PWCS

ENVIRONMENTAL ASSESSMENT

Kooragang Coal Terminal Stage 4 Project
Fourth Dump Station & Fourth Shiploader

Umwelt
Environmental Consultants

NOVEMBER 2009

Environmental Assessment
Kooragang Coal Terminal Stage 4 Project
Fourth Dump Station & Fourth Shiploader
Modification to Project Approval No. 06_0189

Prepared by

Umwelt (Australia) Pty Limited

on behalf of

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Report No.	2551/R04/Final	Date: November 2009

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Background

Port Waratah Coal Services (PWCS) owns and operates the Carrington Coal Terminal (CCT) and the Kooragang Coal Terminal (KCT). The terminals receive, assemble, blend and load coal onto ships for export. To meet the increasing demand for coal, PWCS has implemented a continuous expansion program.

PWCS obtained a Project Approval under Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act) in 2007 (Approval No. 06_0189) to increase the approved capacity throughput of KCT to a nominal 120 Million tonnes per annum (Mtpa). The approved 120 Mtpa capacity throughput is to be achieved through enhancement of the existing and approved operations.

PWCS has identified a potential benefit to the current and approved KCT facility to have increased 'sprint capacity' to meet the overall approved 120 Mtpa throughput following short term disruptions to operations. Short term disruptions in throughput result in large variations in daily coal throughput rates, which subsequently limit overall throughput capacity of KCT. Short term disruptions in operations result from a variety of occurrences, such as restrictions or closures of the coal transportation chain, planned and unplanned maintenance outages and port and rail interruptions due to weather impacts.

In order to achieve these operational benefits, PWCS is seeking a modification of the 2007 Project Approval to construct and operate a fourth dump station, a fourth shiploader on existing and approved ship berths, and the associated interconnecting coal handling infrastructure. The proposal, referred to as the Stage 4 Project, will not increase the approved throughput capacity of KCT to above the nominal 120 Mtpa.

PWCS has consulted with the Department of Planning (DoP) in regard to the Stage 4 Project and confirmed that the 2007 Project Approval can be modified under section 75W of the EP&A Act. This Environmental Assessment (EA) has been prepared by Umwelt (Australia) Pty Limited (Umwelt) on behalf of PWCS to assess the potential environmental and social impacts of the Stage 4 Project.

The Project

The Stage 4 Project design has specifically targeted integration with existing operations, in terms of integrated operational processes, and minimisation of impacts on existing operations and surrounding areas. Once approved, the Stage 4 Project will be incorporated into PWCS's ongoing capital works expansion program for KCT to improve coal handling efficiency whilst achieving the approved coal throughput capacity.

The Stage 4 Project will include the construction and operation of additional infrastructure adjacent to the existing plant and equipment including:

- fourth dump station, associated rail facilities, sample plant and inbound conveyors;
- augmentation to the rail loop to include an additional inbound track to, and additional outbound tracks from, the fourth dump station;
- shipping conveyor including the construction and operation of a conveyor bridge over Teal Street, above the southern approach to Stockton Bridge;

- transfer houses;
- buffer bin;
- outbound sample plant;
- shiploader wharf conveyor; and
- fourth shiploader to service the existing and approved berths.

The majority of infrastructure associated with the Stage 4 Project will be constructed within the approved footprint of KCT. The Stage 4 Project will involve only minor changes to the approved footprint of KCT with additional infrastructure to be constructed on previously disturbed land. The Stage 4 Project has been designed to be an integrated coal handling stream at KCT that will augment the existing and approved KCT operations.

The construction of the Stage 4 Project is expected to take approximately 24 months to complete. Construction employment will peak at approximately 300 for a period of approximately six months. The Stage 4 Project will not require any additional operational staff. The Stage 4 Project, with an estimated capital value of $500 million, represents a significant commitment from PWCS to improve coal handling efficiency at KCT and the broader Hunter Valley Coal Chain.

Consultation

Consultation with the community, government authorities and other relevant stakeholders has been undertaken by PWCS throughout the preparation of the EA. The consultation process aimed to inform stakeholders about the Project and to identify key issues of concern to be investigated and assessed. The key issues raised by the community and other stakeholders during the consultation process for the Stage 4 Project have been considered in the EA.

Key Environmental and Community Issues

PWCS has designed and implemented a range of environmental management strategies and plans to effectively manage the impacts of KCT on the environment and local community. All management strategies and plans are consistent with current regulatory and community standards. The Stage 4 Project, as an integrated component of KCT, will be incorporated into these existing environmental management strategies and plans at KCT.

This EA has comprehensively assessed potential environmental and community impacts associated with the Project. The key assessments outlined below have been undertaken in accordance with the Director General's Requirements (DGRs) for the Stage 4 Project. An overview of the outcomes of the detailed assessments of the key environmental and community issues is provided below.

Air Quality

A thorough air quality impact assessment has been undertaken for the Project. The assessment of potential air quality impacts associated with the Project included a detailed review of the existing performance of KCT in relation to relevant air quality criteria. Potential off-site dust concentration and dust deposition levels due to KCT and the Stage 4 Project have been predicted using a dispersion model. This assessment demonstrated that there would not be a significant increase in air quality impacts within surrounding residential areas associated with the Stage 4 Project. In addition, all predicted air quality impacts associated with the Stage 4 Project will remain within relevant air quality limits.

A large array of dust controls and safeguards are currently in place to ensure that air quality within the site is controlled so that air quality outside KCT is not adversely affected by KCT operations. The introduction of improved technology of coal handling associated with the Stage 4 Project will further strengthen the dust controls, this includes further use of soft flow chutes at coal transfer points and improved belt cleaning systems.

Noise

A comprehensive noise impact assessment has been undertaken for the Project and predicted noise emissions associated with the Stage 4 Project are consistent with noise emissions from current approved KCT operations. Importantly, the predicted noise emissions associated with the Stage 4 Project, under noise enhancing weather conditions, are within current noise impact assessment criteria specified under the 2007 Project Approval.

PWCS has implemented an Acoustical Design, Procurement, Construction and Commissioning process throughout the expansion work to ensure that the approved noise limits are achieved. In many cases PWCS has gone well beyond Best Available Technology by promoting research and development of acoustical solutions not previously considered economically achievable. The ongoing investigation and development of best available technology will be continued in order to minimise potential noise impacts associated with ongoing KCT operations.

Water Quality

PWCS has established a totally closed water management system to meet the design requirement of a 1 in 100 year design storm event or equivalent. To enable greater water harvesting and reduce dependence on potable water, the water management system for the approved KCT operations is being implemented, as part of the progressive expansion process at KCT.

The existing water management system encompasses all established plant and equipment within the approved KCT footprint. The water management system collects water from operational activities and stormwater runoff for recycling. All areas of the plant, including the wharf, capture water and channel it back to settling ponds for clarification prior to being held in storage ponds for re-use. The Stage 4 Project has been designed to be accommodated within the existing KCT water management system.

An assessment of the potential groundwater impacts associated with the Stage 4 Project has been undertaken. The Stage 4 Project has been designed to minimise interactions with the existing groundwater systems. Some dewatering will be required during construction of infrastructure as part of the Stage 4 Project. The minor amount of groundwater produced as a result of the Stage 4 Project will be managed by either re-injection into the existing aquifer system or through on-site re-use. The groundwater assessment indicates that potential drawdown effects on existing groundwater systems would be localised to within the approved KCT footprint.

Ecology

An ecological impact assessment has been undertaken for the Project. The ecological impact assessment has been prepared to provide information about the potential impact of the Stage 4 Project on native flora and fauna species, endangered populations, threatened ecological communities (TECs) and their habitats occurring in the project area and on adjoining lands.

The Project does not propose to significantly alter the approved footprint of KCT. All proposed infrastructure is located on previously disturbed land and will have minimal impact on ecological values at KCT.

The Project has the potential to impact on the Kooragang Nature Reserve through potential off-site impacts. There will be negligible impact on adjoining Kooragang Nature Reserve due to minimal interactions with groundwater systems; predicted off-site dust and noise impacts are consistent with approved KCT operations, and the Stage 4 Project will be incorporated into existing environmental management systems at KCT.

Visual Aspects

An assessment of the visual impacts associated with the Project has been undertaken. This included an assessment of the existing visual character of the area and the potential visual impacts of the Stage 4 Project.

Some aspects of the Project will be visible to the public including the fourth shiploader, an outbound conveyor over Teal Street and associated coal transfer houses. These elements of the Project will only be visible to passing motorists for a short period of time and are consistent with the existing industrial character of Kooragang Island. Other Project elements such as the fourth dump station, conveyor infrastructure and fourth rail loop are unlikely to be visible due to their location in relation to existing KCT infrastructure and surrounding land uses.

The visual assessment concluded the Stage 4 Project infrastructure is consistent with, and visually blends in with the existing industrial character of the Kooragang Island area. The Project is unlikely to have a significant impact on the visual amenity of the area.

Construction Traffic

A comprehensive construction traffic assessment has been undertaken for the Stage 4 Project. The assessment provides details of existing traffic levels on the local transport network, and the impact that construction traffic may have on the local transport network. There will be no additional traffic generated by the operation of the Project.

As part of the assessment, the proposed Stage 4 construction traffic was modelled to ascertain potential impacts on the local road network. Based on the availability of numerous local access routes; the moderate construction traffic demands; the reduction in trip generation from adjacent local construction projects; and the significant capacity within the existing Kooragang Island area, it has been concluded that the construction traffic generated by the Stage 4 Project will not have a significant impact on the local traffic network.

Benefits of the Project

KCT is one of the largest coal export terminal in Australia and as such there are extensive socio-economic benefits associated with the Stage 4 Project at a regional, state and national level. The key benefits of the Project are summarised below:

- Capital expenditure for the Project is in the order of $500 million. The federal government will gain revenue from the project, in the form of company tax, excise on imported equipment and goods, fuel excise and other assorted taxes such as the goods and services tax and income tax.

- The Stage 4 Project will result in the creation of up to 300 direct jobs associated with the construction phases of the Stage 4 Project with many more industries supplying goods and services to the project.

- The state government can expect economic benefits from the Project including revenue from rail freight, port charges, payroll tax and a number of other taxes, royalties and payments for services from statutory bodies.

- Local government receives financial returns from rates and charges paid by company employees and by other people attracted to the area as a result of the flow-on effects of employment in the mining industry.

- With an estimated capital value of $500 million, the Project represents a significant commitment from PWCS to improve coal handling operations at KCT and the broader Hunter Valley Coal Chain.

- The Stage 4 Project itself will allow KCT to have increased 'sprint capacity' to meet the overall 120 Mtpa throughput capacity following short term disruptions to operations. The construction of the fourth coal handling stream will improve the coal handling ability of KCT and will result in efficiency improvements.

The Stage 4 Project provides an opportunity to achieve coal handling capacity by integrating a fourth coal handling stream at KCT while controlling and minimising potential environmental and community impacts.