

## What has been happening?

### NES update

Council staff are currently involved in discussions with the Ministry for the Environment (MfE) in relation to the review of the National Environmental Standards for Air Quality (Air Quality NES). The Air Quality NES are regulations made under the Resource Management Act 1991 which aim to set a guaranteed minimum level of health protection for all New Zealanders. The Air Quality NES came into effect on 8 October 2004. They are made up of 14 separate but interlinked standards.

### Moses Road, Ngāpuna, Rotorua

On the 9th January 2018 Council staff installed a PM<sub>10</sub> monitor within the Ngāpuna subdivision in Rotorua following discussion with local residents. Council had monitored PM<sub>10</sub> within this subdivision historically in relation to earlier actions within the Rotorua Airshed. The earlier monitoring dataset showed positive results following the introduction of Dust

Management Plans for many of the businesses within this area. Interestingly several exceedances of the PM<sub>10</sub> Air Quality NES were measured shortly after this latest installation began. Discussions resulted with a neighbouring industry and a number of modifications on that site have been implemented. Council continues to work with the wider group of industries within this area.

### Air Plan update

Proposed Plan Change 13 (Air Quality) was notified in February 2018. We received 80 submissions and will most likely be releasing the summary of decisions requested in July 2018. Hearings are expected to be held around October 2018.

The Regional Water and Land Plan was renamed the Regional Natural Resources Plan (RNRP) in late 2017. The intention is for most of the regional plans to be incorporated into the RNRP as they are updated. Proposed Plan Change 13 (Air Quality) is the first plan to go through this process. Once operative, it will become the Air Quality chapter of the RNRP and will replace the Operative Regional Air Plan.

## PM<sub>2.5</sub>/PM<sub>10</sub>

PM<sub>10</sub> are particles less than 10 microns in diameter, PM<sub>2.5</sub> are particle less than 2.5 microns in diameter. The smaller particles can penetrate further into the human respiratory system. Council has been aware of the growing interest in these smaller particles both nationally and internationally and has been running instruments that measure both PM<sub>10</sub> and PM<sub>2.5</sub> at the Edmund Road site in Rotorua for

some time now. Below (Figure 1) is a plot that summarises the relationship between PM<sub>10</sub> and PM<sub>2.5</sub> to date.

Diurnal seasonal plots also demonstrate the domestic heating dominance of elevated values within these two datasets (Figure 2).

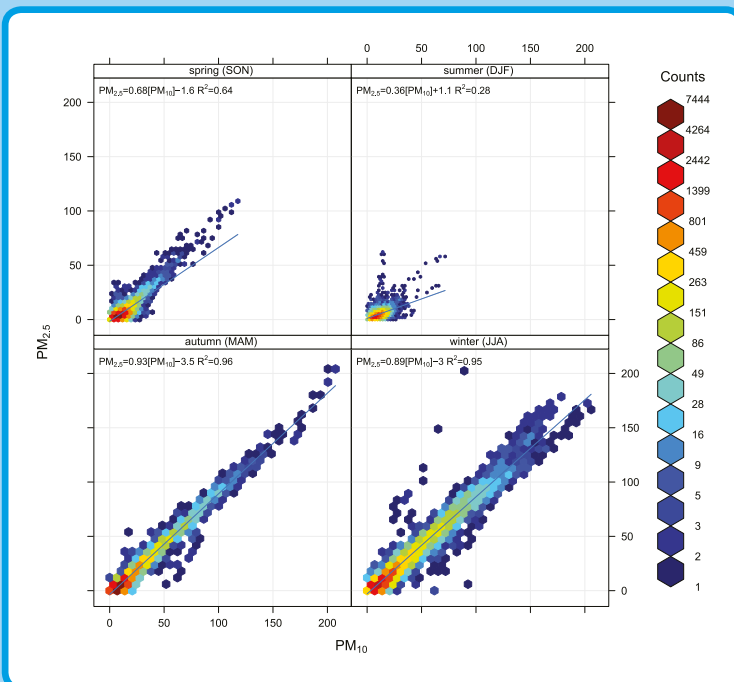


Figure 1

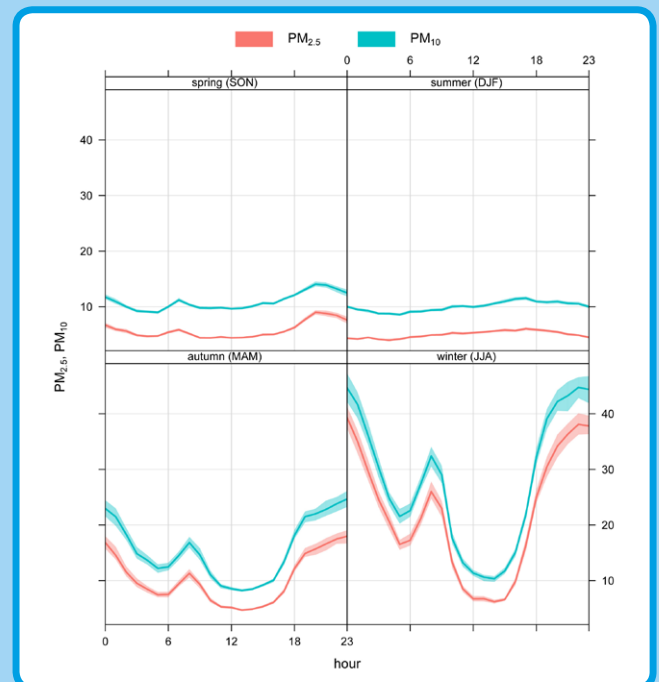


Figure 2

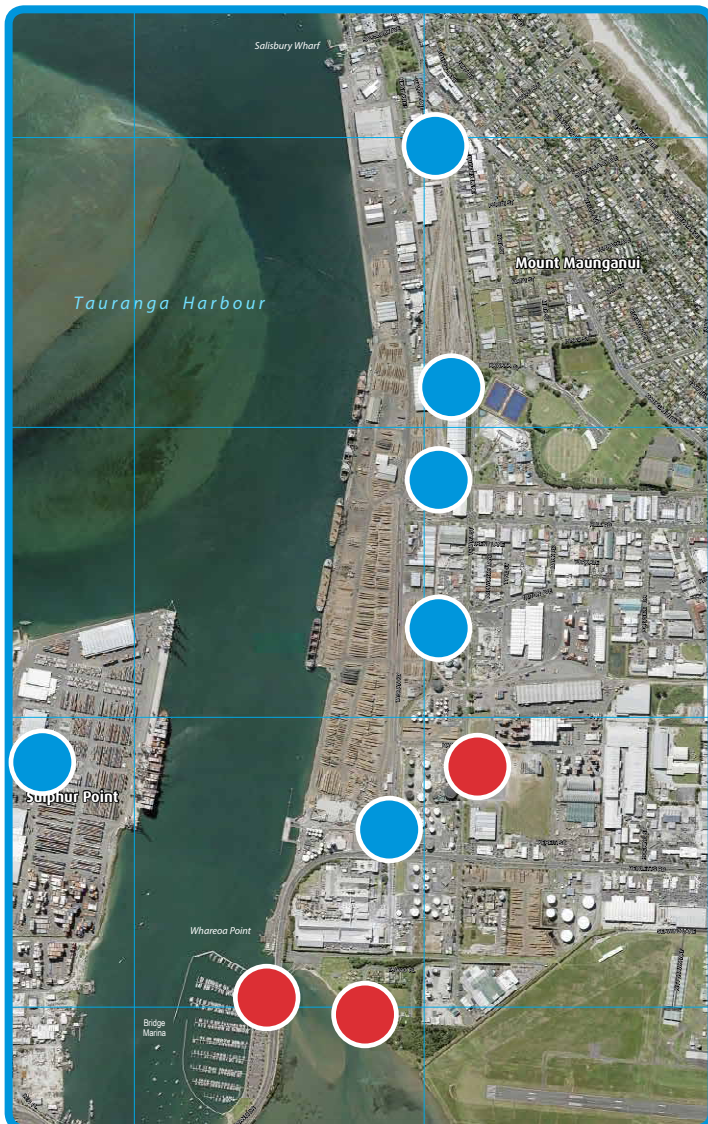
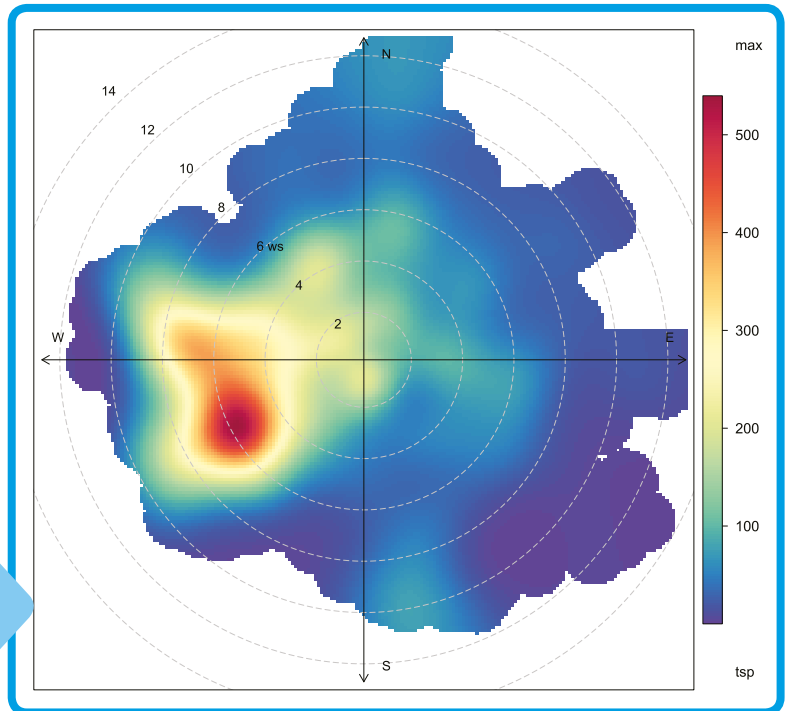
# Key Points



Air quality monitoring continues in 2018 at Otumoetai, Tauranga (PM<sub>10</sub>), Edmund Road, Rotorua (PM<sub>10</sub> and PM<sub>2.5</sub>), King Street, Whakatāne (PM<sub>10</sub>), Totara Street, Mt Maunganui (SO<sub>2</sub>, TSP), Taiaho Place (SO<sub>2</sub>, HF, H<sub>2</sub>S, TSP) and Tauranga Harbour Bridge Marina (SO<sub>2</sub>).

A new site has been installed at Moses Road, Rotorua (PM<sub>10</sub>). Meteorological data is also monitored at all sites.

Totara Street TSP (10 min data µg/m<sub>3</sub>)



## Air quality monitoring at Mt Maunganui

A new air monitoring programme at Mt Maunganui and Sulphur Point has been finalised. This programme involves a range of instruments looking at measuring parameters of interest such as particulate matter, SO<sub>2</sub>, CH<sub>3</sub>Br and meteorological data. The sites will be operated by Watercare on contract to the Council. The existing sites at Totara Street, Taiaho Place and Tauranga Bridge Marina will be part of this monitoring programme.

**Six new sites (blue dots) will be added to these existing three (red dots).**

## Emission inventory - Tauranga

Environet Ltd has been engaged by Council to undertake a detailed air emission inventory for the area defined by the Tauranga City boundary. Contaminants include particulate matter, carbon monoxide, sulphur dioxide and oxides of nitrogen (the Air Quality NES contaminants). The years investigated will be 2017/18. Sources of interest are - domestic heating, transportation and industry. Results should be available towards the end of 2018 and will be used to inform Council staff for managing and improving air quality in this part of the region.

## Particulate matter (PM<sub>10</sub>)

A summary of PM<sub>10</sub> data in relation to the NES-AQ and state indicators are presented below.

Number of PM <sub>10</sub> exceedances within the Rotorua Airshed	
Year	Annual total
2006	23
2007	25
2007	37
2009	23
2010	17
2011	7
2012	21
2013	11
2014	12
2015	13
2016	11*
2017	13

\* Due to instrument failure 8 of the exceedances were calculated using PM<sub>2.5</sub> data and the relationship with PM<sub>10</sub>

■ Excellent (<10%)   
 ■ Good (10-33%)   
 ■ Acceptable (33-66%)   
 ■ Alert (66-100%)   
 ■ Action (100+%)

