ADDENDUM
MAJOR PROJECT ASSESSMENT
Port Waratah Coal Services Terminal 4 Project, Kooragang Island
(10_0215)

Secretary's Environmental Assessment Report
Section 75I of the
Environmental Planning and Assessment Act 1979

June 2015

Cover Photograph: Aerial photo of the location of the Proposed Terminal 4 Project and other coal terminals owned by Port Waratah Coal Services

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TABLE OF CONTENTS

EXECUTIVE SUMMARY

This Final Secretary's Environmental Assessment Report of the Port Waratah Coal Services (PWCS) Terminal 4 project has been prepared by the Department of Planning and Environment for consideration by the Planning Assessment Commission (PAC).

This Report focuses on residual matters identified in the PAC's Port Waratah Coal Services Terminal 4 Project Review Report (1 December 2014) and responses to that report by the Proponent (Port Waratah Coal Services).

The PAC's Port Waratah Coal Services Terminal 4 Project Review Report (Review Report) made 16 recommendations concerning:

- the approval lapse period;
- biodiversity impacts and proposed offset strategy;
- contamination management on Kooragang Island;
- air quality issues;
- noise impacts; and
- other issues including further consideration of policy by government agencies including the Department.

The Proposal has a capital investment value of $4.8 billion and is expected to generate 1,500 construction and up to 80 operational positions. The Proposal would also provide for the:

- upgrade of local road infrastructure;
- remediation of contaminated land and its return to productive use;
- payment of a developer contribution to Newcastle City Council (the Department understands that the Proponent continues to negotiate with Council on this matter); and
- commitment of significant funds to biodiversity matters including the purchase of offset sites and contributions to research programs and ongoing management.

The Department has given further consideration to the PAC's recommendations as outlined in Section 2.

The Department has made concerted efforts to eliminate, reduce, mitigate or further offset residual impacts of the Proposal. Further comment and consideration of the Planning Assessment Commission's recommendations is provided in Section 3.

The Department is satisfied that:

- its revised recommended draft conditions of approval are equitable and based on best practice; and
- the Project is in the public interest and recommends approval subject to the revised recommended conditions.

1. BACKGROUND

This report provides an addendum to the Secretary's Environmental Assessment Report (June 2014) for the PWCS Terminal 4 Project (MP10_0215). PWCS is seeking approval to construct and operate a fourth coal terminal (T4) with a capacity to export up to 70 million tonnes of coal per annum (Mtpa) on Kooragang Island in the Port of Newcastle. The project includes rail and coal receival infrastructure, coal stockpile pads and associated stacking and reclaiming machinery; wharf and berth infrastructure; coal conveyors, feeders and transfer stations and associated infrastructure. The project also includes three biodiversity offset sites.

The project has a capital investment value of $4.8 billion and is expected to generate 1,500 construction and up to 80 operational positions.

This report has been prepared to consider the recommendations made in the PAC's review of the project and additional information received from PWCS since the PAC's review. This report should be read in conjunction with the Secretary's Environmental Assessment Report which provides a detailed assessment of the key issues in accordance with the requirements of the *Environmental Planning and Assessment Act 1979.* The report does not repeat any of the information and analysis contained in the Secretary's Environmental Assessment Report or the PAC's Review Report, unless directly relevant to the assessment of residual matters. The PAC's Review Report is provided in Appendix A.

1.1. Chronology of Events

A brief chronology of the key events relevant to this addendum report in the time since the Department's referral of the assessment package to the PAC is presented in Table 1.

Table 1: Chronology of Events

Date	Event
27 June 2014	Secretary's Preliminary Environmental Assessment Report referred to PAC
26 and 27 August 2014	PAC holds public hearings in Newcastle
1 December 2014	PAC finalises its review and refers the review report to the Department
6 March 2015	PWCS provides its response to the PAC review to the Department
23 March 2015 – 20 May 2015	Ongoing discussions between the Department and PWCS to resolve outstanding issues

2. CONSIDERATION OF PAC REVIEW

The PAC review report concluded that:

> *"The Commission is satisfied the project is approvable, subject to the following recommendations and associated refinements to the project and the draft conditions."*

The PAC made 16 recommendations for the Department's consideration. These recommendations have been grouped into the categories of lapsing period; biodiversity; contamination; air quality; noise; and other. The Department has carefully considered each recommendation. The recommendations supported by the Department are clearly identified. Justification for the Department not adopting other recommendations is provided in subsequent sections of this report.

Based on this consideration, the Department has also prepared revised recommended conditions of approval, which are provided in Appendix D.

Table 2: PAC Recommendations and Summary of Department's Response

Approval Lapse Period	
Recommendation 1 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.	**Department's Response** The purpose of the PAC's recommendation is to allow for the project to adopt the most recent standards and policies should work not commence within the first 5 years. However, the Department notes that physical works could commence at any time thereby making the consent operative and making the rationale for applying a shorter lapse period redundant. Further, the Department considers that a longer, 10 year lapse period is appropriate for large, complex projects with long lead times for approval, design and construction such as T4. See responses to Recommendations 4 and 6 for detailed consideration of biodiversity and remediation issues.

Biodiversity	
Recommendation 2 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. *Note: these conditions have been renumbered as conditions B17 to B22.*	**Department's Response** This recommendation supports the approach recommended by the Department that the offsets should be designed in consultation with the relevant state and Commonwealth agencies. No changes are proposed to recommended conditions B17 to B22 (renumbered conditions B16 to B21). As the primary objective of these conditions is to meet the legislative biodiversity offset requirements of the respective government agencies, the Department's recommended conditions do not include a consultation role for councils.
Recommendation 3 The Commission recommends that a five year approval, rather than the 10 year timeframe proposed by Port Waratah Coal Services. 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.	**Department's Response** As per recommendation 1 above *(refer Section 3.1).*

Biodiversity	
Recommendation 4 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.	**Department's Response** The Department acknowledges the purpose of this recommendation but is concerned that adopting a longer period to determine success is unlikely to provide any greater certainty that migratory species will come to the offset area, particularly where existing habitat has not been affected because construction has not commenced. No indicators of success have been identified. These would be difficult to develop as they would need to address a range of external factors out of the Proponent's control, including international policy and other development. There is also ambiguity in interpreting when this condition has been satisfied and if successful migration has not been demonstrated, when construction could commence (*refer Section 3.2*). This ambiguity would pose a significant business risk and difficulties for the Proponent in meeting its obligations under the Capacity Framework Agreement. The Department collaborated closely with the Office of Environment and Heritage and the Commonwealth Department of the Environment in developing the conditions relating to the development of the Tomago offset area and does not consider any changes are necessary based on the agreement of these agencies to the proposed original condition.
Recommendation 5 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 Green and Golden Bell Frog 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.	**Department's Response** The Department recognises the PAC's approach to minimise the impacts to habitat until development of the terminal commences. However, because all of these areas would be affected by or used for site remediation or site capping, changes to the stockyard layout will not reduce these impacts. Dredging of the Hunter River for the required berths has the additional benefit of providing the required amount of clean fill to cap the site. Any change to site capping would result in inefficiencies which could have significant impacts which have not been considered and which may not result in any improvement for biodiversity. These include substantial traffic impacts and resource supply impacts for the disposal of surplus dredge material and importation of capping material from sources removed from Kooragang Island (*refer Section 3.3*). The Department also considers that the proposal has considered the principles of avoid, mitigate and offset in its design taking account of this issue. Whilst the

Biodiversity	
	Commonwealth Department of the Environment initially requested that the Proponent review the stockyard layout, it was satisfied with the information provided in the Response to Submissions and Preferred Project Report that it would not provide any additional assurance that frog habitat would be unaffected.

Contamination	
Recommendation 6 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 timetable.	**Department's Response** The Department has considered the PAC's recommendation but does propose any changes to conditions. Whilst the whole site the subject of this application requires capping for the proposal to proceed, only that part of the site currently managed by HDC (the Kooragang Island Waste Emplacement Facility or KIWEF) is subject to imminent remediation requirements reflected in the Surrender Notice amended by the EPA. The Proponent has an "in principle" agreement with HDC to undertake capping of the KIWEF on its behalf and this is contingent on the Project proceeding in accordance with the time limits specified in the Surrender Notice (*refer Section 3.3*). If this were to occur, PWCS would remediate the KIWEF to the standard proposed in the EA (which is a higher standard than is required by the Surrender Notice). The Department is satisfied that there is no requirement to remediate the remaining parts of the project site (the Fines Disposal Facility and the Delta EMD sites) at this time as no change of land use is proposed. Further, it is considered that appropriate arrangements are in place for management and remediation of the various land parcels to a standard for their intended future use. Any further agreement regarding land not owned by PWCS is a contractual matter for the company and the landowner.
Recommendation 7 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 (*renumbered as condition B34*) 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).	**Department's Response** The Department has considered the EPA recommendations and has directly adopted three of these. A further two have been adopted with minor amendments. The Department does not support amending the three remaining recommendations for the reasons outlined in Section 3.4.

Air Quality	
Recommendation 8 Proactive and Reactive Management The Commission supports the Department's proposed requirements for proactive and reactive management of air quality and recommends that consideration be given to strengthening the Department's conditions requiring proactive 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.	**Department's Response** The Department has partially adopted this recommendation by amending condition D5(b) to clarify that the Air Quality Management Plan is to include details of mitigation measures and when shut downs would be imposed to minimise emissions. The Department does not support the extension of this condition to cover the regulation of emissions from shipping and locomotives over which the Proponent has no control and which legally cannot be regulated by the project approval. Regulation of emissions across the supply chain is a policy matter which Government is reviewing across the shipping industry more broadly *(refer Section 3.5).*
Recommendation 9 Shore Power 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 future, in the event this becomes a viable option.	**Department's Response** The Proponent has committed to spatial provision for shore power. The Department has recommended a condition of approval reflecting this recommendation.
Recommendation 10 Minimising emissions from coal wagons 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.	**Department's Response** Coal transportation by rail is the responsibility of rolling stock operators and ARTC. Rail activities are currently regulated by an Environment Protection Licence which is held by ARTC. The EPA has prepared a *Review of Regulation of 'railway systems activities' under the Protection of the Environment Operations Act 1997 Position Paper* (EPA, 2014) which concludes that regulation should involve licencing both the railway system operators and the rolling stock operators. The EPA is currently preparing a draft amendment regulation for consultation (refer Section 3.6). Wagon loading (up to 400 kilometres away at its source) and therefore coal profiling, its moisture content and any chemical treatment, is the responsibility of the coal producer and not the Proponent. The Department considers that imposing a requirement such as this would be difficult to enforce due to distance and the impact to rail network logistics of turning back trains that do not meet those requirements.

Air Quality	
Recommendation 11 Cleaning of coal wagons 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.	**Department's Response** The Department accepts the PAC's position that the Proponent has a responsibility to ensure that tracking of coal on departure tracks from empty wagons is minimised. However, it also recognises that determining responsibility for any coal on tracks leaving the site will be difficult as trains accessing KCT will use adjacent or shared tracks on arrival and departure and that these track merge with those servicing NCIG near the Hunter River crossing. Despite this, the issue is analogous to ensuring that trucks leaving a construction site do not track dirt onto public roads. The Proponent has argued that a condition such as this is not reasonable as it does not own the rolling stock and ARTC holds an Environment Protection Licence for operation of the rail network, which includes provisions relating to dust emission management. Further, the Proponent considers that the only effective means of regulating coal dust is to impose licence conditions on rolling stock operators or the rail network lessee (ARTC in this instance). However, the Department considers that the Proponent should accept a general obligation to minimise impacts of its operations on the environment. Therefore the Department has amended the recommended condition requiring preparation of an Operational Environmental Management Plan (D4) to include a protocol for wagon cleaning to minimise potential for coal dust deposition on departure tracks leaving the site.

Noise	
Recommendation 12 That noise limits should be included for locations at Warabrook and Sandgate (as recommended by the EPA).	**Department's Response** The Department has included noise limits for Warabrook and Sandgate to recommended condition B14 *(refer Section 3.7).*

Noise	
Recommendation 13 That options to tighten the noise limits that would apply to T4 in concert with the Kooragang Coal Terminal should be further explored.	**Department's Response** The Department has considered the PAC's recommendation but proposes to retain the limits proposed (subject to the additions referred to above) without change for two reasons. The best possible outcome would be for the project to operate within the noise limits set for KCT. Whilst these Project Specific Noise Limits (PSNL) were developed in accordance with the *Industrial Noise Policy*, they do not reflect the EPA position of holding a development to the lower of the PSNL or the predicted value. If site specific noise limits for T4 were used, this would likely result in higher cumulative noise increases as both terminals could operate and comply with their individual maximum noise limits which could result in an overall higher cumulative noise environment than if both were limited to the limits reflected in the KCT EPL. Further, it would be difficult to determine compliance for individual projects where a dominant source cannot be identified. In adopting this approach, it is important to recognise that the Department cannot modify the current KCT noise limits through the T4 approval process. However periodic review of an EPL for either project would provide the opportunity to reduce limits over time through a Pollution Reduction Program (*refer Section 3.7*).
Recommendation 14 That additional noise limits specific to the T4 project should also be considered.	**Department's Response** Application of additional limits to T4 without taking into consideration noise emissions from KCT could result in both terminals complying with their maximum noise limits but increasing overall cumulative noise experienced at residential receivers which is not a desirable outcome. It would also be difficult to determine compliance with any noise criterion where noise from T4 is not the dominant source *(refer Section 3.7)*.

Other	
Recommendation 15 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.	**Department's Response** The Department acknowledges the purpose of the PAC's recommendation. However, however, it is not considered reasonable to require a proposal prepared in accordance with contemporary policy and standards to be subject to future policy, the effect of which is unknown. Established alternative mechanisms, such as the periodic review of any relevant Environment Protection Licence and the inclusion of a Pollution Reduction Program, is the appropriate way to give effect to the recommendation. In addition, as policies and guidelines change over time, not only can the name change but the nature and extent of the matters covered by the policy can change. It may not always be clear which document, documentations or parts of documents are the successors of the policy and guideline referred to in the consent
Recommendation 16 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.	**Department's Response** The Department has considered the Project in accordance with the obligations under the *Environmental Planning and Assessment Act 1979* and concludes that on merit that it is justifiable and the residual impacts acceptable. The consideration of the latest coal pricing and demand forecasts are considerations for the Proponent in deciding to proceed with the project and how it would be staged. *(Refer Section 3.9).*

3. CONSIDERATION OF PAC'S RECOMMENDATIONS

3.1 Recommendation 1 and 3 – Lapse Date

The PAC raised concerns with the recommended 10 year lapse date for the project on the basis that it could delay remediation works and the provision of biodiversity offsets at Tomago. Concern was also raised that the project, when constructed, could be inconsistent with possible future air quality standards and greenhouse policies.

The Port of Newcastle is the largest coal export port in NSW and the T4 Project is recognised as an important project for NSW and the region that would allow coal producers to meet future coal export demand. However, the Department accepts that changes to the global coal export market have delayed the need to construct the project. Based on the PAC's review of the Proponent's economic modelling, it is assumed that the project would not be needed until at least 2023 but this will be driven by international government policy and global demand which cannot be readily predicted.

The Department also recognises that the Capacity Framework Agreement requires PWCS to provide additional export capacity within four years of producer allocations identifying a shortfall in export capacity. In this regard, the original application for the project was lodged on 20 December 2010 when the requirement for additional export capacity under the Capacity Framework Agreement had been triggered. The Project was expected to be required by 2015 at this time. PWCS has since decided to proceed with the planning approval application so that it has the ability to commence construction should the demand arise again.

In response to the PAC's concerns, PWCS has stated that:

- the project is important and is justified despite the uncertainty around demand;
- significant time and costs have been invested in getting to this point;
- there will be no impacts to Deep Pond until the Tomago Biodiversity Offset is functioning; and
- Hunter Development Corporation (HDC) is required by an Environment Protection Licence Surrender Notice issued by the Environment Protection Authority (EPA) to implement a contamination cap by June 2017.

The Department considers that a longer lapse date is appropriate given the complexity and importance of the project and the time required for its construction. In particular a 10 year lapse date would provide for:

- completion and functioning of the Tomago Offset site (refer Section 3.2);
- signalisation of the Cormorant Road and Pacific National Road T-intersection along with the Cormorant and NCIG Wharf Access Road T-intersection. Both intersections are required prior to construction commencing;
- capping of the site with dredged material required prior to building the terminal;
- that the additional capacity that would be provided by the proposal is now unlikely to be required before 2023; and
- at least a two year construction period for the first stage before coal can be exported.

For these reasons the Department considers it is appropriate for the project to have a lapse date of 10 years. The Department notes that the Proponent can physically commence the approval under the *Environmental Planning and Assessment Act 1979* regardless of whether a five or ten year lapse date applies without necessitating a modification to extend the lapse date. Following any physical commencement of the approval, the project could remain on hold for years before the Proponent deciding to commence construction of the terminal.

The other concerns relating to the resolution of contamination, biodiversity, air quality and greenhouse policy matters are also considered by the Department below.

Contamination

It is the Department's view that the lapse period for the consent would have no effect on site capping as determined by the Environment Protection Licence Surrender Notice for the Kooragang Island Waste Emplacement Facility (KIWEF) (Surrender Notice #1111840 as varied). This notice, which covers land proposed as part of the T4 facility, requires HDC (the landowner) to complete capping of the site by June 2017 irrespective of whether the proposal proceeds. The Department considers this appropriate to manage contamination where no further construction or use is proposed. PWCS is not the owner of this land or holder of the Surrender Notice and therefore is not obliged to undertake the capping.

Notwithstanding, PWCS has agreed to cap the KIWEF to the same standard proposed for other parts of the T4 site, using clean material dredged from the Hunter River, should the timing for remediation coincide with construction of the terminal. This would result in capping to a higher standard than is required by the Surrender Notice.

There is no current requirement for PWCS to cap or otherwise remediate the Delta Electrolytic Manganese Dioxide or the Fines Disposal Facility as these remain subject to current Environment Protection Licences (EPLs 7675 and 5022 respectively). These will only require capping or other remediation when the licences are surrendered by PWCS and capping requirements for these areas are imposed by the EPA on a Surrender Notice.

At this time, there is no requirement for PWCS to commence capping of these sites independent of the proposal's approval and a decision to commence construction of the Terminal. The Department does not support a shorter lapse date as it would have no effect in bringing forward remediation of land which is currently used for other purposes under licence from the EPA.

Biodiversity Offset

The biodiversity offset at Tomago is required to offset the project's impacts to wetland habitat on Kooragang Island. Should the project not proceed or be delayed, no change to the habitat currently on Kooragang Island would occur. There is no requirement for the biodiversity measures to be implemented in advance of a decision by PWCS to proceed with the project.

Further to this, the Department agrees that the offset should be in place and functional (construction completed and offset is available for the target species, irrespective of migration or use) prior to construction which affects habitat on Kooragang Island. However, developing measures to demonstrate success would be difficult given the range of external factors out of the Proponent's control such as international development affecting habitat at the point of origin and natural uncertainty and variability in migratory bird numbers habitat availability. This could result in uncertainty as to when construction could commence. Given the uncertainties, the Department does not support a shorter lapse date and longer period for functioning of the offset in regards to this matter.

Biodiversity offsets are further considered further in Section 3.2 below.

Air Quality Standards

The Department considered all relevant guidelines and policies including the *National Plan for Clean Air* and the draft *National Environment Protection (Ambient Air Quality) Measure Impact Statement* currently under review and correspondence from NSW Health and the EPA. It concluded that air quality impacts from the operation of the Terminal are acceptable and a range of environmental performance parameters for compliance purposes would be included in an EPL. Further, the Department acknowledges the EPA is establishing a regional air quality monitoring system for Newcastle and notes that amendments made to the *Protection of the Environment Operations (General) Regulation 2009* require licence holders to:

- provide reasonable assistance and facilities to the EPA in connection with the monitoring program; and

- pay an annual levy towards the Newcastle Local Air Quality Monitoring Network in order to obtain reliable and up to date information of air quality in Newcastle to assess changes in air quality and identify major sources of pollution.

The Proponent has indicated its willingness to participate in this process and the Department has recommended a condition to this effect (see recommended condition B58).

The Department considers that management of air quality at the source is the most effective way to manage emissions and supports the Proponent's mitigation and management measures (refer Section 3.5). The EPA also has the ability, through the EPL and subsequent review, to require improvements through a Pollution Reduction Program.

The Department also notes that the EPA, through the Newcastle Local Air Quality Monitoring Network can determine changes in air quality in Newcastle and the major sources of pollution. The EPA has the ability through this program and EPLs to consider the emissions from all sources and not just the Project. This allows for a targeted approach that can consider the emission sources and respond to changes in air quality standards when they arise.

Despite the above, the Department does not support the recommendation to shorten the lapse period to enable adoption of any future and possibly more stringent policy changes. The proposal can only be assessed against government policy at the time, and in this regard, the impacts of the proposal were found to be consistent with current government policy.

Greenhouse Gas Policies

The Department considers that any changes to Greenhouse Gas policy would be a factor influencing the coal export market, the coal producer and resultant producer allocations and would have flow on effects to the logistics chain. The Department is of the view that the project facilitates the transfer of coal from train to ship in order for coal producers to meet export demand. The project itself does not produce coal or directly use the coal being transferred. Its operation is reactive to the coal export market and local coal producer's ability to access this market through producer allocations and any trigger for the construction of the project through the Capacity Framework Agreement.

The Department acknowledges threats and risks associated with greenhouse gas, noting that the original assessment concluded that the Proponent committed to a range of strategies to minimise or optimise energy use during construction and operation which it has direct influence over. This included selecting energy efficient equipment and lighting, optimising operational processes, investigating low emission fuels for its fleet and establishing a reduction target and monitoring plan. The Department is satisfied that the assessment and proposed measures are consistent with current government policy.

The implication of future change to greenhouse gas policy is not a matter that can be considered in assessing the proposal at this time. The Department considers that the project can only be considered against current policy and it would be inappropriate to specify a shorter consent lapse period on the basis of potential policy changes in the future.

3.2 Recommendation 4 – Biodiversity – Tomago Offset

Currently, recommended Condition A6 requires the Tomago Offset Site to be constructed and available for at least one migratory shorebird non-breeding period to provide alternate habitat for migratory shorebirds that could be impacted by construction of the project. The PAC's position is that it would need to be demonstrated that the constructed wetlands at Tomago is functioning successfully prior to construction commencing at the project site. Further it recommends that it should be functioning for a minimum of three years to be confident of documenting at least one successful migratory season.

PWCS has objected to the PAC's position based on the following:

- there is a high level of confidence for the success of the constructed wetland which was designed by an avifauna expert with experience in wetland design;
- the adjacent wetland remediation works completed by NPWS have been successful;
- both OEH and the Department of Environment accepted that having the wetland providing habitat for one non-breeding season is acceptable;
- the delays in, and financial implications of, not constructing works until the wetland had been constructed and three years had passed; and
- PWCS may not be able to meet the requirements of the Capacity Framework Agreement to construct the project within four years where producer allocations identify a shortfall.

Additionally, PWCS has requested the ability to commence works on Kooragang Island that do not impact on Deep Pond noting that the site capping works required by HDC will occur without impacting on the habitat value of Deep Pond. Once works which have the potential to impact Deep Pond have commenced, then the requirement for the Tomago Offset would be triggered.

The Department also notes that there are a number of complexities in determining a successful migratory season including:

- natural uncertainty and variability in the numbers of migratory birds, particularly internationally, from year to year and place to place as bird numbers are influenced by many factors and habitat for migratory birds occurs in a variety of locations;
- whether the birds would be attracted to the Tomago offset if there is no disturbance to the existing site; and
- what number of individuals, species or species diversity and composition would need to be recorded at the Tomago site for the constructed wetlands to be deemed to be successful.

Further, the Department notes the success of the Tomago Wetland Rehabilitation Project, a 450 hectare project undertaken by the OEH on the northern shore of the Hunter River estuary and adjacent to the proposed T4 wetland offset site. The aims of the project included creating night time roosting areas; improving fish passage; encouraging the return of a self-designing mosaic of ecosystems; and managing hydrology to avoid negative impacts of neighbouring properties.

This project has resulted in a variety of estuary ecosystems, including saltmarsh, shallow lagoons, mudflats, reed beds and tidal creeks. These ecosystems are consistent with those proposed for the Tomago offset by PWCS. In addition, a wide range of migratory shore birds have been recorded using the available habitat, including the return of over 3000 Sharp-tailed Sandpiper as well Pacific Golden Plover, Latham's Snipe, Black-tailed Godwit, Bar-tailed Godwit, Eastern Curlew, Common Greenshank, Red-necked Stint and Marsh, Wood and Curlew Sandpipers. The aims of this project are consistent with the objectives proposed for the Tomago offset site and provide some assurance that a positive outcome could be achieved.

Therefore, the Department considers that:

- the wetland can be constructed in accordance with the design as agreed with the avifauna expert, the OEH and the Commonwealth Department of the Environment;
- Tomago Wetland need only be available and functioning prior to any construction that would affect the migratory shorebird habitat provided by Deep Pond; and
- the wetland should be audited after at least one year of operation to show that the wetland has been implemented, functioning and providing suitable habitat in accordance with the agreed design. This could include whether the water flow through the wetlands is behaving as designed and if the revegetation required had been completed.

The Department has therefore recommended the amendment of condition A6 to link the timing of Tomago wetland availability to construction impacts that would affect Deep Pond. This approach also responds to the practical difficulty in determining a successful migration season and ensures the condition is enforceable. No other amendments are considered necessary.

3.3 Recommendation 5 – Stockyard Layout

The PAC has recommended that the stockyard layout be refined to reduce the impact on Deep Pond, Frog Pond and Railway Pond to provide improved Green and Golden Bell Frog, Australasian Bittern and migratory shorebird habitat.

PWCS has objected to this recommendation as:

- the project considered the principles of avoidance, mitigation and offsetting resulting in:
  - realignment of inbound rail tracks to avoid Green and Golden Bell Frog habitat in OEH Wetland 1 and Railway Road Pond and offsite hydraulic impacts to Mosquito Creek;
  - retention of Long Pond, Easement Pond South and 5.2ha of Deep Pond;
  - avoidance of Green and Golden Bell Frog habitat at the eastern corner of Long Pond by proposing traffic signals rather than a roundabout;
- Deep Pond would receive and treat the saline dredge return waters to facilitate settling of sediment to meet the discharge water limits before discharge to the Hunter River;
- surplus dredged spoil offshore would need to be transported for disposal, should it not be used on site as the capping layer due to the reduced Project footprint;
- impacts from obtaining and importing fill to be used as a capping layer for the subsequent stages have not been assessed or costed; and
- the inherent complexity, constraints and costs of staged construction have not been considered and there is no guarantee that an alternate staged approach would avoid impacts to the Green and Golden Bell Frog.

The Commonwealth Department of the Environment originally queried why a south north construction design could not be adopted. The Proponent's response was provided in Appendix B – *Umwelt's Response to Ecology Matters* and Appendix T – *Frog Habitat Alternate Design Report* to the *T4 Project Response to Submissions and Preferred Project Report, 2013* and included:

- no guarantee that the Green and Golden Bell Frog would be protected or successfully breed to maintain a stable population;
- the Landfill Closure Plan requiring the whole stockyard to be filled and capped, including the frog habitat;
- the management and or disposal of dredged material not used to cap the site and implications of sourcing capping material from elsewhere in the future;
- the proposed use of Deep Pond to receive and treat saline dredge return water; and
- the complexity of staging of construction to allow for additional capacity to be added without major disruption to ongoing operations.

The Commonwealth Department of the Environment then accepted the Proponent's justification as detailed above.

It is accepted that the project includes measures to avoid, mitigate and offset the impacts to the Green and Golden Bell Frog, migratory shorebirds and the Australasian Bittern. However, the Department considers that should changes be made to the stockyard construction sequence, the following impacts would need to be considered:

- disposal of surplus dredged material, including transportation;
- importation of material to cap the site at a future date;
- management of dredge return water;
- changes to the remediation of contaminated areas; and

- changes to management of Green and Golden Bell Frog and direct and indirect impacts to the Australasian Bittern and migratory shorebirds.

The Department accepts PWCS's justification for adopting a north to south stockyard construction. Further, the offset package was developed based on the impacts of the adopted design and is considered by OEH, the Commonwealth Department of the Environment and the Department to be adequate and appropriate. Any changes are unlikely to provide measureable benefit for the additional cost and the potential compromise to operations. For these reasons the Department's position has not changed from the *Secretary's Preliminary Environmental Assessment Report.*

3.4 Recommendations 6 and 7 - Contamination

The PAC Review Report suggests that contamination is to be remediated as soon as practicable and recommends that an agreement be reached between the EPA, HDC and the Proponent for a strategy and timetable for remediation and that the recommendations of EPA be adopted. The Department's consideration of EPA's further recommendations is outlined in Table 3 and Table 4 below.

Table 3: EPA's Recommendations in correspondence of 10 October 2014

EPA's Recommendation	Department's consideration
Condition B43 (now condition B45) 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 Department has amended its recommended condition to reflect the EPA's recommendation and clarified that the Secretary's approval is required prior to works the subject of those plans and reports commencing.
Condition B43(a) (now condition B45(a)) 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 construction work.	The Department has amended its recommended condition to reflect the EPA's recommendation. This recommended condition was further amended to clarify that development of measures in consultation with the Port of Newcastle Lessor Pty Ltd and the Port of Newcastle as Lessee applies only to the KIWEF as all other land is owned by the Proponent.
Condition B38 (now condition B40) All Stormwater and surface water management infrastructure on the site intended to manage ~~actual or potentially contaminated or saline~~ waters during operations shall be lined with a low-permeability material to minimise potential leakage and groundwater recharge through infiltration. Collected stormwater shall be reused on site for beneficial purposes such as the wetting of coal to reduce dust emissions from the site.	The Department agrees and has deleted "actual or potentially contaminated or saline" from the condition.
(not in existing conditions) 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 HDPE liner) and appropriate drainage such that the risk of waters entering the groundwater table is minimised as far as practicable.	The Department's view has not changed. The preparation of the Remediation Action Plan and its review by an accredited Site Auditor is considered appropriate to manage any risk to groundwater contamination. This issue is considered further below.

EPA's Recommendation	Department's consideration
(not in existing conditions) Final capping works must be implemented and completed prior to any dredge material emplacement, preloading and/or construction at the site.	The Department's position has not changed. HDC is responsible for capping parts of the site by 30 June 2017. PWCS proposes to complete capping proposed for the T4 site prior to the commencement of construction using dredged material extracted from the Hunter River.
(not in existing conditions) The long term maintenance requirements of permeable passive reactive barriers proposed in the concept stage Remedial Action Plan should be identified and agreed by the landowners.	The Department agrees to amend condition B43 (now B45) to develop measures to manage contamination on the KIWEF with the Port of Newcastle Lessor Pty Limited and the Port of Newcastle Lessee. The remainder of the proposal site is owned by PWCS.
Condition B43 (now condition B45) The proposed location and design of any containment cell/s be identified and approved prior to the construction of any containment cell.	The Department agrees to amend condition B43 (now B45) as stated above.
The EPA recommended that, "should approval be granted, final capping works must be implemented and completed prior to any dredge material emplacement, preloading or construction at the Proposal site. This will ensure that should a staged approach be undertaken by the Proponent, and dredging preloading or construction is delayed, existing groundwater contamination is effectively managed by limiting surface water infiltration."	The Department's position has not changed. HDC is responsible for capping parts of the site by 30 June 2017. PWCS proposes to complete capping works prior to construction using material dredged from the Hunter River.

Table 4 EPA's Recommendations in correspondence dated 25 August 2014

EPA's Recommendation	Department's consideration
Condition B32 (now condition B34) The current condition refers to designing a surface water management system to capture a 1 in 3 month average recurrence interval (ARI) discharge event. The previous wording of this condition required the surface water management system be designed to capture a 1 in 100 year ARI event 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.	The proposed stormwater management objectives have not changed from those presented in the EA and Response to Submissions and Preferred Project Report. Therefore the Department does not propose amending this condition. The objectives of the proposal were generally supported by the EPA in its submission stating that the water management system *"has been designed as a 'no water discharge' site with the exception of extreme wet weather events as required by the Director General's Requirements."* The EPA's subsequent recommendation to the PAC considers only the brief and intense two hour duration 1 in 100 year ARI storm event. This translates to a possible discharge event at a rate of 1 in every 5 months. Accordingly, the Proponent then considered a series of shorter events of varying frequencies which would have a similar rainfall depth and runoff volume as the 100 year ARI 2 hour event (*refer to Table 5).* Subsequently, the Proponent has advised that a 1 in 3 month discharge objective is more appropriate as the discharge objective recommended by the EPA can only be achieved by increasing the storage volume and associated footprint. The sensitivity analysis (SMEC, 2013) demonstrates that the storage footprint would need to increase by between 8 to 10ha

EPA's Recommendation	Department's consideration
	to achieve a 1 in 5 month discharge objective. This increase in footprint is expected to have adverse impacts on the habitats for the Green and Golden Bell Frogs. The design criteria for the T4 Project's water management system was discussed early in the design process with EPA. It was at this stage that it was agreed that a 1 in 3 month ARI would achieve the EPA's requirements as stipulated in the DGRs. In addition, the quality of water that overflows from the Project water management system (on average 1 in 3 months) would be the same, if not better, than the water quality of the receiving water (ie the Hunter River).

Despite the land being owned by the Port of Newcastle Lessor Pty Limited, HDC retains the responsibility for implementing measures under the Environment Protection Licence Surrender Notice for the Kooragang Island Waste Emplacement Facility (Surrender Notice #1111840). The Surrender Notice requires capping and closure works to be completed by 30 June 2017.

PWCS and HDC have an agreement whereby PWCS would complete the contamination capping works required by the Surrender Notice if construction of the terminal coincided with that timing. The EPA also acknowledged this agreement by varying the Surrender Notice, in 2013, to allow for the capping works to be undertaken in synergy with the project.

Due to changes in the forecast coal export market it is unlikely that the project would commence works by a date which would enable the timeframe specified in the EPL Surrender Notice for HDC to complete the works to be met. In this scenario, it is the responsibility of HDC to complete the capping works in accordance with the Surrender Notice. The Department understands that HDC is working towards fulfilling the requirements of the Surrender Notice.

Should PWCS commence works earlier and fulfil the conditions required to allow dredging and capping to commence, then capping works, in accordance with the Surrender Notice, could be completed by the Proponent. However, while the cap proposed by HDC is adequate for the site, the cap proposed as part of the T4 project is considered superior as it recognises and manages the impact of the future use of the site.

Overall, the Department does not consider that delaying the contamination remediation would be to the detriment of the environment. The Department notes that site capping is unlikely to be expedited by the T4 project unless the forecast coal export market substantially changes in the near future triggering the need to construct the Project.

Handling and Deposition of Wet Sediments

The Department notes the EPA's recommendation that the handling and deposition of wet sediment and dredge waters only be undertaken where there is an impermeable land surface barrier and appropriate drainage to reduce the risk of waters entering the groundwater table. The Proponent objects to this requirement as:

- the barrier walls would limit the horizontal movement of water within the unconfined fill aquifer;
- vertical movement of saline dredge water to the estuarine aquifer is very low as:
  - the aquitard (the layer between the fill aquifer and the estuarine aquifer) is between four and 14 metres thick consisting of low permeability silty clay/clayey silt with a permeability less than the barrier walls;
  - the estuarine aquifer is hydraulically connected to the south and north arms of the Hunter River with salinity similar to sea water;

  - groundwater modelling shows that movement of the dredge water was horizontal rather than vertical; and
- additional studies including supplementary targeted investigations and remediation trials would confirm the efficacy of remediation measures proposed.

The Department is of the view that the dredge material has a low likelihood of contamination and risk of exacerbating groundwater contamination as detailed in the *Secretary's Preliminary Environmental Assessment Report*. Further the Department considers that the Remediation Action Plan is the appropriate method to determine if additional mitigation measures are warranted as it would detail additional studies, validation testing and contingency measures and be reviewed by an accredited site auditor.

Surface Water Management

The EPA recommends that the surface water management system be designed for a 1 in 100 year ARI event with no surface water discharge instead of a 1 in 3 month ARI discharge event as currently designed.

The Proponent disagrees as:

- the stormwater management design has not changed from the Environmental Assessment and the Response to Submissions and Preferred Project Report;
- the 1 in 100 year ARI two hour storm event (total rainfall depth of 94mm) misrepresents the actual capacity of the surface water management system for events over longer periods of time; and
- the water management ponds provide 131 ML of flood storage or the equivalent of 89 mm of site runoff.

The Department notes that the proposed stormwater management objectives have not changed from that presented in the Environmental Assessment and the Response to Submissions and Preferred Project Report. EPA's current recommendation considers only the short two hour duration 1 in 100 year ARI storm event however the Proponent has also considered the likely operational water requirements of the Project and likely discharge events.

The Proponent considered a range of events and operational water use, which would result in no discharge to the Hunter River. These include the 90th Percentile 10 day rain event with a rainfall depth of 83 mm and the 75th Percentile 20 day rain event of 86 mm (refer to Table 5). Rain events greater than this, such as the 80th Percentile 20 day event (or 99 mm rainfall depth), would result in a discharge to the Hunter River. The modelling assumes that a discharge event could occur on average every 90 days.

To achieve the EPA's recommendation the Proponent would need to increase the storage volume and associated footprint. The sensitivity analysis undertaken by SMEC (2013) demonstrates that the storage footprint would need to increase by between 8 to 10ha to achieve a 1 in 5 month discharge objective. This increase in footprint would result in encroachments into the habitats for the Green and Golden Bell Frogs.

Further, the quality of discharges to the Hunter River under the modelled scenarios would be of a similar or better quality than achieved at Kooragang Coal Terminal and likely to be better than the quality of the receiving waters.

Based on the above the Department is satisfied that the recommended condition reflects the assessment undertaken in the Environmental Assessment and the Response to Submissions and Preferred Project Report and considers that the proposed stormwater management objectives are acceptable and appropriate. Therefore the Department's position remains unchanged.

Table 5: 75th, 80th, 85th, 90th and 95th Percentile 2,5,10 and 20 day rainfall depths at Newcastle

Period	Rainfall Depths at Newcastle (mm over rainfall period)				
	75th Percentile	**80th Percentile**	**85th Percentile**	**90th Percentile**	**95th Percentile**
2 day	14	18	23	32	48
5 day	24	31	39	52	77
10 day	44	53	65	83	114
20 day	86	99	114	140	182

Shaded cells denote rainfall depths less than the 100 year ARI 2 hour duration storm event
Source: *The Terminal 4 (T4) Project Surface Water Assessment (SMEC, 2012) Appendix J of the Environmental Assessment*

3.5 Recommendation 8 – Proactive and Reactive Management

The PAC supports the Department's position but suggests strengthening the recommended conditions requiring proactive and reactive mitigation and management to include the management of emissions from ships and locomotives associated with the project. The Proponent has raised concerns about extending any condition to manage emissions from ships and locomotives associated with the project as these are owned by third parties over which it has no control.

The Department supports the PAC's recommendation to strengthen the conditions in relation to proactive and reactive mitigation and management and has made the following amendments (underlined):

D5(b) ***Air Quality Management Plan*** *to outline monitoring, management procedures and measures to minimise dust emissions from the operation of the Project. The Plan shall include, but not necessarily be limited to:*

(i) identification of all dust emissions sources and key performance indicator(s) for dust management;

(ii) description of all reasonable and feasible reactive and predictive mitigation or response measures or procedures to be implemented to manage dust<u></u>;*

(iii) procedures for applying pro-active and reactive mitigation and management measures to address actual or potential impacts identified through the monitoring completed in accordance with conditions B4 and B6;

(iv) procedures for reviewing the effectiveness of the mitigation and management measures to be undertaken if any non-compliance is identified by the monitoring results in conditions B4 including consideration of additional management and mitigation measures such as chemical suppressants where measures implemented are shown to be ineffective;

(v) provision for independent review and auditing of the implementation of the Plan; and

(vi) mechanisms for updating the Program as may be required from time to time and in response to results of other regional air quality studies.

<u> Note: this is to include details of mitigation measures to be implemented including which and when components would be shut down to minimise emissions</u>*

The Department, however, does not support the extension of this condition to cover emissions from ships and locomotives as these cannot be regulated through the project approval, however an additional recommended condition has been included (B32) which requires the Proponent to make spatial provision for shore power should vessels accessing the berth be capable of using it. This would reduce emissions from ships at berth and is consistent with conditions imposed in other recent approvals such as the Mayfield Concept Plan approval.

The main instrument controlling shipping emissions is the *International Convention for the Prevention of Pollution from Ships* (MARPOL) which is enacted through Commonwealth legislation as Australia is a signatory to this convention.

The EPA has recently released the *Diesel and Marine Emissions Management Strategy* (January 2015) which aims to progressively control and reduce diesel and marine emissions from priority sectors including shipping, locomotives and non-road equipment where subject to an Environment Protection Licence and in government activities. The Department notes that the *Diesel and Marine Emissions Management Strategy* includes a number of actions to be completed in 2015 which includes:

- inclusion of rolling stock on schedules of the *Protection of the Environment Operations Act 1979*, so that that they can be licenced;
- completion of a pilot locomotive emission upgrade program; and
- an assessment of feasibility of adopting low sulphur fuel, scrubbers and shore side power.

The Department considers that the regulation of industry as a whole is a more robust and appropriate means of managing emissions from ships and locomotives.

3.6 Recommendation 10 and 11 – Coal Wagons

The PAC Review Report recommends that the approval include conditions to:

- ensure only coal that has been appropriately profiled within the wagon and meets appropriate moisture content levels or had been treated with a chemical veneer is accepted; and
- require that all wagons leaving the site are completely empty with dump doors fully closed and are sufficiently cleaned to ensure no visible evidence of coal deposition on rail tracks leaving the site.

PWCS does not accept this recommendation as:

- it does not own, operate or have any operational control over coal transport;
- it is only responsible for dust emissions from unloading and the handling coal and not its transportation; and
- the recent audit completed by the EPA of coal unloading facilities found both Carrington and Kooragang Coal Terminals complied with their respective licences.

Loading of wagons and therefore coal profiling, its moisture content and any chemical treatment, is the responsibility of the coal producer and not the Proponent. The Department therefore considers that such a condition could not be enforced given that coal arrives from approximately 35 mines and is hauled distances up to 380 kilometres before converging on the Port of Newcastle. Any requirement to turn around or not accept coal from wagons would be a difficult logistical operation due to constraints on the rail network. Trains arriving at the terminal need to pass through the terminal in order to turn around.

The Department has also considered recent audits completed by the EPA on Carrington and Kooragang Coal Terminals (*Loss of Coal During Rail Transport Compliance Audit Program,* December 2014). These focused on coal train loading and unloading facilities and found that the licensee complied with the conditions of Environment Protection Licences 601 and 1552. The auditors noticed small amounts of black coal accumulated in wagons after unloading but could not determine if this significantly increased the likelihood of coal dust emissions during the rail transport.

The EPA has commenced a review of the regulation of railway systems activities under the *Protection of the Environment Operations Act 1997*. The objective of the review is to determine the most effective framework for regulating the impacts of rail construction and operational rail activities. The *Review of regulation of 'railway systems activities' under the Protection of the Environment Operations Act 1997 Position Paper* (EPA, 2014) concluded that regulation of the operational rail sector should involve licencing both the railway system operators and the rolling

stock operators. The EPA has prepared a Submissions Report in response to comments on the Position Paper and is preparing a draft amendment regulation for exhibition in 2015.

It is also noted that trains departing T4 will need to complete the loop around Kooragang Coal Terminal and similarly trains destined for and departing from KCT will pass by T4. All trains accessing T4 and KCT will use a shared track on leaving Kooragang Island shortly after merging with the rail spur servicing the NCIG terminal. Despite this, the Department considers that it is not unreasonable for PWCS, as part of its general obligations, to develop procedures to minimise potential for coal dust deposition on departure tracks from the site.

Considering the issues raised above, the Department does not support the PAC's recommendation that only trains carrying coal of unspecified profiling and moisture content be accepted at the facility as rolling stock and loading is the responsibility of other parties and due to the logistical difficulties that turning away trains would cause to the rail network. However, the Department considers that the proponent has a general obligation to minimise the impacts of its operations, including where this involves a third party. Therefore the Department has recommended an amendment to the condition requiring preparation of an Operational Environment Management Plan condition D4 to include a protocol to minimise the potential for coal dust deposition on departure tracks. This should consider measures to ensure that wagons are completely empty, dump doors closed and sufficiently clean.

3.7 Recommendations 12, 13 and 14 - Noise

The PAC's Review Report recommends:

- noise limits be included for Warrabrook and Sandgate as recommended by the EPA;
- options to impose tighter noise limits in line with the KCT;and
- noise limits specific to the Project should also be considered.

Consistent with the EPA recommendation, the Proponent has developed noise limits for Warabrook and Sandgate in concert with the operation of the KCT. However, whilst these Project Specific Noise Levels (PSNL) were developed in accordance with the Industrial Noise Policy (INP), they do not reflect the EPA position of holding a development to the lower of the PSNL or the predicted value as stated in the INP Application Notes.

The best possible environmental outcome for the project would be if it could operate within the noise limits set for KCT. Therefore the Department has recommended that where possible, the KCT noise catchment be extended to include the Project footprint.

The alternative of applying site specific noise limits to T4 without consideration of KCT, as suggested by the PAC, would likely result in cumulative noise increases. This is because both terminals could operate and comply with their maximum noise limit but result in an overall increase in the cumulative noise environment and that experienced at residential receivers. It would also be difficult to determine compliance with any noise criterion where the noise from the project is not the dominant noise source.

Further, the Department supports the creation of a precinct-wide noise map to cover the entire Newcastle Port area to establish an efficient, equitable and cumulative noise management, monitoring and reporting framework (such work has already been undertaken for the Mayfield area). This framework would manage noise from the Port as a whole instead of on a project by project basis. The Proponent has agreed to co-operate with any future endeavours by the Port of Newcastle Lessee.

It is important to understand that the current KCT noise conditions cannot be modified by the T4 approval process. There is no scope to impose stricter conditions on KCT. Notwithstanding, periodic review of the EPL for either project by the EPA would provide opportunity to include a Pollution Reduction Program to reduce limits over time.

To take advantage of the improved environmental outcomes offered by the KCT noise cap, the project must also accept the "*At all times*" category. This requires a minor rounding of predicted levels for Warabrook and Sandgate. The Department considers this acceptable as they are still more than 10 dB(A) below the PSNLs for these areas.

Consequently, the Department has instead recommended the following noise criteria for these locations (**bolded** and also updated in condition B14).

The adopted limits are consistent with those applied to KCT in its current EPL. These are considered appropriate as the Proponent has shown that it can operate both facilities within these limits.

Table 6: Maximum Allowable Noise Contribution (dB(A))

Location	At all times	Night only 10:00pm to 7:00am
	$L_{Aeq(15\ minute)}$	$L_{A1(1\ minute)}$
Fern Bay	50	55
Stockton	50	57
Mayfield	44	58
Warabrook	**37**	**54**
Sandgate	**37**	**55**

3.8 Recommendation 15 – Guidelines

The PAC Review Report recommends that conditions referencing relevant guidelines should specify that the latest version of the policy or guideline would apply.

The Proponent does not accept this recommendation as:

- it may set a precedent for all development activities regulated by the *Environment Planning and Assessment Act 1979* and could render developments illegal or uneconomical at a future date if they are unable to comply;
- the development is designed, constructed and operated in accordance with the policies and guidelines at the time and not a future unknown guideline or policy;
- the project considered all relevant guidelines and policies including those foreshadowed or in draft but not future unknown guidelines or policies;
- the Proponent is committed to continuous improvement; and
- notes that an EPL can be amended by the EPA.

The Department acknowledges the PAC's purpose in including reference to the latest guidelines and policies such as the *Interim Construction Noise Guideline* or its future replacement, however, reference to unknown guidelines within a project approval adds uncertainty as to what is approved and what compliance standard needs to be achieved. Arbitrarily assigning new guidelines to projects is not considered appropriate for this reason.

EPL can include mechanisms, such as Pollution Reduction Programs, which aim to reduce and prevent the degradation of the environment and risks to human health at a future date. They allow for gradual improvement over time and provide some certainty in terms of regulation for proponents. The Department considers that the use of an EPL is the most appropriate way to reduce impacts over time as standards, guidelines and policies change. Also, the Proponent has

a demonstrated commitment to continuous improvement as evident in ongoing operational upgrades to both the Kooragang and Carrington Coal Terminals.

3.9 Recommendation 16 – Demand Forecasts and Justification

The PAC Review report recommends that both the Proponent and the Department consider the latest coal pricing and demand forecasts in justifying the final throughput capacity, onsite development footprint, layout and staging plans. The Proponent considers that:

- it has already met the PAC's requirements through the Environmental Assessment and Response to Submissions and Preferred Project Report; and
- the long term commercial framework underpinned by 10 year ship or pay contracts requires PWCS to provide capacity to support demand and PWCS would not build capacity without a demand shortfall being identified.

The Department notes that PWCS is owned by the Hunter Valley coal export industry comprising 26 shareholders including coal producers and shippers. The Capacity Framework Agreement process was developed to avoid circumstances where an increase in demand for coal could not be met due to coal chain constraints, by providing an appropriate framework for forward planning and long-term operational management.

The Department considers that the decision to proceed with the project in order to meet a future nominated capacity shortfall is a decision that is best made by the Proponent as part of the established Capacity Framework Agreement. It is not the role of the planning system to regulate demand. The existing recommended conditions enable staged construction of the facility to meet demand. The Proponent is unlikely to unlock such significant upfront capital if demand is not there.

4. CONCLUSION

The Department has considered the PAC review report and PWCS' response. The Department reaffirms the conclusions of the *Secretary's Preliminary Environmental Assessment Report* and is satisfied that the project supports the State Government's objectives and planning for the port and coal chain. The project 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 need for T4, but are unlikely to remove its need. Given this, the long lead times and significant financial investment required for the project, it is prudent to have the matter determined.

The project is consistent with the Government's strategic objective to maintain the Port's competitiveness in the global export market by increasing capacity and efficiency. The project would: present substantial economic benefits for Newcastle, the State and Australia with the direct investment of $4.8 billion; generate 1500 positions during construction and up to 80 positions during operation; provide for the upgrade of local road infrastructure; result in the remediation of contaminated land and its return to productive use; and provide for the payment of local developer contributions to Newcastle City Council. In addition, the Proponent has committed substantial funding to biodiversity matters including the purchase of three biodiversity offset sites totalling 851 hectares, along with contributions to research programs and ongoing management funds.

Given the above the Department's assessment concludes that the project could proceed with minimal adverse environmental impacts whilst realising significant benefits to the local, regional, State and National economies.

5. RECOMMENDATION

It is RECOMMENDED that the Planning Assessment Commission, as delegate of the Minister for Planning:

- consider the findings and recommendations of this report;
- approve the project application for the Port Waratah Coal Services Terminal 4 Project, subject to conditions; and
- signs the attached instrument of approval (Appendix E).

5.6.15

Director
Infrastructure Projects

5/6/15

Executive Director
Infrastructure and Industry Assessments

APPENDIX A PORT WARATAH COAL SERVICES TERMINAL 4 PROJECT REVIEW REPORT

See the Department's website at http://majorprojects.planning.nsw.gov.au

APPENDIX B PORT WARATAH COAL SERVICES' RESPONSE TO PAC REVIEW

See the Department's website at http://majorprojects.planning.nsw.gov.au

APPENDIX C AUSTRALIAN GOVERNMENT DEPARTMENT OF THE ENVIRONMENT COMMENTS

APPENDIX D RECOMMENDED CONDITIONS OF APPROVAL (TRACKED CHANGES)

APPENDIX E RECOMMENDED CONDITIONS OF APPROVAL