



CATE FAEHRMANN MLC

Member of the Legislative Council

THE GREENS NSW

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Re: Port Waratah Coal Services Terminal 4 Application no. 10\_0215

I send this submission on behalf of the Greens NSW.

The Greens NSW oppose the T4 coal terminal proposal.

***The objectives set out by Port Waratah Coal Services (PWCS) in the EAR Volume 1 chapter 3 cannot be met and the need for the project has not been established.***

**1. This proposal is dependent on the anticipated expansion of coal mining.**

The proposed coal mining expansion in the Upper Hunter, Liverpool Plains and Mudgee areas would lead to the doubling of coal exports from Newcastle Port over the next decade. The projected 120Mtpa output from T4 will mean NSW will double its carbon emissions. Like many economists, NGOs, farmers and community members we oppose this expansion. It is recognised by all sides of politics that coal mining and the burning of coal is a major contributor to climate change, it's also recognised that Australia's carbon emissions must be reduced to prevent further damaging climate change. The conservative body OECD confirms this.

*Humanity has witnessed unprecedented growth and prosperity in the past decades, with the size of the world economy more than tripling and population increasing by over 3 billion people since 1970. This growth, however, has been accompanied by environmental pollution and natural resource depletion. The current growth model and the mismanagement of natural assets could ultimately undermine human development.*

Source: *OECD Environmental Outlook to 2050: The Consequences of Inaction*, March 2012  
[http://www.oecd.org/document/11/0,3746,en\\_2649\\_37465\\_49036555\\_1\\_1\\_1\\_37465,00.html](http://www.oecd.org/document/11/0,3746,en_2649_37465_49036555_1_1_1_37465,00.html)

## **2. Coal mining has major adverse impacts on people's health and the makeup of the communities in which they live.**

*As more coalmines are opened, as has occurred in parts of the Hunter Valley in New South Wales, the social fabric of a region changes, the role and function of a township alters, and many inhabitants of these regions have developed depression, anxiety and ill health.*

Connor L, Albrecht G, Higginbotham N, et al. Environmental change and human health in Upper Hunter communities of New South Wales, Australia. *EcoHealth* 2004; 1 (2 Suppl): 47-58.

*To persist in mining and burning coal will condemn future generations to catastrophic climate change, which is clearly the biggest health problem of the future.*

Medical Journal of Australia: 19 Sept. 2011. The mining and burning of coal: effects on health and the environment.

William M Castleden MS, FRCS, FRACS, David Shearman PhD, FRACP, George Crisp MB BS, MRCGP, Philip Finch MB BS, FFARCS

## **3. Further expansion of coal mining has no sound economic basis.**

The economic argument to reduce Australia's dependency on coal exports is strong. Furthermore there is mounting evidence to show that coal prices are falling as suppliers in Indonesia, Mozambique, South America, Mongolia and China increase production. Two recent reports confirm this  
<http://www.theherald.com.au/news/local/news/business/coal-prices-expected-to-fall/2541034.aspx>  
<http://www.smh.com.au/business/old-king-coal-gets-knocked-off-its-throne-20120427-1xpzf.html>  
 China and India are searching for cheaper energy, sourcing cheaper coal and investing in renewable and alternative energy. Australia's coal markets are not assured.

Many commentators have pointed to the decline of manufacturing, tourism and education industries in Australia as a result of the expansion and dependence on mining exports.

Others have reminded us that history shows Australia's resource's booms have been short, followed by a long bust.

Dr Stephen Grenville former deputy governor of RBA characterised the current rush as a "wild west resource stampede". 4 Jan 2011

<http://www.lowyinterpreter.org/post/2011/01/04/What-did-I-changed-my-mind-about-in-2010-The-deficit.aspx>



**4. There are two other major planning decisions impacting on Newcastle Port that must be made.**

The Port Master Plan must be in place and the container wharf must be properly planned. Cumulative impacts resulting from the T4 proposal cannot be properly assessed until these planning decisions are made.

***The T4 Project must not be approved due to the significant and unacceptable impacts as detailed below.***

**A. Air Pollution and Health**

The T4 Environmental Assessment Report concludes that, "It is not anticipated that the T4 project will significantly affect the surrounding air quality environment." This is inaccurate and misleading. Further studies are necessary to properly assess the project.

**1. Air quality is already causing health problems and T4 will double residents' exposure to dangerous particle pollution.**

Ambient levels of  $PM_{10}$  and  $PM_{2.5}$  already exceed the level of concern in this area. The T4 proponents allege (without evidence) that these breaches are associated with events 'such as' dust storms and fires. The environmental assessment suggests that T4's contribution will be small compared to these events. This is misleading and irrelevant. The purpose of the assessment is to predict whether an additional source of particle pollution will raise the levels above health standards. **T4 will elevate existing pollution levels and push them over the national health guideline.**

Residents of Mayfield, Carrington, Tighes Hill and other Newcastle suburbs already experience elevated levels of particle pollution. With T4 there will be at least twice as much particle pollution due to the increased number of coal wagons and double the volume of coal being handled on conveyor belts and loaders. The cumulative effect of elevated particle pollution levels from other approved projects around the port must be assessed.

**2. Levels of particle pollution (PM10) are expected to exceed the applicable air quality criteria and standards (Vol.1, p. E.16).**

Based on modeling, the T4 proponents expect  $PM_{10}$  levels to exceed the Office of Environment and Heritage health guideline on at least two days each year. Modeling is rarely reliable and often underestimates the actual air quality impacts. Past practice has shown project proponents seldom monitor and report on the actual air quality impacts to compare these with the predictions.

Table 12.4 (p.236) demonstrates that average  $PM_{10}$  levels at all ten monitoring locations are already exceeding  $50 \mu g m^{-3}$  (the national level of concern): "for the worst-case day of the year, the baseline 24 hour average concentration exceeds the relevant criterion at all assessment locations." T4 is expected to add up to  $11.4 \mu g m^{-3}$  during construction and  $6 \mu g m^{-3}$  during Stage 3 operation, pushing the level well above the level of concern. All ten sites are predicted to have a cumulative  $PM_{10}$  level above  $50 \mu g m^{-3}$ . These levels are averaged over 24 hours, and tell us nothing about the short-term peaks that can also be expected to result in health impacts.

It is important to note that focusing on the 'worst case day' obscures the elevated pollution levels that Newcastle residents can expect on a daily basis. While these levels may be within guidelines set by Australian governments, they will contribute to significant adverse health impacts.

### **3. The environmental assessment presents misleading information about adverse health impacts.**

There is no level of fine particle pollution below which health is not affected. Any increase in fine particle pollution directly increases health impacts such as respiratory problems. It is misleading to state that, "The OEH criteria for particulate matter are designed to protect health and wellbeing." The criteria represent a trade-off between community members and polluting industries. Pollution levels just below the level of concern result in extensive health impacts throughout Australian communities, including a range of respiratory symptoms and the premature death of thousands of Australians. It is more misleading to suggest an increase in particle pollution levels of 3-13  $\mu\text{g}/\text{m}^3$  as a result of the increased coal wagon movements is 'negligible' (Vol.1, p. E.17). A 13% increase in the incidence of asthma and other short and long-term respiratory symptoms is not 'negligible'.

### **4. The environmental assessment provides inadequate detail about fine particle pollution levels.**

It has ignored the particles that cause the worst health impacts – particles of less than one micron in diameter ( $\text{PM}_{10}$ ) that are inhaled deep into the lungs. The assessment focuses instead on  $\text{PM}_{10}$  and Total Suspended Particulates (TSP). Twenty years ago, these air quality indicators were often the focus of air quality studies. Developments in our understanding of health and the technology available for air quality monitoring have led scientists and public health authorities to focus on the smallest particles. Instead of measuring the total mass of large particles in the atmosphere, air quality studies now count very fine particles and identify their composition. This is a more reliable indicator of health impacts than a mass indicator.

Fine particle pollution can extend a long way from point sources. By focusing on the largest particles, the Environmental Assessment concludes that pollution levels are much lower just 20 metres from the rail corridor or coal piles. This is not the case for smaller particles, though, and elevated levels of  $\text{PM}_{10}$  can be expected several hundred metres from these locations. This is especially problematic as the prevailing winds blow toward residential areas.

The project's proponents must provide answers to these questions:

- Will coal wagon movements be stopped when fine particle pollution levels rise above the 'level of concern'?
- When this happens, will community members be advised?
- What are the consequences if T4's operation regularly results in higher than predicted levels of particle pollution?
- How will air quality monitoring results be communicated to community members?

### **6. Further examination of air quality impacts is necessary before this project can be approved.**

To consider this project, it is necessary to complete a comprehensive study of existing particle pollution levels within a 2 km radius of the proposed terminal site and its rail corridor. It is not possible to consider the merits of the development without an adequate picture of the existing particle pollution.



This study should:

- Examine current PM<sub>1</sub> levels.
- Identify existing health impacts. There are well-established methodologies to identify the health impacts of particle pollution, based both on modeling and epidemiological data.
- Predict the health impacts of increased PM<sub>1</sub> concentrations.
- Consider the benefits of covering all coal wagons to minimise particle pollution. This has been standard practice in Europe for many years.

## **B. Ecological Impacts**

### **1. Hunter Estuary Ramsar wetlands site.**

The damage the T4 proposal would inflict on the Ramsar wetlands site, and listed nationally threatened species on Kooragang Island is unacceptable. The Hunter estuary is the most significant area in NSW for migratory shorebirds. The wetlands support habitat for at least 42 of the 66 species listed under international migratory species Conventions and Agreements. Total numbers of migratory shorebirds at the Hunter Estuary have decreased dramatically since the 1970s. According to the Australian Wetlands and Rivers Centre University of New South Wales <http://www.wetrivers.unsw.edu.au/> there were estimated to be 15-20,000 in the 1970s, decreasing to about 5,300 in the 1980s (65% decline) and to 3,036 in 2000-2007 (80% decline). Further decline is not acceptable, nor does it comply with current national environmental conservation legislation.

### **2. Migratory shorebird and threatened species habitat loss.**

Up to 11 species of migratory shorebirds rely on habitat at the "Deep Pond" lake within the project area. This habitat is considered to be the only drought freshwater refuge in the Hunter estuary. This habitat would effectively be lost to the project. Much of the adjacent Swan Pond, within the HWNP, close to the Ramsar site would also be lost to the project. These losses cannot be mitigated by the offsets proposed in the EAR. It is acknowledged in the EAR that Ellalong Lagoon is not a significant site for migratory shorebirds and the other proposed offset site has not been purchased.

There are conclusions concerning the impacts on the Ramsar wetlands site and the HWNP in the EAR reports, which are reached without any real evidence. More evidence is needed to show that the Precautionary Principle should not be used. There is no proof produced to show that the project will not adversely impact on the high conservation areas of Kooragang Island and the Hunter estuary.

### **3. Cumulative impacts Hunter Wetlands National Park.**

We are concerned about the potential for cumulative impacts to slowly erode the ecological values that make the Hunter estuary such a magnificent place. There must be further work done on an agreed threshold of acceptable losses in ecological character, if in fact any further losses are acceptable. We suspect that many who live in the region, feel their quality of life, and the economic value of their properties are somewhat tied to the natural values of the Hunter. This question goes beyond the intrinsic ecosystem services and measures of biodiversity that the Hunter estuary provides.

We draw your attention to the years of voluntary work done by many members of the Newcastle community at the Hunter Wetlands site. Under the supervision of the Hunter-Rivers CMA, they have turned a previously heavily degraded site into a beautiful and sustainable wetlands area supporting many species of flora and fauna. Approving T4 undervalues their work and puts at risk this unique site.

### **C. Site contamination and consequences**

The T4 project site is, according to the EAR Vol 3 Part E, already heavily contaminated as the area is predominantly reclaimed land previously used for dumping of toxic industrial waste and dredging material. The levels of dangerous contamination already exceed respective guidelines; eg. NSW EPA health based criteria for industrial/commercial landuse; the ANZECC Water Quality Guidelines for slightly to moderately disturbed sites.

The potential for this toxic material to leach into the two aquifers on the site, the neighbouring protected wetlands and the Hunter River is extremely high. Pre-loading the site, as outlined in the EAR, greatly increases the possibility of contaminating surrounding ground and surface water. Planned dredging of the Hunter River will further disturb the site.

If PWCS is to act in the most environmentally responsible manner, all remediation must be done before any construction/dredging commences. In considering the assessment of PAH impact, the 95th percentile as stated in the ANZECC guidelines should be used in this instance and depending on the proximity to the wetland even the 99th percentile may be appropriate (which is more stringent). Thus the PAH levels currently reported are above these guideline trigger levels for the site highlighting a need for some sort of action under the Contaminated Land Management Act 1997. The argument that PAHs will biodegrade before reaching the Hunter River is weak and does not excuse the existing and potential risks to the environment from this area of impact.

Our concern is that as contamination levels already exceed existing guidelines PWCS will take the cheapest and quickest remediation options. The Department of Planning must treat this issue with utmost care and diligence.

### **Capacity Framework Arrangement**

Members of the Newcastle community have expressed their concern to us about the use of the Capacity Framework Arrangements (CFA) agreed between PWCS, Newcastle Coal Industry Group (NCIG) and the Newcastle Port Corporation (NPC) to justify the T4 project.

This raises two questions. Does PWCS currently have a capacity shortfall as defined under the CFA, and if so, what is the total capacity that they are currently contracted to deliver in the future? The EAR does not state this. The recent report (Financial Review 3 May 2012) that Rio Tinto is reconsidering its Mt Pleasant mine development suggests predicted coal production expansion may not continue as planned.

If there is an obligation for the NSW government to approve construction of T4 due to the CFA, the integrity of the planning process could be called into question.

### **Conclusion**



We are aware of the high level of concern in the Hunter generally and the Newcastle area in particular over the impact of the T4 proposal. Many community members have contacted our office seeking advice on how their voices of opposition can be heard. The Protect Our Land And Water rally at NSW Parliament House on Tuesday 1 May 2012 demonstrates the degree of concern over the lack of balance in current NSW Coalition policy over landuse, and impacts of mining on our natural resources and our agricultural land.

The Greens NSW urge the NSW government to reject the T4 application for the reasons stated above.

Thank you for considering our views.

A handwritten signature in black ink, appearing to read 'Cate', followed by a long horizontal line.

Cate Faehrmann MLC  
Environment, Transport and Ports Spokesperson