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This is a submission from the Keith and Louise Craig objecting to the proposed Port Waratah coal services Terminal 4 development in Newcastle (10_0215).

The T4 proposal must not be approved due to many significant and unacceptable impacts. Please find details below regarding some of these impacts and their direct impact on the community of Stockton.

We feel that a number of investigations that are critical need to take place before any approval is given for a new coal loader. These investigations include:

1. The installation of PM2.5 and PM10 continuous monitors at Stockton and other suburbs in order to assess the current data
2. Installation of ASP analysers at Stockton so particle analysis can be undertaken to identify the amount of coal dust under winds from the westerly direction
3. The completion of a full health risk assessment

If the project is approved, the following measures should be included:

- Coverings for the coal whilst it is being transported
- Simultaneous spraying of all coal piles at once in strong wind conditions. For Stockton they include any wind from the westerly direction.
- Installation of wind fences around the coal piles or location of stockpiles inside buildings as occurs at a number overseas locations where stockpiles are close to communities as at Kooragang Island
- The installation of continuous PM2.5 and PM 10 particle monitors in Stockton with ability to analyse particles to determine their origin

The coal terminal concept drawings for the proposed coal loader at the old BHP site included wind fences. This technology is well known and used at other loactions in the world to reduce coal dust emissions and could readily be applied to the T4 site and existing coal stockpiles on Kooragang Island and at Carrington.

The T4 expansion will increase coal dust issues that are currently being experienced by the community in Stockton. Such coal dust exposure should not have to be experienced by communities. While increased coal dust coal measures will increase the project cost it will make a significant difference to the exposure of communities to coal dust and possible health effects.

The T4 project will increase health risks and aesthetic issues in communities

surrounding the coal loader due to exposure and deposition of coal dust. This is most evident during strong winds conditions blowing coal dust from the open and unprotected coal stockpiles.

Impacts on air quality

PWCS operates two coal-loaders at Carrington and Kooragang Island, which are due to reach the 145million tonne capacity by 2014. The $5billion Terminal 4 project Port Waratah Coal Services (PWCS) proposes for Kooragang Island would allow for an extra 120million tonnes of coal to be exported through the Port of Newcastle. Locally, the fourth coal terminal project would see 41 more coal trains through Newcastle and Maitland *every day,* increasing dust related health problems such as asthma and other respiratory ailments.

We are particularly concerned with the proposal for the additional coal loader, T4, because the modelling for this project was based on very little data from Stockton. There are no PM2.5 and PM10 continuous monitors at Stockton, only samplers that take samples every 6 days, missing many events of high dust emissions. These samplers are located at inappropriate locations where impacts from buildings and trees are evident. The predominant winds for the Newcastle area on an annual basis are from the West North West direction. These winds will see the coal dust from the terminal and from the coal trains landing over Stockton. Stockton residents already suffer from living with coal dust on a daily basis.

Results from the Orica TSP particle analyser that operates every 6 days shows an increase in PM10 levels and at times to very high levels reaching the NEPM PM 10 limit of 50 µg/m^3 which correlate with winds from the WNW direction. For instance in March this year the NEPM limit for PM10 particles was reached with a value of 50 µg/m^3 on the 9 March when the wind direction was WNW. During the other 4 days of monitoring in March the PM10 levels varied from 13 to 25 µg/m3 and these values correlated to winds from the NE, NNE, ENE and ESE. This is the type of local data in Stockton that is missing from the T4 EIS and modeling and it is extremely likely higher levels of dangerous PM10, PM2.5 and PM0.1 particles will result from the T4 project for the Stockton community.

Indeed, complaints to the Stockton Community Action Group show it is clear when strong W and NW winds start that the amount of coal dust falling on buildings, swimming pools and other facilities is significant. Analysis from samples taken by PWCS from complainants show that this dust is typically up to 20 % coal dust which is a major concern for residents in the area regarding the effect on their health.

The modelling data for the new terminal would appear to be inadequate and unreliable. Modelling with inadequate data show there will be increased exceedences with the T4 expansion on small particles which is not acceptable to the community and is non-compliant with the air quality requirements for any development.

There is a need to install monitors and reassess data. In fact such a project should have a requirement to install PM2.5, PM 10 and ASP analysers for particle analysis in suburbs surrounding Kooragang Island with correlation to wind direction and available on PWCS or OEH website for community access 24/7.

The current PWCS practice to reduce coal dust from the coal piles is to continuously spray the coal piles. This however so called continuous spraying is on the basis of spraying one pile after another rather than all heaps simultaneously. There are also currently no wind fences in place. Wind fences currently exist in Europe, Asia and the US with the intention of reducing dust emissions on dry windy days.

Health Impacts

There is evidence that pollution from coal affects all major body organ systems and contributes to the leading causes of morbidity and mortality. As reported by Damon Cronshaw in the Newcastle Herald on 30 October 2010:

> ‘ A senior NSW health official says exposure to coal dust particulates can harm people's health, even if the pollution is within state guidelines.’
> The Northern Sydney Central Coast area director for public health Peter Lewis made the submission to the Department of Planning about a South Korean company's plan for the Wallarah No 2 mine in the Wyong Shire. "Any increased exposure to particulate pollution is associated with increased adverse health outcomes, even if the levels are below the current guidelines," Dr Lewis wrote.
> Dr Lewis said increased particulate exposure could cause deaths, require hospital admission, and make children have more chest colds, night-time coughs and trips to the doctor.’

We are very concerned about the lack of information available about the health risks of living near coal loaders and we feel that it is very important that a full health risk assessment be conducted before any approval is given.

Water pollution and dredging impacts

Directly affecting Stockton and surrounding residential areas, the proposal for the 4th coal loader carries the risk of mobilising toxic contaminants on Kooragang Island, the former BHP Steelworks site, and in the South Arm of the Hunter River. Too little is known about the risks to ensure the communities of Newcastle will be protected from toxic accidents, seepage and other incidents. There is no plan to fully remediate the site that is proposed for use for T4.

Contaminates recorded at elevated levels at the Waste Emplacement Facility on Kooragang Island (Report from Douglas Partners, 2010) were:

> “Polycyclic aromatic hydrocarbons, benzo(a)pyrene, total petroleum hydrocarbons, phenols, asbestos, ammonia, cyanide, manganese, sulphate, lead and other metals. Monitoring data indicates that contaminant migration has occurred beyond the waste emplacement areas; however, the extent of contaminant migration has not been defined.
>
> None of the landfill sites within the former Kooragang Island Waste Emplacement Facility have engineered base or side lining systems, and all but one do not have a leachate collection system.”

With T4 there will be more dredging up of toxic industrial contaminants, as well as:

"Exacerbation or migration of existing contamination and/ or new contamination, such as from mobilisation of soil contaminants into groundwater, additional loading and 'squeezing' of the ground, connection of groundwater aquifer systems from penetration of the clay aquitard and/or migration of potentially contaminated water that accumulates in the T4 Project area; changes to groundwater recharge and flow regimes, such as from filling and capping of the site, infiltration of saline water from dredge material used as fill and other project related alterations to the surface water regime; the risk and implications of interception, exposure and/or mobilization of contaminants and PASS, for instance from the proposed drainage and earthworks."

Prior to 'remediation' dredging (purpose to widen and deepen the river) the government initially had more stringent conditions for the encapsulation and disposal of contaminants.

In addition, the Fourth Coal Terminal would facilitate many more large coal mines (the equivalent of at least 15 'mega-pits') in the Hunter and Liverpool Plains which threaten food and water security by destroying prime agricultural land, irreversibly damaging ground water systems and polluting waterways.

Traffic Impacts

The current traffic problems occurring everyday on Kooragang Island will be made worse with the T4 project and there will be significant traffic delays for the motorists.

Current ratings at peak traffic periods.

95,000 additional trucks will be entering and exiting main arterial roads, (i.e. MR108, Industrial Drive, Cormorant Road, Tourle and Teal Streets) from the minor industrial access roads which will be used to service the T4 construction. This will interrupt the flow of traffic, causing lengthy delays. Traffic congestion results in a number of problems, including economic costs due to delayed travel times, air pollution and accidents

T4 Construction Heavy Vehicle Traffic

Stage 1: between 7.00am to 5.00pm 5 days per week over 2 years.

- 60,000 truckloads of imported sandfill.120 truckloads per day, 12 per hour mainly from Williamtown direction via Stockton Bridge.
- 25,000 truckloads of imported gravel and rock fill. 50 truck loads per day, 5 per hour probably travelling equally via either Stockton or Tourle Street bridges. (Stage 2 and 3 will generate 6,250 truckloads)
- 10,000 truckloads of other construction materials such as steel, concrete and manufactured materials. 16 truck loads per day, 1 per hour with approximately 90% coming from Newcastle via Tourle Street Bridge. (Stage 2 and 3 will generate 3,000 truckloads)

T4 Workforce Passenger Vehicle Traffic Calculated for daylight traffic.

Stage 1: Daylight hours between 5.00am to 7.00am and 4.00pm to 6.00pm - arriving and departing to and from main project sites on Kooragang Island.

300 persons who may choose to use shuttle bus transport.

975 persons generating approximately 780 car trips to and from main project sites.

Another 225 persons employed in dredging and land reclamation will add another 200 trips in each direction, totaling 400 trips.

Site visitors and courier services between 7.00am and 5.00pm at hourly rate of 15% of peak hour construction workforce traffic movements.

It is presumed that 1,200 workforce will be removed from KTC and NCIG construction projects whilst T4 is proceeding, (Stage 1) however there will still be at least an additional 300 workers.

Types of Heavy Vehicles

No information in the assessments that deal specifically with traffic has been provided about the types of heavy vehicles that will be (or are likely) to be used in the construction of T4. What are the numbers of rigid and articulated trucks? How many (a) B doubles and (b) B triples? What is the estimated haulage weight for the different types of heavy vehicles?

Will any hazardous material be transported by road?

We request that this information be provided to the general public.

Employment impacts in Newcastle and Lower Hunter

It is questionable if the job numbers will rise markedly as it is very clear the new loader will have very few extra jobs. Even the construction jobs may be limited due to the use of imported items, pre assembly and prefabricated items.

After construction, the coal terminal will provide *no additional employment*. Rather, it is likely to result in the loss of other economic activities in the port, such as tourism, fishing and other shipping

Impacts on habitat, endangered and threatened species, and migratory birds

This project would damage internationally important wetlands that provide critical habitat for protected migratory bird species and nationally threatened species including the Green and Golden Bell Frog and the Australasian Bittern.

An area within the site is currently owned by the National Parks service, and provides irreplaceable habitat for migratory shore birds. The proposal will mean loss of habitat and disruption to an ecologically significant proportion of a population of four migratory shorebird species listed under international conservation conventions.

At least 11 species of migratory birds recognised by international treaties rely on the habitat at “Deep Pond” and its proximity to the Hunter estuary Ramsar site. Most of

Deep Pond, the only freshwater refuge in the Hunter estuary, would be lost to this project.

The Environmental Assessment fails to meet the requirements set out by both the State and Federal agencies, and the proposal represents an unacceptable risk to the Australasian Bittern.

As submission makers are required to disclose political donations totalling $1000 or more in the past 2 years, we can state that **we have not made a disclosable donation**.

Yours Sincerely,

Keith and Louise Craig