

INTERTIDAL HABITAT MAPPING IN ESTUARIES

ABOUT ESTUARIES AND INTERTIDAL HABITATS

Estuaries are highly productive ecosystems that are culturally, commercially and recreationally important. However, they are also very sensitive and at risk from human activities. Intertidal sandflats and mudflats occupy large areas of harbours and estuaries in the Waikato region. These support many different animals and plants and provide important habitats for fish, birds and shellfish.

WHY DO WE MAP INTERTIDAL HABITATS?

Mapping intertidal habitats can provide important information on the environmental health of our estuaries. The maps provide useful baseline information, identify areas within estuaries that may be ecologically important, and can be used to guide environmental monitoring.

Habitat types may also be linked with ecosystem services which benefit humans by providing services such as food provision, water filtration, nutrient regulation and storm protection.

In 2013, intertidal habitat mapping was carried out in 14 estuaries on the Coromandel Peninsula (shown in Figure 1) using a rapid assessment technique developed by the National Institute of Water and Atmospheric Research (NIWA) for Waikato Regional Council. This involved field work to capture the boundaries of habitat patches using GPS units. The habitats were categorised based on the plant and animal communities present such as seagrass, mangroves, tube worm mats, and cockle or pipi beds. The maps are presented in technical reports and in GIS files, which are available on our website. The habitat map for Tairua Harbour is shown here as an example (Figure 2).

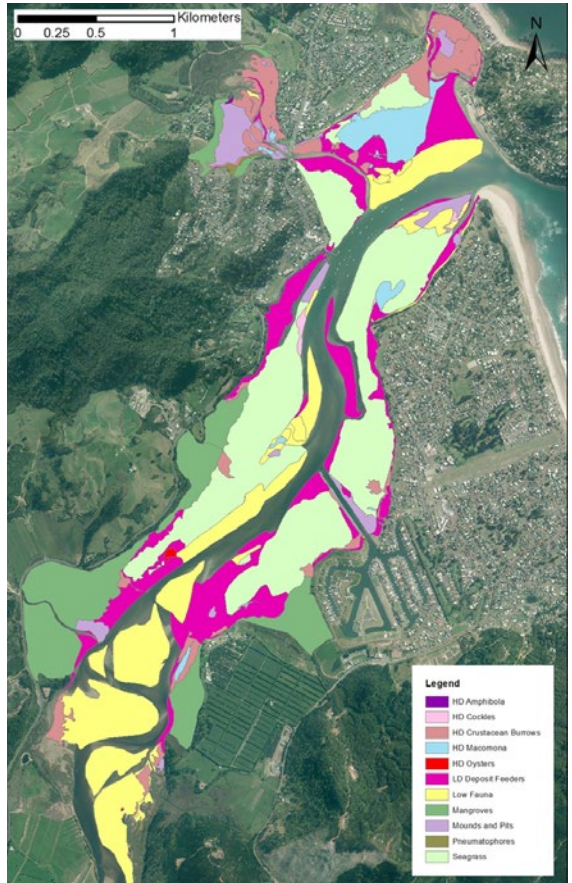


Figure 2: Intertidal habitat map for Tairua Harbour (Waikato Regional Council Technical Report 2014/39).

Further work is required to extend the intertidal habitat mapping into west coast estuaries of the Waikato region. This will ensure that the maps can be used to inform monitoring programmes and provide baseline data across the entire Waikato region. We are also exploring, with NIWA, how to use the habitat maps to generate maps of ecosystem services for our estuaries. These could be used to understand which part(s) of our estuaries are important for each of the different ecosystem services and for communicating the value of these important ecosystems to our stakeholders.

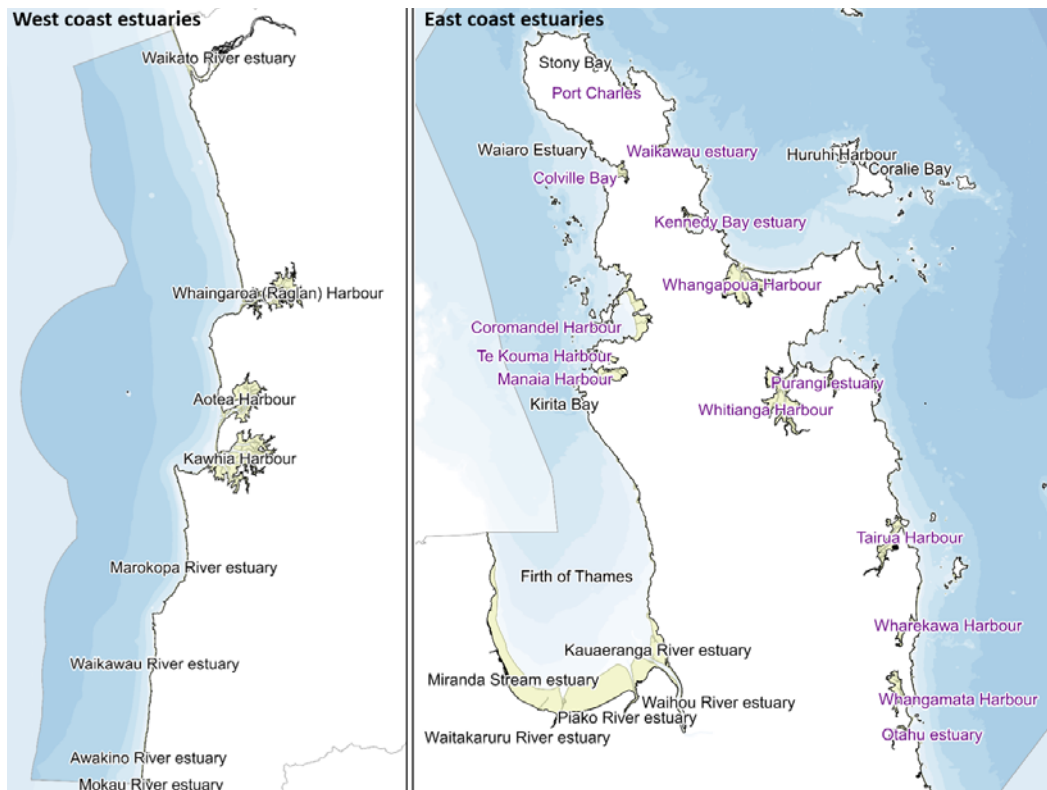


Figure 1: Estuaries on the west and east coasts of the Waikato Region. Purple text indicates the estuaries on the Coromandel Peninsula which have had intertidal habitats mapped in 2013.

For more information

Technical reports describing Coromandel estuary habitat mapping:

waikatoregion.govt.nz/tr201352/

waikatoregion.govt.nz/tr201439/

To obtain the GIS data that is presented in the maps:

waikatoregion.govt.nz/Environment/Environmental-information/datacatalogue/REDI/2854814/

HE TAIAO MAURIORA

HEALTHY ENVIRONMENT

HE ŌHANGA PAKARI

STRONG ECONOMY

HE HAPORI HIHIRI

VIBRANT COMMUNITIES