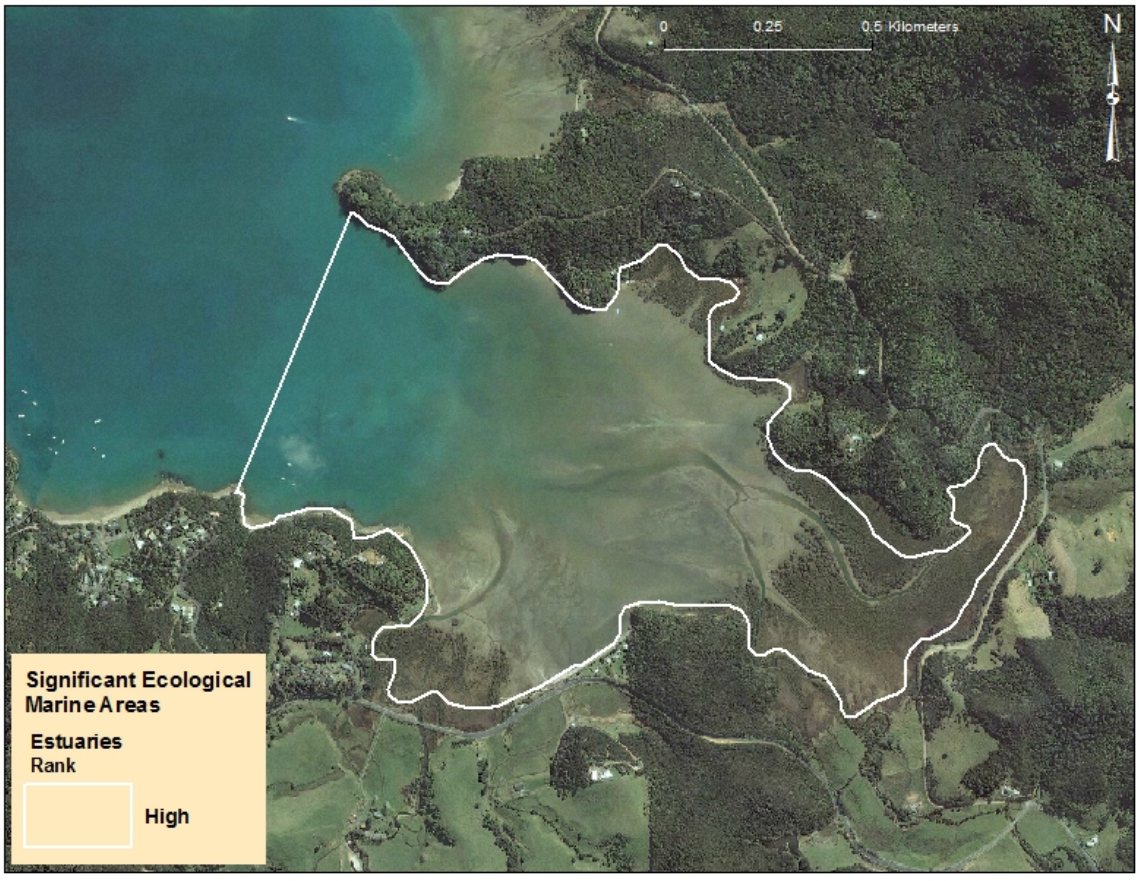
Significant Ecological Marine Area Assessment Sheet

Name: Parekura Bay, Bay of Islands Marine Values

Summary:

The Tangatapu mangrove and saltmarsh, along with the connecting tidal flat of the south-eastern end of Parekura Bay in Eastern Bay of Islands, has been given a high ranking of ecological significance for marine values. It is a very good example of this important habitat sequence and is the only example of this quality in the outer part of the Eastern Bay of Islands suite of important ecological areas. The Parekura Bay tide flat, mangrove, saltmarsh and wetland sequence supports a number of threatened shorebird species and has notable cockle beds in its tidal flat area. The area's tidal flats and mature mangrove saltmarsh sequences form an important ecological connection with wetland areas and local freshwater streams. Combined, these habitat sequences perform important ecological roles as nursery and feeding areas for a wide variety of marine life. These habitats also play a vital role in maintaining water quality and provide connectivity between freshwater ecosystems and the coastal waters. The wetland area and catchment feeding the saltmarsh and estuary is actively being restored and predator management is well established, adding to the ecological values of this site.

Aerial photo of Parekura Bay. *Photo Credit: Apple Maps*



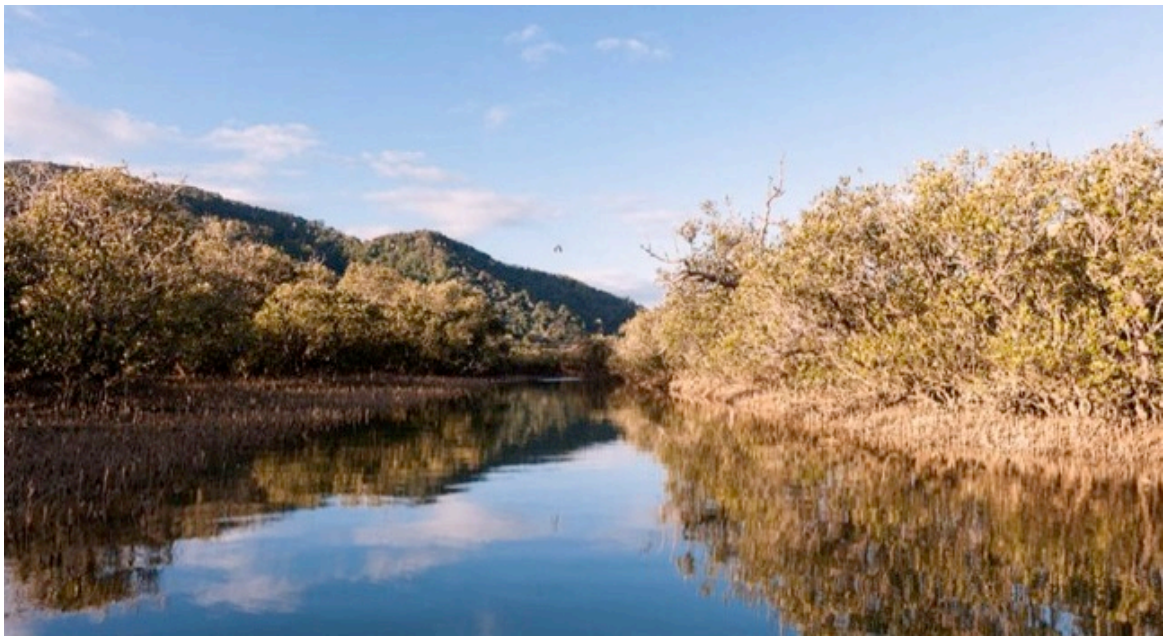
Description:

Parekura Bay and the Tangatapu Estuary lies in a central locaton in the Eastern Bay of Islands. Its freshwater source comes via the Tangatapu wetland, at the starting point of the walkway to Whangamumu. The estuary has a mosaic of salt marsh, mangrove shrubland, bare intertidal to shallow mud, sand and rocky reef habitats, surrounded by a

mature forest of large mangrove trees. The radiating networks of mangrove breathing roots and dense saltmarsh slow down currents and wave energy, encouraging silt to settle here rather than smothering seagrass meadows in more open parts of the Bay.

There is an active restoration project, Living Waters, in the catchment of Tangatapu, led by the Bay of Islands Maritime Park. [1]

A view of the upper arm of the Tangatupu Estuary showing mature mangrove forest. Just around the corner is more mangrove habitat, salt marsh and a wetland restoration project at the bottom of the catchment. Photo credit: Dean Wright Photography.



Ecological Values

Parekura Bay and the Tangatapu Estuary is a very good example of estuary habitats and the interface with terrestrial and freshwater habitats. The shallow subtidal area tidal flats have healthy shellfish beds and benthic invertebrate communities. The shellfish beds make a major contribution to the process of enhancing water quality of the estuary. Shellfish are very active filtering plankton and nutrients from the water column with each tide cycle. Tangatapu Estuary is a shallow estuarine system with the majority of the volume of the estuary emptying out of the system with each tide. As a result, virtually the entire estuary is very well flushed with coastal water masses during every tide cycle. The upper reaches of Tangatapu are characterised by high quality intact sequences of mangrove forests, saltmarshes and small shallow channels. Much of the upper system has quite good riparian edge environments in native bush, adding greatly to the ecological value of the site. Tangatapu Estuary can be expected to play an important localised role as a nursery and feeding area for coastal fishes. [2] In additon the connection with a valuable wetland and catchment restoration project adds to the ecological significance of this site.

Assessment of Ecological Significance

[1] www.livingwatersboi.org.nz/

[2] Morrison, M.A.; Jones, E.G.; Parsons, D.P.; Grant, C.M., 2014. Habitats and areas of particular significance for coastal finfish fisheries management in New Zealand: A review of concepts and life history knowledge, and suggestions for future research. New Zealand Aquatic Environment and Biodiversity Report No. 125. 202 p.

Table 1 Ranking score of ecological significance of Tangatapu Estuary[3]

Parekura Bay Marine Values: Assessment of Ecological Significance			Rank
Overall Ranking		**Notes**	**High**
Representation	supports most taxa expected for habitat type	Shellfish beds are typical of this habitat	M
	large example of its type	Not a large example of its type	L
Rarity and Distinctiveness	supports indigenous species threatened, at risk, or uncommon, nationally or within the relevant ecological scale	Not Assessed	NA
	supports species endemic to the Northland-Auckland region or at distributional limits within the Northland region	Not Assessed	NA
	distinctive of a naturally restricted occurrence	Typical small east coast estuary	M
	developed as a result of unusual environmental factor(s) or is part of an ecological unit that occurs within an originally rare ecosystem	Typical small east coast estuary	M
	identified as nationally or regionally rare habitat(s) in MPA Plan	Not Assessed	NA
Diversity and Pattern	high diversity of indigenous ecosystem or habitat types	Typical community of type	M
	high diversity of indigenous taxa	Typical community of type	M
	its composition reflects the existence of diverse natural features or ecological gradients	Typical community of type	M
	contains intact ecological sequences	Sequences outstanding from esturine entrance rocky reefs to salt marsh	H
Ecological Context	provides or contributes to ecological linkages, networks, buffering functions	Shellfish beds play very important buffering and ecological role in estuary	H
	supports the natural functioning of freshwater or coastal ecosystems	Shellfish beds and mangrove saltmarsh sequence play important buffering and ecological role in estuary	H
	supports life stages of indigenous fauna	Provides important support for various life stages of benthic invertebrates, shorebirds and nursery for coastal fish species	H
Assessed by: Vince Kerr		Date: September 2015	
Information Source(s) *see below*			**2-7**
Reliability of Information *see below*			**+**
Rank (overall score) H = high, M = moderate, L =low, DD = data deficient, R = recommended for further investigation			

[3] Table 1 details the ranking criteria and scoring that was used to determine the overall high ranking given to the ecological significance of this area. The criteria used have been adopted from Appendix 5 of the Northland Regional Council Proposed Policy Statement. See reference to Methodology report or other council documents to call up

Information Source(s) 1 = quantitative report, 2 = qualitative report, 3 = habitat map or classification, 4 = expert opinion, 5 = personal communication, 6 = anecdotal information, 7 = visit and observation
Reliability of Information expressed as a scale of confidence ranging from high (+++) to low confidence (---)
Criteria Rank - score for each individual criteria) H = high ranking, M = moderate ranking, L = low ranking, DD = data deficient, R = recommended for further investigation, NA = not assessed for this criteria