

UPPER WAITEMATĀ HARBOUR REPORTING AREA

Includes Kaipātiki, Rodney and Upper Harbour local boards

STATE OF AUCKLAND MARINE REPORT CARD

WATER QUALITY

F	E	D	C	B	A
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CONTAMINANTS IN SEDIMENT

F	E	D	C	B	A
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ECOLOGY

F	E	D	C	B	A
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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.



2018



QUICK FACTS

THE CATCHMENT IS **185KM²**

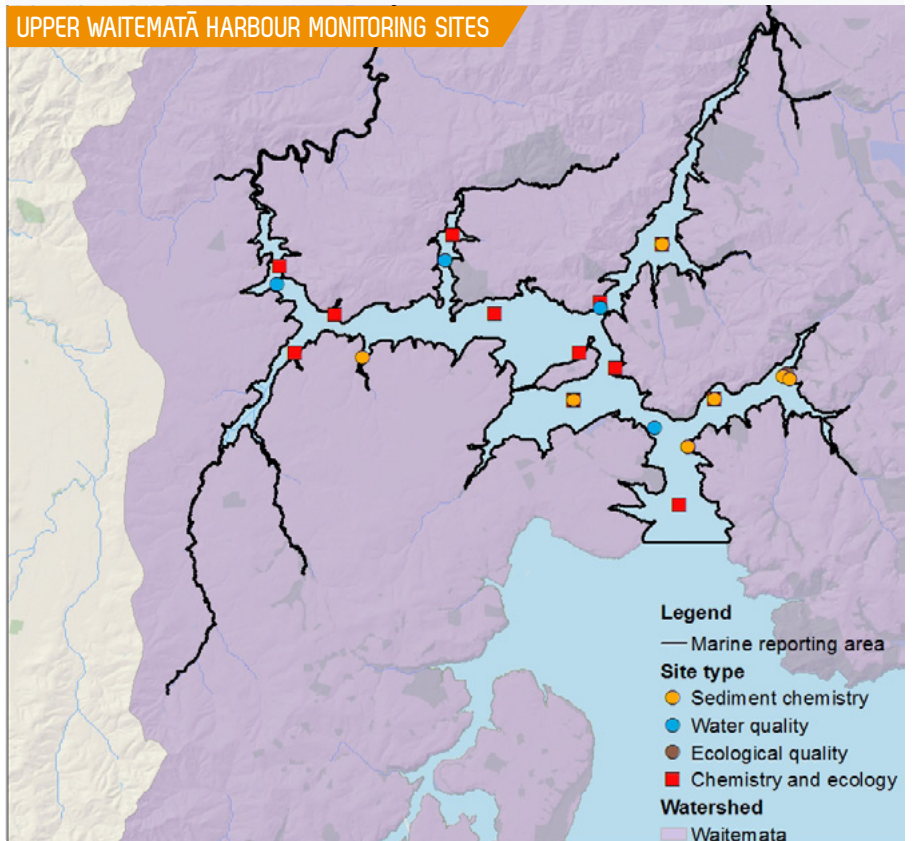
THE UPPER WAITEMATĀ HARBOUR IS A VALUABLE NURSERY AREA FOR **RIG SHARK** (ALSO KNOWN AS SPOTTED DOGFISH)

UPPER HARBOUR MONITORING SITES SHOW **ECOLOGICAL COMMUNITIES** DOMINATED BY BURROWING AMPHIPODS, AND MARINE WORMS

THE INTERTIDAL AND SUBTIDAL HABITATS OF THE UPPER **WAITEMATĀ HARBOUR** ARE MAINLY **SAND AND MUD**

MANY OF THE ISSUES IN THE HARBOUR REFLECT DECADES OF **HUMAN IMPACT** INCLUDING **SEDIMENTATION AND CONTAMINATION**

UPPER WAITEMATĀ HARBOUR MONITORING SITES



MONITORING BACKGROUND AND INTERPRETATION

Water quality: To measure the health of our marine waters, a 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 in 1991 at eight sites. The water quality of the Upper Waitemata Harbour remains generally poor due to consistently elevated concentrations of nutrients and sediments (see Technical Report 2018/015). Of the eight sites, four of them are ranked as 'poor', one 'marginal', and three 'fair' due to consistently elevated concentrations of nutrients, suspended sediment, phytoplankton and turbidity with lower oxygen levels in the water column.



CONTAMINANTS
IN SEDIMENT

Sediment quality sampling began in 1998. Sediment contaminant concentrations are generally below, or just exceed, amber ERC thresholds. Of the 16 sites regularly monitored for metals, two sites (Rarawaru and Hobsonville) contributed new data for this report card. The ERC status had no change from the 2016 report card.

- Copper: 62% of sites are green, 38% are amber and none are red (no change from 2016)
- Lead: 87% of sites are green, 13% are amber and none are red (no change from 2016)
- Zinc: 94% of sites are green, 6% are amber and none are red (no change from 2016)



ECOLOGICAL
HEALTH

The overall ecological health grade of this reporting area remains unchanged from last year, with only a slight improvement in quality from 2016. Poorest ecological health is generally associated with sites located in the upper reaches of tidal arms like Hellyers creeks, or Rangitopuni, Paremoremo and Main and Upper Channel sites which rank as 'unhealthy'.

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