



Minutes

Meeting:	Upper Hunter Air Quality Advisory Committee (No 40)	Date:	Wednesday 23 March 2022
Location:	Charbonnier Hotel, Singleton	Time:	10.00am – 12.30pm
Last Meeting Date:	Tuesday 23 November 2021	Next Meeting Date:	Wednesday 25 May 2022
	<p>John Turner – Chairperson John Krey – community representative Michael White – community representative Wendy Wales – environmental representative Gary Mulhearn – coal industry representative Summer Steward – power industry representative Klay Marchant – industry delegate Danny Thompson – Singleton Shire Council representative Matthew Riley – DPE (online), Director Climate and Atmospheric Science Stephen White – DPE (online), Senior Scientist Leanne Graham – DPE, Senior Scientist David Gathercole – EPA, Director Regulatory Operations Metro North Gina Bradley – EPA, Stakeholder Engagement</p>		
Apologies:	<p>Bob Vickers – community representative Tracy Ward – Muswellbrook Shire Council representative Claire Miles – EPA, Manager Regulatory Operations Metro North Catherine Chicken – industry representative Maurice Collison – Upper Hunter Shire Council representative Ned Stephenson – industry representative</p>		

Agenda items:

1. Introduction

1.1. Welcome

The Chair acknowledged the Wanaruah people as the traditional owners of the land and paid respects to their Elders past, present and emerging.

1.2. Present, apologies and declarations of interest

The Chair welcomed the Upper Hunter Air Quality Advisory Committee (the Committee) and noted the apologies. There were no declarations of interest stated by any attendees.

2. Previous Minutes and Outstanding Actions

2.1. Review previous minutes

The previous minutes were adopted with no changes.

2.2. Outstanding actions

There were no outstanding action items.

3. EPA Update – Regulatory Operations Metropolitan North – standing item

3.1. Regulatory Operations Metropolitan North

Mr Gathercole gave the following operational updates:

- There have been very few dust complaints in the Upper Hunter in the past quarter.
- Bust the Dust was not implemented because of wetter conditions associated with the current La Nina cycle. It will be considered again for spring 2022/2023.
- We are being more strategic with our planning for future extreme weather events and responding to emergency incidents.
- EPA Operations officers are busy currently responding to the Wool Store fire incident in Wickham and continue to work on the flood response around the State.

Ms Bradley gave an update on the EPA Roadshows:

- The outcomes from the online forums in November 2021 have been published on the [website](#).
- We have received very positive feedback on all roadshow forums to date. The forums provide an opportunity to meet with the EPA Executive team and senior leaders to hear about key priorities and initiatives, ask questions and participate in roundtable discussions.
- The next roadshows will be held in person, between 30 March and 7 June 2022. These will be for our [regulated stakeholders](#), bringing councils and licensees together.
- This will include a roadshow in Newcastle on 24 May 2022 which has now sold out with 160 registered to attend. It is great to see Ms Steward, Mr Mulhearn and Mr Stephenson all registered.
- Community representatives will have another opportunity to attend a roadshow later in the year.

4. Air Quality Monitoring Network Seasonal Newsletter – standing item

4.1. Spring 2021 Newsletter

Mr Riley thanked the committee for their support of the network and apologised for being unable to attend in person. Dr Graham presented on the spring 2021 seasonal newsletter, including the following key points:

- Air quality in Upper Hunter was good during spring 2021.
- Daily particle levels were within national benchmarks 98.9% of the time at Singleton and 100% of the time at Muswellbrook.
- Levels of fine particle matter remained below national standards.
- All stations recorded their lowest rolling annual average PM10 and PM2.5 particle levels to the end of spring 2021 since the network began.
- There were five days above the daily average PM10 benchmark in the Upper Hunter during spring 2021. This was the second fewest number of exceedance days during spring since the network began operation.
- For the second spring in a row, all days in spring 2021 were below the daily average PM2.5 benchmark at all stations.
- The Upper Hunter experienced very much above average to highest on record rainfall during spring 2021 with average temperatures.

Cr Thompson asked whether the low PM2.5 levels were associated with increased humidity. Mr Riley and Dr Graham advised that increased rainfall can suppress particles in the atmosphere, as well as dust being transported through the valley. Periods of above average rainfall since February 2020 and wetter La Nina conditions in spring-summer 2021-22 have led to increased ground cover. More extensive ground cover means less surface soil exposed to erosion and transport by winds. Greater soil moisture means more transpiration from vegetation, which increases humidity in the atmosphere. The low PM2.5 levels are largely due to the wetter weather patterns and less bushfires smoke compared to spring-summer 2019-20.

5. Department questions and updates – standing item

5.1. Alerts

Dr Graham acknowledged the committees' request to improve the current reporting of alerts to the wider community. Investigating and reporting on each alert event would present DPE and EPA with resource considerations. Dr Graham provided the following information in explanation:

- Alerts are based on an exceedance of the thresholds for 1-hour average particle concentrations. These are currently: PM10 > 100 µg/m³, PM2.5 > 50 µg/m³.
- Some alert events are followed by same day exceedance events for thresholds of national standards (24-hour average PM10 > 50 µg/m³, PM2.5 > 25 µg/m³)
- Some events exceeding national standards are preceded by same day alert events.
- UHAQMN exceedances of national standard are reported by DPE at committee meetings and in Upper Hunter air quality seasonal newsletters.
- Since the last committee meeting (23.11.21 to 22.3.22), there were 3 alerts (exceedances of 1-hour criteria):
 - 15 December 2021 at Warkworth – 1hr PM10, 107, likely due to local particle sources
 - 19 December 2021 at Warkworth – 1hr PM10 120, due to winds and passage of low-pressure trough
 - 12 January 2022 at Singleton – 1hr PM2.5, 50.7, invalid data due to instrumental fault

Mr Krey acknowledged that the Network works very well. The 24-hour alerts give a history for the air quality that day. The one-hour alerts were brought back because it was recognised that this was a more effective way to alert people before they have spent the day breathing in particles at levels in the poor air quality category. However, there was no finalisation on when the alert period ended, that is, when particles levels had fallen to the fair air quality category. For example, if 1-hour average particle levels were in the poor air quality category for eight hours, only one alarm will go off. Mr Krey is concerned that in this scenario the alarms are not as effective for protecting human health. A lot of the local community depend on these alerts. He understands that a change would require more resources, but there would be a significant benefit in having the alerts repeat every hour. He proposed that the alarm should be continuous and should also be included as part of the seasonal newsletters. Cr Thompson suggested a data visualisation system, such as a Power BI dashboard, could be used to improve the issuing of alerts.

Mr Riley advised that DPE's current program to upgrade the air quality data system is actively looking at ways to improve the alert messaging system. One option may be that an initial alert is received and then a message is received when there is no longer a need for the alert. DPE will keep the committee updated on how this process progresses. Developing alert systems is a learning process and input from the committee is valued. Mr Riley is the Chair of the National Air Quality Technical Advisory Group and that group continues to discuss ways to address this in a nationally consistent manner.

Action Item No	Action	Person Responsible
1	Provide an update on potential changes to the hourly alert system to include a cancellation alert	DPE representative

5.2. Q&A for DPE & EPA

Mr M White asked for an update on the committee paper submitted to the Minister's Office on the request for a new particle characterisation study. The Chair agreed that it would be good to have a decision made before the next meeting so that the committee can move forward with the outcome. Cr Thompson confirmed that Singleton Shire Council have also written to the Minister's Office requesting a new study particle characterisation study.

Action Item No	Action	Person Responsible
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2	Provide a final decision on the committee paper regarding a new particle characterisation study	Mathew Riley
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6. Network feedback – standing item

6.1. Information sharing and feedback from committee members

Ms Wales raised the issue of odours this summer, possibly sulphur dioxide (SO₂) and/or nitrous oxide, in high humidity. Ms Wales would like to know if this is caused from spontaneous combustion at Muswellbrook Coal. The National Pollution Audit confirmed that 97-98% of SO₂ is generated by coal fired power stations, followed by aluminium smelting. Mr M White has also observed spontaneous combustion in the region.

Dr S White, DPE, confirmed that the standards for SO₂ were updated in May 2021 following a review of the Air Quality NEPM. The Australian national standard for SO₂ for 1-hour is 100 parts per billion (ppb) reported in NSW as 10 parts per hundred million (pphm) and the USA standard is 75 ppb. The Australian 1-hour standard will reduce to 75 ppb in 2025. The thresholds applied to 1-hour levels are in the process of being updated for alerts and on the DPE website to reflect the tighter standards for SO₂ and NO₂.

7. Upper Hunter Air Quality Monitoring Network Review

7.1. UHAQMN five-year review

Dr Graham thanked Mr M White for his feedback to date. Mr M White would be grateful for any follow up on his feedback. Dr Graham presented on the purpose, scope, four main objectives, results and recommendations of the independent audit, feedback to the UHAQAC and a proposed timeline of next steps toward publication of the final report. A copy of the detailed presentation is attached to the minutes.

Ms Bradley agreed to circulate the survey for any committee members who had not already completed it last year, to help provide some feedback by the deadline of Friday 25 March.

There were no further questions on the five-year review. Committee members were advised that feedback on the draft report, UHAQMN five-year review, may be submitted via the EPA's UHAQAC mailbox, UHAQAC@epa.nsw.gov.au by 5pm Friday, 25 March 2022.

Action Item No	Action	Person Responsible
3	Re-circulate survey questions for any additional members to respond by Friday 25 March	Gina Bradley

8. General Business

8.1. Other

Mr W White commended the EPA's work to introduce best practice methods to reduce emissions from non-road diesel engine exhaust. He suggested there may be value in acknowledging this work in the UHAQMN five-year review.

8.2. Next meeting date

Ms Bradley confirmed the next meeting date as Wednesday 25 May 2022. Following this there will be two more quarterly meetings before the end of the current committee term.