QLDC submission on:

Proposed amendments to the National Environmental Standards for Air Quality

PARTICULATE MATTER AND MERCURY EMISSIONS – Consultation Document

Due: 31 July 2020

To be submitted via online submission form.

**Introduce PM2.5 as the primary regulatory tool to manage particulate matter pollution**

1. Do you agree the proposed PM2.5 standards should replace the PM10 standard as the primary standard for managing particulate matter?

The proposed PM2.5 standard should replace the PM10 standard if it is a more accurate determinate for air-pollution related health issues, and discounts ‘natural’ sources of PM10 i.e. sand, which cannot be directly attributed to human activity.

1. Do you agree we should include both a daily and an annual standard for PM2.5?

If long-term or chronic exposure to elevated PM2.5 levels is a cause of the majority of poor health outcomes, it would be useful to look at breaches of the annual standards. Daily standards would be exceeded in winter given the Queenstown Lakes District climate and the need for higher levels of home heating. Daily standards would need to be varied to reflect climate and topography, and may therefore not lead to meaningful comparison and analysis. QLDC does however acknowledge that a high daily exceedance may have the potential to have an acute effect on the health of an individual. Measures may need to be required for short, medium and long-term action for these reasons.

1. Do you agree that these standards should reflect WHO guidelines?

In line with the WHO global guidelines, the annual PM2.5 standard should be set at 10μg/m3.

1. Do you consider that your airshed would meet the proposed PM2.5 standards? If not, what emissions would you expect to be the most problematic?

In areas within the Queenstown Lakes District such as the Arrowtown airshed, there is the expectation that standards would be exceeded in winter due to the topography which leads to pooling of cold air and therefore higher concentrations of PM. When looking at the current PM10 standards, in 2019 the annual average for the Arrowtown airshed was 16μg/m³ (guideline is 20 μg/m³), however the daily average on 28 June 2020 stood at 51 μg/m³ (guideline is 50 μg/m³)[[1]](#footnote-1).

**Retain the PM10 standard with reduced mitigation requirements**

1. Do you agree that councils should be required to keep monitoring and managing PM10?

The continued monitoring of PM10 will allow for the continued monitoring of long-term trends and the continued use of established baselines. This monitoring of PM10 may become less important as increased data is collected following the PM2.5 criteria.

1. What would be the additional costs involved in retaining PM10 monitoring alongside PM2.5 monitoring, versus the potential loss of valuable monitoring information?

Monitors in Arrowtown (run by National Institute of Water and Atmospheric Research) already collect PM2.5 data, so there would be no additional cost here as long as data sharing is maintained.

**Polluted airsheds**

1. Do you agree an airshed should be deemed polluted if it breaches either the annual or the daily PM2.5 standard?

An airshed should be deemed polluted if it breaches the annual standard. Daily levels would be too variable to draw meaningful conclusions however this data should still be collected. Monthly PM levels could be used to map trends. As the Arrowtown data referenced above shows, there is wide a wide variation in particulate levels over any one day compared to the entire year and seasonal variations and topography, in the Queenstown Lakes District in particular, can exacerbate those wide level ranges.

1. If all new resource consent application to discharge PM2.5 into a polluted airshed must be offset or declined, how would this affect your activities, or activities in your region?

Although a regional consenting issue, it may place more stringent rules on residential activities and would increase compliance monitoring and enforcement from a district council perspective. District councils would need to resource accordingly for this.

1. Can you identify a more appropriate, measurable threshold for controlling consented discharges in a PM2.5 context?

This does not address discharges from already established activities with burners that are (no longer) compliant.

1. Do you agree that if a council does not have adequate PM2.5 data, the airshed’s classification under the PM10 standards should continue to apply?

Where there is inadequate PM2.5 data, PM10 standards should continue to apply as the best set of data available. This is preferable to not monitoring at all, however there should be a requirement that all councils move towards using PM2.5 data.

**Domestic solid-fuel burner emissions standard**

1. Do you agree with the proposal to reduce the emissions standard to no more than 1.0g/kg? If not, what do you think the standard should be?

Reducing the emissions standard to no more than 1.0g/kg is favourable if there are sufficient options that are sufficiently subsidised, available for easily-installed solid-fuel burners.

1. Are there areas where a lower (more stringent) standard could be applied?

With high cost of living in the Queenstown Lakes District, housing affordability and energy poverty may worsen if more stringent measures were to be put in certain areas. High standards should be applied across all airsheds, irrespective of the current air quality, however all other methods to reduce emissions should be considered; there are still significant gains that could be achieved through proper insulation and using thoroughly dry firewood.

**All domestic solid-fuel burners covered**

1. Do you agree the new emissions standard should apply to all domestic, solid-fuel burners newly installed in properties less than two hectares in size?

Yes, it is better that gains are made at the time of installation. Residents should be made aware that potentially higher costs can be outweighed by the future energy savings.

1. Do the current methods to measure emissions and thermal efficiency need updating or changing? For example, to address any trade-off between thermal efficiency and emissions, or to test other types of burners or burner modifications that seek to reduce emissions?

There should be robust measures and standards, that do not vary greatly over time. When people learn that their once complaint burner is no longer compliant, it may cause them to disengage with air quality issues, and make them less likely is undertake other heat/energy saving activities (such as using dry wood and having increased insulation).

**Q15-Q20: use of mercury – not relevant to QLD.**

**Timing, implementation and transitional provisions**

1. Do you agree that lead-in times are required for starting to monitor PM2.5 and for burners that will no longer be compliant? What lead-in times would you suggest and why?

In the Queenstown Lakes climate, solid wood burners are a major source of home heating. There needs therefore to be a reasonable and practical timeframe, and ability for government to look at grants and subsidies to offset cost on home owners. Using the same time frames that were set out for meeting the new insulation requirements that came into effect 1 July 2019 would be appropriate:

* 2 years in all rental homes (or 90 days from any renewed tenancy)
* All complying by 5 years.
1. Are there any other matters you think would require transitional provisions? If so, what?

N/A

**Other comments**

1. Do you have any other comments you wish to make?

Public health considerations should be incorporated into all Environmental Standards.

QLDC would welcome a quality standard for wood suppliers to provide evidence of wood moisture levels.

Areas that show issues with compliance should have targeting funding to give opportunity for improvements to be made.

1. <https://www.lawa.org.nz/explore-data/otago-region/air-quality/arrowtown/arrowtown/> accessed 29 June 2020. [↑](#footnote-ref-1)