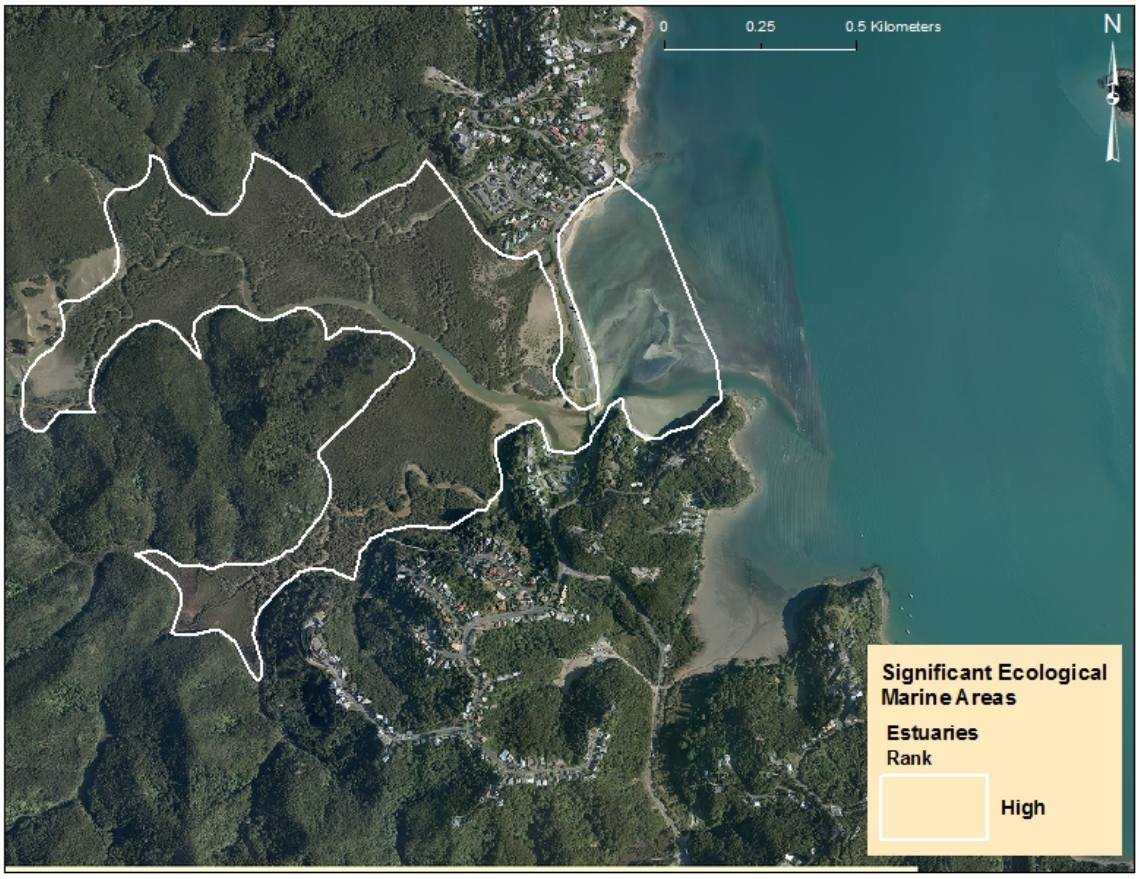
Ecologically Significant Marine Area Assessment Sheet

Name: Te Haumi Estuary Marine Values

Summary:

Te Haumi Estuary as a whole has been given a high ranking of ecological significance for marine values. Te Haumi Estuary has an array of estuarine habitats ranging from a tidal sand flats and subtidal channels to extensive mangrove saltmarsh sequences, which make up the bulk of the estuary. Tidal flats in the lower part of the estuary have established shellfish beds. Taken as a whole, the estuary plays an important role in buffering the impacts of sediments and nutrients coming down the catchment. [1] The estuary also provides ecological linkages between the coastal waters and marine biodiversity, the estuarine habitats and fringing native bush and freshwater streams.

Aerial photo of Te Haumi Estuary *Photo Credit: Apple Maps*



[1] Morrison, M.A.; Lowe, M.L.; Parsons, D.M.; Usmar, N.R.; McLeod, I.M., 2009. A review of land-based effects on coastal fisheries and supporting biodiversity in New Zealand. *New Zealand Aquatic Environment and Biodiversity Report No. 37.* 100 p.

Description:

Te Haumi Estuary is situated in the inner Bay of Islands, to the south of Paihia. Te Haumi Estuary has a full range of interconnecting marine habitat types[2]. These habitats include saltmarshes, mangroves, intertidal flats and channels emptying out into the inner Bay of Islands just south of Paihia. Each of these habitats contains distinctive plant and animal communities contributing to the ecological values.

The extent of good quality riparian margins along this estuary is notable; nearly the entire margin of the estuary is in regenerating native forest. The estuary's mangrove and saltmarsh systems extend up the catchment and connect with small wetland areas and freshwater streams enhancing the value and ecological connectivity between estuarine habitats, freshwater wetlands, stream corrridors and the bush covered fringes.

Ecological Values

Te Haumi is a relatively well-functioning small estuary that is in a long term period of recovery from the impacts of intensive deforestation followed by the logging and pastoral farming of the last 200 years. Today the tidal flats have healthy shellfish beds which are monitored as part of a ongoing study of Northland shellfish beds by NIWA. [3] The shellfish beds cover most of the sandy tidal flats on either side of the causeway near the entrance to the estuary. Shellfish are very active, filtering plankton and nutrients from the water column with each tide cycle. Te Haumi estuary is a shallow estuarine system with the majority of the volume of the estuary emptying out of the system with each tide. The estuary is characterised by high quality intact sequences of mangrove forests and saltmarshes and small shallow channels. Some of the upper arms have good riparian edge environments in native forest, adding greatly to the ecological value of the estuary. While small, Te Haumi's estuarine habitats are very good examples of their type, especially when compared to nearby areas of the inner Bay of Islands that have been affected by heavy sedimentation. Te Haumi's habitats would provide good buffering and filtering of nutrient and sedimentation entering its catchment. [4]

[2] Kerr, V.C., 2010. Marine Habitat Map of Northland: Mangawhai to Ahipara Vers. 1. Technical Report, Department of Conservation, Northland Conservancy, Whangarei, New Zealand.

[3] Berkenbusch, K.; Neubauer, P., 2015. Intertidal shellfish monitoring in the northern North Island region, 2014–15. New Zealand Fisheries Assessment Report 2015/59. 110 p.

[4] Morrison, M.A.; Lowe, M.L.; Parsons, D.M.; Usmar, N.R.; McLeod, I.M., 2009. A review of land-based effects on coastal fisheries and supporting biodiversity in New Zealand. *New Zealand Aquatic Environment and Biodiversity Report No. 37.* 100 p.

Assessment of Ecological Significance

Table 1 Ranking score of ecological significance of Te Haumi Estuary[5]

Te Haumi Estuary 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 and good examples	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 tidal flats to mangrove saltmarsh system	H
Ecological Context	provides or contributes to ecological linkages, networks, buffering functions	Shellfish beds mangroves and saltmarsh play important buffering and ecological role in estuary	H
	supports the natural functioning of freshwater or coastal ecosystems	Shellfish beds mangroves and saltmarsh play important buffering and ecological role in estuary	H
	supports life stages of indigenous fauna	Provides support for various life stages of benthic invertebrates, shorebirds and nursery for coastal fish species	M
Assessed by: Vince Kerr		Date: September 2015	
Information Source(s) *see below*			**2-7**

[5] 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

Reliability of Information *see below*	**+**
Rank (overall score) H = high, M = moderate, L =low, DD = data deficient, R = recommended for further investigation	
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	