NSW GOVERNMENT
Department of Planning

MAJOR PROJECT ASSESSMENT: Expansion of the Port Kembla Cargo Handling Facility

Director-General's
Environmental Assessment Report
Section 75I of the
Environmental Planning and Assessment Act 1979

April 2006

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EXECUTIVE SUMMARY

Port Kembla Port Corporation was granted development consent for a cargo handling facility in the Inner Harbour of Port Kembla on 4 April 2005. Due to a shift in cargo types to be relocated from Port Jackson to Port Kembla, the Proponent now seeks approval to expand the approved facility and diversify the range of cargoes to be handled on the site to include motor vehicles. Expansion and diversification of the facility will require new and upgraded berths and associated dredging, as well as additional hardstand areas for the storage and handling of cargoes.

The approved facility and current proposed expansion form a key component of the Government's Port Growth Strategy, to ensure continued growth of the State's ports and equitable and efficient distribution of trade between them. Relocation of certain stevedoring operations from Port Jackson to Port Kembla will positively contribute to the economic and employment development of the Illawarra, while ensuring a viable port operation.

The project forms a key component of the Government's Port Growth Strategy, by contributing to the growth of Port Kembla and facilitating the relocation of certain stevedoring activities from Port Jackson. The proposal will underpin significant economic stimulus in the Illawarra now and into the future, and is it grows, is likely to support and encourage the establishment of industries and commercial markets in the region.

Road traffic is likely to be an on-going issue for the Illawarra, irrespective of whether the project proceeds. If it does, however, it is unlikely to significantly alter the road traffic situation on local and regional roads, with effects on road capacity and safety considered to be within acceptable limits. Notwithstanding, a strong focus on the shift from road to rail haulage of freight is needed to permit future operation and growth of port activities without generating unnecessary conflict between those operations and other road users. The recommended modal split target of 20% rail haulage for the proposed development will be a key factor in addressing this issue up to the target date of 2010.

Dredging activities associated with the project have the potential to suspend sediments and spread contamination in the Harbour if not appropriately managed. Management of turbidity and other water quality impacts associated with dredging are well know and commonly applied. These impacts can be managed within acceptable limits by applying a three-pronged approach of mitigation (silt curtains with booms), representative monitoring of turbidity and application of an overarching environmental management system.

The Department is satisfied that the project could be undertaken within acceptable environmental and safety limits. It has recommended a suite of stringent conditions to address residual impacts to ensure that the positive effects attributable to the proposed development are not derogated by elevated negative environmental effects.

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1. BACKGROUND

1.1 Location

Port Kembla Port Corporation (the Proponent) currently holds a development consent (DA 105-5-2004-i) granted by the then Minister for Infrastructure and Planning for a general cargo handling facility within the Inner Harbour of Port Kembla. This development consent relates to land immediately north of the Multi-Purpose Berth, south of Tom Thumb Road and west of Farrer Road, Port Kembla. As part of the subject application, the Proponent seeks to expand the approved facility to the north of the approved footprint of the cargo handling facility, north of the existing alignment of Tom Thumb Road, on currently vacant port land. The project also includes redevelopment of Eastern Berth No. 4, construction of Multi-purpose Berth No. 3 and an easterly extension of the existing Multi-purpose Berth. The proposed project site, in the context of the approved facility footprint and surrounding land is illustrated in

1.2 Existing Site

The existing site for the proposed expansion of the general cargo handling facility is vacant port land north of Tom Thumb Road. The proposal also includes the relocation of Tom Thumb Road to the north of the expanded facility. The development of Eastern Basin Berth No. 4 is an existing port facility that is in need of upgrading. The area that has been proposed for the construction of Multi-Purpose Berth No. 3 is part of the former reclaimed casting basin and the Western Basin of Port Kembla. The former Tom Thumb lagoon is also a part of this site. The existing Multi-Purpose Berth is proposed to be extended by 80 metres to the east of the existing berth.

1.3 Previous Planning Approvals

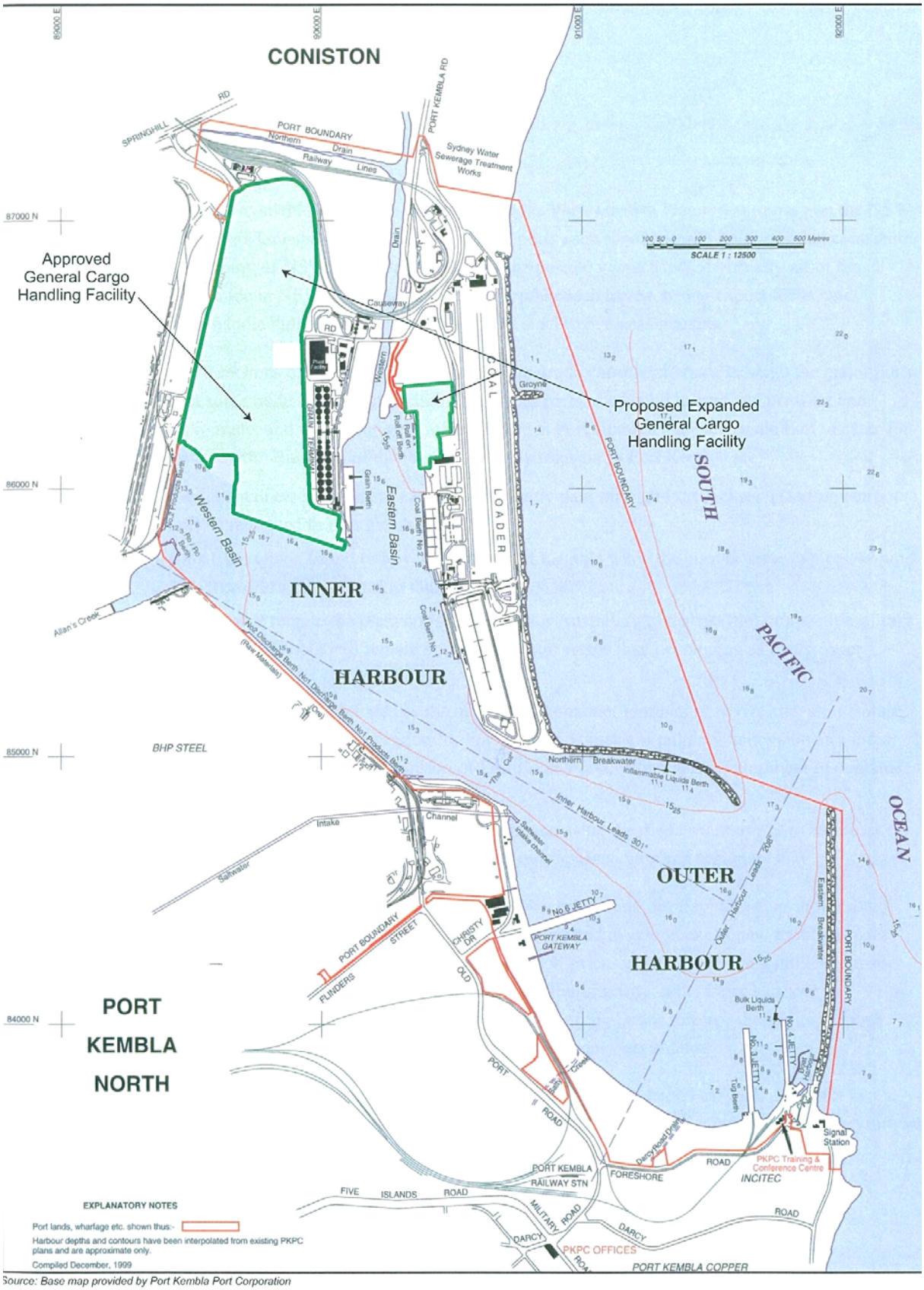
Components of the approved general cargo handling facility (DA 105-5-2004-i) include site paving, security and lighting, civil works such as fencing, road/truck receival area, stormwater drainage structures, a car park; building works which include administration, amenities, maintenance and gatehouse facilities. The total area of the approved facility is approximately 29 hectares. Relocation of the existing rail spur is also to occur along the western side of Farrer Road. Modification of the facility was approved under Section 96(1) of the EP&A Act on 30 June 2005 (MOD-64-4-2005-i). The approved modifications were focussed on improving local traffic management and operational efficiency of the facility. Clarification was also provided regarding 24 hours a day, seven days per week operation. The existing development consent permits handling cargo up to a total equivalent tonnage (of containerised and break-bulk cargo) of approximately 2,770,000 tonnes per annum. The Proponent has yet to commence works the subject of the approved facility.

1.4 Surrounding Land Use

Various industrial activities associated with port operation and BlueScope Steel Port Kembla Steelworks surround the proposed expansion including the Grain Handling Terminal, Port Kembla Rural Service Centre, Port Kembla Coal Terminal and steal making activities. The Inner Harbour covering 60 hectares contains 2,900 metres of commercial shipping berths and wharfage.

Residential developments are located in the locality, the closest being approximately one kilometre north-west of the site. Further residential areas have occurred to the north of the site in and around Ross and Swan Streets, Wollongong. Multi-storey apartments, nursing home and independent living facilities have also been approved for this area and may have views of the port of Port Kembla.

Figure 1 - Land the Subject of the Approved Facility and Proposed Expansion



Source: Base map provided by Port Kembla Port Corporation

2. PROPOSED DEVELOPMENT

2.1 Project Description

The Proponent seeks approval to expand the physical area of the approved cargo handling facility, within the Inner Harbour of Port Kembla and to diversify cargoes accepted by the facility to include motor vehicles. Motor vehicle operations are proposed to be relocated from Port Jackson. It should be noted that the proposed expansion relates to the physical footprint of the facility, and would not alter the capacity of the development from that already approved.

The land based components of the subject application include development of land immediately north of the general cargo handling facility for cargo and motor vehicle storage and processing, reconstruction of Tom Thumb Road to the north of the expanded facility, redevelopment of Eastern Basin Berth No. 4, construction of a new Multi-Purpose Berth No. 3 and extension of the existing Multi-Purpose Berth by 80 metres to the east.

As part of the application, the Proponent also seeks approval to dredge sediments from the Eastern and Western Basins to permit ship access to the new and expanded shipping berths. The Proponent estimates that approximately 630,000 m^3 of material will need to be dredged to facilitate the project. Clean sediments will be disposed of off-shore in accordance with a sea-dumping approval issued by the Commonwealth Department of Environment and Heritage. Contaminated sediments will be emplaced in an area of the Outer Harbour earmarked by the Proponent for possible future port development.

Operation of the proposed expansion would be 24 hours a day seven days per week.

2.2 Project Need

Expansion of the general cargo handling facility is necessary to meet the Proponent's growth strategy and to facilitate the implementation of the NSW Government's Ports Growth Plan. Additional land is needed for cargo storage and as a result of the relocation of the motor vehicle importing operations from Glebe Island to Port Kembla. Additional berth space is needed to accommodate the diversification in the range of shipping vessels likely to be accessing the facility in future.

3. STATUTORY CONTEXT

3.1 Major Project

The project is declared to be a Major Project under *State Environmental Planning Policy (Major Projects) 2005* because it is development for the purpose of shipping berths or terminals or wharf-side facilities that has a capital investment value of more than $30 million. The project will therefore be assessed and determined by the Minister for Planning under Part 3A of the *Environmental Planning and Assessment Act 1979*.

3.2 Permissibility

The land-based components of the project are to be located on land zoned 5(a) (Special Uses) – Port under the *Wollongong Local Environmental Plan 1990*. In that zone, development for the purpose of 'ports' is permissible (with development consent).

The water-based components of the project are to be located on land that is unzoned under the *Wollongong Local Environmental Plan 1990*. The project would also be permissible (without development consent) on that land.

In the context of the operation of Part 3A of the *Environmental Planning and Assessment Act 1979*, the project does not constitute entirely prohibited development, and as such, the Minister may determine the application.

3.3 Minister's Approval Power

The application and Environmental Assessment were placed on public exhibition from Monday 16 January 2006 to Friday 17 February 2006 and submissions invited in accordance with Section 75H of the Act. The Department has met all of its legal obligations so that the Minister can make a determination about the project.

3.4 Environmental Planning Instruments

The assessment of the project is subject to the following environmental planning instruments:

- *Illawarra Regional Environmental Plan No. 1*; and
- *Wollongong Local Environmental Plan 1990*.

The Department has considered the project against the objectives and aims of these instruments, and is satisfied that the project, subject to the implementation of the recommended conditions of approval, is generally consistent with the provisions of these instruments (refer to Appendix E).

3.5 Nature of the Recommended Approval

On application from the Proponent, the Minister has authorised the submission of a concept plan for the project. At the time of making this decision, the Proponent was unsure whether sufficient detail would be available with respect to dredging works, and the ultimate location of disposal areas for dredged materials. Since that time, the Proponent has managed to complete a detailed environmental impact assessment of the dredging components of the project, and included this information in the Environmental Assessment submitted in support of the subject application. In addition, in the time since the Minister authorised the submission of a concept plan, the Proponent has secured Commonwealth approvals for off-shore disposal of dredged material. In this context, the Department considers that the Proponent has provided sufficient information for an adequate level of assessment of the project to be undertaken, and recommends that the Minister form the view that no further environmental assessment of the dredging components of the project would be necessary. The Department recommends that the Minister exercise his power under the *Environmental Planning and Assessment Act 1979* to grant concept approval and full project approval for the works the subject of the current application, without future project approval steps.

Further, the Department highlights that the current application and the approved cargo handling facility are intrinsically linked, and overlap in a number of areas. Rather than simply granting a new and separate approval with almost identical conditions (with additional requirements for new works, such as dredging), the Department recommends that the Minister incorporate the existing development consent into any approval that may be

granted for the cargo handling facility. In this manner, the cargo handling facility and its expansion would be covered by a single, consolidated approval with clarity in relation to conditions that in reality apply to approved and expanded facility. To reflect this approach, the Department has drafted the recommended instrument of approval to extend it to currently approved works, including incorporation of conditions that were imposed under the existing development consent. As a condition of approval, the Department recommends that the Proponent be required to surrender the existing development consent within six months of approval of the current application, given that all of the cargo handling facility would be covered by a single new approval. The Proponent has accepted this approach as a sensible and practical means of managing multiple planning approvals.

4. CONSULTATION AND ISSUES RAISED

The Department received two submissions in response to the public exhibition of the application and Environmental Assessment – from the Department of Environment and Conservation and from the Department of Primary Industries. No public submissions were received in relation to the project. Wollongong City Council returned its copy of the application and Environmental Assessment documentation without comment.

The Department of Environment and Conservation raised no objection, and indicated that it was satisfied with the mitigation, monitoring and management measures outlined in the Environmental Assessment. It did, however, seek a commitment from the Proponent to coordinate the placement of dredged materials in the Outer Harbour with a strategy for the development of that part of the Port – a commitment which the Proponent has now given (outside the environmental planning process for the subject application). The DEC also stated support for the maximisation of freight haulage by rail, as a factor contributing to achievement of improved regional air quality.

Similarly, the Department of Primary Industries raised no objection to project and is generally satisfied with the measures proposed to be implemented by the Proponent, as outlined in the Environmental Assessment. The DPI also requested that the Proponent be required to notify it of any fish kill incidents associated with the project. This approach has been reflected in the recommended instrument of approval.

5. ASSESSMENT OF ENVIRONMENTAL IMPACTS

The proposed expansion of the cargo handling facility is characterised by similar environmental planning issues as the approved facility, with the addition of impacts associated with dredging and altered traffic impacts generated by the diversification of cargoes to be handled through the facility. In this context, and in light of the Environmental Assessment submitted for the current application, the Department has identified the following key issues for the expansion proposal:

- traffic and transport impacts;
- water quality impacts; and
- spoil management and disposal.

All other issues are considered to be minor and have been addressed as part of the Proponent's Statement of Commitments.

5.1 Traffic and Transport Impacts

Issues

The Environmental Assessment considers a number of possible modal splits between haulage of cargo from the proposed development by road and by rail. The Proponent justifies this approach by noting that it is not possible to confidently predict the modal split at this time, given uncertainties about the exact destination of cargoes. It has, however, committed to the maximisation of haulage by rail, with a target of achieving 20% through this means.

Based on this target modal split, the Proponent has estimated the likely traffic generation from the project. The predicted traffic volumes are presented in the table below, with an indication of the current annual increase in traffic volumes, and the percentage increase that would be attributable to the project. The Proponent highlights that routes such as Mount Ousley Road and the Southern Freeway are currently carry high levels of traffic and approaching capacity. In these circumstances the effects of the proposal in the context of the existing situation and current growth is minimal. Local port roads, such as Tom Thumb Road, would experience the greatest increase in traffic volumes, but this increase should be considered in the context that existing traffic volumes along these routes is comparatively low.

Table 1 - Predicted Traffic Increases Attributable to the Project

Route	Base Growth	2006 Scenario		2016 Scenario	
		Traffic Increase (AADT)	Increase over Base	Traffic Increase (AADT)	Increase over Base
Mount Ousley Road	4.1%	538	1.2%	695	1.1%
Southern Freeway	3.1%	538	0.7%	694	0.7%
Princes Highway	1.0%	21	0.1%	21	0.1%
Springhill Road (east of Keira Street)	0%	124	0.7%	124	0.7%
Springhill Road (north of Masters Road)	0%	766	2.1%	940	2.6%
Masters Road	0%	640	2.3%	814	2.9%
Five Islands Road	1.4%	63	0.1%	63	0.1%
Tom Thumb Road	-	890	71.7%	1064	85.7%

To contextualise the increases in traffic associated with the project, and how this would translate into route performance in reality, the Environmental Assessment presents volume to capacity ratios for the routes to be utilised by the project. That is, the ratio of traffic using the road to the theoretical capacity of the road. The ratios for the current situation, the effects of the project at years 2006 and 2016, and the predicted situation in future and in the absence of the project are presented in Table 2. Ratios below 1.00 indicate spare road capacity, while ratios at or above 1.00 indicate that the road is operating at or above the theoretical design capacity.

Table 2 - Predicted Volume to Capacity Ratios

Route	Direction	2006 Scenario		2016 Scenario	
		Without Project	With project	Without Project	With project
Mount Ousley Road	North	0.93	0.94	1.32	1.33
	South	1.00	1.01	1.41	1.42
Southern Freeway	North	1.03	1.03	1.34	1.35
	South	1.04	1.05	1.36	1.37
Princes Highway	North	0.80	0.80	0.88	0.88
	South	0.67	0.68	0.74	0.74
Springhill Road (east of Keira Street)	North	0.28	0.29	0.28	0.29
	South	0.29	0.30	0.29	0.30
Springhill Road (north of Masters Road)	North	0.58	0.60	0.58	0.60
	South	0.61	0.62	0.61	0.62
Masters Road	North	0.46	0.47	0.46	0.47
	South	0.44	0.45	0.44	0.45
Five Islands Road	North	0.72	0.72	0.82	0.82
	South	0.69	0.69	0.78	0.79
Tom Thumb Road	North	0.33	0.53	0.33	0.55
	South	0.21	0.41	0.21	0.43

The Proponent highlights that the project will have minimal effect on the volume/ capacity ratios for affected roads, over and above the current situation and normal background growth. The most significant effect of the project will be seen along Tom Thumb Road, which is predicted to remain well below theoretical maximum capacity even with ultimate capacity realisation for the project.

The most significant effect on local intersection performance will be at Springhill Road and Masters Road during the morning peak. In 2006, it is predicted that the average delay at the intersection will increase by up to seven seconds as a result of the project, and six to seven seconds with the ultimate capacity in 2016 (above delays associated with background growth). In both cases, the level of service at the intersection will reduced from level B (acceptable delay) to level C (satisfactory performance). There is predicted to be no change in the degree of saturation at the intersection.

Consideration

The Environmental Assessment demonstrates that although in absolute terms, the project may be generating relatively high volumes of additional road traffic (500 to 900 AADT), the effect of this additional traffic is likely to be minimal. In fact, on most of the routes likely to be affected by the project, traffic modelling suggests that net increased in traffic attributable to the proposal are generally no greater than 3% of existing and future traffic volumes. The one exception is Tom Thumb Road, which will not only see the bulk of the traffic from the project, but is currently operating with relatively low traffic volumes. This effect results in a skewed predicted impact if net increase in traffic volumes is considered in isolation. The Department also cautions against incorrect interpretation of AADT values presented in the Environmental Assessment – these values are in terms of axle pairs and not vehicle numbers. Daily truck numbers are in fact expected to average 299 movements and peak at 486 movements per day, with peak hours experiencing approximately 24 movements in one hour.

To contextualise the situation with Tom Thumb Road in particular, it is important to reinforce that this route currently has a volume to capacity ratio in the order of 0.2 to 0.3. This suggests that the route has more than half of its theoretical capacity available for additional traffic. Even with the ultimate development scenario for the project in 2016, Tom Thumb Road is predicted to remain operating at no greater than approximately half of its theoretical capacity.

On the matter of volume to capacity ratios, it is also important to note the current and predicted situations with a number of major routes affected by the proposal: Mount Ousley Road and the Southern Freeway. In both of these cases, the existing performance of the road is reaching theoretical capacity. For Mount Ousley, volume to

capacity ratios currently exceed 0.9, while the Southern Freeway is predicted to exceed theoretical capacity on occasion. The Proponent has predicted that both Mount Ousley Road and the Southern Freeway would have volume to capacity ratios in the order of 1.3 to 1.4 in 2016, even in the absence of the project. The project itself is not predicted to exacerbate these ratios by more than 0.01 (above background) in either the 2006 or 2016 scenarios. This highlights firstly that the local and regional road network is currently approaching or exceeding capacity, and that the project would have a minimal negative effect relative to the background situation. In this context, the Department considers that the road traffic effects of the project are within acceptable limits. It is, however, important to ensure that road traffic impacts are managed and mitigated to ensure that traffic impacts are minimised as far as possible. To this end, the Department recommends that should the project be approved, the Proponent be required to apply all reasonable measures to schedule heavy vehicle movements during daylight hours, and develop a specific transport code of conduct to manage this impacts on an on-going basis and particularly at night.

The Department generally supports the Proponent's commitment to maximising the use of rail transport, and agrees with the Proponent's arguments that establishment of an exact modal split at this time is not possible. In particular, the Department considers that it would be inappropriate to specify a modal split in any approval, although it may be desired, having regard to the following issues:

- the nature of the cargo to be handled by the project;
- likely markets for materials to be handled; and
- the scale of the project.

In regard to the first issue, the Department highlights that the project would be handling mixed cargoes of containerised cargo, break-bulk freight and motor vehicles. While containerised cargo is ordinarily compatible with rail transport due to its contained form, break-bulk on the other hand can be any series of cargoes for which one can less confidently suggest that rail would be a compatible transport mode. Further, while the Proponent has provided an estimate of the types and quantities of cargoes likely to be received at the project based on data from current Port Jackson stevedoring, the ability to conclusively establish the exact make-up of cargoes from year to year is understandably difficult and would be increasingly so as predictions are extended into the future (ie 2016). While the Department would in any case strongly encourage movement of all types of cargo by rail, it considers that given the inexact nature of predicting cargo types, it would be imprudent to impose an absolute percentage of materials to be rail-hauled. Rather, the Department suggests that a more flexible "goal" for rail haulage be established, with regular auditing to identify opportunities for attaining, and possibly exceeding this goal.

In establishing a desirable rail haulage goal, and considering the issue of modal split further, it is also important to bear in mind that the project would not be simply a relocation of some of the current Port Jackson cargo facilities. It is likely that the proposal, particularly over time, would develop in an almost-symbiotic fashion with regional markets, resulting in the cargo mix being potentially quite different from that handled through Port Jackson. In this context, it would inappropriate to require an exact modal split if the imposition of which would be inconsistent with the market split between local markets and further-removed markets. That is, where the project may be servicing markets in the Illawarra, it is likely that road transport would be a more viable and economic approach, rather than rail haulage over relatively short distances. As noted above, the project would pick up part of its trade from relocation of facilities from Port Jackson, but would develop its own local and regional relationships over time. It is not possible to accurately predict this market split, without detailed analysis of market trends following a representative period of operation of the project. This again lends weight to the Department's recommendation of a rail haulage "goal" rather than a concrete figure. The goal would, however, be given weight through periodic auditing and re-assessment of progress towards meeting the specified goal, with the recommended instrument of consent requiring the Proponent to report on additional measures identified and implemented to achieved the desired modal split.

The final issue that must be considered in establishing an appropriate modal split for the project is size. To add context, Port Botany currently operates at approximately 1.3 million TEU per annum of containerised cargo, with rail haulage at about 21%. The proposed expansion of Port Botany aims to achieve in the order of 3.2 million TEU per annum of containerised cargo, and the Government has set a rail haulage target of 40%. In contrast, the project would, at its ultimate capacity predicted in 2016, handle less than one thirteenth the current capacity of Port Botany – 100,000 TEU. The Proponent expects the operation of the project to commence at half of that

capacity (50,000 TEU). In terms of economies of scale, the Department considers it reasonable for the Proponent to aim to achieve a modal split of 20% by 2010, given that current operations of Port Botany at thirteen times the size are only achieving 21% and if expanded, at more than thirty times the size of the ultimate project only aim to achieve 40%. The Department recommends that any approval that may be granted for the proposal set a modal split goal of 20% by 2010.

In summary, the Department is satisfied that the project would not generate an unacceptable traffic/ transport impact. Road traffic implications are considered to be minimal, despite the local and regional road network approaching capacity in the absence of the project. The Department considers that a strategic planning approach would be appropriate to resolve this potential capacity issue, but the subject application is not the mechanism through which to effectively reach this outcome. There would be benefit from maximisation of rail haulage of freight, to alleviate road transport impacts generally. In this context, the Department considers that a modal split goal of 20% by 2010 would be appropriate, given the scale, markets and nature of the project and its likely freight.

5.2 Water Quality Impacts

Issues

The principal water quality issue associated with the project relates to dredging works and the generation of suspended sediments in the water column. Further, the potential for suspension and subsequent uncontrolled spread of contaminated sediments is of key significance to the project.

Contamination recorded in areas to be dredged is associated with silty estuarine clay materials and slag materials, and exhibits elevated concentrations of metals. The principal contaminants of concern in both of the proposed dredge areas are zinc and polycyclic aromatic hydrocarbons.

The Proponent suggests that the contaminants of concern are not particularly mobile, nor are they readily bioavailable in the forms occurring within the materials to be dredged. As a consequence, it suggests that contamination of waters within the Harbour can be readily controlled through the appropriate management of turbidity. It proposes to do this by installing turbidity curtains around dredging and disposal areas during the works. The Proponent has also committed to developing and implementing a water quality monitoring program for the duration of the dredging works, to ensure that proposed turbidity mitigation measures are achieving acceptable environmental outcomes.

The Environmental Assessment presents photographs in support of the Proponent's claim that vessels accessing the harbour currently suspend sediments, similar to the effect likely to be generated by the dredging works. The Proponent also argues that the net outcome of the project will be a water quality improvement, through the removal of contaminated materials from the Harbour.

Consideration

The Department agrees with the Proponent that the key water quality issue associated with the project will relate to the suspension of sediments during dredging and emplacement works. Given the nature of the contaminants and the materials within which they are found, the Department also concurs with the conclusion that the contaminants are neither particularly mobile nor readily bioavailable. This is particularly the case with the silty clays and slag materials identified as carrying the principal contaminant loads. The Department is satisfied that these materials would effectively retain contamination during the dredging works and following emplacement works so as not to create a significant environmental concern through dissolution and spread of pollutants.

This therefore leads to the conclusion that the most effective means to prevent spread of contaminants within the Harbour during the works is to effectively manage turbidity levels. There is little scope to prevent the suspension of sediments during dredging and emplacement, and as such, the Department considers it most appropriate to restrict impacts to the areas immediately surrounding dredging and emplacement. This is commonly achieved through the installation of silt curtains, and in some circumstances physical barriers. The Department therefore recommends that the Proponent be required to install and maintain silt curtains and booms around all dredge and emplacement areas for the duration of the works.

To act as a trigger criterion for the removal of the silt curtains, the Department recommends that the Proponent monitoring background turbidity at reference points within the Harbour and only remove silt curtains once turbidity within the area confined by the silt curtains has dropped to less than 10% above background levels, or below 50 mgL^{-1}, whichever is lower. These standards would also be appropriate for imposition as water quality criteria outside the silt curtains as performance criteria and as indicators of ineffective installation and operation of the silt curtains.

As an overarching system to link background turbidity monitoring with water quality monitoring during dredging and emplacement works, and with ameliorative actions in the event of elevated impacts, the Department recommends that any approval the Minister may grant for the project reflects the Proponent's commitment to implement a formal water quality monitoring program. The Department recommends that the program includes, as a minimum, turbidity and pollutant monitoring against the turbidity criteria outlined above and the predictions made in the Environmental Assessment, general procedures and processes for monitoring and recording results, and detailed contingency measures to be implemented in the event that monitoring indicates exceedance of water quality criteria.

5.3 Spoil Management and Disposal

Issues

As part of the project, the Proponent intends to dredge approximately 630,000 m^3 of material from the Eastern and Western Basins of the Inner Harbour. It is estimated that 300,000 m^3 of this is deemed to be contaminated and is proposed for emplacement in the Outer Harbour. The remaining 330,000 m^3 is 'clean' sediment and would be dumped off-shore.

The Proponent has obtained approval from the Commonwealth Department of Environment and Heritage to dump clean sediment off-shore. Approval has been granted to dump materials in an area known as 'Spoil Ground C1', approximately eight kilometres south-west of Port Kembla. This is the same location as used for disposal of materials generated from the casting basin for the Sydney Harbour Tunnel in 1989.

Contaminated materials are proposed to be emplaced within the reclamation area of the Outer Harbour, which the Proponent suggests will be used for the longer-term expansion plans for the Port. This area has been previously used for the disposal of dredged materials, totally approximately 200,000 m^3 over the past ten years.

In its response to issues raised in submissions, the Proponent indicated that although there were currently no set timeframes for the development of the Outer Harbour, it was aiming to make an application for planning approval in 2006/2007. The Proponent suggests that it has allocated $1 million towards the preliminary works for the Outer Harbour development and is likely to proceed with the project prior to 2010, subject the success of feasibility studies and applications for environmental planning approvals. As part of these works, the Proponent intends to integrate permanent encapsulation of the dredged spoil as part of the Outer Harbour development, as requested by the Department of Environment and Conservation.

Consideration

The Department is generally satisfied that reasonable and appropriate avenues are available for the disposal of materials generated during dredging works. In this context, the Department notes that approval has been obtained by the Proponent for off-shore disposal. The Department is satisfied that, subject to compliance with the terms of that approval, the disposal of clean sediments off-shore would not generate a significant environmental impact. The Department does not consider it necessary to impose additional requirements on the Proponent with respect to transport and disposal of materials off-shore, given the scope and content of the existing approval for those works.

In the context of contaminated materials, the Department considers it appropriate that these materials be retained within the greater Harbour area rather than being removed for disposal on land. Given the nature of the contaminants in question and the fact that silty clays and slag are effective means of binding contaminants, the Department considers it appropriate that the contaminated sediments be retained within the Harbour, rather than brought to land for disposal. These materials do not currently pose a significant risk of harm to the environment or human health. It is, however, preferable that contaminated sediments be emplaced in a manner conducive to

future encapsulation to prevent future disturbance and spread of the materials. In this regard, the Department notes comments from the Department of Environment and Conservation and the Proponent's subsequent commitments to link the emplacement works with future development of the Outer Harbour. The Department does not consider it necessary to require full details of the Outer Harbour works at this time, given that encapsulation of the contaminated materials under the Outer Harbour development is an additional means to prevent the spread of contaminants, rather than an essential mitigation measure in the context of the subject application. Further, while the Department notes the benefits that may be afforded by eventually locking contamination under the Outer Harbour development area, it notes that the feasibility of further port development in this area has yet to be established, and an appropriate level of environmental impact assessment of such development yet to be undertaken. In this light, the Department recommends that the Proponent's commitment to progression of strategic planning for the Outer Harbour be noted, with no specific additional conditions imposed through any approval that may be granted with respect to the current application.

6. CONCLUSION

The project forms a key component of the Government's Port Growth Strategy, by contributing to the growth of Port Kembla and facilitating the relocation of certain stevedoring activities from Port Jackson. The proposal will underpin significant economic stimulus in the Illawarra now and into the future, and is it grows, is likely to support and encourage the establishment of industries and commercial markets in the region.

Road traffic is likely to be an on-going issue for the Illawarra, irrespective of whether the project proceeds. If it does, however, it is unlikely to significantly alter the road traffic situation on local and regional roads, with effects on road capacity and safety considered to be within acceptable limits. Notwithstanding, a strong focus on the shift from road to rail haulage of freight is needed to permit future operation and growth of port activities without generating unnecessary conflict between those operations and other road users. The recommended modal split target of 20% rail haulage for the proposed development will be a key factor in addressing this issue up to the target date of 2010.

Dredging activities associated with the project have the potential to suspend sediments and spread contamination in the Harbour if not appropriately managed. Management of turbidity and other water quality impacts associated with dredging are well know and commonly applied. These impacts can be managed within acceptable limits by applying a three-pronged approach of mitigation (silt curtains with booms), representative monitoring of turbidity and application of an overarching environmental management system.

The Department is satisfied that the project could be undertaken within acceptable environmental and safety limits. It has recommended a suite of stringent conditions to address residual impacts to ensure that the positive effects attributable to the proposed development are not derogated by elevated negative environmental effects.

7. RECOMMENDATION

The Department recommends that the Minister for Planning consider the findings and recommendations of the Departments assessment report and grant concept and full project approval to the proposal, subject to the recommended conditions of approval.

APPENDIX A – RECOMMENDED CONDITIONS OF APPROVAL

APPENDIX B – STATEMENT OF COMMITMENTS

APPENDIX C – RESPONSE TO SUBMISSIONS

APPENDIX D – SUBMISSIONS

APPENDIX E – ENVIRONMENTAL PLANNING INSTRUMENTS

The assessment of the project is subject to the following environmental planning instruments:

- *Illawarra Regional Environmental Plan No. 1*; and
- *Wollongong Local Environmental Plan 1990*.

Illawarra Regional Environmental Plan No. 1

The *Illawarra Regional Environmental Plan No. 1* applies to the project, and provides a number of matters that are relevant to the Minister's determination of the application, as well as objectives for ports and harbour areas.

In relation to the project, the Plan aims *to strengthen and expand the existing economic and functional roles of the port of Port Kembla* (clause 90(a)). The project will contribute to this objective in relation to expansion of trade at the Port, as well as diversification of the functions of the Port, particularly in the context of container and motor vehicle trade. It is clear that the subject proposal will be entirely consistent with this objective of the Plan.

The Plan also provides specific heads of consideration relevant to development on land adjacent to the coast. In particular, the Plan requires that consideration be given *to the need to facilitate public access to the waterfront by requiring dedication of appropriate land, for open space purposes*. The Department considers that provision for public access to the coast within and along Port Kembla is inappropriate both in terms of planning outcomes, as well as in the context of public health and safety. In this regard, the Department suggests that there is no need to provide such access.

All other provisions of the *Illawarra Regional Environmental Plan No. 1* are generally not applicable or are not relevant to the project. As such, the Department considers that in light of the above consideration, the project would be consistent with the Plan.

Wollongong Local Environmental Plan 1990

The *Wollongong Local Environmental Plan 1990* does not provide specific controls or heads of consideration applicable to the project. It does, however, provide overarching aims for the Plan that are relevant to consideration of the project:

a) to encourage the proper management, development and conservation of natural and man-made resources (including agricultural land, natural areas, forest, minerals, water and the built environment) for the purpose of promoting the social and economic welfare of the community and a better environment;

b) to protect the environment from degradation and despoliation by protecting environmentally sensitive areas from development and minimising adverse impacts of urban development on both the built and natural environment;

c) to protect and improve the quality of life and the social well-being and amenity of local residents;

d) to encourage economic diversification and growth of the business and industrial base to increase employment;

e) to conserve the environmental heritage of the land to which this plan applies;

f) to enable the classification and reclassification of land, owned or controlled by the Council, under the Local Government Act 1993*.*

The project site is currently cleared and highly modified, with the majority of the land and surrounding areas having been previously filled for use as industry and port-related activities. The Department considers that the site and surrounding land does not in itself represent a significant environmental resource, nor would the project detract from, despoil or otherwise sterilise the use or enjoyment of any aspect of the local government area. In this regard, the project is consistent with the objectives outlined under a), b) and e) above. The site is not owned by Council, and therefore objective f) is not relevant in this situation.

There is likely to be a significant positive effect attributable to the project in the context of economic stimulation as well as support for current and future industries. The environmental impact assessment outlined in this report concludes that the residual impacts associated with the proposal could be managed to ensure operation of the

project well within acceptable environmental and amenity limits. The Department considers, therefore, that the project is consistent with objectives c) and d) above, particularly as the proposal would contribute to economic growth in an environmentally acceptable manner.

APPENDIX F – ENVIRONMENTAL ASSESSMENT