

TĀMAKI STRAIT AND WAIROA REPORTING AREA

Includes Franklin, Howick, Orākei and Waiheke local boards

STATE OF AUCKLAND MARINE REPORT CARD

2018



QUICK FACTS

TE MATUKU MARINE RESERVE LIES TO THE SOUTH WEST OF WAIHEKE ISLAND AND IS ONE OF THE ISLAND'S LARGEST AND LEAST UNDISTURBED ESTUARIES. THE SHALLOW MUDDY WATER PROVIDES A **GOOD HABITAT FOR BIRDS**

TĀMAKI STRAIT IS **335.36 KM²** IN SIZE

HABITAT STRUCTURING COMMUNITIES IN TĀMAKI STRAIT SUCH AS HORSE MUSSELS, SPONGES AND ACROALGAE **PROVIDE REFUGE** FOR JUVENILE AND SMALL FISHES

THE TĀMAKI STRAIT AREA FORMED PART OF THE GREEN-LIPPED MUSSEL **DREDGE FISHERY** FROM ABOUT 1910 TO THE MID 1960s, DURING WHICH TIME THE SUBTIDAL MUSSEL POPULATION WAS NEARLY **WIPED OUT**

WATER QUALITY



CONTAMINANTS IN SEDIMENT



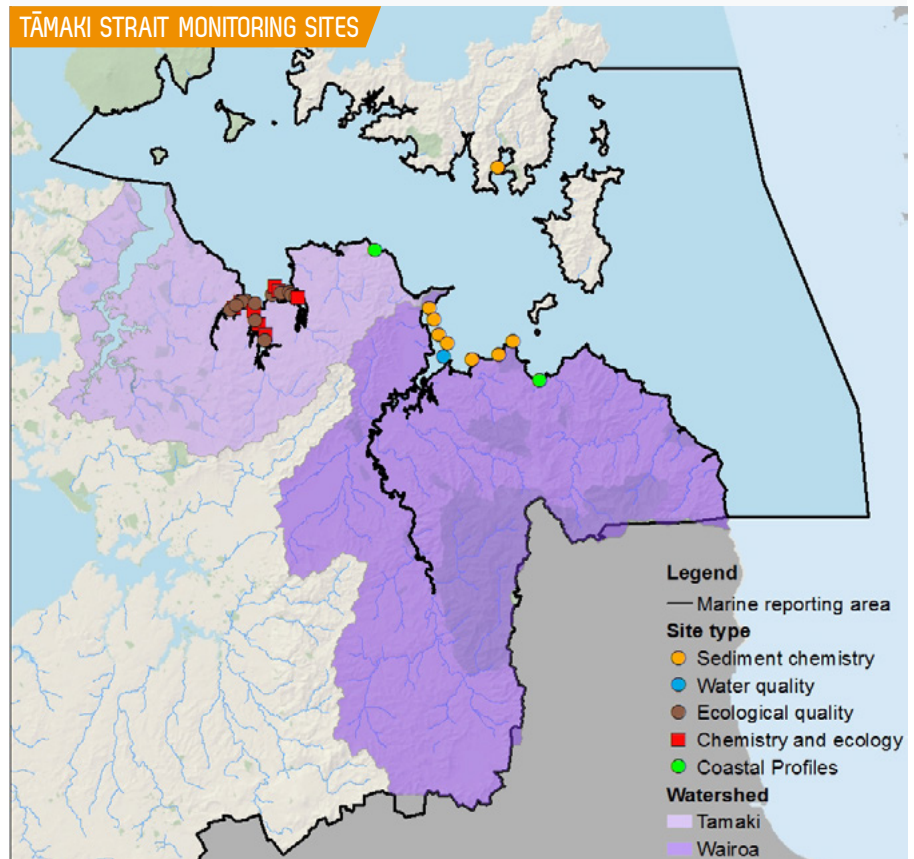
ECOLOGY



These grades represent a summary of results from individual sites and are not designed to track trends. Each programme samples at a number of representative sites across Auckland and collects parameters specific to the programme which are amalgamated to provide the grade. More detailed analyses are presented in technical reports available on Knowledge Auckland. See the back page for monitoring results and interpretation. Note that the water quality scores have been assessed using an updated methodology which may result in a change to the grade unrelated to a change in quality.

For this open coast area, the 'ecology' and 'contaminants in sediment' indicators are monitored at intertidal and estuarine sites and may not reflect the wider open coast and subtidal nature of this reporting area.

TĀMAKI STRAIT MONITORING SITES



Legend

- Marine reporting area
- Site type**
- Sediment chemistry
- Water quality
- Ecological quality
- Chemistry and ecology
- Coastal Profiles
- Watershed**
- Tamaki
- Wairoa



MONITORING BACKGROUND AND INTERPRETATION

Water quality: To measure the health of our marine waters, comprehensive range of parameters are measured, including nutrients, turbidity, salinity, and pH. Overall water quality is assessed using the Water Quality Index, which was developed by the Canadian Council of Ministers of the Environment in 2001 and adapted by Auckland Council. Scores are calculated by comparing average values from the last three years to water quality objectives. The methods used to calculate the scores for 2018 have changed and sites have been split into open water and estuary sites to better reflect the differing water circulation conditions. This more conservative approach means some water quality grades are lower than in previous years due to the change in index rather than a change in water quality. See Technical Report 2018/027 on Knowledge Auckland for more information on the methodology change.

Contaminants in sediment: Auckland Council tests for zinc, copper and lead every two to five years. Environmental Response Criteria (ERC) are used: green indicates low levels of contaminants,

amber indicates some elevation and red indicates relatively high levels. The most recent results can be found in technical report TR2016/020.

Ecology: At selected harbour and estuarine sites, species living in or on intertidal sand flats are counted. Results are classified according to a five-point health index (TR2012/012), which ranges from 'extremely good' to 'unhealthy with low resilience'. Ecology is also monitored more frequently at sentinel sites, every two to three months for soft sediment sites.

Bathing beach water quality: Check Safeswim (safeswim.org.nz) for live information on water quality and swimming conditions at your favourite swimming spots.

Warning: These State of the Environment indicators **do not** measure or indicate food quality or safety; refer to foodsafety.govt.nz for more information.

MONITORING RESULTS



WATER
QUALITY

Marine water quality monitoring began at Turanga Estuary and Wairoa River in 2009. The overall water quality is poor which is a decline from the of 2014 and 2016 due to the Turanga Estuary site being discontinued in 2016 which had better water quality than the consistently "marginal" water quality at Wairoa River Mouth.



CONTAMINANTS
IN SEDIMENT

Sediment quality sampling in Tāmaki Strait estuaries was mostly carried out in 2010. These estuaries had very low concentrations of contaminants. All three sites sampled in each of the predominantly rural (Turanga, Waikopua and Mangemangeroa) estuaries fell into the ERC green category for copper, lead and zinc. Te Matuku Bay on Waihekē Island is a rural reference site with very little urban activity and a catchment dominated by regenerating bush and pasture. Te Matuku Bay has been sampled since 1998, and also falls into the ERC green category for all contaminants monitored.



ECOLOGICAL
HEALTH

Overall the ecological health grade for the Tāmaki Strait reporting area remains the same as 2016 and 2014 with a C grade. Twenty two sites within estuarine environments are monitored to derive the grade, and it is important to note that the grade may not represent the wider associated coastal environment. Of the 25 sites included in this score, ecological health is generally ranked as 'good' near the mouth of the estuaries. One site within the Turanga estuary was graded as "extremely good". It should be noted that the Wairoa data included in the grade is from 2010, sites were sampled at the beginning of the year and are now being processed.

FIND OUT MORE

This report card is part of a series prepared by Auckland Council's Research and Evaluation Unit, which undertakes monitoring and research to provide information and evidence to inform the council's activities and reporting. More report cards can be found at: aucklandcouncil.govt.nz/environment. The report card series includes reporting on freshwater, terrestrial, marine, air, soil, capacity for growth, demographics and quality of life.

For more information: e-mail rimu@aucklandcouncil.govt.nz or call us on 09 301 0101.

GET INVOLVED

Auckland Council provides more than 20 environmental programmes across the region that you can get involved in. To find out more on how you can help visit: aucklandcouncil.govt.nz