grass (*Zostera muelleri*) (in Te Hā o Tangaroa Area B and Te Mana o Tangaroa Sub-Area A) is unusual in New Zealand, with beds only known to occur in a limited number of locations nationally. Seagrass beds provide

Commented [SG2]: Mr West seeks to retain this paragraph. Dr Froude, Dr Shears and Dr Morrison consider that this paragraph is inaccurate and that it has been superseded by paragraphs 10,14 and 16 of the Ecology Joint Witness Statement.

⁴ The assessment methodology can be found here: <https://www.nrc.govt.nz/media/xouckneg/methodologyreportmappingofsignificantecologicalareasnorthland.pdf>

ecologically important habitat for fish and invertebrate species and are particularly important as fish nursery habitat. The NZ Threat Classification status of this species is At Risk – declining.

- b. The deeper reef areas of Te Hā o Tangaroa Protection Areas and Te Mana o Tangaroa Protection Areas contain Black coral species which are absolutely protected under the Wildlife Act 1953. Black corals are classified by DOC as naturally rare and at risk.
- c. The spotted black grouper, stony corals, or gorgonian coral are present in some or all of the proposed protection areas and are all absolutely protected under the Wildlife Act.
- d. Rhodolith beds in the Bay of Islands are formed by calcareous algae. This habitat also contains other macroalgae species and it provides refuge and nursery areas for several species of fish and invertebrates.
- e. Horse mussel beds provide important nursery habitat for juvenile fish, hard substrata for sessile species, stabilise sediment, contribute to water clarity and quality, increase of biomass and biodiversity.
- f. The subtidal seagrass meadows, macroalgal beds, rhodolith beds, shellfish beds, invertebrate species and aggregations meet the meet the criteria in NZCPS Policy 11(a) or (b).

Effects on indigenous biodiversity

- ~~16. Marine ecosystems (a) within the Bay of Islands, (b) along the coast of east Northland, and (c) near populated areas of New Zealand, and (d) in offshore environments are under pressure from a range of stressors.~~
- ~~17. Generally throughout New Zealand, some protection of marine ecosystems is needed to prevent degradation or the loss of marine biodiversity. To prevent further degradation of the marine environment, contributing stressors/factors will need to be defined, and meaningful controls imposed on contributing factors, where possible.~~
- ~~18. Some of the activities which may have effects on indigenous marine biodiversity identified in the area include (in no particular order):~~
 - ~~a. Fishing;~~

Commented [VAF3]: Replaced by JWS Ecology

- b. ~~Sedimentation;~~
- c. ~~Pollution and nutrient enrichment;~~
- d. ~~Climate change;~~
- e. ~~Marine invasive species;~~
- f. ~~Other physical impacts (i.e. anchoring, coastal engineering etc.);~~
- g. ~~Introduced mammalian predators consuming eggs and young in seabird nesting sites.~~

Fishing and fishing methods

~~19.12.~~ Fishing is one of a number of factors affecting marine biodiversity.

~~20.13.~~ Commercial, recreational and customary fishing can reduce the abundance of targeted fish species present at a location through extraction from that population. The extent to which each type of fishing may impact biodiversity and species abundance will depend on a number of factors including: where and when the fishing occurs, the types of fishing gear used, fishing intensity, duration of operation, return time and the biomass of fish harvested.

~~21.14.~~ Fishing can reduce the size and abundance of individuals in a targeted population, depending on the time scale of fishing and the intensity of the activity.

~~22.15.~~ Some fishing gear or methods can have adverse effects on benthic habitats (including by damaging species that compose them affecting community composition), and can result in bycatch of non-targeted species, sometimes including protected species.

~~23.16.~~ Trawling and dredging can involve fishing gear having contact with the seabed, including scraping and ploughing of the substrate, sediment resuspension, impacts on benthos. Indirect effects of trawling and dredging can include long-term changes to the benthos.

~~24.17.~~ Some seabed habitats are more susceptible to damage than others. Reef biota and organisms growing above the sediment surface, for example corals, tend to be more exposed and damage to these species is generally seen as longer lasting as these biota tend to be slower growing. Some biota in soft sediment habitats live within the sediments (infauna), and

maybe less susceptible to damage from trawling or dredging. However, infauna species (e.g. dog cockle (*Tucetona laticostata*) can be caught or damaged by trawling or dredging. Trawling or dredging can also modify a species' habitat even if that species is not directly impacted by fishing gear.

~~25.18.~~ Bottom trawling has the potential to change the structure of benthic communities, with trawled areas often dominated by small-bodied, opportunistic benthic species at the expense of species that are large, long-lived and potentially fragile.

Trophic cascades

Commented [VAF4]: Replaced by JWS Ecology

~~26.~~ Changes in the abundance of kina can alter grazing pressure on macroalgae.

~~27.~~ Kelp forests and macroalgal beds support greater biodiversity than urchin barrens.

~~28.~~ Numerous factors can influence the abundance of kina, including:

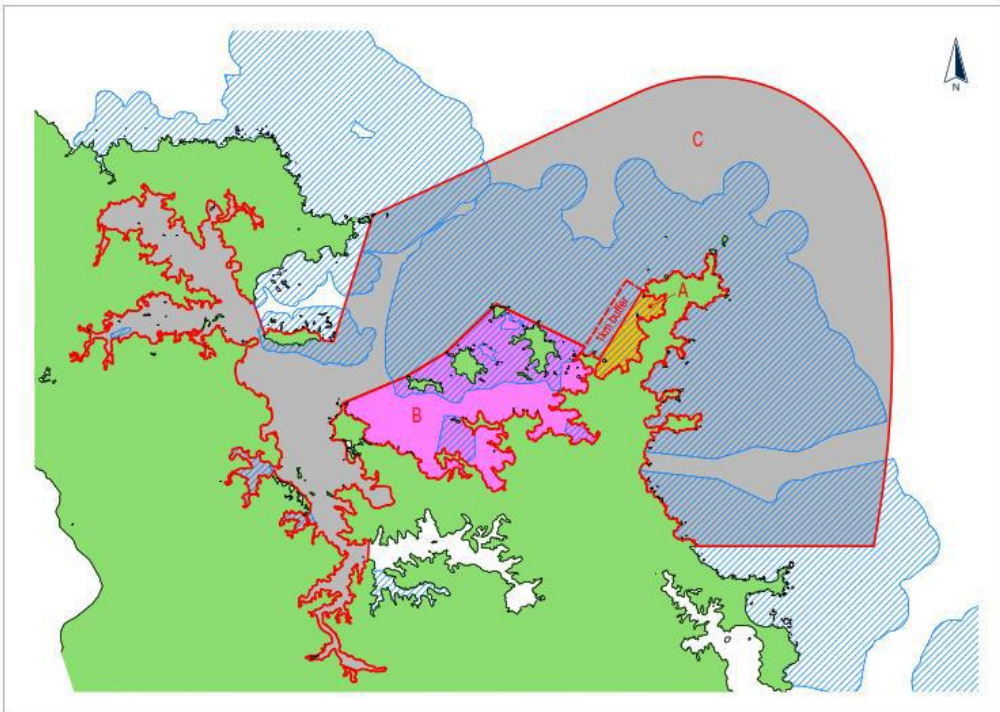
- ~~a.~~ The abundance and size of kina predators;
- ~~b.~~ Rates of recruitment and mortality;
- ~~c.~~ Diseases that impact kina or their predators;
- ~~d.~~ Human harvest (of kina or its predators).

~~29.~~ Numerous factors can influence the abundance of kelp forests, including:

- ~~a.~~ water clarity;
- ~~b.~~ nutrient availability;
- ~~c.~~ grazing pressure;
- ~~d.~~ wave activity;
- ~~e.~~ water temperature;
- ~~f.~~ water acidity.

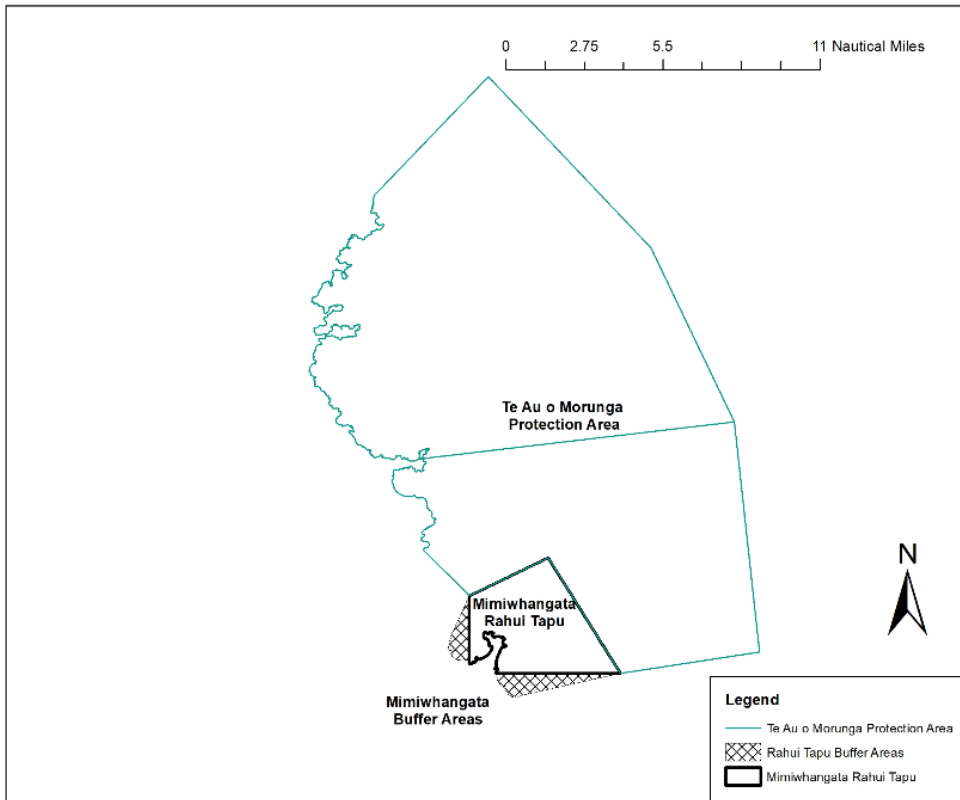
~~30.~~ The abundances of kina predators (snapper and crayfish) in east Northland are generally lower than they would be in the absence of fishing.

Appendix 1—Proposed Te Hā o Tangaroa Protection Areas



Appendix 2 – Proposed Te Mana o Tangaroa Protection Areas

Te Uri o Hihiki Marine Protection Areas



Appendix 3 – Summary of benthic species, habitats or ecosystems

1. The proposed Te Hā o Tangaroa and Te Mana o Tangaroa Protection Areas include the following benthic species, habitats or ecosystems (but the presence and type of taxa or benthic communities is not uniform throughout the areas):
 - a. Subtidal and intertidal seagrass meadows (*Zostera muelleri*, At Risk, Declining);
 - b. Kelp forest of *Ecklonia radiata* and/or *Lessonia variogata*
 - c. Macroalgal beds
 - d. Soft sediment algal turf beds
 - e. Mangroves
 - f. Saltmarsh
 - g. Shellfish beds
 - h. Invertebrate species and aggregations, including
 - i. Sponge species and aggregations, and
 - ii. Coral species and aggregations including but not limited to protected Black Coral (*Liliipathes lilloi*) and Stony Coral (*Oculina virgosa*);
 - i. Shallow and deep rocky reef areas
 - j. Soft sediment habitats with infauna or epifauna invertebrate prey species
 - k. Rhodolith beds

Appendix 4 – Summary of seabird species and conservation status
(NZ Threat Classification System)

Species	Conservation status
Black petrel (<i>Procellaria parkinsoni</i>)	Threatened - Nationally Vulnerable
Flesh-footed shearwater (<i>Puffinus carneipes</i>)	Threatened - Nationally Vulnerable
Little blue penguin (<i>Eudyptula minor</i>)	At Risk – Declining
Red billed gull (<i>Chroicocephalus novaehollandiae scopulinus</i>)	At Risk – Declining
Sooty shearwater (<i>Puffinus grisea</i>)	At Risk - Declining
White fronted tern (<i>Sterna striata striata</i>)	At Risk – Declining
Giant petrel (<i>Macronectes halli</i>)	At Risk - Recovering
New Zealand dotterel (<i>Charadrius obscurus</i>)	At Risk - Recovering
Pycroft's petrel (<i>Pterodroma pycrofti</i>)	At Risk - Recovering
Common diving-petrel (<i>Pelecanoides urinatrix</i>)	At Risk - Relict population
Cooks petrel (<i>Pterodroma cookii</i>)	At Risk - Relict population
Fluttering shearwater (<i>Puffinus gavia</i>)	At Risk - Relict population
White faced storm petrel (<i>Pelagodroma marina</i>)	At Risk - Relict population
Buller's albatross (<i>Thalassarche bulleri</i>)	At Risk – Naturally Uncommon
Buller's shearwater (<i>Puffinus bulleri</i>)	At Risk – Naturally Uncommon
Short-tailed shearwater (<i>Puffinus tenuirostris</i>)	Migrant
Australasian gannet (<i>Morus serrator</i>)	Not Threatened
Black backed gull (<i>Larus dominicanus</i>)	Not Threatened
Grey faced petrel (<i>Pterodroma gouldi</i>)	Not Threatened