Major Development Assessment, Department of Planning
GPO Box 39
Sydney NSW 2001
or
Email: plan_comment@planning.nsw.gov.au

Submission for Wallarah 2 Coal Project

Application Number SSD-4974

Location Approximately 5 Km northwest Wyong

From :

David Holland
Graduate Diploma in Environmental Management and Bachelor of Applied Science in Environmental Planning, Charles Sturt University
Resident of Blue Haven

Date: 8th June 2013

To the Director General of the Department of Planning NSW,

I would like to take this opportunity to express my concerns with the building of a coal loader facility near Toohey's Road within the proximity of extensive urban areas around the proposed site.

Many existing urban areas have the potential to be affected by impacts from the proposed development as well as a high level of potential for impacts on future urban and large lot developments planned in relatively close proximity to the site.

Some assertions related to noise and air particulates as potential impacts to the surrounding environments are as follows:

- The Coal Loader as part of the Wallarah 2 Coal project is far too close to residential areas. One example is Blue Haven, which is situated less than 3 Kilometres from the proposed coal loader and head works facility.

- There is an overall hazard for airborne particulates in the form of coal dust pollution with the potential to cause health issues in the general population living, working and transiting the proximity of the proposed facility.

- The western end of Blue Haven is less than 1 kilometre from the proposed rail spur junction with the main northern line. This proximity of the Coal Loader's rail spur junction is too close to residences in the Western end of Blue Haven. Its proximity will cause interference with the ambiance of the locality by heightening noise levels.

The details of the concerns related to the impacts of the coal loader are as follows:

1. **The proximity of the coal stockpiles and any open-air movement of coal would tend to create emissions of coal dust.**

   Even if this coal dust can be controlled most of the time, there is likely to be emissions from the site from beside stockpiles and as the material is loaded onto and transported by the coal trains. This coal dust has a potential to cause breathing problems, especially with the young and the elderly. It has the potential to cause underlying respiratory complaints not detected until latter in life. It has the potential to cause carcinogenic reactions in future life plus a range of other affects as described below.

   a. Due to a coal loader being so close to the suburban areas, I believe that the property market of the area will be affected. Whether coal loader impacts are a perceived degradation of the living environment or an actual degradation, the same result of an affected property market will occur. That is that the coal stockpile facility and coal loader in the area will have a negative influence on house and land prices. This will mean that prices will tend to fall below a level that otherwise would have existed without the building of the coal loader facility.

      This will mean that all those owners potentially affected by the coal loader's proximity will have a devalued capital asset. As a consequence, borrowing against that asset will be at a lower value to what otherwise would have been expected without the presence of the proposed coal loader. Blue Haven will not be affected alone, with the township of Wyee and the proposed town centre at Warnervale within the proximity of the loader facility impacts will be more widespread. In addition new developments planned west of the freeway will be affected by these price distortions.

   b. The urban interfaces around the proposed facility are set to expand. Blue Haven may have finished expanding to the west but with Wyee Station just over 3 kilometres from the proposed facility, and Warnervale's proposed town centre only 1500 meters to the south of the facility, the potential for coal dust impacts are as real in Wyee and Warnervale as they are in Blue Haven. Wyee is set to expand its residential areas around the station, while Warnervale is expected to be the hub of very many new housing estates. Even with a light southerly or northerly wind, coal dust would be expected in these areas as well.

   c. With the likely development of Bushell's Ridge industrial area to the north, the opportunity of having the railway so close to the suburban areas of Blue Haven, and with the expected population growth for the locality stretching from Warnervale to

Gwandalan, a real possibility exists of having a bus and train interchange at Blue Haven not far from the proposed development. With the potential for airborne particulates to be in the area, greater numbers of people could be affected with health issues caused by inhalation of coal dust. In time it would be expected to see more bicycle use for commuting to railway stations like this proposed one and the proposed new railway station at Warnervale. These developments would widen the potential impacts of coal dust on the population.

(See interchange proposal at: Blue Haven Rail and Bus Interchange Proposal)

d. Currently many residents of Blue Haven have installed rainwater tanks. With the potential of particulates of coal dust landing on rooves, it is expected that tanks will tend to fill up with this fine coal dust necessitating more clean-outs of these tanks and causing new risks to the health of the cleaners. Not only would Blue Haven be affected, but also all the new subdivisions at Wyee, Warnervale and any proposed urban development areas close by, where rainwater storage units are compulsory for new homes.

e. Over the last year or so, many residents have installed solar panels on the roof hoping to save power and reduce electricity power costs. With fine coal dust falling on the panels it is expected that the available sunlight to these panels will be reduced unless cleaned regularly. In addition the savings otherwise made to residents would be far less, squandering their small effort to reducing carbon emissions, and reduce their power bills.

f. With the existing and proposed urban areas situated in relatively close proximity to the stock piling facility and the potential for prevailing winds to carry the finer particles of the coal dust several kilometres, it is likely that all out door surfaces will be affected by the dust. This will include washing hung out to dry. As a response to coal dust on washed clothing, it is expected that householders will react by installing electric clothes dryers, thus artificially increasing the amount of electricity used and the cost of the household power bill.

g. There are concerns about the unknown impacts of coal dust on the natural environment. It would be expect that after rain, much of the dust will wash off the leaves of vegetation, however some will tend to build up and persist on the leaves. The impacts of the fine dust have on insects and other larger fauna in the local areas of bushland adjacent to the proposed facility would be unknown without extensive studies. However, under longer dry spells it would be expected that coal dust coatings on leaves would adversely impact on bushland flora species. In a wet spell, rainwater would wash the fine coal dust into the creek system, causing unseen damage to the benthic biota in Wallarah and Spring Creeks.

These are all hypothetical if the proponents guarantee that there will be no dust emissions from the site. How can this be done with coal moving constantly on the site? Wetting the top

layers of coal will tend to dampen the coal dust in the stock pile until the sun dries it out again, but the loading process as mentioned above should generate large amounts of coal dust. In addition the transportation of the coal has an additional potential to produce dust emissions. Thus the adjacent bushland and creeks must suffer from this potential impact in some way and all the other impacts itemised above are open to occur.

Below is a web address that shows an NBN television article on a recent study in the Hunter Valley on coal dust emissions related to coal loaders and coal being transported by rail.

http://www.nbnnews.com.au/index.php/2013/03/08/dust-data-sparks-fears-over-fourth-coal-loader/

Below is a paper from the Hunter Community Environment Centre (HCEC) making some serious points about the potential problems with coal dust in the environment.

http://www.hcec.org.au/20130417/global-coal-study-highlights-serious-health-risks-hunter

2. Noise emissions related to the operation of the coal loader facility.

When considering the rail spur's proximity to the lower parts of Blue Haven and other urban areas close to the proposed development, the noise generated by the rail trucks crossing the points as the coal train enters the main northern line will have a negative impact on residences in local streets. I believe that this impact will be felt throughout the night as well as the daytime.

a. Noise from the locomotives shunting between the rail line and the rail spur, where trucks are banging against each other as they couple, will impact Blue Haven residents. Currently as the rail line is about 500 meters from houses, freight trains can be heard on many occasions. With the operations of the coal facility and the proposed rail spur trains, residents would expect to hear bangs rather than a sound of a train slowly rising in volume and then fading away again as is the case with trains on the main line currently. Residents would expect these bangs will not only affect residents sleep patterns day or night but arouse many of the neighbourhood dogs, thus causing a great deal of anxiety for both dogs and owners.

b. Although the noise generated by the loading of each rail truck as the coal falls into the bottom of the truck is probably too far from Blue Haven residents to hear, unless under extraordinary wind conditions, it is likely that the urban and semi rural areas of Warnervale will be disturbed by this noise. This noise would be happening almost constantly. With the right wind conditions the noise would be exacerbated and again continue to bother the neighbourhood dogs in any suburb within a range of the loading facility.

All of the above will affect the current ambiance of the neighbourhoods around the proposed plant. We recognise that the land is zoned industrial, but many industrial sites in

Wyong Shire do not have an intensity of open-air activity that will produce noise to this level both day and night.

3. Risk factors related to the Toohey's Road site and coal loader site.

It is my contention that the risks related to the impacts associated with the development are too high for urban areas. It is my contention that if the development were not proceeded with, the level of any additional risk would be zero. This would be an acceptable risk level.

The potential impacts related to just the issues mentioned above present a level of risk to the people living in surrounding urban areas that would not be present if the development did not go ahead.

a. The level of risk related to additional financial costs due to potential externalities to the site could be considerable.

Following is a list of the potential financial impacts that residences may have to consider.

(i) Loss of capital value to a property

(ii) Additional cost related to laundry. ie. New dryer, extra power costs, buying new clothes more frequently.

(iii) Health costs - ie. More medication for children and others. More medical practitioner and specialist expenses.

(iv) Expenses related to cleaning house external walls and rooves.

(v) Loss of water quality related to rainwater tanks. ie. The expense related to cleaning tanks. Additional risks related to workers cleaning the tanks causing increased cost associated with cleaning due to more expensive equipment needed due to potential health dangers of handling coal dust fine particles.

(vi) Loss of sunlight shining on solar panels on rooves thereby reducing returns on the investment in the panels.

b. Risk and how it relates to coal dust in urban areas

The proponent will attempt to control the dust from the development so that it is below the standard set by the EPA. It seems that the most dangerous size of particle material from coal dust is between PM 10 or 10 micrometres in diameter down to PM 2.5 or 2.5 micrometres in diameter. Particles below this size are often produced from the burning of material including hydrocarbons. For instance diesel fuels and flare emissions.

However, it seems that the majority of these PM 10 to PM 2.5 diameter particles likely to be produced by the facility are the coal dust produced by the stockpiling and transportation of coal. Recently a study was done in the Hunter Valley Coal fields of NSW that related to the measurement of particle material close to coal transport facilities. Over the 7 days monitoring period, readings exceeded the preferred standard set by the EPA for the whole time of the monitoring.

There are academic papers that indicate that some of these particles can penetrate human tissue particularly through the lung wall. It is also asserted by some experts that such particles of coal can cause free radicals in the human body. If these particles are small enough to penetrate the tissue and organs of a human body, what damage could be had if these particles of coal dust are in fact a potential cause of the production of free radicles in the human body? What risk of cancer would someone run who was in constant contact with coal dust within a coal dust affected area?

c. What level of coal Dust emissions will cause cancer?

Since we measure the development of cancer as a risk factor to the concentration of a pollutant, it is hard to quantify whom the coal dust will affect. The only result we can perhaps glean from a study of a population in an affected area is the number of cancers formed in a sample of the population. Through this we would get an approximate risk factor.

When standards are established, I would contend that it is based on a loose correlation between cancer in the community and the level a pollutant of a particular type. This same conundrum was realised when assessing the level of lead and arsenic in an orchid being studies by me as a student. The fact that we found arsenic and lead in the orchid from pest control sprays at or below the EPA guidelines did not mean that there was no risk to the workmen in the orchid.

Similarly, risk is apparent in the proximity of the coal loader from the health affects of coal dust inhalation or imbibition, cannot be quantified. Perhaps this pollutant in the environment will not affect many people. Maybe many will not show symptoms of effects for some years and the correlation between the coal dust and other environmental pollutants may be blurred. But rest assure that if a pollutant is introduced such as coal dust or arsenic into an environment, risk of health issues will be apparent.

As mentioned before, if the coal loader is not developed no risk from the development will be there to the population of the towns of northern Wyong.

4. The proximity of urban areas closer to the site than Wyong Township.

In the introduction to the Environmental Impact Statement (EIS) for the Wallarah 2 project it states that Wyong is the closest town to the development with a distance of about 5 kilometres. This may be true to the closest part of the mine proposal, but the coal loader facility has several towns closer to it than the Wyong Township. Below is a list of townships and suburban areas closer to the proposed development than the small township of Wyong.

<u>Town Centres</u>
(A township by definition has a shopping centre)
Lakehaven
Charmhaven

Kanwal
Warnervale (Proposed New Centre)
Wadalba
Wadalba East (Proposed Town Centre)
Gorokan
Wyee
Watanobbi
San Remo

Suburban Areas
Blue Haven
Woongarrah
Hamlyn Terrace
Warnervale
Halloran (Industrial Area)
Bushell's Ridge (Proposed Industrial Area)
Jillaby Rural estates
Bruce Crescent Rural estates
Doyalson

In the introduction to the EIS section of the development application, it reads as if Wyong township is a small town having little impact from the development at a distance of 5 kilometres.

However the above list shows that a large slice of the population in the northern parts of the Wyong Shire has a greater potential for impacts from the proposed development than the township of Wyong.

I thank you for the opportunity to present a submission on this project and expect the Commonwealth EPBC Act 1999 will be consulted and support the disapproval of the proposed development on environmental grounds.

I also hope that the Director General of the Department of Planning, responsible for good planning outcomes in NSW will disapprove of the proposed development due to the risk of impacts related to the development of the coal loader operations and its proximity to existing and proposed urban areas and public infrastructure.

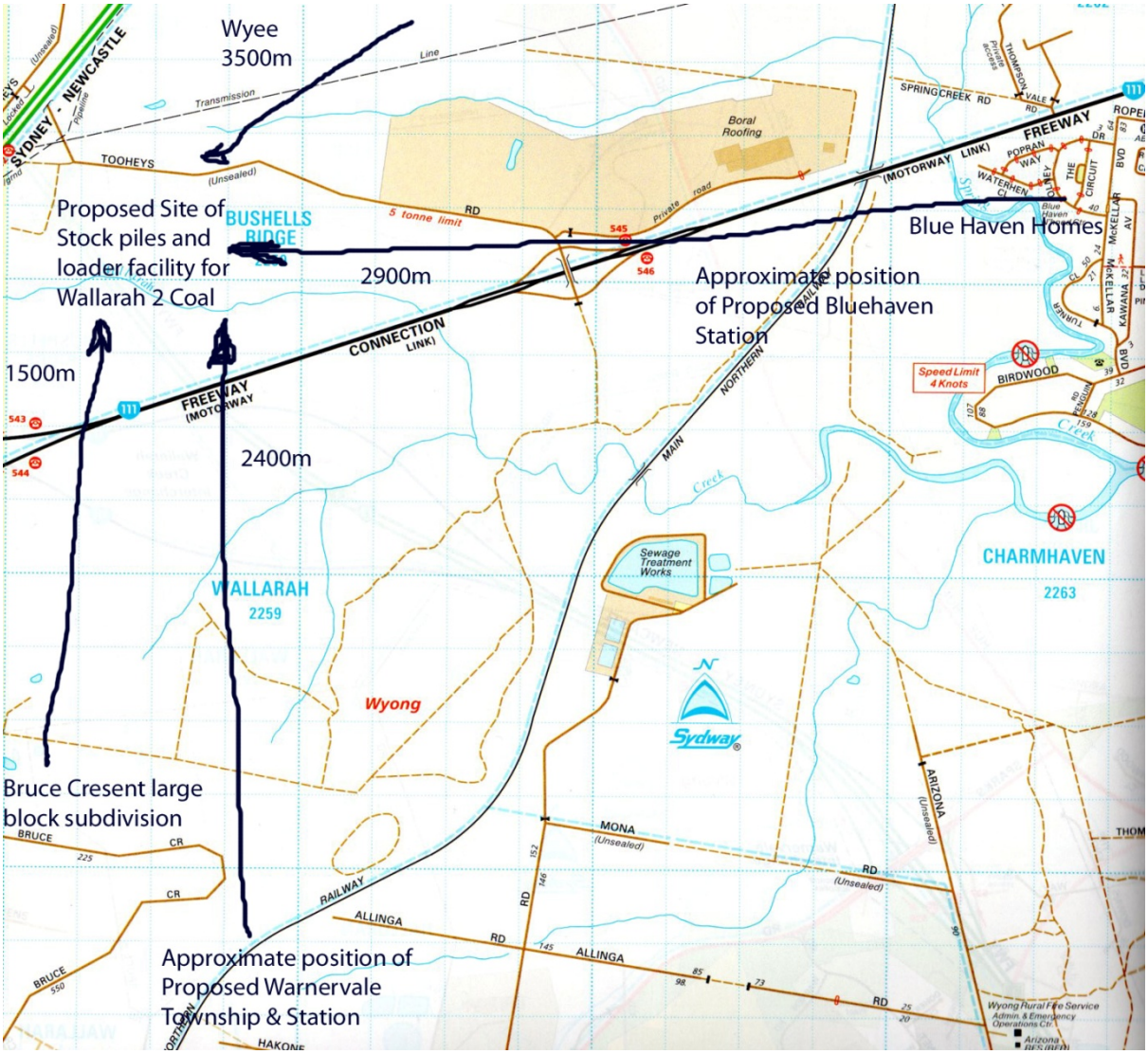
Yours faithfully,

David Holland

B.A.S Env. Plnng, Grad. Dip. Env. Mgnt.
Resident of Blue Haven

Appendix A

Map of the locality around the Coal Loader Facility



Picture showing the distance from Coal Loader Facility to Blue Haven and other proposed and existing urban areas.