



March 5 2013

Dear Committee,

**Submission to the Senate Committee Inquiry into the Impacts of Air Quality on Health**

Thank you for the opportunity to provide this submission.

Communities Protecting Our Region is an alliance of local groups and citizens from the greater Mackay region with a common interest in protecting our health, maintaining our community values and preserving the Great Barrier Reef from the proposed Dudgeon Point Coal Port 13km south of Mackay.

We would also like to take this opportunity to request the committee consider visiting Central Queensland, including Mackay, in order to conduct a public hearing.

Queensland is Australia's largest coal state and many communities in Central Queensland live near coal infrastructure whether this is mines, ports or rail.

The coastal communities of the greater Mackay region would be keen to share their experiences of air quality issues associated with the coal ports at Hay Point and Dalrymple Bay and their concerns about the proposed port at Dudgeon Point.

Sincerely,

Ellen Roberts  
On behalf of Communities Protecting Our Region

## **Introduction: air quality in the Mackay region**

This submission addresses our concerns with air pollution from coal particulates from port infrastructure as well as the proposed port at Dudgeon Point. It does not address other forums of air pollution, such as from cane burning.

The proposed Dudgeon Point Coal Terminals Project consist of two coal export terminals with a combined capacity of up to 180 million tonnes per annum (mtpa); and associated infrastructure. The project is expected to include new coal stock, up to 10 new ship berths, a new rail connection from the Goonyella system to Dudgeon Point, and an expansion of the existing Tug Harbour at Half Tide.

The proposal is 4km north of the existing coal export facilities at Hay Point (Hay Point and Dalrymple Bay coal terminals), which presently have a combined capacity of 130mtpa. These coal terminals are approximately 19km from Mackay.

### **Term of reference a: particulate matter, its sources and effects**

We refer to the attached report, *Coal Dust and Health in the Mackay Region*, which outlines our concerns with current air quality monitoring practices at the existing ports of Hay Point and Dalrymple Bay, and also with the new proposed port at Dudgeon Point.

This report was produced by Communities Protecting Our Region to better inform health professionals and the public about the health impacts of the coal dust associated with port infrastructure in the Mackay region.

In summary the recommendations are to conduct monitoring and health studies in relation to the existing ports, and to refrain from building further coal port infrastructure that will increase pollution from airborne coal dust.

In addition to this analysis we have also collected anecdotal evidence from communities living near the existing ports, as well as in Mackay, about their experiences of coal dust. The map shown at Appendix 2 summarises some of those experiences.

In addition to the material provided in this report, we would also like to provide the photographs that show coal dust coming off coal trains as it is transported through the Sarina area towards the ports at Hay Point and Dalrymple Bay. These photographs are collected at Appendix 3.

We have also provided a voice recording of Mr Ian Williams, a resident of Hay Point, regarding his experiences with dust from the Hay Point coal terminal.

## **Terms of reference b: those populations most at risk and the causes that put those populations at risk**

One of our concerns with air quality in Mackay is the lack of health studies on the impact of the existing coal infrastructure on the local populations, and we are urgently calling for these studies to take place particularly in light of the new proposed infrastructure.

Both our own studies and official health data provide sufficient evidence for further work on the health impacts of air pollution. In October last year Communities Protecting Our Region surveyed 399 residents through doorknocking, stalls, as well as some online surveys. The full community survey results are attached.

The following community survey results are relevant to this inquiry:

- 43 % of respondents indicated that they or someone in their family suffered from respiratory illness. This figure rose to 46% within 6km of existing ports. This is much higher than the national average of 27.2% for illnesses of the respiratory system.
- Coal dust and its impact on health was the leading concern about the proposed port.
- However 25% of respondents were not aware of the impacts of coal dust on human health.

Our survey results are reflected in morbidity statistics for the Mackay region, which show significantly higher rates of hospital separations for asthma<sup>1</sup> compared to figures for the rest of Queensland. These statistics also show significantly higher mortality rates for coronary disease<sup>2</sup> and cancer.<sup>3</sup>

No studies currently exist on the reasons for these higher rates of respiratory illness within the greater Mackay region. In our submission any possible links between coal dust and higher rates of hospital separations for asthma, as well as higher mortality rates for cancer and coronary disease warrant further investigation.

## **Terms of reference c: the standards, monitoring and regulation of air quality at all levels of government**

As outlined in our attached report, we have concerns about current monitoring practices at the existing coal terminals. All monitoring is undertaken by North Queensland Bulk Ports on behalf of the port operators. NQBP is a government owned corporation that supports the development of port infrastructure.

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<sup>1</sup> Queensland Health, *Health Indicators 2012 Mackay Hospital and Health Service. Tropical Regional Service 2012*, p 47.

<sup>2</sup> Ibid, p 72.

<sup>3</sup> Ibid, p 61.

Only total dust levels are reported (on a 24 hour and monthly average basis)- coarse and fine particulates (PM 10 and PM 2.5) are not monitored, despite their proven health impacts. Only one monitor for PM10 is operational in Mackay, operated by the Queensland Department of the Environment and it is 19 kilometres away in Mackay. There are plans to install one fine particulate monitoring station at McEwen's Beach.

We believe that the following changes need to be made to monitoring practices:

- Fine and coarse particulate matter should be monitored in communities around the ports, as well as in Mackay.
- "Spikes" in dust can also trigger health problems, so continuous data (rather than daily or monthly) should be available.
- Alerts of high dust and particulate levels should be available for vulnerable people such as asthmatics, the elderly and people with heart and lung problems so they can take precautionary measures to avoid dust exposure.
- As fine coal dust is cumulative in the lungs the community needs to know levels of exposure to coal dust specifically.

### **North Queensland Bulk Ports' dual role**

We are concerned in relation to the dual role played by NQBP in both monitoring ports and facilitating their development. In their most recent newsletter, and in response to concerns raised by our group in relation to links between coal dust and health, NQBP stated:

There have been many media stories and claims in relation to coal dust and health effects. Scientific evidence presented has been based on studies primarily overseas with a focus on dust from mining and combustion of coal, not specifically on dust from stockpiles at coal terminals which undertake rigorous dust management. A World Health Organisation report uses Australia as an example of a country where strict prevention and control measures have been well established to avoid health impacts from airborne dust.<sup>4</sup>

This statement is incorrect both in relation to the content of our statements, as well as a summary of available evidence on coal dust. We have highlighted studies in relation to the health impacts of increased particulate pollution. NQBP's defensive stance that attempts to delineate different sources of coal dust, such as stockpiles versus mines is inaccurate, doesn't reflect current studies, and is an inappropriate statement for a body charged with monitoring dust emissions.

NQBP appears also to be underestimating the dust emissions from proposed port infrastructure in their public statements. The Deputy Chief Executive Officer of NQBP, Mr Jeff Stewart Harris made the following statement on local ABC radio on 27 February 2013:

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<sup>4</sup> North Queensland Bulk Ports, *Hay Point Portal*, Issue 19 February 2013, p 4.



The modelling that we have done indicates that for PM2.5 size coal from the Dudgeon Point proposals that the background levels are about 5 microns per cubic metre and that the accepted standards would be 8 micrograms per cubic metre so it's well under. And from that we know that the modelling has suggested that the actual stockpiles themselves would contribute about 1/15000 of that background amount.

However NQBP's own modelling, which was in fact for a port of only 120 million tonnes per annum rather than the 180 million tonnes currently proposed, shows an increase in PM2.5 from proposed port infrastructure of between 4% (1/25) and 19% (around 1/5) on background PM2.5 levels depending on proximity to the port.<sup>5</sup> We have sought further information from NQBP about their rationale for making the statement above but have not had a response.

In our view these statements provide further evidence that dust monitoring should be undertaken by an independent body without a financial or institutional interest in port infrastructure.

### **Enforceable PM2.5 standard**

We also have concerns about the lack of an enforceable PM2.5 standard. It is this form of particulate matter that is one of the most harmful to human health. We note that the Federal government previously held intentions to translate the current PM2.5 Guidelines into an enforceable standard. This needs to occur urgently.

### **Appendices and attachments**

Appendix 1: map of experiences of coal dust in the Mackay area

Appendix 2: photographs of coal dust from coal trains coming to the ports at Hay Point and Dalrymple Bay.

Attachment 1: Citizens Protecting Our Region, *Coal Dust and Health in the Mackay Region (report)*, February 2013

Attachment 2: Citizens Concerned About Dudgeon Point, *Community Survey October 2012*, October 2012

Attachment 3: Voice recording of Mr Ian Williams, resident of Hay Point, regarding his experiences of coal dust from the Hay Point coal port.

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<sup>5</sup> Katestone Environmental Pty Ltd, *Dust Modelling Study of Dudgeon Point Coal Terminal*, October 2009, p. 24.

Appendix 1: reports of coal dust from existing ports at Hay Point and Dalrymple Bay



Appendix 2: photographs of coal dust coming off coal trains as it heads to the coal ports at Hay Point



Photograph above taken at Bee Creek, Coppabella



Photograph above taken at the overhead bridge, Sarina Marlborough Road





Photograph above and below taken at the overhead bridge, Sarina Marlborough Road

