

Air Quality Monitoring

1998-2014



What happened in 2014?

In October 2004, the government introduced national environmental standards for air quality (NES-AQ). The standards included five ambient air quality standards for carbon monoxide (CO), particulate matter less than 10 micrometres in diameter (PM₁₀), nitrogen dioxide (NO₂), sulphur dioxide (SO₂) and ozone (O₃). The ambient standards set the minimum requirements outdoor air quality should meet for a range of air pollutants in order to protect human health and the environment.

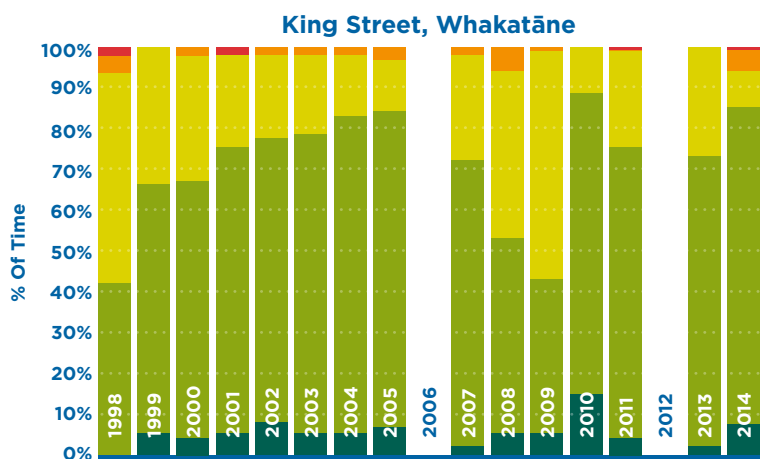
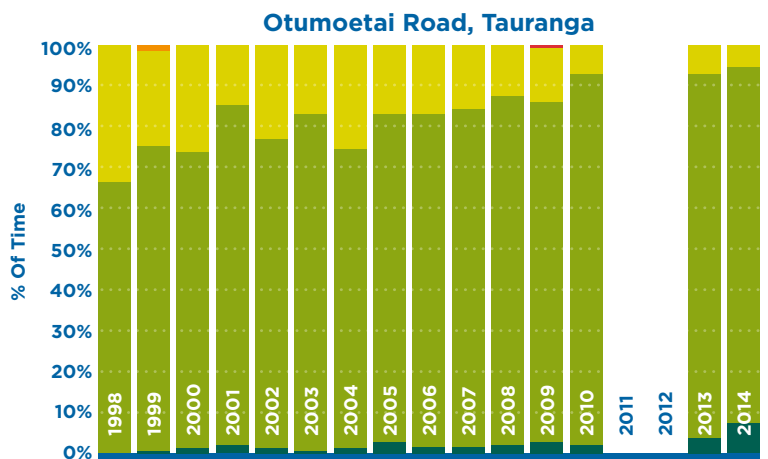
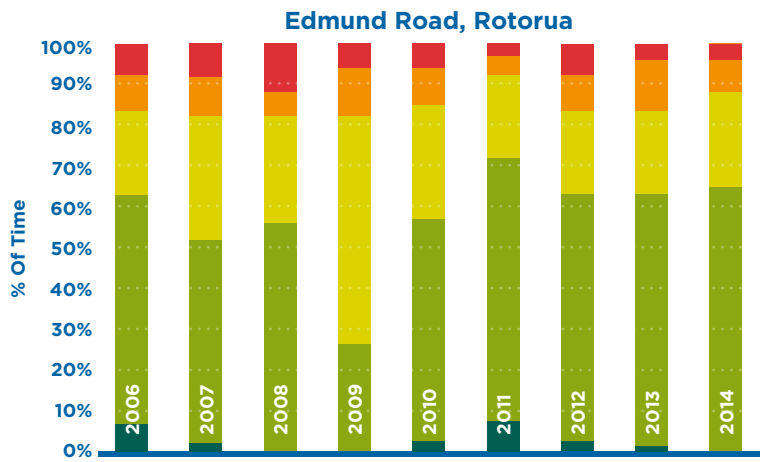
In response to the Ministry for the Environment's request to nominate airsheds where the standards are exceeded, Bay of Plenty Regional Council has designated one airshed for the Bay of Plenty region. This is the Rotorua airshed. To monitor the levels of PM₁₀ in this airshed, the Edmund Road site is operating.

Key Points

- ✓ Air quality is monitored at five urban locations.
- ✓ Air quality standards have been exceeded at one airshed in the Bay of Plenty.
- ✓ The Rotorua airshed is still non-compliant with the NES, but is improving.
- ✓ Monitoring continues in Ngāpuna to support a successful dust project.
- ✓ Finer particulate PM_{2.5} monitoring has started in Rotorua.
- ✓ SO₂ monitoring is ongoing in Mt Maunganui due to significant industry sources.
- ✓ A health study shows no effects from normal ambient long-term H₂S exposure within Rotorua city.
- ✓ A new dust monitor will be installed near the Port at Mt Maunganui.

Particulate matter (PM₁₀)

A summary of PM₁₀ data in relation to the NES-AQ and state indicators are presented below.



Percentage of the PM₁₀ standard (50 µg/m³)



Sulphur dioxide (SO₂) monitoring (Mt Maunganui)

The SO₂ emission source situation at Mt Maunganui is complex. Sources include:



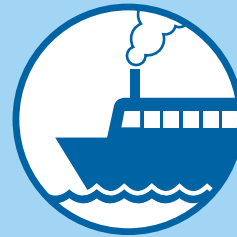
Industry

The largest single source. Consents are needed and are being issued for these activities

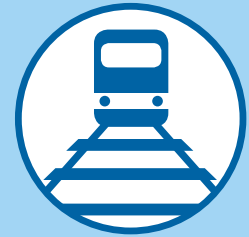


Traffic

Depending on proximity to roads, concentrations can vary

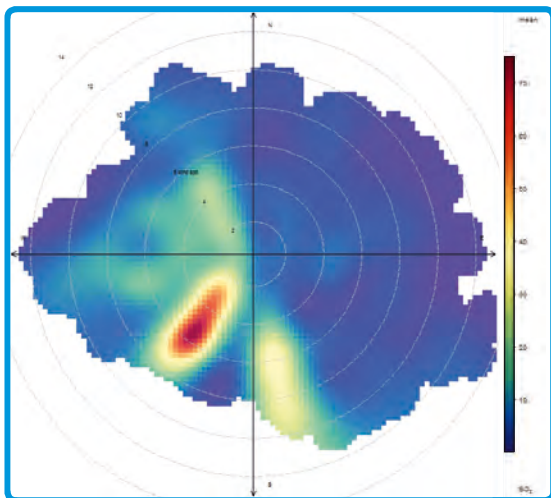


Shipping



Train Activity

The council's Totara Street site recorded exceedances of the NES-AQ in the earlier part of the record, however since 2007 no exceedances have been recorded.



A plot showing the influence of the Ballance Agri Nutrients site, southwest of the air quality monitoring site.

Nuisance dust at Mt Maunganui

The environmental impacts of dust emissions can cause widespread public concern about environmental degradation and/or a decline in amenity.

In February this year the Council's Regional Direction and Delivery Committee agreed to the preparation of a Dust Reduction Operational Plan, which will involve:

- a comprehensive audit report of the Port of Tauranga operation in relation to nuisance dust
- a report discussing reduction/mitigation options for highlighted nuisance dust sources
- a management plan with reduction/mitigation implementation timeframes.

The Regional Council regularly assesses and reports on the amount of airborne fine particles at various locations. Data is collected from five air quality monitoring sites in Tauranga, Rotorua and Whakatāne.

