



Regional Estuary Water Quality



Natural Environment Regional Monitoring Network¹ (NERMN)

¹ The NERMN is our State of the Environment monitoring network.

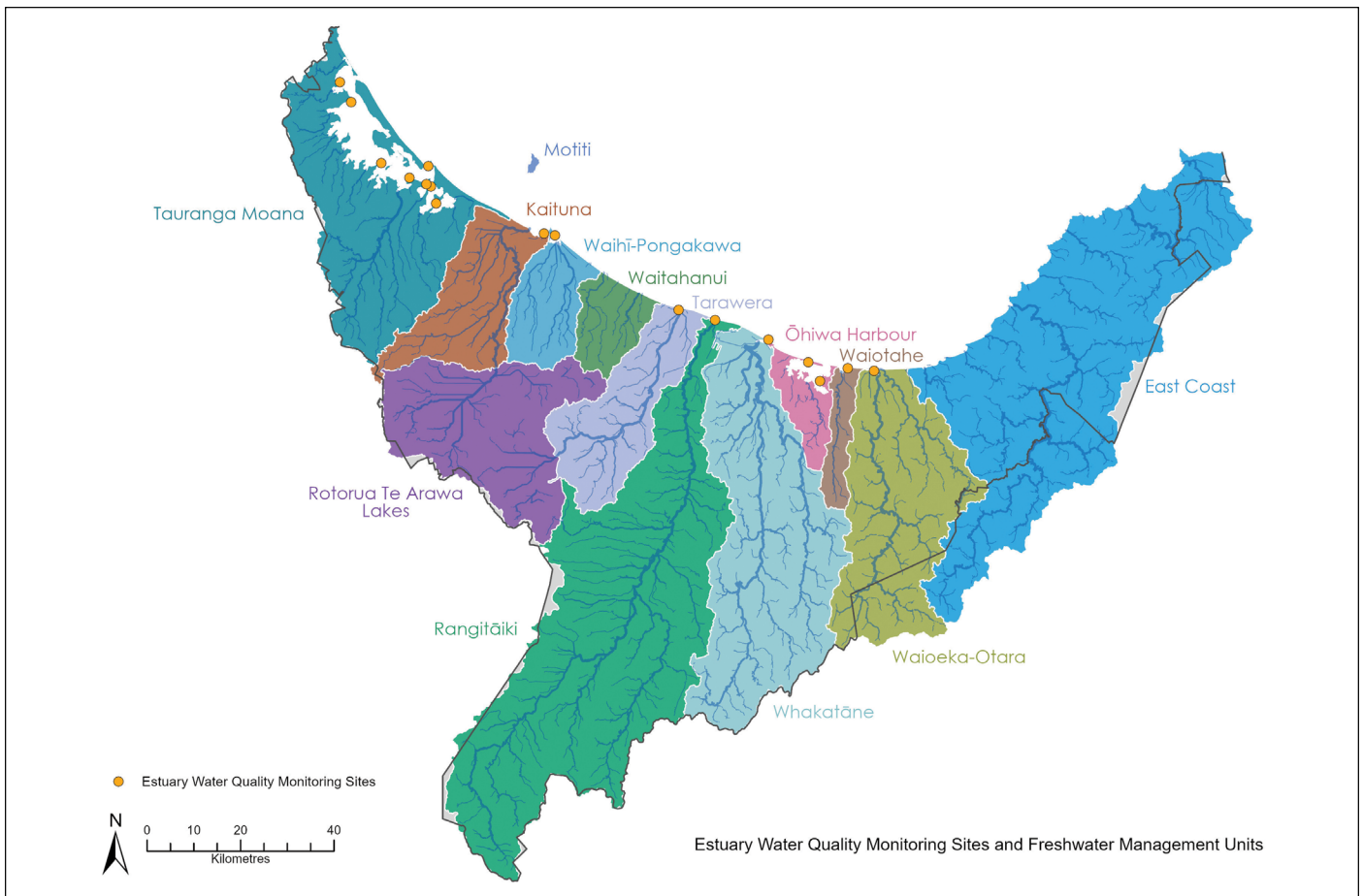


Figure 1: Location of NERMN estuary water quality sites in the Bay of Plenty. The grey line indicates the BOPRC boundary.

Description:

Toi Moana Bay of Plenty Regional Councils (Regional Councils) Estuary Water Quality Module was set up in 1991 to provide information on estuary water quality state and trends. This programme was updated in 2015 with a number of sites discontinued and additional sites established. Today, 17 estuary sites are monitored across 9 estuaries by the Regional Council.

The sites cover the intertidal estuaries and some additional riverine estuaries in the Bay of Plenty. The results from this monitoring is used to:

- report on the state of the environment for water quality in estuaries;
- compare measured water quality attributes against national and regional water quality classifications, guidelines or standards;
- detect water quality trends and impacts; and
- identify specific water quality issues.

This monitoring is part of Regional Council's function under s35 of the Resource Management Act 1991.

Purpose:

To provide scientifically defensible information on the important physical, chemical and microbiological characteristics of the natural resources of the Bay of Plenty region. This information is then used as a basis for the preparation of Regional Councils policies and plans, and the monitoring of their suitability and effectiveness.

Managed by Science and Data Services

Last reviewed January 2015 (*Click for link to report*)

Where are the monitoring sites?

The location of all monitoring sites (as at June 2022) is shown in Figure 1. See Table 2 for a full site list.

What's involved in this monitoring?

1. Sites are selected by scientists and technical experts.
2. Sampling is carried out by qualified technicians.
3. Sample analysis is done by Regional Council staff in the council's laboratory in Whakatane.
4. Data is made publicly available on our [Environmental Data Portal](#).
5. Data analysis and reporting is carried out by Regional Council scientists or external consultants. This information is also made publicly available on our [Environmental Data Portal](#).
6. Review of the monitoring programme is performed by Regional Council's Science Manager.

How often are they tested?

Standard sites are tested monthly at a mid-ebb tide, unless health and safety risks prevent collection on that occasion.

What is tested?

A range of physical, chemical and microbiological (living organisms that can only be viewed under a microscope) attributes are monitored. These are detailed in the below table. See next section for where to find the monitoring results.

Physical attributes	Chemical attributes (units)	Microbiological attributes
Water temperature (°C)	Turbidity (NTU)	Faecal coliforms - MF (cfu/100mL)
Electrical conductivity (µS/cm)	Total Suspended Solids (mg/L)	Enterococci - MF (surface waters) (cfu/100mL)
pH	Total Nitrogen (mg/L)	<i>E. coli</i> by MF (surface waters and natural bathing waters) (cfu/100mL)
Dissolved oxygen (g/m ³ & %)	Nitrate Nitrite Nitrogen (mg/L)	
Water Clarity (m)	Ammoniacal-Nitrogen (mg/L)	
Chlorophyll a (mg/m ³)	Dissolved Reactive Phosphorus (mg/L)	
	Total Phosphorus (mg/L)	

Where can I locate the monitoring results?

Results are reported in a range of different ways, reflecting the diverse requirements of end users (see Figure 2). You can check out our real-time data [here](#) or more extensive state of environment reports and snapshots [here](#).

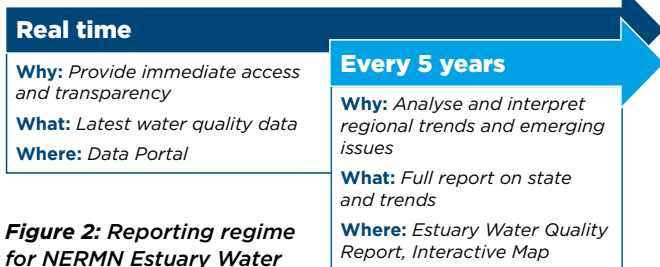


Figure 2: Reporting regime for NERMN Estuary Water Quality Module

Table 1: Attributes analysed for the NERMN Estuary Water Quality module.

Table 2: Full site list as at June 2022. All sites are monitored for the attributes in Table 1

Site Number	Site name	Estuary	Easting	Northing	Freshwater Management Unit
LM227254	Whakatāne at Boat Ramp	Whakatāne	1952299	5792786	Whakatāne
KM083686	Rangitāiki at Boat Ramp	Rangitāiki	1940875	5796975	Rangitāiki
JM306916	Tarawera 50 m d/s Thornton Road	Tarawera	1933061	5799164	Tarawera River
NL493611	Ōpōtiki Estuary at Kukumoa	Ōpōtiki	1974933	5786113	Waioeke - Otara
ML081799	Ōhiwa Harbour at Port Ōhope Wharf	Ōhiwa	1960816	5787994	Ōhiwa Harbour
ML335393	Ōhiwa Harbour at Ruatuna Road	Ōhiwa	1963350	5783936	Ōhiwa Harbour
ML922670	Waiōtahe at Estuary	Waiōtahe	1969229	5786705	Waiōtahe
GO661503	Waihī Estuary at Main Channel	Waihī	1906617	5815039	Waihī Estuary
GO429546	Maketū Estuary at Boat Ramp	Maketū	1904290	5815461	Kaituna
CQ947053	Tauranga Harbour at Ōmokoroa Wharf	Tauranga	1869468	5830535	Tauranga Moana
CR059778	Tauranga Harbour at Tanners Point Jetty	Tauranga	1860593	5847783	Tauranga Moana
CR301357	Tauranga Harbour at Kauri Point Jetty	Tauranga	1863019	5843575	Tauranga Moana
DP547739	Tauranga Harbour at Tilby Point	Tauranga	1875472	5827396	Tauranga Moana
DP912601	Tauranga Harbour at Waikareao	Tauranga	1879122	5826016	Tauranga Moana
DP952985	Tauranga Harbour at Mount Maunganui	Tauranga	1879529	5829853	Tauranga Moana
EPO27600	Tauranga Harbour at Toll Bridge Marina	Tauranga	1880275	5826004	Tauranga Moana
EP118190	Tauranga Harbour at Maungatapu Bridge NERMN	Tauranga	1881186	5821902	Tauranga Moana