

TĀMAKI STRAIT REPORTING AREA

Includes Franklin, Howick, Ōrākei and Waiheke local boards

STATE OF AUCKLAND MARINE REPORT CARD

AUGUST 2016

AREA GRADE

C



WHAT MAKES UP THIS GRADE?

OVERALL GRADE



WATER QUALITY



CONTAMINANTS IN SEDIMENT



ECOLOGY



The overall environmental health grade from A to F is based on the average of the scores for water quality, contaminants in sediment and ecology. Bathing Beach scores are not included in this grade. Note that from 2016 the 'contaminants in sediment' and 'water quality' scores have been assessed using an updated method which may result in a change to the scores unrelated to a change in quality. See the back page for monitoring results and interpretation. These grades represent a summary of averaged results from individual sites and are not designed to track trends. Individual site results will vary and localised issues may not be represented by the overall grades. More detailed analyses are presented in technical reports.

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.

QUICK FACTS

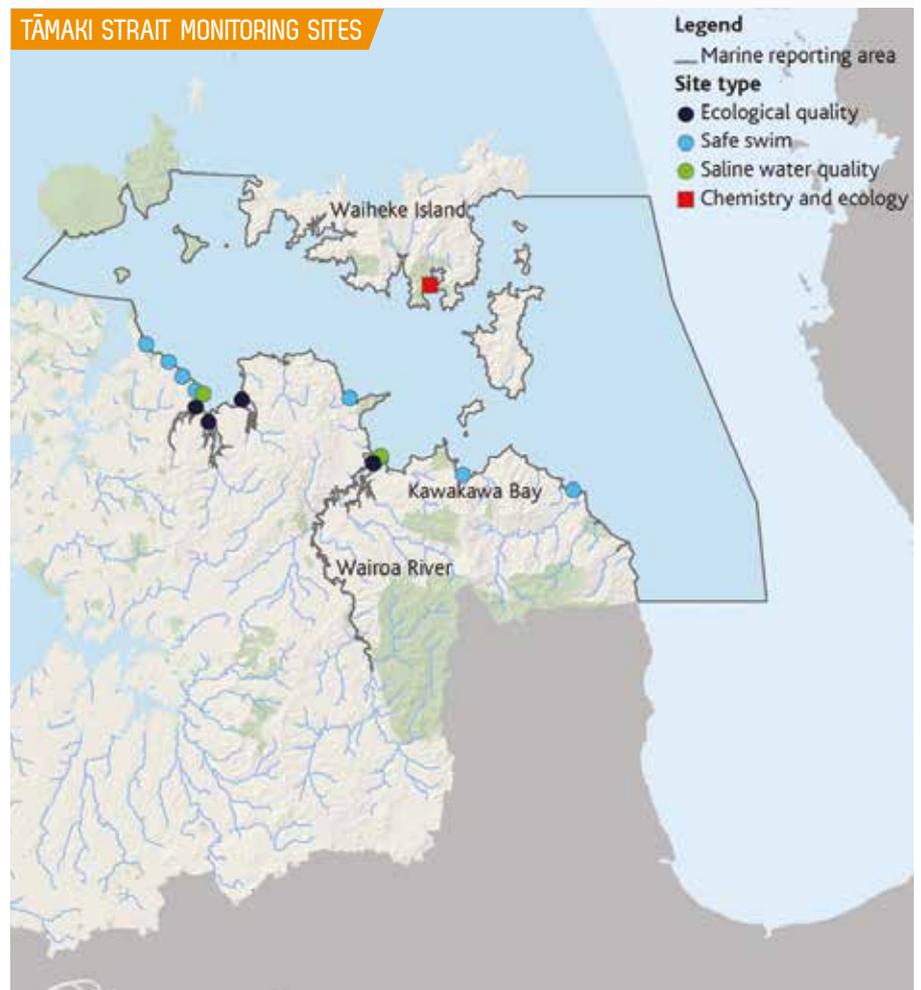
OF THE SEVEN BATHING BEACHES TESTED DURING SUMMER 2015/16
96% PASSED RECREATIONAL BACTERIA GUIDELINES

TĀMAKI STRAIT IS
335.36 KM²
IN SIZE

HABITAT STRUCTURING COMMUNITIES IN TĀMAKI STRAIT SUCH AS HORSE MUSSELS, SPONGES AND MACROALGAE
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**

TĀMAKI STRAIT MONITORING SITES



MONITORING BACKGROUND AND INTERPRETATION

Water quality: To measure the health of our marine waters, a comprehensive range of parameters including nutrients, turbidity, salinity, pH (and more) are measured. Results are classified according to 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 based on the averages over the last three years with the scores being converted into four water quality categories (excellent, good, fair and poor). The calculation of the water quality index has changed this year with the addition of a site from both the Kaipara and Manukau harbours into the list of 'reference' sites. This may cause changes in the grades which are due to the adjustment within the water quality index rather than real changes in the environment. The most recent results can be found in technical report TR2016/021.

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. Note that from 2016 a nationally consistent but less conservative scoring system has been applied and may result in an apparent improvement in the score for contaminants and the overall grade. 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: Tests for microbiological (enterococci) contamination are carried out in summer as part of the Safeswim programme in line with Ministry for the Environment guidelines. These results are reported as a 'Quickfact' and are calculated from all tests carried out at all monitored beaches in the Harbour. 'Bathing beach water quality' has not been included in the overall score as it relates to human health and is based on a different method of assessment (number of alerts). Individual results for monitored beaches are provided on the Safeswim section of the Auckland Council website.

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 sampling began in 2009. The water quality of Tāmaki Strait is ranked as 'good' which is an improvement from a 'fair' grade in the 2014 report card. For this present report card, of the two monitored sites, one site had 'good' (Turanga) water quality while the second site (Wairoa) had 'fair' water quality. The grade for Turanga is the same as the 2014 report while Wairoa has improved (from poor to fair). The observed improvement in water grade for the Tamaki Strait is due to the change in the way which the water quality indicator is calculated (see Monitoring and interpretation section above).



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, most recently in 2013, and also falls into the ERC green category for all contaminants monitored.



ECOLOGICAL
HEALTH

Some sites had lower grades than last year, while others showed an improved grade. There was no overall consistent pattern of change and individual site changes likely reflect natural variability. Overall the ecological health grade for the Tāmaki Strait reporting area remains the same as last year. It is important to note that the ecology grade for this area is derived only from the monitored estuarine sites and may not represent the wider associated coastal environment. Of the 22 sites included in this score, ecological health is generally ranked as 'good' near the mouth of the estuaries, declining to 'moderate' and 'poor' further up the estuaries. Unlike estuaries north of the harbour bridge, no sites were graded as 'extremely good'.

FIND OUT MORE

This report card is part of a series prepared by Auckland Council's Research and Evaluation Unit (RIMU), which provides the mandatory and critical evidence to support the council's decision-making, activities and reporting. Report cards and the latest full State of the Environment Report can be found at aucklandcouncil.govt.nz/stateofauckland

To view technical publications visit

aucklandcouncil.govt.nz/EN/planspoliciesprojects/reports/technicalpublications/Pages/home.aspx

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 the Auckland Council website.