

## UPPER HUNTER AIR QUALITY MONITORING NETWORK (UHAQMN) – ADVISORY COMMITTEE

### MEETING MINUTES – Meeting 8

**Date:** 11 October 2012

**Time:** 10:00am – 1:00 pm

**File:** FIL08/6990-09

**Meeting Location:** Singleton.

**In attendance:** Cathy Cole (Chairperson), Scott Brooks, Wayne Bedggood, Craig Dalton, Craig Flemming, Lyn MacBain, Kenneth McDonald, Patrice Newell, Andrew Speechly, Wendy Wales, John Watson.

Office of Environment and Heritage (OEH): Alan Betts.

Environment Protection Authority (EPA): Mitchell Bennett, Leanne Graham.

**Apologies:** Carol Russell.

#### Agenda Item:

1. **Acknowledgement of Country**
2. **Apologies (see above)**
3. **Previous Meeting Minutes and Actions**

The Advisory Committee adopted the minutes from the meeting held on 17 May 2011.

Action 1: completed. OEH provided a photograph of the Muswellbrook monitoring station, with labels identifying specific instruments and equipment.

#### 4. **Progress Report**

OEH is testing the network webpage to improve printing and downloading of graphs.

OEH provided an update on the Upper Hunter particle characterisation study, being undertaken by CSIRO and ANSTO for OEH and NSW Health. A dedicated website will include the scope of the investigation and the final report, due in 2013.

#### 5. **System Performance**

OEH reported on the network's performance for the period from 1 May to 31 August 2012.

All 14 network sites achieved the 95% online operational target for PM<sub>10</sub> data during May, June and August. In July, scheduled maintenance, calibration testing and a one-day power outage reduced online performance to 94% at four sites.

In the larger population centres of Singleton, Muswellbrook and Aberdeen, daily average PM<sub>10</sub> levels were better than the 50 µg/m<sup>3</sup> benchmark, throughout the period (123 days).

In the smaller communities, daily average PM<sub>10</sub> levels were better than the 50 µg/m<sup>3</sup> benchmark at Bulga, Jerrys Plains, Warkworth and Wybong. Maison Dieu and Camberwell experienced one day and three days, respectively, above the benchmark.

At the network's diagnostic sites, operating close to mines, daily average PM<sub>10</sub> levels were below the 50 µg/m<sup>3</sup> benchmark at Muswellbrook NW. Singleton NW and Mount Thorley experienced six days in May and four days in August above the benchmark. Singleton NW recorded the highest daily average of 69 µg/m<sup>3</sup>.

For PM<sub>2.5</sub>, Muswellbrook achieved over 95% online performance. Camberwell and Singleton achieved 95% online performance during May and June. Instrument problems and a one day power outage reduced online performance at Singleton to 94% in July and at Camberwell to 84% in July and 74% in August.

Daily average PM<sub>2.5</sub> levels were below the 25 µg/m<sup>3</sup> reporting benchmark throughout the reporting period, with the exception of two days at Muswellbrook, which recorded its highest daily average of 26 µg/m<sup>3</sup> in July.

Sulfur dioxide (SO<sub>2</sub>) monitoring at Singleton and Muswellbrook achieved above 95% online performance. Hourly average SO<sub>2</sub> levels were less than half the benchmark (20 pphm).

Hourly nitrogen dioxide (NO<sub>2</sub>) levels at Singleton and Muswellbrook were less than one third of benchmark (12 pphm). Instrument problems and calibration reduced online performance at Muswellbrook to 85% in June, and to 92% at Singleton in August.

There were 2,219 unique pageviews for the Upper Hunter Network information webpage and 5,942 unique pageviews for the Air Quality Index general map webpage. Subscriptions to network health alerts increased, with email subscribers more than doubling to 620 and SMS subscribers increasing almost three-fold to 343.

## **6. Performance Report 2011-2012**

OEH provided an overview of the Draft *UHAQMN Second Interim Performance Report 2011-2012*. The report provides a brief analysis of air quality data from 1 July 2011 to 30 June 2012, although not all 14 monitoring stations were on-line for the 12 month period.

The network generally achieved a high level of online performance. With the exception of one 24 hour average, monitoring results for PM<sub>10</sub> were below benchmark concentrations in the larger population centres. Smaller communities experienced some days above the PM<sub>10</sub> benchmark. PM<sub>2.5</sub> levels were elevated during the winter at Muswellbrook when temperature inversions resulted in cool air pooling near the ground surface.

The Chair requested that Committee members provided comments on the report via email by 19 October 2012. It is anticipated that the final report will be published on the Upper Hunter Air Quality Monitoring Network webpage before the end of the 2012 year. The next report in 2013 will analyse data for the 2012 calendar year. Future analysis of the larger dataset will guide necessary responses.

## **7. Rationalisation of Existing Industry Air Quality Compliance Monitoring**

The EPA advised the Committee that the establishment of the Upper Hunter Air Quality Monitoring Network enables the phasing out of redundant industry-operated monitoring stations, in consultation with the Department of Planning and Infrastructure (DP&I).

The EPA explained that over many years the planning process for establishing each power station or mine has required the industry to install dust monitors. A high proportion of these monitors use older technologies, such as dust deposition gauges or high volume samplers.

In contrast, the new network of tapered element oscillating microbalance (TEOM) particle samplers monitor continuously, with the data available in real-time and reported via the Internet and automated alerts.

The EPA has commenced preliminary discussions with industry and DP&I about the rationalisation of redundant industry-operated monitors.

Committee members asked how the EPA would regulate the mining industry in the absence of industry monitors. The EPA explained that Environment Protection Licences (EPL) require mines to minimise dust emissions. In 2012 the EPA commenced the Dust Stop program. This program requires all mines in NSW to implement best practice plans to reduce dust emissions as a condition of their EPL.

A committee member asked where responsibility lies for decision making to take action when network results indicate poor air quality. The EPA explained that data from the network is used by both EPA and DP&I to guide regulatory action at various levels.

The EPA will continue to update the Committee of progress.

## **8. Regulation of the Upper Hunter Air Quality Monitoring Network**

The EPA outlined the draft *Protection of the Environment Operations (General) Amendment (Upper Hunter Air Quality Monitoring Network) Regulation 2012* (the *Regulation*), proposed to replace *The Deeds of Agreement* that established the network and its funding arrangements, and which expire in December 2012.

In summary, the draft *Regulation*:

- Aims to ensure ongoing, secure and equitable funding of the network.
- Proposes that holders of environment protection licences that authorise coal mining or electricity generation in the Upper Hunter will be required to fund the cost of the ongoing operation of the network.
- Describes billing procedures and provides formulae for calculating the levy payable.

Levies for the cost of NO<sub>x</sub> and SO<sub>2</sub> monitoring are based on emissions from licensed premises. Levies for particle monitors are split between the mining and power industries based on emissions, with costs for each mine based on the mass of material moved.

The Committee discussed the implications of the draft *Regulation*. Some Committee members suggested that the *Regulation* be amended to require that any new mines, which triggered the need for a new monitoring site, pay the cost for the new site, rather than the cost being shared amongst all contributors.

The EPA invited feedback on the Draft Regulation by 21 October 2012. The draft Regulation was publicly exhibited on the OEH website.

## **9. Adaptation of the Upper Hunter Air Quality Monitoring Network**

The EPA discussed the establishment of a system to ensure that the network adapts to future developments in the mining industry.

In 2008, in a report to the EPA, Holmes Air Sciences proposed a design for the network and advised that “if the development continues, ... it will be necessary to modify the monitoring network to ensure that it provides the necessary coverage (Homes Air Sciences, 2008:3)”.

In September 2012, the NSW Government’s *Strategic Regional Land Use Plan – Upper Hunter (SRLPUH, Map 2)* identified the potential for large-scale open cut mining between Singleton, Aberdeen and Denman. The current network covers air quality impacts in most of the population centres within this area, with the exception of Broke and Denman.

The EPA recommended the following action to facilitate the evolution of the network:-

*Department of Planning and Infrastructure to require any new coal mine proposal near Denman or Broke to include in its Environmental Assessment a consideration of the need for additional UHAQMN stations, as well as an assessment of potential monitoring locations.*

During discussion of the planning approval process, DP&I advised that it supported the proposed approach.

The Committee discussed the integrity of the approach and explored the alternative of a government assessment to identify and assess locations for future monitoring stations. The EPA explained that it had used the government’s strategic plan to identify those areas surrounding Broke and Denman that could in future be impacted if mining develops as expected.

During discussion of triggers for establishing a new monitoring station, EPA advised that each environmental assessment would be reviewed by the EPA in consultation with the Committee when necessary.

Committee members expressed a view that air quality monitoring stations should be constructed before any new mine commenced operation.

NSW Health representative noted that the proposal placed the responsibility for the scientific modelling with a private consultant under contract to the mine proponent. Delegating the assessment of need for, and placement of, future monitors based on individual development applications may not support the strategic intent of the network and may appear to lessen the independence of the network. NSW Health representative undertook to seek clarification from NSW Health with regard to the proposal.

The EPA advised that it would consider the feedback provided by the Committee.

## **10. Community Feedback**

EPA distributed recent media articles related to the network.

## **11. General Business**

A Committee Member reported that in response to her call to EPA’s Environment Line to enquire about SMS health alerts received at midnight, the operator seemed unfamiliar with the SMS health alert system and the network. The EPA agreed to follow up the issue with the after hours service provider.

A Committee Member asked what would be the nature of a trigger to indicate that the cumulative impact of a new mine was unacceptable and consequently lead the government to cease approval



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of open cut mines in the Upper Hunter. The EPA noted that the network data currently shows that air quality in the major population centres is generally better than benchmark levels. Another Committee Member recommended that such a message was worth stating more widely and would lift the mood of the community. The EPA advised that communications strategies are being revised.

**Next meeting date:** Thursday, 18 April 2013.

**Minutes Reviewed by:** Cathy Cole (Chair, Items 1 to 10),  
Kenneth McDonald (Acting Chair, Item 11).