

T4 PROJECT

RESPONSE TO RECOMMENDATIONS OF THE PLANNING ASSESSMENT COMMISSION REVIEW

Prepared for Port Waratah Coal Services Limited | March 2015





Response to Recommendations of the Planning Assessment Commission Review of the T4 Project

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Response to Recommendations of the Planning Assessment Commission Review of the T4 Project

Final

Report J11011RP11 | Prepared for Port Waratah Coal Services Limited | 5 March 2015

Approved by Brett McLennan

Position Director

Signature 

Date 5 March 2015

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1 Introduction

1.1 Background

Port Waratah Coal Services Limited (Port Waratah) proposes to construct and operate a new coal export terminal at the Port of Newcastle, New South Wales (NSW). The proposal, known as the Terminal 4 Project, or T4 Project, will provide additional port capacity required to accommodate future growth in coal exports from the Hunter Valley and NSW more broadly. Port Waratah owns and operates the Kooragang Coal Terminal (KCT) at Kooragang Island and Carrington Coal Terminal (CCT) at Carrington, both in the Port of Newcastle.

The T4 Project application area comprises the:

- proposed coal terminal site on Kooragang Island and wharves and berth pockets in the Hunter River South Arm in the Port of Newcastle ('T4 project area'); and
- biodiversity offset site at Tomago ('Tomago offset site')¹.

The T4 Project includes the development proposed to be carried out on both the T4 project area and the Tomago offset site.

The T4 Project is proposed to be developed progressively in response to demand for increased coal export capacity nominated by coal producers and would provide a nominal coal throughput capacity of up to 70 million tonnes per annum (Mtpa). This is in addition to Port Waratah's existing approved capacity of 120 Mtpa at KCT and 25 Mtpa at CCT, and would give Port Waratah a total approved capacity of 215 Mtpa. The project's design allows for future stockyard and rail receipt expansion within the T4 project area to achieve a nominal capacity of 120 Mtpa when required by demand. Expansion to increase throughput capacity beyond 70 Mtpa would be subject to future assessment and approval under the relevant legislation.

All coal will be received by rail, stockpiled and vessels loaded for shipment to market.

1.2 Project determination process

1.2.1 Approvals required

Approval for the T4 Project is being sought under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and Part 3A of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act). The consent authority under Part 3A is the NSW Minister for Planning, although in this instance, this responsibility will be delegated to the NSW Planning Assessment Commission (PAC). The Part 3A process under the EP&A Act has also been accredited as the appropriate Commonwealth assessment pathway for the project.

¹Other offset sites are proposed. The Tomago offset site is one of three offset sites and is included in the T4 Project application area as the offsetting development works are included as part of the project.

1.2.2 Environmental assessment

As part of the T4 Project's approval process, an environmental assessment (EA) was prepared by EMGA Mitchell McLennan Pty Limited (EMM), with input from various external specialists. It was prepared in accordance with the requirements of the Commonwealth Department of the Environment (DoE), NSW Department of Planning and Environment (DP&E) and other Government agencies, as given in the Director-General's Requirements (DGRs) issued on 14 March 2011, letter clarification dated 17 May 2011 and supplementary DGRs issued on 21 September 2011.

The EA was publicly exhibited between 8 March and 7 May 2012. In response, Port Waratah received 488 submissions, including a large number of form letters and multiple submissions from some respondents. Most of the submissions were from objectors to the project though some supporting submissions and general comments were received.

1.2.3 Response to submissions and preferred project report

All submissions received during public exhibition of the EA were reviewed and issues raised were summarised and responded to in a combined response to submissions and preferred project report (RTS/PPR).

Following exhibition of the EA, the T4 Project's design was also modified. Modifications were made in response to submissions and government feedback, to further minimise environmental impacts, to reflect the reduced maximum proposed coal throughput capacity from 120 Mtpa to a nominal 70 Mtpa, and to incorporate engineering improvements and the biodiversity offset package. Accordingly, the RTS/PPR responded to submissions; described the 'preferred project', inclusive of modifications since the EA was published; assessed the environmental impacts of the modifications; and provided a revised statement of commitments for environmental management, mitigation and monitoring.

The biodiversity offset package presented in the RTS/PPR included three land based offset sites secured at Ellalong Lagoon, Tomago and Brundee. Habitat restoration and creation works at the Tomago offset site (known as the Tomago Offset Site Restoration Project) were proposed and detailed in the RTS/PPR and the T4 Project application area expanded to include the offset site (Lot 1002 DP 1127780).

The RTS/PPR was publicly exhibited between 16 September and 22 November 2013. In response, approximately 995 submissions were received, including a large number of form letters and multiple submissions from some respondents. Most of the submissions (approximately 619) were in support of the T4 Project. Objecting submissions mostly raised similar matters to those in the submissions on the EA.

1.2.4 Response to submissions on preferred project report

The DP&E, in a letter dated 9 December 2013, provided clear guidance on those matters raised in submissions on the RTS/PPR that required response from Port Waratah. It identified 29 matters for address. Those matters were responded to in a 'RTS on Preferred Project' report which was submitted to DP&E on 21 January 2014.

1.2.5 Secretary's preliminary environmental assessment report

On receipt of the RTS on Preferred Project, DP&E undertook a preliminary environmental assessment of the T4 Project. On 26 June 2014, DP&E finalised the Secretary's preliminary environmental assessment report (SPEAR). This was submitted to the PAC for consideration as part of the PAC's merit review process.

As stated in the PAC review report (see below), the SPEAR considered the proposed T4 Project, its strategic and statutory context, public and agency submissions and the RTS/PPR and RTS on Preferred Project and concluded:

- The Government has taken strategic planning steps to ensure the Port is preserved and can accommodate growth. The proposed development is consistent with the planning framework and strategies and the Capacity Framework Agreement (CFA) process.
- The proposal is justified on the grounds that it will enable the coal chain to meet forecast export demand of coal through the Port of Newcastle. Fluctuations in the coal market may delay the requirement for the fourth terminal, but are unlikely to remove its need altogether.
- The proposal is relatively well-located given its proximity to shipping channels, rail lines, separation from sensitive receivers and appropriate zoning.
- Whilst there are some environmental constraints, the proposal is likely to provide significant environmental advantages when compared to locating a new terminal on a greenfield or alternative site.
- Although significant opposition to the proposal was raised in submissions on the basis that it would increase coal extraction and associated impacts, these concerns largely relate to coal extraction itself rather than the terminal infrastructure specifically.

The PAC's report further states:

Overall, the Department is confident that the proposal could proceed with minimal adverse environmental impacts whilst realising significant benefits to the local, regional, state and national economies. It concludes that the project's benefits outweigh its potential impacts and therefore it should be approved subject to conditions. The Secretary's PEAR includes draft recommended conditions of approval relating to the management of air quality/dust management, noise, surface water, ground water, contamination, biodiversity conservation and visual impact.

1.2.6 Planning Assessment Commission review

On 13 September 2012, the then Minister for Planning and Infrastructure requested the PAC undertake a review of the proposed T4 Project. The request stated that PAC was to:

1. Carry out a review of the Port Waratah Coal Services Terminal 4 Project (MP1 0_0125), and
 - a) consider the Environmental Assessment of the project, issues raised in public and agency submissions on the project, and any other information provided during the course of the review;
 - b) assess the merits of the project as a whole, paying particular attention to the potential:
 - noise and air quality impacts of the project;
 - traffic impacts of the project;
 - biodiversity and contamination impacts of the project;

- any other potentially significant impacts of the project; and
 - c) recommend appropriate measures to avoid, minimise and/or offset these impacts.
2. Conduct public hearings during the carrying out of the review.
 3. Submit its final report on the review to me within three months of the receipt of the proponent's response to submissions or preferred project report, unless the Director-General of the Department of Planning and Infrastructure agrees otherwise.

Subsequent to receipt of the SPEAR by the PAC on 27 June 2014, the PAC arranged and held public hearings in Newcastle over two days on 26 and 27 August. Over 130 verbal submissions were made to the PAC at the hearings. In addition, the PAC received a number of written and photographic submissions.

In undertaking the review, the PAC conducted a site visit of the T4 project area and met with a range of stakeholders, including government agencies, councils and Port Waratah. It also commissioned the Centre for International Economics (CIE) to undertake an independent review of the economic assessments/analyses undertaken by Gillespie Economics and the Australia Institute (TIA).

On 1 December 2014, the PAC completed its review report of the T4 Project in accordance with the Minister's request. The report concludes, in part, that the T4 Project is approvable subject to a number of recommendations being addressed. The executive summary of the PAC's review report states:

In considering the project as a whole, the Commission largely agrees with the position adopted in the Department's Preliminary Assessment Report. This position is that the Proponent's rationale for the fourth coal terminal is generally credible, although the timing and staging of the development could be better defined. The reasons for this are set out in detail in this Review report. The Commission considers that if the recommendations outlined below are adopted, then there is merit in allowing the project to proceed.

The recommendations are detailed in Section 6 of the PAC's review report. In total, there are 16 recommendations covering areas such as the development consent's lapsing period, biodiversity, contamination, air quality, noise and other matters.

1.3 Purpose of this report

This report provides Port Waratah's response to each of the PAC recommendations. A summary of each response is provided in Chapter 2. Detail responses, where required, are provided in Chapter 3.

In addition to addressing the PAC recommendations, this report also provides responses and comments to statements made within the PAC review report more generally. These are provided in Chapter 4.

This report will be considered by DP&E when preparing the Secretary's environmental assessment report (SEAR) which will be provided to the PAC for project determination.

2 Summary response to recommendations

A summary of Port Waratah's response to each of the PAC's recommendations is provided below in Table 2.1. Detailed responses to most recommendations are provided in Chapter 3.

Table 2.1 Response to recommendations

Recommendation from PAC review report	Port Waratah response
<u>Lapsing Period</u>	
1. <i>The Commission recommends a five year rather than ten year approval lapsing period for the project. A ten year commencement period could result in extended delays in dealing with contamination and biodiversity issues; as well as sanctioning a project out of step with potential changes to air quality standards and greenhouse gas policies. A five year approval provides a reasonable period to commence construction based on current planning and environmental requirements.</i>	Port Waratah does not agree with this recommendation. While it is recognised that fluctuating demand in the coal market may delay construction of the T4 Project, these fluctuations are unlikely to remove its need. The T4 Project is a large, complex and capital intensive project which will require a long lead time to develop. This has been partly demonstrated in the approval timeframe, which has taken more than four years to date. DP&E has recognised this by recommending a 10 year lapsing period for the development consent. Further details are provided in Section 3.1.
<u>"Biodiversity"</u>	
2. <i>The Commission considers it is critical that the detailed design of the offset sites be prepared in consultation with government agencies including the Commonwealth, OEH and relevant Council. It is noted that the recommended biodiversity conditions (B16 to B21) adequately address this recommendation.</i>	Accepted. Like the PAC, Port Waratah believes it is important that works undertaken at the offset sites, particularly the Tomago offset site, be undertaken in consultation with relevant government agencies. Port Waratah has already committed to this as part of the Statement of Commitments within the EA and RTS/PPR.
3. <i>As noted above, the Commission recommends that a five year approval, rather than the 10 year timeframe proposed by Port Waratah. A five year approval period would provide an appropriate timeframe for the Proponent to commence the conservation works outlined in this chapter, which would have significant biodiversity benefits. A 10 year approval could delay these works, which would result in further degradation of habitat and loss of population.</i>	Port Waratah does not agree with this recommendation as discussed above. Further details are provided in Section 3.1.
4. <i>The Commission is of the view that the Tomago offset area would need to demonstrate that it is functioning successfully prior to construction commencing at the project site. While the Commonwealth recommends one year of demonstrated success, the Commission considers Tomago should be functioning for a minimum of three years to be confident of documenting at least one successful migratory season.</i>	Port Waratah does not consider a three year functioning period for the Tomago offset site is required. A one year period is considered sufficient based on advice from experts and as recognised by State and Commonwealth Government agencies. Further details are provided in Section 3.2.

Table 2.1 Response to recommendations

Recommendation from PAC review report	Port Waratah response
5. <i>The stockyard layout should be refined so that it has a reduced impact on Deep Pond and the nearby Frog Pond and Railway Pond. This would provide improved GGBF and Australasian Bittern habitat as well as minimising the impact on migratory shorebirds and any potential to impact on the values of the Hunter Estuary Wetlands Ramsar site.</i>	Port Waratah has considered the concept of avoid, mitigate and offset in the ultimate determination of the stockyard layout. As a consequence of this work, Port Waratah does not agree the stockyard layout requires further refinement. A detailed response to this recommendation is provided in Section 3.3.
<u>Contamination</u>	
6. <i>The Commission believes that the contamination on Kooragang Island needs to be remediated as soon as practicable. Before a determination is made, the Commission recommends that the Proponent, the EPA and the HDC negotiate and agree on a comprehensive remediation strategy, with clear roles and responsibilities, and an agreed time-table.</i>	Port Waratah is of the view that an appropriate remediation strategy for the former Kooragang Island Waste Emplacement Facility (KIWEF) is already in place. Further details are provided in Section 3.4.
7. <i>The Commission recommends adoption of the amendments and additional conditions recommended by the EPA in the correspondence dated 10 October 2014. In addition, Condition B32 should be amended to reference a one in 100 year average recurrence interval discharge event, (as in correspondence from the EPA dated 25 August 2014).</i>	Some of the proposed amendments to conditions and additional conditions recommended by the Environment Protection Authority (EPA) are accepted by Port Waratah, while others are not, including amending condition B43 to reference a 1 in 100 average recurrence interval (ARI) discharge event. As demonstrated in the EA and RTS/PPR, the T4 Project's surface water management system was designed to account for a 1 in 3 month ARI event, not a 1 in 100 year ARI event. Further details are provided in Section 3.5.
<u>Air quality</u>	
8. <i>Pro-active and Reactive Management</i> <i>The Commission supports the Department's proposed requirements for pro-active and reactive management of air quality and recommends that consideration be given to strengthening the Department's conditions requiring pro-active and reactive mitigation and management. In particular it would be necessary to confirm what mitigation measures would be applied, which components could be shut down (as is required of modern mining operations) and provide clear justification for any continued emissions during adverse conditions. This would also need to extend to the management of emissions from ships and locomotives that are associated with the project.</i>	Port Waratah has already committed to the predictive/reactive air quality control system for the T4 Project. It is noted that as part of the Statement of Commitments within the EA and RTS/PPR, Port Waratah committed to the following: A predictive/reactive air quality control system will be applied. It will be a real-time management system that uses continuous particulate matter and meteorological monitoring data, and meteorological forecast data, to identify triggers for contingency dust measures, such as additional use of water sprays. The system will be fully automated, incorporating trigger alarms, automated reports and SMS and email alarms to prompt contingency measures. Notwithstanding the above, Port Waratah does not have management responsibility of vessels and locomotives associated with the T4 Project. Further details on this matter are provided in Section 3.6.

Table 2.1 Response to recommendations

Recommendation from PAC review report	Port Waratah response
9. <i>Shore Power</i> <i>The Commission recommends that the Proponent should be required to make spatial provision for shore power for vessels, so that it could be installed on the site in 10.future, in the event this becomes a viable option.</i>	Accepted. Spatial provision for shore power for vessels will be provided as part of the T4 Project. This was a matter that Port Waratah was to progress as part of the detailed design phase of the project.
10. <i>Minimising emissions from coal wagons</i> <i>The Commission recommends any approval should include conditions that ensure coal should only be accepted at the project site where it has been appropriately profiled within the wagon and where the coal at the top of the wagon (i.e. that exposed to the wind) meets appropriate moisture content levels, or has been treated with an effective chemical veneer.</i>	Port Waratah does not agree with this recommendation. Port Waratah does not have operational control over the transport of coal within the coal chain. A response to this recommendation is provided in Section3.7.
11. <i>Cleaning of coal wagons</i> <i>The Commission recommends any approval should include conditions that require wagons leaving the site to be completely empty, with dump doors fully closed and sufficiently clean to ensure there is no visible evidence of coal deposition on the ballast around the rail tracks from trains leaving the site.</i>	Port Waratah does not agree with this recommendation. As stated above, Port Waratah does not have operational control over the transport of coal within the coal chain. A response to this recommendation is provided in Section3.8.
<u>Noise</u>	
12. <i>That noise limits should be included for locations at Warabrook and Sandgate (as recommended by the EPA).</i>	Accepted. Details on noise limits for Warabrook and Sandgate based on the noise assessment contained in the RTS/PPR are provided in Section 3.9.
13. <i>That options to tighten the noise limits that would apply to T4 in concert with the Kooragang Coal Terminal should be further explored.</i>	Port Waratah does not agree with this recommendation. Current noise limits contained in the draft conditions have been developed in accordance with the Industrial Noise Policy (INP) and existing noise limits contained in the KCT development consent. Further details are provided in Section 3.10.
14. <i>That additional noise limits specific to the T4 project should also be considered.</i>	This is a matter for DP&E to consider. However, Port Waratah does not believe additional limits are required. The noise limits contained in the draft conditions of approval (ie T4 Project in concert with KCT) have been prepared in recognition of the operational control of the two terminals by Port Waratah. Further details are provided in Section 3.11.

Table 2.1 **Response to recommendations**

Recommendation from PAC review report	Port Waratah response
<u>Other</u>	
15. <i>The Commission recommends that where the conditions specify that issues shall be managed in accordance with the relevant guidelines, the condition specifies that the latest version of the policy or guideline would apply.</i>	Port Waratah does not agree with this recommendation. A response is provided in Section 3.12.
16. <i>The Commission recommends that the Proponent and the Department consider the latest coal pricing and demand forecasts in justifying the final throughput capacity and resulting onsite development footprint, layout and staging plans, to ensure environmental impacts are minimised.</i>	Port Waratah does not agree with this recommendation. A response is provided in Section 3.13.

3 Detailed response to recommendations

3.1 Recommendations 1 and 3

Recommendation 1 by the PAC states:

The Commission recommends a five year rather than ten year approval lapsing period for the project. A ten year commencement period could result in extended delays in dealing with contamination and biodiversity issues; as well as sanctioning a project out of step with potential changes to air quality standards and greenhouse gas policies. A five year approval provides a reasonable period to commence construction based on current planning and environmental requirements.

Recommendation 3 by the PAC states:

As noted above, the Commission recommends that a five year approval, rather than the 10 year timeframe proposed by Port Waratah. A five year approval period would provide an appropriate timeframe for the Proponent to commence the conservation works outlined in this chapter, which would have significant biodiversity benefits. A 10 year approval could delay these works, which would result in further degradation of habitat and loss of population.

The ten year lapsing period for the development consent for the T4 Project has been recommended in the draft conditions of approval by DP&E for a number of reasons, including the significant time and costs involved in the approval process, the uncertainty regarding the date when the T4 Project will be constructed, and the ultimate importance of the T4 Project to the Hunter Valley and NSW.

While fluctuating demand in the coal market and recent reductions in coal prices has delayed construction of the T4 Project, these are unlikely to remove its need. The International Energy Agency (IEA) estimates global electricity demand could double between 2009 and 2035, and that coal will continue to be used to meet some of that demand. In addition, while the growth of coal demand has been slowing in recent years, demand is likely to continue to grow. The IEA predicts that world coal demand will continue to grow an average rate of 2.1% per year through to 2019.

In accordance with fluctuating world demand for coal, demand estimates through the Port of Newcastle vary from year to year due to inherently variable market and other factors. However, since coal began to be exported from the Port of Newcastle, the overall trend has been an ongoing increase in demand for (and production of) coal from the Hunter Valley Coal Chain, and coal terminal capacity at the Port of Newcastle. In accordance with predictions from the IEA, this growth trend is expected to continue in the coming years. Accordingly, a capacity shortfall could arise at anytime in upcoming annual producer nominations and Port Waratah is obligated to construct the additional capacity in certain timeframes when this occurs.

The approval process for the T4 Project has been long and expensive, which in part, reflects the size and complexity of the project. To date it has taken over four years and incurred costs over \$100 M, including the cost of undertaking the engineering design. A ten year lapsing period is required for any approval to ensure that, once a capacity shortfall arises, Port Waratah can respond quickly by constructing the T4 Project. This supports Port Waratah's accountability under the terms of the Hunter Valley Coal Chain's Long Term Commercial Framework which requires Port Waratah to deliver capacity within a four year timeframe, once demand has been triggered.

In terms of a 10 year lapsing period and concerns about delays in conservation works as a result of the lapsing period, it is noted that pursuant to the current draft conditions of approval, no work can occur in Deep Pond without first constructing the Tomago Offset Site Restoration Project. Therefore, no impacts can occur at Deep Pond irrespective of the lapsing period. Work associated with capping of the former KIWEF and thereby removing issues associated with contamination of aquifers from groundwater ingress is already addressed as part of the requirement for Hunter Development Corporation (HDC) to cap the site by 30 June 2017 under Environment Protection Licence (EPL) Surrender Notice 1111840 (and Surrender Notice variations 1510956 and 1520063). The activities and responsibilities assigned in the above mentioned Surrender Notice and Surrender Notice variations, clearly articulates a rehabilitation program (capping) currently exists, independent of the T4 Project.

DP&E has recognised the above in determining a 10 year lapsing period as appropriate for a development of the size, complexity and importance to NSW such as the T4 Project.

It should also be noted that there are other examples of projects in NSW where a 10 year lapsing period has been applied to the development consent, including a consent issued locally by the Minister for Planning for capital dredging in the Hunter River South Arm.

3.2 Recommendation 4

Recommendation 4 by the PAC states:

The Commission is of the view that the Tomago offset area would need to demonstrate that it is functioning successfully prior to construction commencing at the project site. While the Commonwealth recommends one year of demonstrated success, the Commission considers Tomago should be functioning for a minimum of three years to be confident of documenting at least one successful migratory season.

Port Waratah understands the PAC's concerns with regard to the need to demonstrate functionality of the habitat restoration and creation works proposed for the Tomago offset site prior to construction commencing at the terminal site. However Port Waratah does not accept that the offset needs to be functioning for three years to determine its success.

Port Waratah has complied with all requirements in developing the habitat restoration and creation works proposed for the Tomago offset site. In doing this, Port Waratah has had detailed discussions with relevant State and Commonwealth Government agencies, in particular, the NSW Office of Environment and Heritage (OEH) and DoE. The State Government agencies, in consultation with the Commonwealth, agreed that functionality of the migratory shorebird habitat at the Tomago offset site could be proven after one successful migratory shorebird non-breeding period (September to March) which provides alternative habitat for migratory shorebirds that could be impacted by construction at the terminal site. Once Port Waratah is able to demonstrate functionality, construction of the T4 Project at the terminal site should be permitted to commence.

In addition to this, Port Waratah recommends that any condition relating to construction of the habitat restoration and creation works proposed for the Tomago offset site prior to works occurring at the stockyard site, be limited to site works which have the potential to impact Deep Pond. This is required as the Tomago offset site has been purchased and designed to primarily offset the impacts on Deep Pond. Given this, other site works which would have no impact on Deep Pond should be allowed without first requiring the Tomago offset site to be fully functioning. For example, other site works in the vicinity of Deep Pond are currently occurring (and in the future with respect to HDC KIWEF site capping) in an acceptable manner without impacting on the habitat values of Deep Pond.

Port Waratah engaged the services of Mr Phil Straw, a renowned avifauna expert, to design the habitat restoration and creation works proposed for the Tomago offset site. Mr Straw has many decades of experience of demonstrated success in constructing and remediating shorebird habitats worldwide. Mr Straw's design at the Tomago offset site is based on other projects successfully completed in Asia and Australia. Consequently there is a high level of confidence in the success of the functionality of the offset. These projects also demonstrate that some artificially constructed wetlands used by shorebirds, have a higher productivity than similar scale natural habitats for many species of shorebirds. These projects include Dampier Saltworks in north-west Australia and Cheetham Saltworks in South Australia.

In addition, the NSW National Parks and Wildlife Service (NPWS) has, over a number of years, completed wetland remediation on land immediately adjacent to the Tomago offset site within the Hunter Wetlands National Park. The remediation work completed by NPWS has proven to be highly successful and further demonstrates the ability to successfully remediate wetlands with astute engineered solutions.

It should be noted the costs of constructing the habitat restoration and creation works proposed for the Tomago offset site are significant (up to approximately \$26 M under the current design). The detailed design and ultimate construction period for the habitat restoration and creation works proposed for the Tomago offset site is estimated to be approximately two years. The PAC's recommendation would require Port Waratah to demonstrate that the habitat restoration and creation works proposed for the Tomago offset are functioning for three years before construction on the terminal site can commence. This effectively requires Port Waratah to commit significant early works capital funding at least five years before construction can commence on the T4 Project. Of greater concern is the likelihood that this condition will introduce additional delays between demand for the T4 Project being triggered and capacity being available by the T4 Project. As stated earlier, the terms of the Long Term Commercial Framework require Port Waratah to have capacity available within four years of the demand being triggered. Any delays in providing capacity as required will have significant economic and market impacts.

In coming to the decision that one year is sufficient for the Tomago offset site to be in place, consideration has been given to the fact that Deep Pond will also be in place for the full one year duration after the habitat restoration and creation works proposed for the Tomago offset site have been completed (ie both will exist during this 12 month period). In addition, there are many external factors outside the control of the project which impact migratory shorebirds including the accepted decline in migratory bird numbers visiting the Hunter estuary, and decisions and developments in other areas of Australia and Internationally which affect migratory species.

The current position adopted by State and Commonwealth Governments agencies (as demonstrated in the draft conditions contained in the SPEAR), also more closely aligns with the demand nomination process contained in the Long Term Commercial Framework.

3.3 Recommendation 5

Recommendation 5 by the PAC states:

The stockyard layout should be refined so that it has a reduced impact on Deep Pond and the nearby Frog Pond and Railway Pond. This would provide improved GGBF and Australasian Bittern habitat as well as minimising the impact on migratory shorebirds and any potential to impact on the values of the Hunter Estuary Wetlands Ramsar site.

Port Waratah does not support this recommendation. Port Waratah supports the principles of avoidance, mitigation and offsetting. A key consideration in the planning and design of the T4 Project was to avoid and minimise ecological impacts where possible, balanced with project requirements, design considerations and the results of other environmental assessments. Avoidance was identified as a key principle in the ecology assessment contained in the EA (Appendix K) and the Biodiversity Offset Strategy contained in the RTS/PPR (Appendix J) and was acknowledged in the SPEAR.

In terms of avoidance, Port Waratah has committed to:

- realignment of the proposed in-bound rail tracks to avoid green and golden bell frog habitat in OEH Wetland 1 and Railway Road Pond;
- realignment of the proposed in-bound rail tracks near Mosquito Creek to avoid offsite hydraulic impacts;
- retention of Long Pond, Easement Pond South and 5.2 ha of Deep Pond; and
- installation of traffic lights on the corner of Cormorant Road and Pacific National Access Road, which eliminated impacts on green and golden bell frog habitat on the eastern corner of Long Pond associated with a proposed roundabout at this intersection.

Whilst not included in the design of the T4 Project, there were also a number of other options considered to avoid green and golden bell frog habitat, including an investigation into viaducting the in-bound rail tracks at the request of the Commonwealth Government. This option was ultimately determined not to be feasible due to cost and potential direct and indirect habitat impacts. The cost of providing viaducts compared to a standard railway was \$180 M compared to \$25 M. Piling and construction works associated with provision of viaducts was also likely to have significant impacts on green and golden bell frog habitat. Given the high cost differential and the limited, if any, benefit to green and golden bell frog habitat, due to indirect impacts associated with construction, the provision of rail viaducts was not considered to be viable.

The design of the proposed stockyard is based on a terminal capacity of up to 70 Mtpa, but allows for a terminal with 120 Mtpa capacity through the provision of two additional stockpiles and two additional ship berths with associated infrastructure. Any extension of the T4 Project's capacity from 70 Mtpa to 120 Mtpa would be subject to a future approval.

Providing a design which would allow for future growth to 120 Mtpa, is fundamental to the design principles adopted for the site. In determining the design, it is important to maintain options for future coal expansion in this location given the location is ideally positioned on industrial land with river frontage, and is aligned with the Port of Newcastle Port Plan. The cornerstone of the engineered solution is the placement of 4.3 Mm³ of dredged sand from the Hunter River South Arm to consolidate and cap the terminal site to the required levels. This is the first major milestone in construction activity and requires the use of Deep Pond to accept dredged water to facilitate settling of sediments, hence early impact on Deep Pond. This area is required to ensure dredge return water is free of sediment and to meet likely dredge water discharge limits.

Dredging of the Hunter River South Arm is required for the T4 Project, or any alternate port use of the T4 project area. Dredging approvals are already in place, although these need to be modified to facilitate the T4 Project as designed. If the dredged sand was not to be used as an engineered fill for the T4 Project, it would need to be disposed elsewhere, likely off-shore.

An alternative option to using dredged sand to consolidate and cap the stockyard site is to truck sand from an alternative source such as a quarry. This option was considered to be unacceptable as the trucking of sand of the volume required would generate significant additional heavy vehicle traffic on Kooragang Island and the surrounding road network. This is undesirable given that traffic congestion on Kooragang Island is already a key concern for the local community, NCC and Roads and Maritime Services (RMS). If sand was trucked to the site as an alternative to the placement of dredged sand from the river, the amount of truck movements during construction would likely more than double to approximately 660 truck deliveries per day (or 1,320 truck movements per day) for a period of 2.5 years. This would also come at a significant cost to Port Waratah, both through the cost of purchasing and trucking sand to the site, but also due to the costs of disposing the sand from the river.

The placement of dredged sand from the river on the site is a far more effective and efficient manner to consolidate and cap the site.

The design of the stockyard considers the future complexity of staged construction. Building north to south avoids costly plant access constraints in building future stages and also allows the existing plant to continue to operate free of interruption, thereby maintaining contracted terminal throughput. Building in a north to south design will also eliminate a significant range of safety risks and issues associated with the logistics of construction within an operating terminal. It should be noted that due to existing site constraints (surrounding wetlands to the west and north and the existing rail), access to the T4 project area can only be via the south and east thereby creating significant constraints in building south to north.

In accordance with the concept of avoidance, consideration was given to the retention of green and golden bell frog habitat in Ponds 11 and 12 during construction and operation of the T4 Project. Port Waratah engaged Aurecon Hatch to conduct a study into options for retaining this habitat within the terminal footprint. This study cost \$600,000 and delayed completion of the RTS/PPR by a number of months. This study found that the cost of retaining this habitat throughout construction was significant, resulting in additional capital costs of \$120 M, and increasing a further \$73 M should the T4 Project be ultimately developed to 120 Mtpa. The Aurecon Hatch study identified the following changes would be required if an alternative design to protect green and golden bell frog habitat was adopted:

- provision of a cement-bentonite cut off wall around three sides of the Ponds 11 and 12;
- requirement for a new site drainage arrangement;
- new coal recirculation conveyor arrangement for 70 Mtpa stockyard, with demolition of conveyors and transfer houses required for a future 120 Mtpa stockyard coal recirculation system;
- reorientation of the settling pond system and relocation of the raw water pump station; and
- deferred construction of the north western electrical substation with high voltage loads to be distributed to the south western electrical substation.

The changes in design sequencing and reduced construction area as a result of attempting to avoid Ponds 11 and 12 would also require Port Waratah to handle an additional 1.8 Mm³ of dredged material. In the current design, this material is left in-situ as a base for the provision of additional stockpiles in the future (subject to future approvals), whilst for the alternative design, this material would either be placed elsewhere and re-handled at a later stage, or disposed of (ie off-shore as part of the dredging process).

Direct and indirect costs associated with the above changes were estimated to be about \$190 M (+/- 30% accuracy range in line with typical estimates for conceptual designs).

Whilst the cost of a redesign to avoid impacts to Ponds 11 and 12 is significant, the results of the study completed by Aurecon Hatch did not provide Port Waratah with a high level of confidence in the success of the design measures and consequently could not guarantee the proposed design solution could protect green and golden bell frog habitat without any fatal flaws. Without a guarantee of success, Port Waratah was unwilling to take this risk. Should failure of the design occur during the dredging campaign, and Ponds 11 and 12 be impacted by salt water incursion there is minimal avenue of recovery for the pond and green and golden bell frogs using this habitat. Port Waratah considers the early relocation of green and golden bell frogs from this habitat, in conjunction with the ongoing funding of a green and golden bell frog captive breeding program, a far more sustainable management option for the long term presence of the species.

Port Waratah explored other avenues to retain the green and golden bell frog on site and engaged leading practitioners in green and golden bell frog research at the University of Newcastle to assist in designing an alternative solution. The engineering solution for the T4 Project included the creation of a green and golden bell frog habitat corridor complete with managed frog ponds to ensure continued habitat on site. Trial ponds have been established on site which have successfully provided breeding habitat for the green and golden bell frog thereby providing a high level of confidence in the proposed corridor solution. The design of the green and golden bell frog habitat corridor has been supported by State and Commonwealth Government agencies and confirmed as suitable in both the State and Commonwealth biodiversity offset calculations. The green and golden bell frog habitat corridor does not impact, impede or encroach on the neighbouring Hunter Wetlands National Park and Hunter Estuary Wetlands Ramsar site, but importantly provides connectivity to the national park and Ramsar site as a critical component of the corridor. Construction staging will be undertaken to facilitate future growth as needed, considering environmental impacts, engineering complexity and cost of construction.

In support of the T4 Project, the proposed biodiversity offset strategy addresses the full range of biodiversity impacts associated with the proposed footprint which would allow for a terminal to operate at 120 Mtpa in the future, subject to future approvals. This comprehensive biodiversity offset strategy meets all State and Commonwealth Government offsetting requirements.

Potential ecological impacts of the T4 Project were comprehensively assessed in the EA and RTS/PPR. This was undertaken by a range of specialists and peer reviewed by recognised experts in their field. The ecological assessment, inclusive of mitigation/management measures and offsets was reviewed by State and Commonwealth Government agencies, and subsequently agreed upon and accepted.

3.4 Recommendation 6

Recommendation 6 of the PAC states:

The Commission believes that the contamination on Kooragang Island needs to be remediated as soon as practicable. Before a determination is made, the Commission recommends that the Proponent, the EPA and the HDC negotiate and agree on a comprehensive remediation strategy, with clear roles and responsibilities, and an agreed time-table.

Port Waratah is of the view that an appropriate remediation strategy for the former KIWEF is already in place. Accountability for the remediation of the KIWEF has been the subject of numerous discussions involving all stakeholders, including State Government agencies over a very long period of time, well before the T4 Project was proposed or considered. The responsibility for capping of the KIWEF currently rests with HDC to cap the site by 30 June 2017 as defined in EPL Surrender Notice 1111840 (and Surrender Notice variations 1510956 and 1520063). Port Waratah is under no obligation to cap any part of the KIWEF site.

It should be noted that funding for capping of the KIWEF area was provided by BHP to the State Government as part of the funding arrangements when BHP closed the Newcastle Steelworks.

Port Waratah has been made aware of amendments to the approval to surrender EPL 6437 which states that HDC may be able to avoid capping the KIWEF if Port Waratah obtains development consent for the T4 Project. Port Waratah has regularly engaged with HDC over the past four years in relation to capping of the KIWEF and have agreed on a coordinated capping plan should the T4 Project proceed to construction. Port Waratah's commitment is to undertake capping of that part of the KIWEF impacted by the T4 Project should construction proceed. If the T4 Project is approved, but does not proceed to construction, Port Waratah is under no obligation to cap the KIWEF but acknowledges it has obligations to remediate parts of the land that it owns and it intends to comply with these obligations. A copy of a letter to Newcastle Port Corporation (NPC) outlining Port Waratah's position in this regard is attached as Appendix A. In addition, further details of Port Waratah's commitments around capping of the KIWEF are provided in Section 3.5.4 ii.

3.5 Recommendation 7

Recommendation 7 of the PAC states:

The Commission recommends adoption of the amendments and additional conditions recommended by the EPA in the correspondence dated 10 October 2014. In addition, Condition B32 should be amended to reference a one in 100 year average recurrence interval discharge event, (as in correspondence from the EPA dated 25 August 2014).

The correspondence referenced above is correspondence from the EPA to the PAC regarding additional issues raised during the public hearings for the T4 Project. Based on a review of these additional issues, the EPA recommended either amendments to, or the inclusion of additional conditions, within DP&E's recommended conditions of approval for the T4 Project. The amendments and additional conditions recommended by the EPA are provided in a table in the correspondence. The table references the recommended condition of approval proposed by DP&E, the suggested amendment or additional condition and a reason for the suggested amendment or additional condition. Each of these are discussed below.

3.5.1 Recommended condition B32

Currently recommended condition B32 states:

Unless otherwise agreed by the Secretary, the Proponent shall design, construct, maintain and operate surface water and stormwater management infrastructure on the Site to accommodate a 1 in 3 month Average Recurrence Interval (ARI) discharge event.

Note: A discharge event is defined as a period where continuous or intermittent overflows from the water management ponds occur. A discharge event is counted following a 72 hour period of no overflows from the water management ponds.

Based on correspondence from the EPA to the PAC dated 25 August 2014, the PAC recommends that the condition be amended to reference a 1 in 100 year ARI discharge event. The letter from the EPA states:

The previous wording of this condition required the surface water management system be designed to capture a 1 in 100 year ARI even with no surface water discharge to occur from the site unless provided for in an environment protection licence.

The EPA recommends the previous wording, referencing a 1 in 100 year ARI event be adopted as this is consistent with the design presented in the Preferred Project Report and original Environmental Assessment.

This matter was comprehensively addressed in the EA and RTS/PPR, particularly in section 4.2.2 of the surface water assessment contained in Appendix J of the EA. This states that the 1 in 100 year ARI 2 hour storm event historically adopted for similar large-scale industrial developments on Kooragang Island misrepresents the actual capacity of surface water management systems. While these events are extreme in terms of rainfall intensity, the rainfall depth and likely runoff volume is similar to what would be expected during a relatively infrequent 10 to 20 day rain period. Accordingly, the design presented in the EA and RTS/PPR was a 1 in 3 month ARI event, not a 1 in 100 year ARI event.

Prior to designing the surface water management system for the T4 Project and undertaking the surface modelling, the design criteria was discussed and agreed with the EPA. Water balance modelling was subsequently undertaken to quantitatively assess the performance of the proposed surface water management system for the T4 Project in both the EA and RTS/PPR. Model results for the RTS/PPR indicate that during extended periods of wet weather, runoff will exceed the project's water use rate, resulting in a water surplus. The water management ponds will provide 131 ML of flood storage (equivalent to 89 mm of site runoff) and will temporarily store water during surplus periods. However, if sufficient rainfall occurs, the storages will fill and overflow. On average this is predicted to occur once every 90 days (or once every 3 months), which meets the goal of a "no discharge to the Hunter River, other than natural surface runoff in extreme weather events, during operation of the project" as required by the DGRS for the project and agreed in consultation with the EPA on a number of occasions.

It should be noted that following exhibition of the EA, the EPA's submission to DP&E stated:

The Surface Water Assessment generally demonstrates the project has been designed as a 'no water discharge' site with the exception of extreme wet weather events as required by the Director General Requirements.

While some additional information was required by the EPA on the surface water assessment, no additional information was required in relation to the ARI design event.

Following exhibition of the RTA/PPR, the EPA's submission to DP&E stated:

It is noted that the above design features are subject to revision at the detailed design stage. It is also noted the surface water management system has been designed as a 'no water discharge' site with the exception of extreme wet weather events (being a 1 in 100 year, 2 hour storm event).

This is incorrect. The surface water assessment contained in the RTS/PPR stated that:

The average frequency of site overflows will not exceed 1 in 90 days (1 in 3 months). A site overflow event is defined as a period of continuous overflow associated with a particular wet weather event. The justification for this objective is discussed in detail in Section 4.2 of the Surface Water Assessment (EA, Appendix J).

Notwithstanding the above, the stormwater management system for the proposed wharf area, a much smaller area than the stockyard site, was designed to contain a 1 in 100 year ARI, 2 hour event.

A 1 in 90 day overflow frequency (or 1 in 3 month ARI event) provides a balance between effectively managing surface water on the stockyard site and minimising impacts to other important environmental factors, such as ecology.

Port Waratah recommends that reference to a 1 in 3 month ARI event be maintained in the conditions of approval for the stockyard site.

3.5.2 Recommended condition B43

Currently recommended condition of approval B43 states:

Prior to the commencement of construction, or as approved by condition A9, the Proponent is to finalise and submit the Landfill Closure Plan, Remediation Action Plan for each stage and the containment cell design for the approval of the Secretary. This is to include:

- (a) the final Contaminated Site Auditor's Site Audit Statement and Site Audit Report; and
- (b) detailed consideration of how the requirements of any Environment Protection Licence or Surrender Notice applicable to the site will be complied with.

In three separate rows of the table in the EPA's correspondence to the PAC, the EPA recommends the approval be amended to state:

Prior to the commencement of construction, the Remedial Action Plan must be finalised in accordance with the requirements of the *Guidelines for Consultants reporting on Contaminated Sites, NSW EPA 1997*, submitted to the consent authority and approved by the consent authority. The RAP must clearly identify the remedial options that will be implemented at the site.

The proponent must engage an auditor accredited under the Contaminated Land Management Act to determine the appropriateness of the Remedial Action Plan. The auditor must prepare a Site Audit Report and Site Audit Statement and submit it to the EPA at least one month prior to the commencement of the construction work.

The proposed location and design of any containment cell/s be identified and approved prior to the construction of any containment cell.

Port Waratah accepts the EPA's proposed amendments to recommended condition of approval B43 on the basis that the words "or as approved by condition A9" as currently contained within condition are maintained.

3.5.3 Recommended condition B38

Currently recommended condition of approval B38 states:

All stormwater and surface water management infrastructure on the Site intended to manage actual or potentially contaminated or saline water during operations shall be lined with a low-permeability material to minimise potential leakage. Collected stormwater shall be reused on Site for beneficial purposes such as the wetting of coal to reduce dust emissions from the Site.

The EPA recommends that the condition be amended to exclude the words "actual or potentially contaminated or saline" so that the conditions reads:

All stormwater and surface water management infrastructure on the Site intended to manage water during operations shall be lined with a low-permeability material to minimise potential leakage. Collected stormwater shall be reused on Site for beneficial purposes such as the wetting of coal to reduce dust emissions from the Site.

Port Waratah accept the EPA's proposed amendments to recommended condition of approval B38.

3.5.4 New conditions

Three new recommended conditions of approval, or additions to existing recommended conditions of approval have been recommended by the EPA. They are:

- handling and deposition of wet sediment and dredge waters only be undertaken in areas of the site which have an impermeable land surface barrier (such as concrete or high-density polyethylene (HDPE) liner) and appropriate drainage such that the risk of waters entering the groundwater table is minimised as far as practicable;
- final capping works must be implemented and completed prior to any dredge material emplacement, preloading and/or construction at the site; and
- the long term maintenance requirements of permeable reactive barriers proposed in the concept stage Remedial Action Plan (RAP) should be identified and agreed by the landowners.

Each of these new recommended conditions of approval, or additions to existing recommended conditions of approval are addressed below.

i Handling and deposition of wet sediment and dredge waters

The EPA's recommendation that the handling of all dredge waters is required to be undertaken in areas which have an impermeable land surface barrier such as concrete or HDPE liner relates to its concern that there is potential for saline dredge water to seep into the groundwater table below Deep Pond and potentially exacerbate existing soil and groundwater contamination. This matter was addressed in the RTS on Preferred Project report, as follows:

The T4 project area has two principal groundwater aquifers as detailed in the EA and related documents; an unconfined Fill Aquifer and a confined Estuarine Aquifer. The proposed barrier wall along the western and southern sides of Deep Pond will cut off the Fill Aquifer, minimising the movement of saline water through the rail embankment towards sensitive wetlands. The concern raised by the EPA relates to possible vertical movement of saline water through the base of Deep Pond into the Estuarine Aquifer.

The risk of saline dredge water adversely impacting the Estuarine Aquifer is considered very low on the basis of:

- aquitard thickness and low permeability;
- existing salinity of Estuarine Aquifer; and
- results of groundwater modelling.

These are discussed further in the following.

Aquitard thickness and permeability

The base of Deep Pond consists of low-permeability silty clay/clayey silt forming an aquitard over the confined Estuarine Aquifer. Investigations within and around Deep Pond indicate that the thickness of the aquitard in this area is the thickest of anywhere in the T4 project area. Its thickness ranges from about 4 m on the eastern side of Deep Pond to greater than 14 m on the pond's western side.

In situ and laboratory permeability tests have been undertaken on the silty clay/clayey silt material that forms the aquitard. These indicate permeability in the range of 2×10^{-10} m/s to 5×10^{-9} m/s. This permeability is lower than the specification for the barrier wall, which is 1×10^{-8} m/s.

Existing salinity of Estuarine Aquifer

The Estuarine Aquifer is hydraulically connected to the south and north arms of the Hunter River and has salinity approaching that of sea water. The salinity of sea water (as indicated by electrical conductivity) is about 50,000 microsiemens per centimetre ($\mu\text{S}/\text{cm}$). Tests carried out on samples collected from monitoring wells on the T4 project area show that the salinity of the Estuarine Aquifer is in the range 21,000 to 40,000 $\mu\text{S}/\text{cm}$. The salinity of the Fill Aquifer however is typically an order of magnitude lower, generally in the range of 1,200 to 7,500 $\mu\text{S}/\text{cm}$.

In the unlikely event that saline dredge water infiltrated through the aquitard into the Estuarine Aquifer there would be negligible impact. Furthermore the infiltrated water would eventually (after several decades) flow towards the already saline Hunter River.

Results of groundwater modelling

The groundwater modelling showed that the principal movement of dredge water (and water in the Fill Aquifer) is horizontal rather than vertical. This is primarily due to higher horizontal permeabilities compared to vertical permeabilities.

It is therefore concluded that risk of saline dredge water adversely impacting the Estuarine Aquifer is very low given that vertical movement through the aquitard would be minimal, and even if it did pass through, the effect on the already saline receptors would be negligible.

Comprehensive contamination remediation and management measures are proposed to be implemented during the construction phase to ensure that impacts during dredge emplacement are minimised. These measures were provided in the PPR/RTS, and include:

- construction of a low permeability barrier wall on the northern and western sides of Deep Pond before dredge material emplacement, to reduce the migration of saline dredge waters through the rail embankment towards wetlands to the west and north-west;
- construction of a low permeability barrier along the southern side of Easement Pond to reduce the migration of saline dredge water to wetlands to the south; and
- installation of a liner or equivalent around the southern end of the dredge decant pond (located at the southern-central portion of Deep Pond), prior to emplacing dredge material.

In addition, Port Waratah committed to undertaking detailed assessment, design and pricing of contamination management and remediation options, including supplementary targeted investigations and remediation trials to confirm the measures to be implemented. Once the measures have been finalised, and following detailed design, the RAP will be updated to include the final contamination management and remediation measures. The RAP will include a remediation schedule, validation testing program and contingency measures. Relevant reviews will be undertaken by an EPA accredited auditor during investigations, remediation trials and final RAP preparation. The RAP may be finalised in stages, for the respective contamination management and remediation measures. The final RAP(s) will be reviewed by the auditor and a site audit statement report(s) prepared prior to starting the management and remediation work it relates to.

Accordingly, Port Waratah does not support any conditions that require the handling of all dredge waters be undertaken in areas which have an impermeable land surface barrier.

ii Timing of final capping

The EPA's recommendation that final capping works must be implemented and completed prior to any dredge material emplacement, preloading and/or construction at the site aims to minimise surface water infiltration to groundwater. This matter was addressed in the RTS on Preferred Project report.

Port Waratah will only be providing capping for the T4 project area as agreed with HDC if the project is constructed ie the dredging by Port Waratah for filling of the T4 project area, as part of site development for the T4 Project, forms the capping for the site. Port Waratah has not committed to providing any capping at any other time. The timing of the T4 Project's construction is not confirmed. If construction is delayed for some years, Port Waratah recognises that the EPA under the terms of Surrender Notice 1111840 (and Surrender Notice variations 1510956 and 1520063) may require HDC to cap the KIWEF and Port Waratah to cap the Delta EMD site in accordance with the existing approved cap designs (as would happen if the T4 Project did not exist). In the case of the Fines Disposal Facility (FDF), EPL 5022 does not prescribe capping and closure requirements. It is anticipated that capping would not be required until after the use of the FDF by Port Waratah has ceased.

It should be noted again that Port Waratah's commitment to assist in capping of the T4 project area (if the T4 Project progresses to construction), including the KIWEF, includes the use of dredged sand. This has been clearly outlined in the Closure Plan and RAP (pre-detailed design) contained in the RTS/PPR. The PAC review report, based on the EPA's advice, requires this capping should occur at some stage 'prior' to construction. The avenue for capping the site prior to construction of the T4 Project clearly exists now, with the responsibility of HDC under the terms of the Surrender Notice 1111840 and Surrender Notice variations 1510956 and 1520063. The EPA in their role as regulator has the authority to enforce the terms of the Surrender Notice to ensure capping is completed by June 2017.

iii Long term maintenance requirements

Port Waratah agree that the long term maintenance requirements of the proposed permeable reactive barriers are identified and agreed by the respective landowners. It is proposed that this be undertaken as part of the process of undertaking detailed assessment, design and pricing of contamination management and remediation options, including supplementary targeted investigations and remediation trials to confirm the measures to be implemented.

Port Waratah would support any new condition requiring that the long term maintenance requirements of the proposed permeable reactive barriers are identified and agreed by the respective landowners.

3.6 Recommendation 8

Recommendation 8 of the PAC states:

Pro-active and Reactive Management

The Commission supports the Department's proposed requirements for pro-active and reactive management of air quality and recommends that consideration be given to strengthening the Department's conditions requiring pro-active and reactive mitigation and management. In particular it would be necessary to confirm what mitigation measures would be applied, which components could be shut down (as is required of modern mining operations) and provide clear justification for any continued emissions during adverse conditions. This would also need to extend to the management of emissions from ships and locomotives that are associated with the project.

Port Waratah has already committed to a predictive/reactive air quality control system for the T4 Project. It is noted that as part of the Statement of Commitments within the EA and RTS/PPR, Port Waratah committed to the following:

A predictive/reactive air quality system control system will be applied. It will be a real time management system that uses continuous particle matter and meteorological monitoring data, and meteorological forecast data to identify triggers for contingency dust measures, such as additional use of water sprays. This system will be fully automated, incorporating trigger alarms, automated reports and SMS and email alarms to prompt contingency measures.

This predictive/reactive air quality control system would be managed as part of Port Waratah's existing environmental management system (EMS) which will be revised and updated, if required, to incorporate specific requirements of the control system.

As part of standard operations at CCT and KCT, Port Waratah incorporates a daily dust "dashboard" which provides information on weather conditions pertaining to dust as well as direction on action required to manage a variety of dust scenarios depending on weather conditions, including shutting down of specific operations in extreme conditions if they relate to potential dust emissions.

Whilst Port Waratah is required to manage dust emissions from its terminals, Port Waratah does not have management responsibility for emissions from vessels and locomotives associated with CCT, KCT or T4. These are the responsibility of Port of Newcastle and the Australian Rail and Track Corporation (ARTC) respectively and managed via licences (EPLs) issued by the EPA.

Port Waratah supports, in principle, the development of a port wide approach to managing noise and/or air emissions, however this must be implemented as a whole of Port approach where all port operators are equally responsible for managing noise and air emissions. Port Waratah would be happy to participate in any port wide strategy to examine ways to improve noise and air emissions in the Port.

3.7 Recommendation 10

Recommendation 10 of the PAC states:

The Commission recommends any approval should include conditions that ensure coal should only be accepted at the project site where it has been appropriately profiled within the wagon and where the coal at the top of the wagon (i.e. that exposed to the wind) meets appropriate moisture content levels, or has been treated with an effective chemical veneer.

Port Waratah does not accept this recommendation. Port Waratah does not own, operate or have any operational control over coal transport within the rail corridor.

The EPA is currently undertaking a review of the levels of dust generated by coal train movements in the Hunter Valley. Accordingly, it is expected that the EPA will ultimately determine the parameters in regard to coal profiling, acceptable moisture level content of coal in transit and any need for chemical veneering or physical covering of coal in transit. Any changes on the management of coal in transit will need to be implemented with those entities with operational control over coal transport within the rail corridor; most likely through the pollution reduction programs on existing EPLs.

Accordingly, conditions should not be imposed on any development consent for the T4 Project which relates to management of coal transport within the rail corridor.

3.8 Recommendation 11

Recommendation 11 of the PAC states:

The Commission recommends any approval should include conditions that require wagons leaving the site to be completely empty, with dump doors fully closed and sufficiently clean to ensure there is no visible evidence of coal deposition on the ballast around the rail tracks from trains leaving the site.

Under the conditions of EPL 1552, Port Waratah is responsible for dust emissions which occur on the premises during the process of coal unloading and handling. Under the conditions of EPL 13319 ARTC are responsible for the same within the rail corridor. Port Waratah maintains a range of operating controls to ensure rail wagons are empty following the process of unloading coal at Port Waratah's dump stations, prior to the train continuing its journey beyond the dump station. Recent EPA audits have confirmed the current controls are in place, thereby minimising any occasion of significant coal "hang up" remaining in unloaded wagons upon departure from Port Waratah.

In terms of dust emissions emanating from any residual coal fines/dust within the wagon following the unloading process, the impact/quantum of such is yet to be validated, and consequently any actions relating to such will first require validation of the problem prior to committing to a solution.

Considering the above, any changes to the management of coal in transit will need to be implemented through pollution reduction programs in existing EPLs with the defined entity.

Accordingly, conditions should not be imposed on any development consent for the T4 Project which relates to management of coal transport within the rail corridor, but rather identified in the appropriate EPL.

3.9 Recommendation 12

Recommendation 12 of the PAC states:

That noise limits should be included for locations at Warabrook and Sandgate (as recommended by the EPA).

The PAC's recommendation to include noise limits for locations at Warabrook and Sandgate is acceptable and broadly consistent with recommended condition A2, which requires Port Waratah to carry out the T4 Project generally in accordance with the RTS/PPR (inclusive of the relevant noise assessments presented in the RTS/PPR).

Extending the existing format of recommended condition B13, noise limits can be set in accordance with the noise assessment contained in the RTS/PPR (Appendix F) and with reference to relevant project specific noise levels (PSNLs) and sleep disturbance noise levels (SDNLs) for Warabrook and Sandgate respectively, as presented in the table (amended) below.

Location	At all Times	Night only 10:00pm to 7:00am
	LAeq(15minute)	LA1(1minute)
Fern Bay	50	55
Stockton	50	57
Mayfield	44	58
Warabrook	44	54
Sandgate	45	55

Importantly, the noise limits accommodate the noise generated by the T4 Project in total (ie in concert) with noise generated by KCT and are consistent with the outcomes of the noise assessment and existing KCT Project Approval.

3.10 Recommendation 13

Recommendation 13 of the PAC states:

That options to tighten the noise limits that would apply to T4 in concert with the Kooragang Coal Terminal should be further explored.

Port Waratah does not accept that the noise limits should be 'tightened'. The limits contained in the draft condition of approval have been prepared based in the INP and the noise assessment contained within the RTS/PPR. In particular, they accounted for existing noise limits for KCT.

Any tightening of the noise limits contained in the table above, will potentially significantly tighten (via complexity and lower levels) the noise compliance requirements for the KCT. While Port Waratah would own and operate both the T4 Project and KCT, KCT is a separately approved development (with existing/approved noise limits). Tightening the noise limits would be inconsistent with the INP and the noise limits within KCT's development consent.

It should also be noted that any development consent granted by a consent authority is to be final and certain, and as such this recommendation is not appropriate.

However, it is recognised that after the first review period for any EPL (generally five years) granted in respect of the T4 Project, an EPL does not need to be substantially consistent with a development consent. Accordingly, at this time noise limits can be altered via amendments to the EPL to ensure community expectations are met. Given this, there is no need for the development consent to address this recommendation.

3.11 Recommendation 14

Recommendation 14 of the PAC states:

That additional noise limits specific to the T4 project should also be considered.

This is a matter for DP&E to consider. However, Port Waratah does not believe that the provision of additional specific noise limits for the T4 Project, in addition to the existing noise limits recommended in draft Condition B13, are required. The noise limits contained in draft Condition B13 are more than adequate to ensure the T4 Project operates within noise goals stipulated in the INP, and were prepared recognising that Port Waratah will have operation control over both the T4 Project and KCT. Provision of additional noise limits would add an unnecessary layer of complexity.

3.12 Recommendation 15

Recommendation 15 of the PAC states:

The Commission recommends that where the conditions specify that issues shall be managed in accordance with the relevant guidelines, the condition specifies that the latest version of the policy or guideline would apply.

Port Waratah does not accept this recommendation and believes, if adopted, may set a dangerous precedent for all development and activities regulated under the EP&A Act. Such conditions could render developments and activities illegal at a future date if they are unable to comply with the condition irrespective if the development or activity complied with the condition when the development or activity was approved. In addition, it could make developments and activities uneconomical if compliance with a future policy or guideline was unachievable.

When undertaking any development or activity, the proponent is required to make decisions as to whether a development can be designed, constructed and operated in accordance with guidelines and policies at the time, or guidelines and policies foreshadowed and drafted. Proponents cannot, or should not, be required to make a decision as to whether a development can be designed, constructed and operated in accordance with future and unknown guidelines and policies.

The T4 Project was designed in accordance with guidelines and policies at the time, or guidelines and policies foreshadowed and drafted in all relevant areas, including legislation and policy relating to contamination, groundwater and surface water, ecology, noise, air quality, traffic and heritage management. It was designed to comply and accord with these guidelines and policies, not future and unknown guidelines and policies.

Port Waratah recognises that developments and activities, particularly industrial developments and activities, need to adapt and continually improve their environmental performance in light of new guidelines and policies. Port Waratah currently undertakes these improvements at its operating terminals; CCT and KCT. But it undertakes improvements in a sustainable manner that weighs up environmental, social and economic considerations. If constructed, Port Waratah will undertake a continual improvement process at the T4 Project in much the same manner as it does at CCT and KCT.

In addition, as per the response to Recommendation 13, it is recognised that after the first review period for any EPL (generally five years) granted in respect of the T4 Project, an EPL does not need to be substantially consistent with a development consent. Accordingly, at this time, limits on noise, air quality and surface water discharges can be altered via amendments to the EPL to ensure community expectations are met. Given this, there is no need for the development consent to address this recommendation.

3.13 Recommendation 16

Recommendation 8 of the PAC states:

The Commission recommends that the Proponent and the Department consider the latest coal pricing and demand forecasts in justifying the final throughput capacity and resulting onsite development footprint, layout and staging plans, to ensure environmental impacts are minimised.

Port Waratah operates under the Long Term Commercial Framework which clearly identifies accountabilities of the various stakeholders within the Hunter Valley Coal Chain. The Long Term Commercial Framework is underpinned by 10 year ship or pay contracts in which Port Waratah is required to provide infrastructure as required to support demand from within the coal chain.

As part of the T4 Project, Port Waratah has requested approval for the staged construction and operation of a coal terminal with a maximum throughput of 70 Mtpa. Staging would be based on demand, but were nominally identified as 25 Mtpa, 40 Mtpa and 70 Mtpa for the purposes of undertaking modelling. Depending on demand, smaller growth increments could be initiated between the likely major growth stages.

The Long Term Commercial Framework will determine demand for the T4 Project through the ship or pay contract mechanisms. Clearly, future demand will indeed be driven by price and supply, as the PAC have indicated in their Recommendation 16. Under the terms of the Long Term Commercial Framework, Port Waratah has an obligation to only build to contracted capacity thereby meeting demand. The Framework does not support any options for “overbuilding”.

Given the above, Port Waratah is of the view the T4 Project already meets the PAC’s requirements as documented in the EA and RTS/PPR.

4 Other matters

The comments below respond to specific statements contained in the PAC review report and are included to supplement the responses to the 16 recommendations. In each section, the specific statement contained in the PAC review report is provided, followed by Port Waratah's response to that comment.

PAC statement

Statement on Page 2:

Up to four arrival tracks converging into up to three dump stations.

Port Waratah Response

The proposal is for up to four arrival tracks converging into up to two dump stations.

PAC statement

Statement on Page 17:

The reduction in the nominal maximum throughput by the Proponent from 120 Mtpa to 70 Mtpa has not resulted in any reduction in the proposed incursion of the stockyard into the north eastern section of Deep Pond.

Port Waratah response

Maintaining the original footprint of the T4 Project is required for a number of reasons, as follows:

- the need to dredge all sands and sediments from the Hunter River South Arm to facilitate formation of the shipping channels and accordingly the design enabling the reuse of dredged sand on the T4 project area which is the most economical and sustainable option with respect to use of valuable sand for construction purposes;
- the footprint allows for the 120 Mtpa master plan (subject to future approval);
- the footprint allows for an integrated capping plan for the various landfill sites; and
- Port Waratah has offered the full offset package for a 120 Mtpa upfront.

PAC statement

Statement on Page 17:

... there will be ample time to amend the RAP and closure plan as these can be done during detailed design and are required to be submitted for approval.

Port Waratah response

The design work suggested by the PAC would constitute a complete redesign of the site layout and engineering to support this. The detailed design phase of the project (of the existing design) is expected to take two years to complete. If a redesign is undertaken as suggested (which would initially be at a concept level) then a further 18 months would be required, as well as remodelling groundwater and surface water impacts. As it currently stands, the detailed design phase of the T4 Project will further develop the current scope of works and design. The RAP and closure plan are based on this current design. Any changes to this design would also necessitate a complete review of many aspects of the project including noise, air, water, biodiversity and traffic.

PAC statement

Statement on Page 19:

The proposed development requires the complete removal on the Australasian Bittern habitat at the site (with the exception of the GGFC corridor), meaning the impacts on the species would be significant.

Port Waratah response

As recognised by OEH and DoE, the green and golden bell frog corridor will also provide important compensatory onsite habitat for the Australasian Bittern.

PAC statement

Statement on Page 21:

The Commission's earlier recommendation to redesign the proposed stockyard to reduce the impact to Deep Pond will also assist in minimising the impact on the GGBF if the adjacent ponds known as 'frog pond' and 'railway pond' along the rail corridor can also be protected.

Port Waratah response

A redesign of the stockyard layout, water management system and associated conveyor systems (which is required if a redesign was undertaken to retain any part of the site such as Deep Pond) is not supported by Port Waratah for many reasons as outlined in this report. Port Waratah has taken into account all potential impacts when submitting the revised design as part of the RTS/PPR, and all impacts have been either mitigated or offset, in consultation and agreement with State and Commonwealth Governments. The biodiversity offset strategy fully accounts for all impacts associated with the T4 Project for a 120 Mtpa master plan footprint.

PAC statement

Statement on Page 27:

The capping and closure on the HDC land do not form part of the proposed works for the T4 Project.

Port Waratah response

It is unclear what this statement is referring to, however, as stated previously, Port Waratah has committed to creating a cap over the stockyard using sand dredged from the Hunter River South Arm. This is contained in the RAP and closure plan. This commitment to cap the KIWEF part of the T4 Project is conditional on construction of the T4 Project proceeding. HDC are accountable to cap the KIWEF part of the T4 site by 30 June 2017 under the terms of EPL Surrender Notice 1111840 (and Surrender Notice variations 1510956 and 1520063).

PAC statement

Statement on Page 27:

Further a 10 year approval could delay remediation and rehabilitation of the remainder of the project site in accordance with the integrated Landfill Closure Plan.

Port Waratah response

The landfill closure plan was developed by Port Waratah on the basis that the T4 Project is constructed. If the project is not required then there is clearly no commitment or obligation on Port Waratah to cap the KIWEF or for Port Waratah to meet any commitment contained in the landfill closure plan. If the T4 Project is delayed, then capping of the KIWEF is a matter for HDC and will be undertaken by them by 30 June 2017 under the terms of EPL Surrender Notice 1111840 (and Surrender Notice variations 1510956 and 1520063).

PAC statement

Statement on Page 27:

The Commission considers that if the Proponent was to commit to a comprehensive and cost effective strategy of the site, this would resolve the significant public benefit uncertainties associated with the project ...

Port Waratah response

It is unclear what public benefit uncertainties the Commission is referring to. The T4 Project will provide considerable economic stimulus if it proceeds. All impacts arising from the T4 Project have either been avoided, mitigated or offset. Capping of the site is clearly a requirement for HDC under the terms of EPL Surrender Notice 1111840 (and Surrender Notice variations 1510956 and 1520063) which require HDC to complete capping by 30 June 2017. In terms of economic benefit thus far, Port Waratah has spent approximately \$100 M in progressing the application for the T4 Project and associated feasibility study.

PAC statement

Statement on Page 27:

Closure and capping of all other areas would remain the responsibility of HDC, requiring temporary capping at public expense.

Port Waratah response

The responsibility to cap the KIWEF site rests with HDC under the terms of the EPL Surrender Notice 1111840 (and Surrender Notice variations 1510956 and 1520063). Port Waratah is not aware that if T4 Project was delayed, that a temporary cap would be constructed on the KIWEF. If a temporary cap was constructed on the site prior to the T4 Project being triggered, then it is unclear how the site would be permanently capped should the T4 Project never be triggered. Port Waratah notes reports that funds were previously provided by BHP as part of its land transfer to the State government as part of its closure strategy of the Newcastle Steelworks, and some of this funding was to cover the costs of capping the KIWEF.

PAC statement

Statement on Page 27:

The recommended condition would have the effect of requiring that final capping works must be implemented and completed prior to any dredge material emplacement, preloading or construction at the project site.

Port Waratah response

A critical component of the design of the T4 Project is that dredging of the shipping channels in the Hunter River South Arm provides the material (ie dredged sand) to be used for the capping of the stockyard, assuming construction of the T4 Project is required. Port Waratah has never proposed capping the site prior to dredging or using materials other than dredged sand from Hunter River to level and cap the site. If capping is required before construction of the T4 Project commences HDC is the accountable body responsible for the capping under the terms of EPL Surrender Notice 1111840 (and Surrender Notice variations 1510956 and 1520063).

PAC statement

Statement on Page 42:

That Port Waratah should play a role in “devising and implementing” port wide approaches to managing air emissions in the Port.

Port Waratah response

Port Waratah supports a whole of port management approach to air (and noise) emissions from industry. Port Waratah however is not the accountable body nor does it have powers for ‘devising’ or ‘implementing’ such an approach. This in Port Waratah’s view is appropriately the accountability for the State Government or Port of Newcastle. Port Waratah also rejects the inference that operations at CCT can be traded off to manage emissions in the port, either by Port Waratah or any other industry.

PAC statement

Statement on Page 64:

The Commission notes that both the Proponent and Council are willing to enter a VPA and seem committed to negotiating terms. The Commission encourages this collaborative approach and recommends the Department amend its Development Contribution condition to reflect the outcome of these negotiations.

Port Waratah response

Port Waratah remains committed to negotiating an agreed position with Council and has met again with Council in January 2015 and presented a revised VPA offer; including:

- payment of \$528,140 (as identified in the SPEAR) as compensation for potential impacts of the project on Council's services and infrastructure;
- a valuable package of benefits over and above the \$528,140, in the form of an annual contribution to Council's section 94 works program; and
- community benefits in the form of commitment of additional training opportunities within Port Waratah.

In developing this VPA offer, Port Waratah has developed a value package in which the benefits significantly exceed the impact of the T4 Project, and consequently will leave a positive legacy on the community of Newcastle.

5 Conclusion

On 1 December 2014, the PAC completed its review report of the T4 Project. The report concludes, in part, that the T4 Project is approvable subject to a number of recommendations being addressed. The recommendations, which are detailed in Section 6 of the PAC's review report, cover areas such as the development consent's lapsing period, biodiversity, contamination, air quality, noise and other matters.

While Port Waratah agrees with some of the recommendations made by the PAC, there are other recommendations it does not agree with. This report provides Port Waratah's response to all recommendations, particularly those it does not agree with. In addition, it provides a response to other matters raised in the review report, particularly where they relate to the recommendations.

This report will be considered by DP&E when preparing the SEAR which will be provided to the PAC for project determination.

Appendix A

Letter from Port Waratah to NPC



710 December 2012

Mr Gary Webb
Chief Executive Officer
Newcastle Port Corporation
PO Box 663
Newcastle NSW 2300

Dear Mr Webb,

Proposed Remediation of Terminal Four (T4) Land

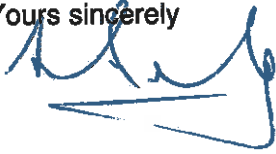
I refer to your letter dated 24 August 2012 concerning the proposal for the carrying out of the works associated with the Kooragang Island Waste Emplacement Facility under surrender notice 1111840 issued by the Office of Environment and Heritage (OEH) in relation to EPL6347 (State's Closure Works).

Port Waratah Coal Services (PWCS) has considered the proposal outlined in your letter, including Annexure A, and responds as follows using your numbering and land description:

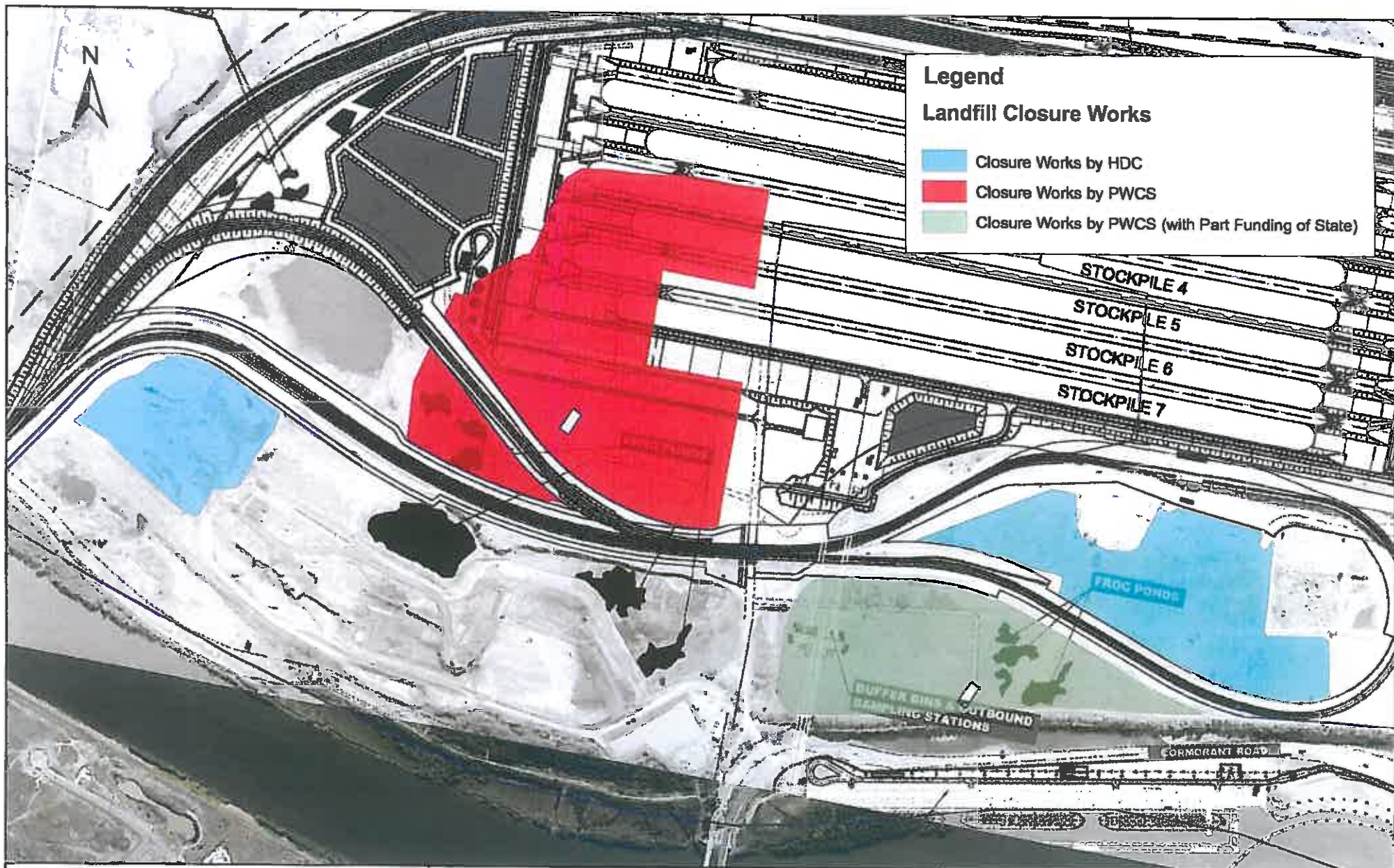
1. (a) PWCS agrees to complete part of the State's Closure Works on the land marked in RED to the extent that this area is ultimately leased by PWCS.
(b) PWCS agrees to complete part of the State's Closure Works on the land marked in GREEN subject to an appropriate contribution being agreed between the NSW Government and PWCS. I would be grateful if you would provide PWCS with an estimate of the expected contribution from the NSW Government.
2. PWCS will accept an assignment of all intellectual property rights owned by the NSW Government in relation to the State's Closure Works at K10 South on a no cost and no warranty basis. PWCS may also require a licence over background material forming part of the project materials that remains the property of the various contractors.
3. PWCS accepts the NSW Government's offer of ongoing assistance and cooperation.
4. The basis for PWCS' agreement to undertake part of the State's Closure Works is the expectation that the works affect the proposed T4 Project land. PWCS notes that a number of uncertainties with respect to the proposed T4 Project remains at this time. These include not only whether development approval will be received, but also whether and when T4 will be constructed. PWCS will only undertake works under this arrangement during the course of its construction of Terminal 4 and subject to all necessary authority approvals being in place.

Should the uncertainties associated with PWCS' undertaking prove to be unacceptable to the OEH, PWCS will provide all reasonable cooperation and assistance to Hunter Development Corporation or the NSW Government in respect of the works required under Surrender Notice 1111840. If you have any further questions in relation to this matter, please do not hesitate to contact Mr Terry Tynan on direct line 4907 2788 or by email terry.tynan@pwcs.com.au.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Hennie du Plooy', with a horizontal line drawn underneath the signature.

HENNIE DU PLOOY
CHIEF EXECUTIVE OFFICER

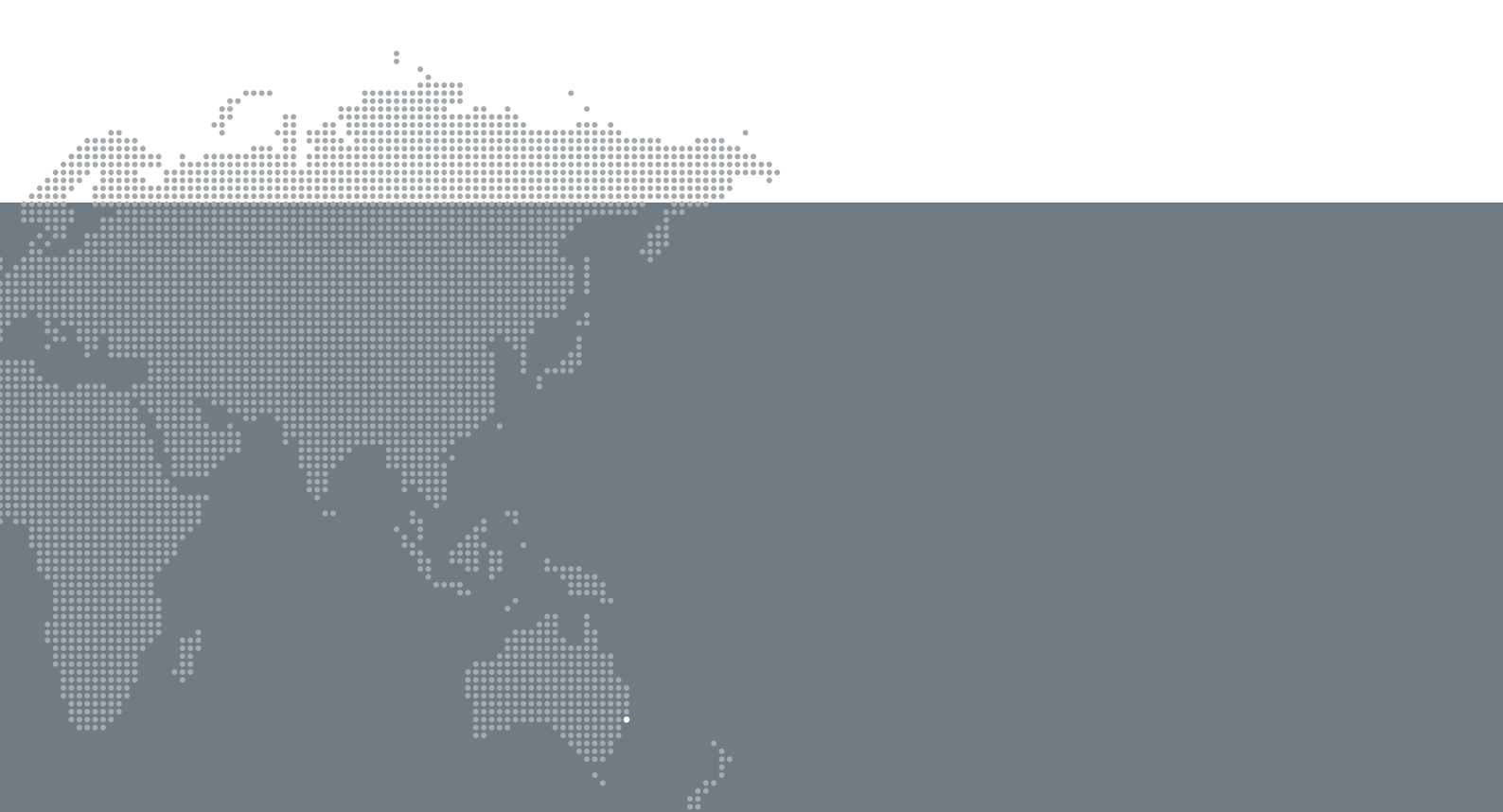


Hunter
Development
Corporation

0 70 140 280 420 560
 Meters

Annexure A
 Closure Works Area Allocations
 August 2012





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