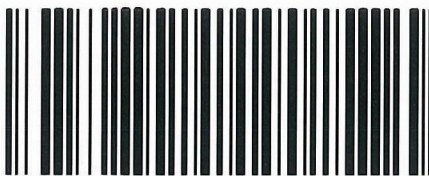
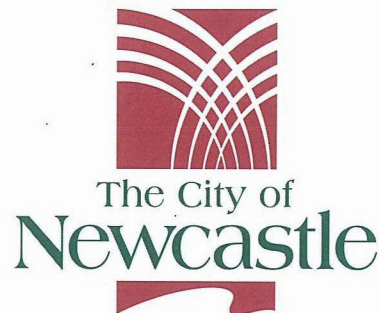


Future City: G.Mansfield
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PCU033594



07 May 2012

Ms Rebecca Newman
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Dear Ms Newman

Re: Exhibition of Environmental Assessment for Port Waratah Coal Services Terminal 4 Project (MP10_0215) .

I refer to your letter of 5 March, 2012 advising Council of the public exhibition of the abovementioned Major Project application and accompanying Environmental Assessment (EA) prepared by EMGA Mitchell McLennan Pty Ltd, 28 February, 2012.

It is noted that Part 3A of the *Environmental Planning and Assessment Act, 1979* continues to apply to the T4 Project under the savings and transitional provisions of the Act.

Council officers have reviewed the submitted EA and it is recommended that the Department's consideration of the application stand deferred pending the proponent submitting supplementary information which satisfactorily addresses the following issues:

1.0 Planning

1.1 Visual Impact

In terms of visual impact, reliance is being made on landscaping as a mitigation measure. It is noted that ameliorating this issue with landscaping alone has limitations given the harsh growing environment. Notwithstanding the existing industrial appearance of this general area, it is considered that concerted efforts should be made to ensure that the visual impacts are reduced. It is recommended that the species selected be of a nature that ensures adequate screening to protect visual amenity and takes into account traffic safety considerations. Species selection should also consider habitat values, and be tolerant to the relevant environmental conditions. It is considered appropriate that mature specimens be required to be planted ensure that screening is established as soon as possible. The Department should consider seeking detailed information on this issue prior to determination.

1.2 Development Contributions Plan

The submitted EA does address in detail the requirements of the City of Newcastle Section 94A Development Contributions Plan, 2009. The Plan sets out the required contribution for industrial, commercial and urban housing development which has an

estimated cost over \$100,000. In accordance with the Plan, the percentage levy for proposed development in excess of \$200,000 would be 1% of the 'development costs.' However, it is acknowledged that the Minister is not bound by the Plan, as is Council, and may determine a contribution other than the 1% levy.

1.3 Obtrusive Light

Conditions of consent should be imposed ensuring that any proposed floodlighting of the site is to be designed, positioned, and installed, as to not give rise to obtrusive light, interfere with traffic safety or detract from the amenity of surrounding properties in accordance with Australian Standard AS 4282: 1997 *Control of the obtrusive effects of outdoor lighting*. Consideration of lighting should also include any impacts on fauna in the vicinity of the site.

2.0 Environmental

2.1 Contamination

The proposed development land has a history of contaminating activities including use as a waste disposal facility. While extensive investigation has been undertaken to outline the presence of contamination at the site a remediation strategy has not been confirmed for the proposed development. The Environment Assessment (EA) states the Office of Environment and Heritage (OEH) have provided advice that a Remedial Action Plan (RAP) for the proposed development is not required prior to project approval, but rather a remediation options report be provided. The remediation options report is provided in Appendix G of the EA. The EA states once management and remediation measures have been finalised and agreed upon with relevant stakeholders the remediation strategy will be fully detailed in a RAP to be approved by OEH prior to implementation.

The remediation and management of contamination at the proposed development lands constitutes a significant aspect of the proposal particularly considering the proximity of sensitive environmental receptors such as wetland habitat contained within the Hunter Wetlands National Park. Due to potential impacts on these environmental receptors the proponent should outline the specific remediation strategy proposed to manage potential on-going contamination of soil and/or groundwater. Therefore, a detailed RAP should be provided for assessment prior to determination of the application.

2.2 Ecology

The Ecological Assessment prepared by Umwelt notes the proposed development of the coal terminal and associated facilities will have a significant impact upon a number of species listed under the *Threatened Species Conservation Act 1997* (NSW) as considered by the seven-part test. However, no Species Impact Statements (SIS) has been prepared for the species considered to be under significant impact by the proposed development. Therefore, a SIS should be prepared for the relevant threatened species considered to be under significant impact from the proposed development.

The Ecological Assessment also proposes a series of compensatory measures to offset the significant ecological impacts from the proposed development. These compensatory measures include environmental works within the adjacent Hunter

Wetlands National Park, creation of wetland habitat on-site for the green and golden bell frog (*Litoria aurea*) and off-site purchasing of habitat (Ellalong Lagoon). However, the Assessment notes the proposed development is not seeking a biobanking agreement and provides some justification for the proposed compensatory habitat. It is considered an appropriate justification for the compensatory habitat proposed has not been demonstrated. Further demonstration is required due to the significant loss of habitat for threatened species and permanent loss of habitat (Deep Pond). Furthermore, the compensatory package proposed does not seem adequate as it proposes environmental works in currently protected areas (Hunter Wetlands National Park) and offsetting within future protected areas (Ellalong Lagoon is zoned E2 Environmental Conservation under Cessnock Local Environment Plan 2011).

2.3 Air Quality

The EA notes that the proposed coal terminal will not result in any exceedances of the OEH criteria for air quality. However, to ensure appropriate monitoring of air quality in the region is undertaken the applicant proposes to contribute to the existing air monitoring stations as part of the Co-ordinated Environmental Monitoring and Management Protocol and Procedure administered by PWCS and Newcastle Coal Industry Group. The EA also notes the potential implementation of the Lower Hunter Air Quality Monitoring Network by OEH. To ensure appropriate air quality monitoring is undertaken and to ensure air quality is not diminished within the region the establishment of the Lower Hunter Air Quality Monitoring Network should be prioritised and the proponent should engage with OEH to enable the proposed network to be implemented.

2.4 Greenhouse Gas

The EA notes the proposed development will contribute to 0.09% of NSW equivalent CO₂ emissions and 0.02% of Australia's emissions (combined Scope 1 and 2). However, when Scope 3 emissions are included the proposed development will aid in contributing to 0.42% of global emissions. The EA notes Scope 3 is mainly restricted to combustion of coal products by end users and should not be included within the assessment of the proposed development. However, the proposed development aids in the commodity life cycle of coal products and therefore end user combustion (Scope 3) should be considered in the assessment of the proposed project.

2.5 Noise

The EA notes the proposed operation of the existing PWCS coal terminal and the proposed terminal will result in exceedances of the project specific noise criteria at residential receivers located at Stockton and Fern Bay. The EA states this is due to noise from the existing terminal rather than the proposed project. The EA then proceeds to state that cumulative impacts, with the inclusion of future developments such as the Knauf plant and Manildra Park, will result in no appreciable incremental noise impacts. There appears to be a discrepancy in the potential noise impacts between the assessed scenarios and it is recommended the proponent clarify the potential noise impacts.

The EA does not include whether the riverside loading facilities are included within the noise assessment. These facilities should be included in any assessment of the potential noise impacts associated with the proposed project.

The EA notes potential noise impacts on the Hunter Wetlands National Park, but concludes no impact is deemed as no facilities are located within proximity of the

proposed development. However, no assessment of potential noise impacts on fauna species utilising habitat within the National Park has been undertaken. Noise from the proposed facility has the potential to disrupt usage of the park by fauna for foraging or breeding purposes.

2.6 Sewage Management

No information has been provided with regard to proposed sewage management methods for the workforce associated with the construction of the proposed project. As council has a regulatory function for approvals for installation and operation of some on-site sewage management systems, further information relating to intentions in this regard is requested.

3.0 Traffic

3.1 Traffic Modelling

The submitted traffic modelling of the Project is deficient in the following respects:

- I. Does not to have regard to the findings of the traffic modelling undertaken for the Multi-Purpose Terminal Project on the former BHP site at Mayfield and the resulting cumulative traffic generation.
- II. A SIDRA analysis has not been provided for the 7.00am to 8.00am peak period.
- III. The SIDRA modelling does not consider the eastbound left turn slip lane from Industrial Drive into Tourle Street. Extensive queuing occurs of a morning generally between 6.30 to 7.30am has been observed at times to extend back past the intersection of Werribi Street.
- IV. The SIDRA modelling does not reflect the extensive queuing of an afternoon generally between 5.00pm and 6.00pm for westbound traffic at the Cormorant Drive and Teal Street roundabout. This queuing has been observed at times to extend back to the base of Stockton Bridge.
- V. DA -134-3-2003-I provides for the extension of the shipping channels within the port to a point just east of the Tourle Street Bridge inclusive of a swing basin. The application does not include the dredging for the southern berth sites. It is proposed to lodge a modification to address this issue. A number of options were proposed for disposal of the dredged material but should the option of trucking the material be adopted additional traffic will be generated. These potential additional impacts have not been considered as part of this application.
- VI. On the basis that the T4 Project comprises 3 stages over 10 years the traffic report does not provide modelling for the 10 year period with due regard for future traffic growth.
- VII. It is stated in the submitted Environmental Assessment that the construction traffic for the T4 Project will most likely impact on the surrounding road network between 6.00 am to 7.00am and 5.00pm to 6.00pm which an identified peak period for both Tourle Street and Cormorant Road.

The Roads and Maritime Services (RMS) publication- 'Guide to Traffic Generating Development' recommends a maximum peak hourly traffic flow in each direction on a two lane urban road of 1400 vehicles. The traffic surveys undertaken by the proponent's traffic consultant in October 2011 confirm peak northbound and southbound flows of over 1700 vehicles per hour, exceeding mid block road capacity and resulting in slow travel speeds and typical delays of 10 to 15 minutes. Furthermore, eighty three accidents have been recorded between 1 July 2005 and thirty accidents in June 2010, representing an average rate of 1.68 accidents per million km travelled, which is higher than the NSW average of 0.65 to 0.81. Of these accidents a high proportion were 'rear end' collisions reflective of the congested peak hour traffic operating conditions

The traffic report also confirms that the Tourle Street Bridge, as of October 2011, effectively does not have any additional spare capacity to accept additional northbound traffic flow during the critical 6.00 to 7.00 am morning peak period or southbound traffic flow during the critical 4.00 to 5.00pm afternoon peak period. In addition a number of intersections are currently operating under congested conditions for turning traffic during multiple morning and afternoon/evening peak periods.

It is understood that the RMS have future plans to duplicate the Tourle Street and Cormorant Drive to provide duel carriageways in both directions; no timeline however has been placed on this work and it is therefore unlikely to occur before commencement of the T4 Project. The traffic modelling has been based on the premise that both the KCT and NCIG projects will be completed before the T4 project commences. Accordingly no traffic increases have been applied to existing traffic volumes, but rather Stage 1 construction period (maximum 1500 construction workforce) has been cancelled out by the removal of the current October 2011 construction workforce for the KCT and NCIG projects of approximately 1200 persons. The remaining 300 offset by the introduction of a shuttle bus service (Refer following section titled Mitigation Measures - Shuttle Bus).

In addition, the importation of fill associated with the T4 Project generates a total of 85,016 truck loads during stage 1 equating to 186 truck loads a day (20 per hour) for 2 to 2.5 years between 7.00am and 5.00pm.

This methodology is considered flawed as the proponent has scheduled a commencement date for 2015 while it is probable that construction works for both the KCT and NCIG Projects will still be underway. It is also unlikely that the proponent will accept a deferred commencement until all works associated with these projects are complete. It is therefore appropriate that a conservative approach be adopted and the continuation of these projects be factored into the modelling. On this basis and acknowledging that both Tourle Street and Cormorant Drive are operating at capacity it is concluded that the T4 Project will have a detrimental and significant adverse impact on the performance of these roads unless they are upgraded to a 4 lane carriageway, inclusive of the duplication of the Tourle Street bridge. Intersection upgrades will also be required to be undertaken and completed as part of this project.

3.2 Workforce

Additional traffic generation during the operational phase of the Project is intended to be minimal as the existing workforce of Port Waratah Coal Services (PWCS) will also operate both the existing facility and the T4 Project. According to the EA, the Project:

'Will not result in any real increase in the current KCT operations workforce of approximately 400 persons on Kooragang Island'.

'A small number of new roles may be created with the T4 Project'.

The PWCS workforce comprises of 400 employees, 16 apprentices and a large contract workforce averaging more than 750 contractors in 2011.

While no real increase in the full time workforce of 400 is proposed it considered that an increase in contract labour would be required to maintain the operation of the T4 Project which represents an 80% increase in overall coal production and a significant increase in additional infrastructure. This in turn would mean additional vehicles on the road network and this should be factored into the traffic modelling for the operational phase.

3.3 Traffic Mitigation Measures

(a) Shuttle Bus

The proponent proposes to utilise a shuttle bus during the day only for construction workers to reduce traffic numbers on the road network. It is considered the use of a shuttle bus in this manner to service the construction workforce would be underutilised. It being noted the EA states that approximately 85 % of the construction workforce will be expected to do 10, 11 and 12 hour shifts starting at either 6.00 or 6.30 am on weekdays and weekends. It is also noted that these contractors will require regular access to their tools and equipment.

(b) Shift Variation

Similarly the proposed mitigation measure of varying the shift times to ensure traffic generated by the Project does not coincide with Kooragang Island peak traffic periods is considered unfeasible; given 85 % of the construction workforce will be commencing between 6.00 or 6.30 am on weekdays and weekends.

(c) Industrial Drive

Vehicular access to the southern bank wharf area is dependant on the proponent obtaining the agreement of a number of different land owners. These agreements will in turn determine the access location onto Industrial Drive, either Woodstock Street or an alternate location to the east. These agreements should be obtained prior to determination of this application and the location of the access to industrial Drive confirmed and modelled to determine adequacy.

In this regard, concern is raised in relation to the close proximity of any proposed traffic signals at Woodstock Street to the signals at the Industrial Drive / Tourle Street intersection. Traffic modelling should be undertaken to determine that these signals would function without adversely impacting on Industrial Drive.

The longitudinal grade of the northern leg of Woodstock Street on approach to Industrial Drive is not considered desirable for heavy vehicle activity. It is therefore recommended that the proponent investigate the option of accessing the southern bank wharf area via Vine Street or alternatively Ingall Street.

Notwithstanding the above, should traffic signals be installed at Woodstock Street it is recommended that it only operate as a traffic signal controlled T- intersection with the southern arm of Woodstock Street being closed to all traffic to protect residential amenity. Any such road closure would require community consultation.

A requirement for traffic signals or the upgrade of existing signals for access to Industrial Drive should be constructed prior to the commencement of site works associated with the southern bank wharf area.

3.4 Cormorant Drive

A roundabout or traffic signals are proposed on Cormorant Drive linking the Pacific National Road and a realigned NCIG access road.

It is recommended subject to RMS concurrence that traffic signals be installed to maximise road safety while permitting greater flexibility to respond to fluctuations in traffic volumes at different times through the variation of signal phasing ('green time').

The RMS recommended intersection treatment should be constructed prior to the commencement of Stage 1 site works to adequately manage vehicle movements both to and from the site.

3.5 Tourle Street

The RMS are proposing to extend the Tourle Street approach to left turn slip lane into Industrial Drive resulting in the entrance to this lane coinciding with the proposed entry/exit to the southern bank wharf area. Concern is raised in relation to potential for rear end accidents and therefore it is considered that this access either be deleted or restricted to left out only. Further discussions will be required with RMS in relation to this matter.

The proposed central median in Tourle Street to restrict vehicular access is supported, although the length of this median will be required to be sufficient to deter U-turn movements. The length of this median would be determined in consultation with RMS and NCC at the detailed design stage. This median should be constructed prior to operation of the Tourle Street access.

3.6 Car Parking

The application proposes to provide 980 spaces for 1500 construction workers with no detailed rationale provided to confirm adequacy.

Notwithstanding the above, it is recommended that car park areas be located so as to permit expansion if necessary to cater for fluctuations in parking numbers across the site during the construction phase. All car park areas, inclusive of parking for construction workers have a sealed pavement surface permitting all weather access and thereby minimising dust and erosion. In addition, car park areas are to include pollution control devices to address rubbish, oils and greases.

The location of car park areas should be clearly detailed on submitted plans.

3.7 Internal Roads

All internal access roads should be sealed all-weather roads to minimise dust and erosion.

4.0 Flood and Stormwater Management

4.1 Flooding

The site is subject to Hunter River and ocean flooding in the 1% Annual Exceedance Probability (AEP) (i.e. 1 in 100 yr) flood event and the Probable Maximum Flood event. Council's Flood model indicates that Hunter River flooding is the most critical flooding event for the site.

The submitted Flood Impact Assessment (FIA) used an existing calibrated flood inundation model of the Lower Hunter River, developed by Patterson Britton and Partners in 2003 and since updated for analysis of the potential impact of flooding to the site. The flood behaviour was modelled using RMA 2D hydrodynamic model suite. This model will be referred to as *T4 RMA model* henceforth. The T4 RMA model included analysis of the impact of flooding to the site under several scenarios including;

- Extreme tidal levels on the Hunter River Estuary under 2010 1% AEP flood discharge conditions,
- The impact of sea level rise (0.9m at 2100) on the Hunter River Estuary under normal discharge conditions, and
- The impact of the sea level rise on the Hunter River Estuary under climate change discharge conditions (10% increase in inflow and tailwater conditions increased by 0.9m).

The FIA includes analysis of both pre and post development stages of the site for each of these scenarios with results presented as figures (figure 3-1 to figure 3-9) identifying areas that may be at risk of inundation and to what extent.

Council's Flood model incorporates modelling of the effect of sea level rise (0.9m at 2100) and Hunter River flooding. The T4 RMA Model flood levels were compared to flood levels obtained from Council's waterRIDE Flood Manager Software.

The T4 RMA model flood levels are generally consistent with those obtained from Council's flood model in the pre-developed stage with some discrepancies throughout the site. A possible reason for this is the difference in time between terrain being surveyed, hence differing Digital Terrain Models being produced for each model.

4.2 Flood Characteristics of T4 RMA Model 1% AEP Pre Development

The T4 RMA model predicted peak flood levels for the 1% AEP(1 in 100yr) event (incorporating climate change impact on sea level rise and discharge pre development) are shown in Figure 3-2. This scenario is assumed to be taken as the design flood for the Project as it is the most critical of the flood scenarios. The general characteristics of the flood include:

- The existing railway line is overtopped and inundated to a level of approximately RL 3.5m AHD.
- Deep pond in the north west of the site adjacent to the existing railway line being inundated to a depth of approximately RL 3.5m AHD.
- Railway pond to the north of the site adjacent to the existing railway line being inundated to a depth of approximately RL 3.3m AHD.
- Easement pond in approximately the centre of the site being inundated to a depth of RL 3.3m AHD.
- Pacific National access road on the eastern boundary of the site inundated to a depth of approximately RL 2.7m AHD.

The flood levels produced from this flood model are higher than those in the Council's model by approximately 0.2m. This is possibly due to the effect of climate change being incorporated into the T4 RMA model (i.e. 10% increase of inflow of Hunter River).

4.3 Flood Characteristics of T4 RMA Model 1% AEP Post Development

The FIA indicates that the site will be filled but does not give an indication as to general finished ground levels. Most of the effects of flooding appear to be mitigated by the fill that will be placed on site. General characteristics of the flood include:

- The existing railway line is overtopped and inundated to a level of approximately RL 3.5m AHD.
- Deep pond in the north west of the site adjacent to the existing railway line being inundated to a depth of approximately RL 3.5m AHD.
- Pacific National Access Road on the eastern boundary of the site inundated to a depth of approximately RL 2.7m AHD.

The existing railway line is overtopped considerably (by up to 0.6m) post development. The earthworks undertaken throughout the site appear to reduce the level of flooding throughout the project site and do not appear to significantly alter the existing levels of flooding in the Hunter River upstream of the site. The flood levels to the north of the site also do not appear to be adversely affected by the development. However, between Railway Bridge and Tourle Street Bridge flood levels are decreased by 0.15 m as a result of the Project.

4.4 Development in a Floodway or Flood Storage Area

Council's Flood model shows that the area surrounding the site is classified as a floodway. Drawing No. 6.04 shows that the proposed Project appears to be contained mostly within the area classified as flood fringe. However, the proposed railway appears to be located within the floodway. The proponent should consider the flood zone classification of the site and the effects that the development will have on the floodway.

4.5 Probable Maximum Flood

An analysis of the Probable Maximum Flood in the T4 RMA Model has not been included with the submission. Council's flood model indicates that Hunter River flooding is the most critical and the site will experience flooding to RL 6.1 m AHD on western part of the site to RL 5.1 m AHD to the eastern part of the site. The hydraulic behaviour and the risk to life for this event should be considered by the proponent.

4.6 Flood Planning Levels

The proponent has indicated that the site will be filled but has not shown to what extent. The proponent should be required to provide details of the Finished Floor Levels of any proposed habitable buildings and their suitability to withstand the hydraulic force of flooding.

4.7 Stormwater Management

The Stormwater Management plan submitted with the application is highly conceptual with proposed groundwater flow directions shown and general stormwater management procedures outlined. The proponent has addressed stormwater management both during the construction and operational phases of the T4 project. During the construction phase the proponent has included a number of erosion and sediment control and pollution reduction measures; however further details should be provided showing expected pollutant loads being discharged from the site and the percentage of reduction in pollutant loads both during the construction and operational phases of the project.

The proponent has proposed to bund the site and direct stormwater runoff to a number of settlement ponds during the operational phase of the project. Captured water will be reused for operation of the site. It is proposed that discharges to the Hunter River will not exceed once every 3 months. Further details should be given showing that the stormwater system design complies with this target.

4.8 Further Information

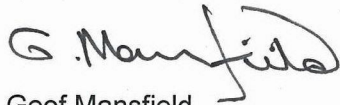
The proponent is to provide the following further information:

- (a) Consider the effects that the Probable Maximum Flood event will have on the site as this has not been included with the submission.
- (b) Design all infrastructure according to the predicted peak flood levels for the 100 year ARI event incorporating climate change impact on sea level rise and discharge (as indicated in Figure 3-2 and 3-5) as this is the most critical 100 year ARI flood event scenario affecting the site.
- (c) Consider the flood zone classification of the site and the effects that the development will have on the floodway.
- (d) Provide details of the finished ground level or the finished floor level of habitable buildings with their application. As the site is subject to flooding, a Flood Planning Level will be required. The proponent should provide details of the Finished Floor Level of any habitable buildings in the Project as well as indicating the Finished Ground Level of the Project area. Any proposed buildings should be designed being able to withstand the modelled hydraulic behaviour during flooding events.
- (e) Provide further details of the stormwater management plan showing detailed flowpaths, pipe sizes, pipe invert levels and details of the sediment ponds and channels to be constructed. The stormwater management system must take into account the close proximity to the wetlands to the north and ensure that stormwater runoff is wholly contained within the site and does not discharge to these wetlands. Details of how the applicant proposes to meet the discharge requirement to the Hunter River of once every three months should also be included.
- (f) Provide details of expected pollutant loads to be discharged from the site with the percentage of the reduction of levels of pollutants included. Further details of the water quality monitoring system should also be provided.

This submission has been prepared by Council officers on behalf of the City of Newcastle and has not been considered by the elected Council. A copy of the submission has been forwarded to the Lord Mayor and all Councillors.

Should you require further explanation or advise regarding the various matters canvassed in this submission, I can be contacted, during office hours on 02 4974 2767.

Yours Faithfully

A handwritten signature in black ink, appearing to read 'G. Mansfield', with a stylized flourish at the end.

Geof Mansfield

**DEVELOPMENT & BUILDING CO-ORDINATOR
DEVELOPMENT ASSESSMENT TEAM**