Abbot Point Coal Terminal
Stage 3 Expansion

Coordinator-General's Report

August 2007

Queensland Government
Department of Infrastructure

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1.0 Introduction

This Report has been prepared pursuant to s.35 of the *State Development and Public Works Organisation Act 1971* (Qld) (SDPWO Act) and provides an evaluation of the Environmental Impact Statement (EIS) process for the Abbot Point Coal Terminal Stage 3 Expansion Project ("the Project"). The EIS was conducted by Ports Corporation of Queensland and prepared on its behalf by WBM Pty Ltd.

An Initial Advice Statement was lodged with the Coordinator General on 30 May 2005 and the project was declared to be a "significant project for which an EIS is required", pursuant to s.26(1)(a) of the SDPWO Act, on 11 July 2005. The proposal was determined not to be a 'controlled action' under the Commonwealth Government under the *Environment Protection and Biodiversity Conservation Act 1999* (Cwlth) (EPBC Act) on 28 June 2005.

The objective of this Coordinator-General's Report is to summarise the key issues associated with the potential impacts of the project on the physical, social and economic environments at the local, regional, state and national levels. It is not intended to record all the matters which were identified and subsequently settled. Instead, it concentrates on the substantive issues identified during the EIS process.

This report represents the end of the State impact assessment process. It presents:

- an evaluation of the project, based on information contained in the EIS, submissions made on the EIS, and information and advice from Advisory Agencies and other parties; and
- states conditions under which the project may proceed.

2.0 Project Description

2.1 The Proponent

The Proponent for the Project is the Ports Corporation of Queensland, a Government Owned Corporation.

Ports Corporation of Queensland (PCQ) is responsible for managing thirteen ports located throughout Queensland, including the Port of Abbot Point, located approximately 25 km to the north of Bowen on the Central Queensland coast. PCQ's responsibilities include the development of infrastructure and the maintenance of navigable waters at the Port.

2.2 The Project

Due to increasing demand for export coal from Queensland coalfields, PCQ is proposing to increase the handling and export capacity of the APCT to 50 million tonnes per annum (Mtpa). The existing capacity of the terminal is 15 Mtpa. PCQ is currently constructing an expansion to 21 Mtpa (the 'X21 Expansion') and has planning and environmental approvals to expand the terminal to 25 Mtpa (the 'X25 Expansion'). Construction of the X25 Expansion may follow on from the X21 Expansion in 2008. Together, these two phases of the Stage 2 Expansion involve increasing the stockyard capacity, installing a new stockyard stacker reclaimer and speeding up the existing conveyors.

The proposed Stage 3 Expansion will increase the capacity in three phases from 25 Mtpa to 50 Mtpa. PCQ now refers to these phases as the 'X30' (30 Mtpa), 'X35' (35 Mtpa) and 'X50' (50 Mtpa) Expansions. It is expected that construction of the X30 Expansion may commence as early as 2008, with the work potentially completed by mid 2010. However, this could be delayed by a year to match rail upgrades and demand for capacity.

The expansions through to X50 would be carried out to match increased demand for exports and would effectively duplicate the existing terminal infrastructure - providing a second rail loop and dump station, a second inloading and outloading conveyor stream, a second berth, a second shiploader and additional stockyard capacity. The second berth would require dredging of a limited amount of spoil which would be disposed of offshore in the location of the original spoil disposal grounds.

The estimated total capital cost of the Project in 2007 dollars is $680 million. This is comprised of:

X30: $390 million
X35: $140 million
X50: $150 million

This in addition to the $90 million for the X25 Expansion that has not yet commenced.

The project is associated with the proposal for the Northern Missing Link rail line, which would connect the North Goonyella rail system with the Newlands-Abbot Point rail line, and allow northern Bowen Basin coal mines to export coal through Abbot Point port.

2.3 Project Rationale

The construction of the Northern Missing Link and the Stage-3 expansion of the Abbot Point coal terminal will significantly increase the capacity and flexibility of Queensland's coal export infrastructure.

Over the last three years, Queensland has been experiencing a rapidly growing export demand for both thermal and coking coal, and expansion of coal transport infrastructure capacity has become a high priority. In addition to export capacity enhancement, the Northern Missing Link and Abbot Point would also increase the flexibility of the whole northern Bowen Basin coal export system by providing an alternative to the Goonyella rail system and the export terminals at Dalrymple Bay in the event of congestion, accidents or equipment failure.

Hence the Project is dependent upon commitment to the Northern Missing Link rail project by Queensland Rail, which will have the capacity to deliver 50 million tonnes per annum of coal. The Coordinator-General's EIS Assessment Report for the Northern Missing Link project, recommending that the project proceed, was concluded in October 2006. Queensland Rail completed agreements with landowners for the rail corridor land acquisition in mid 2007.

3.0 Impact Assessment Process

3.1 Significant Project Declaration & Controlled Action

An Initial Advice Statement (IAS) was lodged with the Coordinator-General on 30 May 2005 and the project was declared to be a "significant project for which an EIS is required", pursuant to s.26 of the SDPWO Act, on 11 July 2005.

The project was referred to the Commonwealth Government under the *Environment Protection and Biodiversity Conservation Act 1999* (Cwlth) (EPBC Act) on 31 May 2005. (Department of Environment and Water Resources reference number EPBC 2005/2154). The proposal was determined not to be a 'controlled action' under the EPBC Act on 28 June 2005.

3.2 Review and Refinement of the EIS Terms of Reference

An IAS was released for public information and Draft Terms of Reference (ToR) were advertised for public comment on 29 July 2005 in the Bowen Independent, and in the Courier Mail on 30 July 2005. Comments were accepted until close of business (CoB) on 29 August 2005. A final ToR was issued to the Proponent on 3 October 2005. Comments on the ToR were received from:

- Department of Energy;
- Department of Communities;
- Department of Main Roads;
- Department of Natural Resources and Mines;
- Department of Primary Industries and Fisheries;
- Department of Housing; and
- Environmental Protection Agency.

3.3 Public Review of the EIS

The EIS was advertised in the Courier Mail on 15 March 2006, and the Bowen Independent on 14 March 2006, inviting submissions from the public until CoB on Monday, 28 April 2006. The EIS was available for purchase as hard copy for $100 and as a CD copy for $7 from the Proponent.

The EIS was displayed at:

- Bowen Shire Council;
- Townsville State Development Centre; and
- Environmental Protection Agency Customer Service Centre, Brisbane.

The following Advisory Agencies and other stakeholders were approached formally to conduct an evaluation of the EIS:

- Department of Aboriginal and Torres Strait Islander Policy;
- Department of Communities;
- Department of Emergency Services;
- Department of Employment and Training;
- Department of Energy;
- Department of Industrial Relations;
- Department of Housing;
- Department of Local Government, Planning, Sport and Recreation;
- Department of Main Roads;
- Department of Natural Resources Mines and Water;
- Department of Primary Industries and Fisheries;
- Department of the Premier and Cabinet;
- Department of Transport;
- Environmental Protection Agency;
- Queensland Treasury, Office of Government Owned Corporations;
- Queensland Health;
- Bowen Shire Council;
- Industry Capability Network (Qld);
- Powerlink Queensland; and
- Department of State Development, Townsville.

Copies were sent to the following libraries:

- State Library of Queensland;
- National Library of Australia; and
- Premier's and Cabinet Library.

Following the public review of the EIS a total of 8 submissions were received from:

- Department of Aboriginal and Torres Strait Islander Policy;
- Department of Main Roads;
- Department of Natural Resources Mines and Water;
- Environmental Protection Agency;
- Queensland Transport;
- Department of Primary Industries and Fisheries;
- Great Barrier Reef Marine Park Authority; and
- Wildlife Whitsunday represented by Ian and Dympna Lee.

The following Agencies signified their acceptance of the EIS as addressing their particular interests:

- Department of Communities;
- Department of Housing;
- Department of Emergency Services;
- Department of Local Government, Planning, Sport and Recreation;
- Department of Industrial Relations;
- Department of Premier and Cabinet;
- Queensland Treasury;

- Department of Health; and
- Department of State Development.

The substantive issues raised in submissions are included in the following categories:

- Housing in Bowen;
- Workforce and employment;
- Vegetation management;
- Flora and fauna;
- Air quality;
- Water quality;
- Offshore structures;
- Main Roads / transport Issues;
- Greenhouse issues;
- Sea level rise; and
- Ecologically Sustainable Development.

Submissions were forwarded to PCQ. Following discussions with PCQ and its technical consultants, it was determined that preparation of a Supplement to the EIS was necessary.

The Supplement to the EIS was forwarded on 12 December 2006 to agencies and those who made submissions.

The following agencies and others made comment or provided advice, which has been subsequently noted by PCQ or included as conditions in this Report:

- Department of Main Roads;
- Department of Natural Resources and Water (NRW);
- Department of Primary Industries and Fisheries (DPIF);
- Bowen Shire Council;
- Ian and Dympna Lee; and
- Environmental Protection Agency (EPA).

Substantive issues raised in submissions are discussed individually in section 7.

4.0 Approvals for the Project

The following are some of the major areas of approval and permits that will be required for the Project:

Legislation	**Subject**	**Concurrence Agency or approval entity**
Integrated Planning Act 1997	Development Approval	EPA
Integrated Planning Act 1997	Operational Permit for tidal works (offshore structures)	EPA
Integrated Planning Act 1997	Development approval for Construction Camps	Bowen Shire Council
Environmental Protection Act 1994	Environmentally Relevant Activities (ERA) o ERA 15 Sewage Treatment o ERA 22 Screening Materials o ERA 23 Abrasive Blasting o ERA 25 Metal Surface Coating o ERA 28 Motor Vehicle workshop o ERA 71 Port expansion o ERA 74 Stockpiling bulk goods	EPA
Vegetation Management Act 1999	Operational Works - Clearing of vegetation	NRW
Water Act 2000	Permit to take Water (modification to existing licence)	NRW
Fisheries Act 1994	Permit for removal of marine plants	DPIF
Environment Protection (Sea Dumping) Act 1981 Cwlth	Permits for disposal of dredge spoil in Commonwealth waters	DEW
Great Barrier Reef Marine Park Act 1975	Permit for disposal of dredge spoil in the GBRMP	GBRMPA

Assessment Manager

At the outset of the EIS process, it was envisaged that PCQ would shortly obtain Ministerial designation of the Stage 3 project area as strategic port land, prior to the submission of a development application. Accordingly PCQ would have become the

Assessment Manager for the development under Schedule 8A Table 2 of the *Integrated Planning Act 1997.* However, changes to Queensland Transport's designation process meant that this was unable to be achieved within the expected timeline of the EIS.

Since the project would require a number of approvals, other Tables of Schedule 8A did not apply, which required a determination by the Minister for Local Government, Planning, Sport and Recreation as to the Assessment Manager for the project. It was determined that the Environmental Protection Agency would act as the Assessment Manager for the Project since it has jurisdiction that encompasses sites onshore, offshore and outside strategic port land.

This decision excludes the construction camp site which is proposed for a site in the Bowen town area. Bowen Shire Council would therefore become the assessment manager for this construction camp if PCQ proceeds with this aspect of the Project.

5.0 Key Findings of the EIS

Natural Environment
No flora or fauna species of threatened conservation status are likely to be adversely affected by the Project and no significant habitat will be impacted. The vegetation to be disturbed by the stockpile area consists of about 16 hectares low open forest and woodland that has previously been cleared (about 20 years ago) and is classified as 'Not of Concern' under the *Vegetation Management Act 1999.* Under the present development scenario, a small patch of remnant vegetation (about 1 hectare) may have to be cleared, but PCQ has submitted a proposal for offsetting this area by rehabilitation and upgrading of another area at a nearby location on the site.

No acid sulfate soils will be intersected by the project, and there is low potential for erosion risk in the design and construction of the earthworks.

Water Resources
The Abbot Point – Caley Valley Wetland (over 5000 hectares) is located on privately-owned cattle grazing land adjacent to the terminal. The wetland is affected largely by seasonal variations in water flows, drought and seawater inundation. Stormwater runoff from the coal terminal site is intercepted by two settling ponds providing adequate settling and detention storage, such that overflow to Caley Valley Wetlands is infrequent and generally related only to high rainfall events (3 times in the last 8 years).

Groundwater supply for the terminal expansion is proposed to come from existing bores at some distance from the site, and measurements indicate that the borefield is likely to be adequate for increased demands. Comprehensive groundwater monitoring around the coal stockpile site has been established to monitor the potential for changes to groundwater quality. It appears unlikely that identified groundwater resources would be capable of supporting the development of more water-intensive industries at Abbot Point.

Cultural Heritage
Completed cultural heritage surveys of the site have identified that potential impact on any sites of significance has been avoided. Cultural Heritage Management Plan agreements have been signed with the traditional owners describing cultural heritage processes to be followed during construction.

Marine Impacts
Impact of dredging at the new berth will be very limited as the volume to be dredged is very small, and the duration of work (two weeks) is minimal. Studies at the proposed offshore disposal site also reveal that past disposal has had no discernible long term effects. No significant level of contaminants has been found in the dredging areas, from coal or other material spillage, and dredge spoil is therefore considered suitable for unconfined ocean disposal. Coastal processes do not contribute to silting of the berths or the approach channel.

Air Quality

Due to the isolation of the terminal from residential areas, and satisfactory performance, no air quality problems have been reported at Abbot Point. Estimation of the potential for increased terminal throughput and stockpile volume to contribute to changes in air quality reveals that dust levels off-site are predicted to be well within EPA guidelines, and special dust controls such as stockyard sprays will not be necessary.

Workforce Accommodation

The construction workforce may be accommodated in an offsite construction camp proposed to be located at the showgrounds site in Bowen, together with utilisation of housing stock in the local community. Assessment of a possible construction camp would be done by Bowen Shire Council following an application for development approval under the *Integrated Planning Act* closer to the construction time. However, indications are that separation distances from housing are adequate, and that a proposed upgrading of the Council's sewerage scheme will be more than adequate to accommodate the camp facilities. Bus transport is proposed for workforce travel to the site.

6.0 Key Management Strategies of the EIS

Environmental Management Plans
The Project has developed a suite of Construction and Operation Environmental Management Plans (EMPs) to guide its development, implementation and operation.

The EIS presents comprehensive draft EMPs covering the following topics:

Construction:
- Pre-construction Planning;
- Legislative Compliance;
- Terrestrial and Aquatic Ecosystem (Wetlands) Protection and Management;
- Marine Ecology Management (including spoil disposal);
- Weed and Pest Control Plan;
- Soil Erosion and Sediment Control Plan and Stormwater and Water Quality Control Plan;
- Air Quality Management;
- Noise and Vibration Management;
- Waste Management;
- Cultural Heritage Management;
- Storage and Handling of Hazardous and Dangerous Goods; and
- Construction Accommodation Area Management - Bowen.

Operations:
This will be incorporated into the current operational Integrated Environmental Management System or Site Based Management Plan employed by the existing terminal operator, Abbot Point Bulkcoal Pty Ltd, which is a wholly owned subsidiary of Xstrata Coal. However, additional material will need to be added to cover:
- Surface Water Quality Monitoring and Management;
- Groundwater Monitoring and Management; and
- Dust Controls.

Management Commitments
PCQ has provided in the EIS a set of Management Commitments that are intended to deliver on both the project design proposals and the impact mitigation strategies contained in the EIS. They cover the following subjects in the table below.

Commitment Group	Subject
1	Erosion and Sediment Control
2	Surface Water Management
3	Groundwater
4	Terrestrial Flora and Fauna
5	Air Quality
6	Marine Ecology
7	Waste Management
8	Cultural Heritage
9	Bowen Accommodation Camp
10	Local Industry Support
11	EMP Implementation

In order to ensure that these EMPs and Management Commitments are carried forward to the planning, construction and operation of the Project, I state that, in accordance with s.39 of the SDPWO Act the following requirements be applied to the Development Approval, under the *Integrated Planning Act 1997*:

Condition 1

a. **PCQ shall finalise the Environmental Management Plan (Construction) to the satisfaction of EPA prior to commencement of construction of the Stage 3 Expansion.**

b. **PCQ shall ensure the current Site Based Management Plan for the Abbot Point Coal Terminal is modified by the terminal operator to account for additional environmental management matters associated with the operation of the Stage 3 expansion, prior to commencement of operation of the coal terminal Stage 3 expansion.**

c. **PCQ shall implement the Management Commitments contained in the EIS for the Abbot Point Coal Terminal Stage 3 Expansion dated March 2006, and further identified in the EMPs (Construction and Operations).**

EPA is the responsible agency for this condition.

7.0 Management of Specific Issues

The following issues were raised by stakeholders in submissions, and were addressed by PCQ in the separate EIS Supplement. For each issue I present my own conclusions and recommended response.

7.1 Construction Camp Site and Infrastructure

Submissions from Bowen Shire Council, Ian Lee, Housing, DPIF
Bowen Shire Council considers the showgrounds site to be a suitable location for a construction camp. Alternative arrangements for annual activities of the show are available at Denison Park and other venues. Increased sewerage infrastructure for the showground site could be provided from a new sewerage treatment plant being planned by Council for its city growth requirements. Existing community infrastructure such as sport and recreation, shopping and educational facilities are considered by Council to be adequate for such an increased workforce on the proposed campsite. Some upgrading of road intersections may be required around the camp location.

Ian Lee submitted that the existing treatment plant is at capacity, and as yet no commitment to the plant upgrade had been made by Council. He also raised concern that the influx of contractors and families may overburden the Bowen hospital and medical services.

The Department of Housing indicated that it supports the provision of a construction camp to house the workforce during the three year construction period. This arrangement could mitigate the potential impacts of worker accommodation demands on the local housing market during this time. DPIF also supported this, with reference to its interest in ensuring that adequate housing remains available for horticultural workers.

Proponent's Response
With the current Stage 2 expansion of the terminal being undertaken, accommodation for a peak workforce of 120 was found in local Bowen accommodation (houses, hotels, caravan parks). However, with the proposed Stage 3 Expansion, a greater number of workers will require accommodation if the onshore and offshore stages of the project are constructed together. The EIS therefore investigated a construction camp being established.

The showgrounds was selected as the preferred site for the construction camp at the express request of the Bowen Shire Council, which is seeking to maximise the direct economic benefits of the camp to the town. The proposal has the support of the Bowen Show Society which has not been able to maintain or upgrade existing site facilities at the infrequently used grounds due to lack of funds.

Photos 1, 2 and 3 show general views of the existing showground site.

Photo 1 North end of Showground Site

Photo 2 Centre of Showground Site

Photo 3 South end of Showground Site

The EIS indicates that, at its peak, the construction workforce could number 600 if all three project phases were carried out at the same time, with about 10% of these coming from the local population. This could occur over a nine month period within the overall three year construction program. However, it now appears likely that the phases will be staggered (as described in section 2.2 of this Report) and the peak accommodation requirements will be significantly less than these quoted numbers.

PCQ is prepared to make accommodation available for the unaccompanied construction workforce in a construction camp, proposed for the Bowen showgrounds site. While some workers with dependents will make their own housing arrangements, a reasonable but limited amount of family accommodation will be offered by PCQ, through its Principal Contractor, in appropriate housing in the Bowen area.

Noting that an upgrade of the Council's sewerage plant is required for the growth of Bowen, and is being planned by Council now, PCQ is satisfied that this will service the proposed construction camp in the future.

Although not directly a construction camp site issue, the following matter is related to the social impact of the construction workforce. The EIS concludes that Bowen's schools and childcare facilities have adequate capacity to provide for the expected increase from the Stage 3 expansion. However, it does indicate that more teaching staff may be required if this Project coincides with other possible projects. To

alleviate increased pressures on medical facilities in Bowen, a first aid facility will be established on site at Abbot Point for the Stage 3 expansion construction, together with a commitment to a well developed workplace safety program, thus minimising any increased demands placed on outside medical resources.

PCQ recognises and commits to traffic management and control measures that might be required around the campsite location (See Commitment 9f and EMP for Construction Accommodation Area Management).

Recognising that the EIS does not contain full information on the development of the site for a construction camp, PCQ will make a separate Development Approval application under IDAS for a Material Change of Use of the showground site.

The EIS indicates that the maximum number of workers requiring temporary accommodation is 540 if all phases were constructed together. Of these, some 60 are forecast to be accompanied by approximately 200 dependents who will require accommodation within the Bowen region. Hence, the accommodation camp at its maximum would be expected to cater for 480 single (unaccompanied) workers, during the maximum workforce period. PCQ commitments indicate that the camp facilities will be devoted to unaccompanied workers, while arrangements will be made for a limited number of accompanied workers and dependents to be accommodated appropriately in the region, some by the Principal Contractor for the project, as directed by PCQ, and some by their own arrangements.

Council submissions and documents indicate that, in planning terms, the showground site is a suitable site for a stage 3 construction camp, although some upgrading of the road and intersection may be required. The Council considers that alternative sites and arrangements for the various aspects of the annual show would be available in Bowen. It expects that camp facilities and infrastructure will deliver an upgrading of the present showground site to leave benefits for the Show Society.

PCQ discussions with the limited number of residents in the same road as the showgrounds did not indicate any resident's objections to the use of the site for a temporary construction camp. PCQ has proposed that a campground management committee be set up to quickly address any on-going issues that may arise from the community.

It is noted that the showground site is currently an NRW lease as a Reserve for Show grounds purposes, with the Bowen Shire Council as trustee. Hence the Council will have to satisfy NRW that the use of the site for construction camp purposes will not "diminish" the site for showground purposes. Bowen Shire Council officers believe that this will be possible, because:

- the camp will develop the infrastructure of the site to make future use as a showground more viable; and
- alternative arrangements can be made for the show to continue elsewhere while the site is in temporary use as a campsite.

Coordinator-General's Conclusions

A temporary accommodation camp is required to adequately mitigate the potential impact of the Project construction workforce on housing availability in Bowen. The above information indicates that development on this site of a temporary construction camp site is likely to be acceptable. However in the absence of detailed designs for the camp, a potential conflict in the use of the existing showgrounds lease for worker accommodation, and quantification of impact on services, road infrastructure, and neighbours, it will be necessary to make separate application to the Bowen Shire Council for development approvals under the *Integrated Planning Act* for development of this site as a construction camp.

The effect of construction worker accommodation on other housing market conditions has been highlighted by Department of Housing and DPIF, regarding public housing rentals and horticultural worker accommodation, respectively. While concluding that a major construction camp arrangement is likely to minimise other housing market impacts, many factors can combine to influence this balance. In such cases, it has been found elsewhere that during construction, a forum of stakeholders can be useful to share information and coordinate actions on housing impacts within each stakeholder's capacity.

The number of construction workers, and thus the need for a worker accomodation camp, will be reduced if PCQ splits the construction into three phases as described in section 2.2 of this Report. Nonetheless, it would appear that a construction camp would still be required if the unaccompanied construction workforce number rose above a peak of 140 personnel. That is the peak number of unaccompanied construction workers that has been accommodated in the Bowen area for the current X21 Expansion without a special-purpose construction camp. It appears that the existing accommodation capacity in the Bowen area would struggle to cope with more than 140 unaccompanied workers.

I therefore nominate the following **Condition** to address construction camp issues**:**

Condition 2

a. If the unaccompanied construction workforce for any phase of the Project is projected to rise above 140 personnel, then:
   i) PCQ shall make application to the Bowen Shire Council for development approval under the *Integrated Planning Act 1997* for a construction camp to accommodate the forecast number of unaccompanied construction workers, with the Bowen Showgrounds site being the strongly preferred location;
   ii) The application will oblige PCQ to consult with the Bowen Shire Council, and the Bowen Show Society if the showgrounds site is proposed, regarding appropriate infrastructure that will remain at the showground site after the construction camp is dismantled;
   iii) PCQ shall ensure that a program is offered to make accommodation available outside of the construction camp for the required number of accompanied construction workers and their dependants in the Bowen region during the construction period;

b. Commencing not more than three months after a construction contractor is appointed, PCQ shall consult with Bowen Shire Council, Department of Housing, and Department of Primary Industry and Fisheries on a quarterly basis, during the construction period, to discuss project employment projections and accommodation trends in the Bowen region, with the objective of developing responses within each party's capability to address actions on accommodation issues.

The Bowen Shire Council is the agency responsible for this condition.

7.2 Road Impacts

Submission from Main Roads

Main Roads believed that more information about road impacts is needed, and should be made available for preliminary assessment of impacts. While accepting that definitive sources of construction materials are not available, Main Roads believes that many of the materials for transport can be defined, and potential sources for construction material are also likely to be known. The assessment of impacts should also be applied to traffic generated by the construction and operational workforce. The assessment of impacts should be undertaken using the Main Roads document "Guidelines of Assessment of Road Impacts of Development (2006)".

The management of traffic impacts at the intersection of the Bruce Highway and the access road to the port will also need to be served by the installation of appropriately designed lighting. This lighting, which will be provided for Stage 2 road use, needs to be reassessed in accordance with Stage 3 road use. General views of the Bruce Highway – Abbot Point access road intersection are shown in Photos 4a and 4b.

Photo 4a: Bruce Highway – Abbot Point Access Road intersection, looking north

Photo 4b: Bruce Highway – Abbot Point Access Road intersection, looking south

Proponent's Response

PCQ agrees that analysis of construction material transport, particularly quarry materials, will depend on selection of the location of the quarry by the contractor responsible for the construction, which will be nominated closer to the project implementation. Furthermore, an accurate and definitive evaluation of the impacts on the road system can only be determined once construction contractors are appointed and their construction and equipment procurement strategies are nominated.

Construction workers will be largely transported by bus to minimise private car traffic. Other work vehicle traffic is predictable, and these estimates can contribute to road impact and traffic management strategies determined in conjunction with the construction contractor.

The current Stage 2 project involves an upgrade of the Bruce Highway - Abbot Point access road intersection, with a protected turning bay and deceleration lane being designed and constructed for that project. This will also serve the requirements of the Stage 3 project, subject to the provision of intersection lighting. Investigation of the rail crossings of the Abbot Point access road adjacent to this intersection may be undertaken in conjunction with Queensland Rail to determine if any impacts of increased rail and road traffic are likely to become evident over time.

PCQ will undertake a Road Impact Assessment (RIA) and a Road Management Plan (RMP) within 3 months of selecting preferred construction contractors, and incorporate the outcomes in a Road Use Agreement to address road impact and management strategies. Appropriate sections will be added to the Environmental Management Plan – to address road use and traffic management issues identified by the RMP.

Coordinator-General's Conclusion
I believe that sufficient discussion of these issues is contained in the EIS and Supplement to identify that road use and traffic management impacts can be managed by appropriate plans and strategies to be undertaken as the Project enters the pre-construction stage. This includes long term traffic and intersection impacts from the rail crossings on the Abbot Point access road.

This management action can be delivered by the imposition of the following Condition requiring PCQ and its contractors to undertake an RIA and RMP and conclude a Road Use Agreement with Main Roads and any local authorities.

Condition 3

a. A Road Impact Assessment (RIA) Report and Road Management Plan (RMP) for state-controlled roads shall be prepared by PCQ in consultation with Main Roads (DMR) Northern (Townsville) District Office for transport tasks associated with each progressive and committed stage of the Project, in accordance with the current DMR Guidelines for Assessment of Road Impacts of Development at the time. The reports shall address at least the following issues:
   (ii) Details of anticipated haulage routes, including intersection analysis, where those routes cross state-controlled roads;
   (iii) Configuration of proposed haulage vehicles including axle type;
   (iv) Operational matters, including safety of project traffic and other users of the state-controlled road network;
   (v) Evaluation of any significant accelerated reduction in pavement life;
   (vi) Evaluation of any increased maintenance requirements; and
   (vii) Assessment of the intersection and lighting requirements at the Bruce Highway – Abbot Point access road intersections to ensure designs manage safety (including proposed Stage 3 level use) of the intersection

b. PCQ shall submit the RIA Report and RMP for approval to the Director-General of DMR within three months of the appointment of the principal construction contractor, and before commencement of major Stage 3 construction activities on site.

The Department of Main Roads is the agency responsible for this condition.

Condition 4

a. PCQ shall enter into a Transport and Traffic Pre-Construction Agreement with DMR to address issues relating to road use, maintenance, traffic management and contributions for infrastructure upgrading works, within two months of the production of the (RIA) Report and RMP, and before commencement of major Stage 3 construction activities on site.

b. If agreement is not reached within two months of production of the RMP, then PCQ will provide a letter of undertaking to DMR to address any outstanding matters defined in the RMP and RIA Report that have not been agreed with DMR.

DMR is the agency responsible for this condition.

Condition 5

In conjunction with Queensland Rail, PCQ shall carry out an assessment of the long term interaction of the rail crossings on the Abbot Point access road, with the adjacent Bruce Highway intersection, and submit the assessment to DMR for approval, before commencement of operations of the Stage 3 expansion.

DMR is the agency responsible for this condition.

7.3 Vegetation Management

Submissions from Department of Natural Resources and Water
The EIS indicates that the project footprint intersects with two Regional Ecosystems (REs) of remnant vegetation which are subject to the provisions of the *Vegetation Management Act 1999 (VMA)*. The proposed footprint of development over the larger RE area is approximately 14.5 hectares, and it is located in non-strategic port land, hence subject to the Bowen Shire Council Planning Scheme. The Planning Scheme designates the area as "special facilities", which, under the VMA, is exempt from requiring a permit to clear vegetation.

However, the other footprint overlap is on Strategic Port Land, and as such does require a development permit under the VMA, as no exemption is applicable. As the Project has been declared a significant project under the SDPWO Act, an application for a clearing permit can be made. The application will have to demonstrate how the Project will meet the performance criteria of the Regional Vegetation Management Code for ongoing clearing purposes.

Proponent's Response
While the logic of this differential treatment of Strategic Port Land under the VMA is difficult to rationalise, PCQ acknowledges its obligation to submit a formal application under the *Integrated Planning Act* for a vegetation clearing permit in due course.

A general view of the existing terminal site and the Stage 2 cleared site is shown below in Photo 5. Some of the vegetation requiring a clearing permit is in the foreground.

Photo 5: Stage 2 Project Area

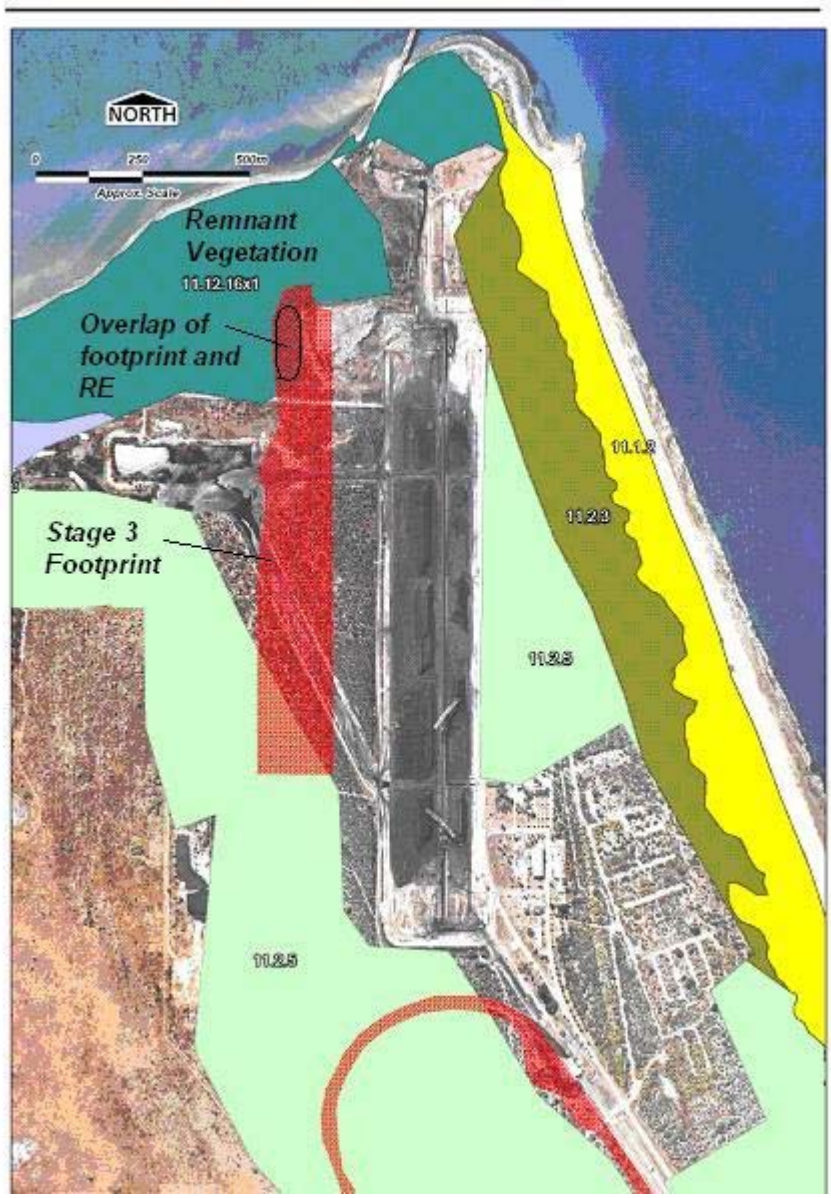

Figure 1: Regional Ecosystem Areas and Stage 3 Footprint

Figure 1 shows Regional Ecosystems over the site, and identifies the Stage 3 Footprint (in red). The particular remnant vegetation classified as RE11.12.16 is shown in dark green. The area of vegetation subject to requirement for clearing permit is approximately one hectare and is shown outlined in Figure 1 where the Stage 3 footprint overlaps the RE area.

The EIS Supplement contends that the proposed clearing of the one hectare of RE11.12.6 satisfies the performance criteria of the code because:

- the existing vegetation is not an endangered RE;
- it will not significantly affect biodiversity by reducing the RE area below threshold values (clearing is only 0.02% of regional extent for this RE);
- it does not occur in essential habitat or corridors for wildlife;

- it does not reduce vegetation cover of a catchment area, cause erosion or expose acid sulphate soils;
- it is not in close proximity to wetlands or streams;
- an Integrated Environmental Management System will exist to manage soil erosion potential, sediment control, clearing controls and stormwater impacts both during construction and in operation; and
- an offset will be offered for revegetation.

The proposed offset area is larger than the area of remnant vegetation being cleared, and is shown in Figure 2 relative to the Stage 3 Project footprint. This offset area is highly disturbed but capable of regeneration and restoration to remnant status within 20 years, as required by the code. This disturbed area is currently mapped as remnant, and the map modification shown in Figure 3 will be requested to correct this anomaly.

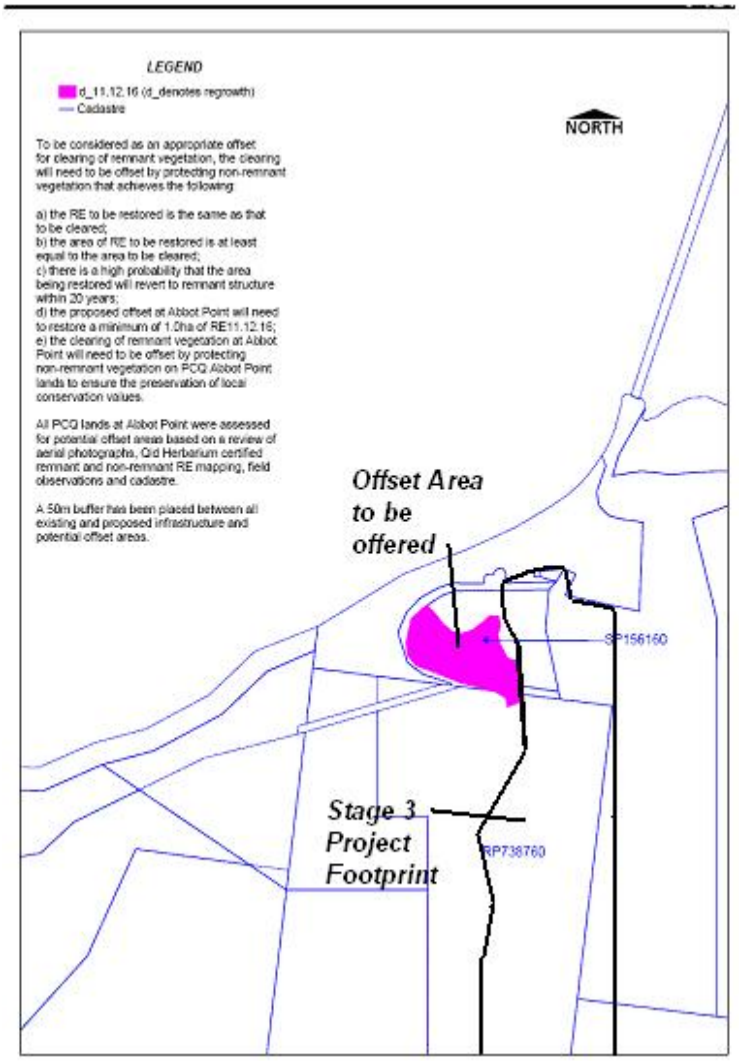

Figure 2: Proposed Offset Area Offered

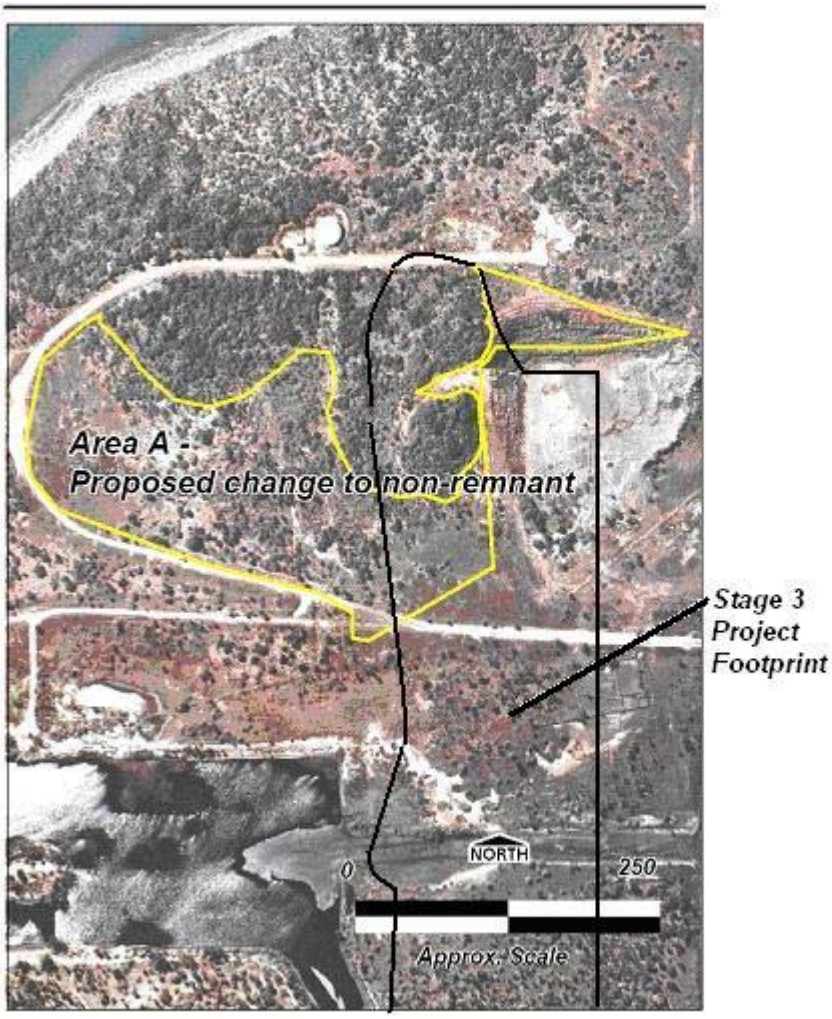

Figure 3: Map Modification Request

Coordinator-General's Conclusions

The application for a clearing permit for the one hectare requiring clearing falls into the category of Assessable Development - Operational Works listed in Table 4 of Schedule 8 of the *Integrated Planning Act 1997*. Under the *Vegetation Management Act 1999*, because the project has been declared a Significant Project, under the *State Development and Public Works Organisation Act 1971*, an application for clearing can be made.

PCQ has not yet made a formal application for a vegetation clearing permit for the Stage 3 Project. Consequently, the Department of Natural Resources and Water (NRW) has not provided formal advice on the vegetation clearing, mitigation and offset matters proposed by PCQ.

While this information has not been formally submitted, PCQ has included in the EIS Supplement, and subsequently, the material required to be submitted for an

application for a clearing permit in respect of the non-exempt vegetation management area. This includes:

- maps and descriptions of the application area;
- proposed solutions to the performance requirements of the Clearing Codes;
- offset proposal and map; and
- map modification proposal.

This material appears to meet the criteria of the Clearing Codes of the VMA. The offset appears to be a relevant proposal, albeit that it requires a remapping submission to be made and assessed, as shown in Figure 3. If PCQ's proposed offset is unacceptable to NRW, then it should not prove too difficult to locate an alternative offset area, given the small area involved (about one hectare).

If this is so, the clearing of this area should be acceptable to the vegetation management objectives, and should therefore not be a limiting factor to the environmental acceptability of the Project.

Given also that clearing application exemptions were available to other portions of the Project area, having vegetation of a similar character, and that these exemptions were related more to the fact that the land was in a different jurisdiction, there does not seem to be an insurmountable obstacle to the clearing proposal that remains undecided.

In order to ensure that the clearing proposal is pursued, I propose the following **condition**:

Condition 6

a. PCQ shall lodge an application for a development permit accompanied by a proposal for vegetation offset under the *Vegetation Management Act* and the *Integrated Planning Act* for the clearing of vegetation on the proposed area of Strategic Port Land.

b. If the proposed vegetation offset is not acceptable to NRW, PCQ must conclude an agreement for supplying this offset arrangement within twelve months of the granting of the development permit for the Project;

c. In the event that a clearing permit is not granted, PCQ must propose an alternative option for environmental management of the affected vegetation area on the project site, which may include, but not limited to, an alternative offset area being offered, or other environmental management arrangements;

NRW is the agency responsible for this condition.

There are some aspects to this Project over which anomalies have been observed in applying the exemption provisions of the VMA. A separate brief discussion of these anomalies is presented in Appendix 3 of this Report.

7.4 Groundwater at the Coal Terminal

Submissions from NRW, EPA, and DPIF
NRW recommended that monitoring of groundwater is needed to provide information on whether there is seepage below coal stockpiles, in particular, to identify impacts on wetland ecosystems (the Caley Valley Wetlands). Likewise, EPA sought information on the potential for changes to subsurface hydrology as a result of the additional coal stockpiles, and underneath the settling ponds.

Proponent's Response
The original groundwater analysis in 1979, prior to the terminal's construction, deduced that there was minimal recharge interconnection between the terminal groundwater area and the wetland areas to the west. This was confirmed by the groundwater investigation undertaken during the current EIS studies. PCQ contends that the rate of groundwater flow is very slow because of low gradients, and that groundwater is unlikely to impact the wetlands. It is concluded that the Caley Valley Wetland may be affected more by seasonal inundation of fresh water from its own catchment, and from the prevailing hypersaline conditions of the wetland soils.

With regard to seepage from the coal stockpiles, future water quality is expected to improve as the proportion of lower sulphur coals from other mines in the Bowen Basin increases, reducing the acidity of run-off water. This improved water quality may mitigate any future requirement for lining of stockpiles and settling ponds. Other potential for impacts, such as from vegetation clearance in the vicinity of new stockpiles, and compaction of ground under stockpiles, is considered to be minor, since there has been minimal effect from the existing development.

Despite this, the current investigation bores should be retained for ongoing monitoring of groundwater conditions. The Operational EMP proposes that monitoring be undertaken for pH, salinity, conductivity, and a suite of heavy metals for a period of at least two to three years to determine trends.

Coordinator-General's Conclusions
The evidence from the original investigations and the current studies tend to support the contention that groundwater mobility is not significant at Abbot Point, and that adjacent ecosystems are not significantly affected by groundwater conditions in and around the terminal location. Nevertheless the recently established bores could allow commencement of a program to monitor any potential for trends in groundwater hydrology and quality.

In order to give effect to this proposed program, I nominate the following condition on groundwater monitoring:

Condition 7

a. PCQ shall ensure a monitoring program of groundwater quality and hydrology is conducted based on at least the current investigation bores around the stockpile site and settling ponds, with monitoring parameters including pH, salinity, conductivity, and a suite of heavy metals. This program is to be approved by NRW and EPA.

b. This groundwater monitoring must begin before Stage 3 operations commence and be conducted over the first three years of operations of Stage 3. The results of monitoring must be submitted to DNRW and EPA after each period.

The Department of Natural Resources and Water is the agency responsible for this condition.

7.5 Groundwater at the Borefield

Submissions from NRW, DPIF, and EPA
NRW queried the sustainability of the borefield at Splitters Creek, where water is drawn for the terminal operations, and noted that additional permits for full stage 3 demand would be required, beyond the existing permitted allocation.

With regard to potential alternative supply of water from the "Water for Bowen" project, NRW noted that this project was not yet committed, and therefore could not be relied upon for future supply to the Coal Terminal.

Proponent's Response
The State Government has approved the second phase feasibility study of the Water for Bowen project proceeding, providing $2.5 million funding. PCQ itself provided a contribution of $80,000. This second phase is for the design of the project, and is currently underway. On completion of the design, the State Government will then consider whether the project should proceed to the construction phase.

While recognising that the Water for Bowen project is not definite at present, PCQ believes that the borefields will be adequate to meet the demand of the terminal for some time, since it will be years before full levels of production will be achieved from the Stage 3 facilities. Maximum demand from the borefields for Stage 3 would be 364 Ml per annum, with the existing permitted allocation from the Splitters Creek borefield being 250 Ml per annum. This borefield supply complements the reuse of stormwater on site that is collected in large storage ponds, combined with recycling of water run-off from the terminal area.

Some of the current difficulties in water capacity extraction from the borefields are associated with clogging of well screens, and an appropriate maintenance program may therefore yield acceptable capacity flows. A groundwater monitoring program will be set up, to measure flow and salinity from the borefield, which will assist in the assessment by NRW of a future application by PCQ for increased water allocation. At such a time if the borefield monitoring indicates supply constraints, PCQ would conduct a "supply options analysis" in conjunction with a revised demand profile. Other supply options, such as use of recycled water from Bowen, trucked water supply, or on-site desalination of seawater may be considered.

Coordinator-General's Conclusions

There are grounds for concern about the certainty and sustainability of an increased groundwater supply from the Splitters Creek borefield. However the projected ultimate demand from Stage 3 is only 45% above the currently permitted offtake, and I accept that

(a) this water demand will grow slowly as the coal throughput increases gradually over a number of years; and

(b) the groundwater supply will be able to be monitored.

Therefore, it is likely that water supply will not be a limiting factor for the commencement of the Project at this time.

Nonetheless, I accept that an alternative water supply, such as that potentially delivered by the Water for Bowen project, should be pursued for the longer term operation of the coal terminal.

In order to ensure further work is done to investigate improvements to the borefield supply, I nominate the following condition for a work program to be undertaken:

Condition 8

a. PCQ shall ensure that an inspection and maintenance program is commenced for the Splitters Creek borefield within three months of commencement of Stage 3 construction.

b. PCQ shall ensure that a groundwater salinity and flow monitoring program on this borefield is commenced within three months of commencement of Stage 3 construction, and the results submitted to NRW every two years, and at the time an application is made for increased allocation from the borefield.

c. If an application for increased allocation from this borefield is made, PCQ shall also submit a "water supply and demand options analysis" stating factors affecting the water supply and demand alternatives for the coal terminal.

NRW is the agency responsible for this condition.

7.6 Environmentally Relevant Activities

Submission from EPA
The EPA advised that the following ERA's would be required to be in place for Stage 3 construction and operation. This includes the intensification of some activities currently in place:

- ERA 71 – Operating a Port
- ERA 74 – Stockpiling, loading or unloading goods in bulk
- ERA 15(b) – Standard Sewerage Treatment Works 100-1500 equivalent persons
- ERA 15 (a) – Standard Sewerage Treatment Works up to 100 equivalent persons
- ERA 22 – Screening Materials over 100,000 tpa
- ERA 23 – Abrasive Blasting
- ERA 25 – Metal surface coating
- ERA 28 – Motor Vehicle Workshop

EPA has provided advice on conditions that should be attached to development permits on each of these ERAs, and other matters, in three parts.

Part A contains provisions that the EPA have provided as a concurrence Agency on the suite of ERAs above;
Part B contains provisions related to the construction phase;
Part C contains advice on matters that cannot yet be conditioned.

Proponent's Response
PCQ believes that the EIS and the Supplement address the information requirements of applications for development permits for all of the above ERA's. It is expected that conditions for these activities would be developed by EPA. In particular air and water quality, as well as noise and waste management would be expected to be covered in ERA 74 – Stockpiling, while dredging would be covered in ERA 71 Port operations.

PCQ contends that the suite of ERA development permits generated from this information would cover operations continuing on from Stage 2 approvals, rather than be additional. PCQ has suggested that any conditions applicable to ERAs for Stage 2 should be amended to extend the scope and capacity to encompass those activities necessary for Stage 3.

Coordinator-General's Conclusions
Further detailed considerations on some of these subjects are contained in subsequent sections – notably:

- Air Quality – Dust Emissions
- Water Quality
- Offshore Works; and
- Dredging

I consider that, except for offshore structures, adequate material is included in the EIS, the Supplement, and in subsequent material made available to the EPA, and to me, that decisions on development approvals on these ERAs can be made.

In reviewing the EPA advice, I am satisfied that Parts A and B contain relevant reasonable and certain conditions that should be attached to development approvals for ERAs required for the construction and operation of the Stage 3 expansion of Abbot Point Coal Terminal at a capacity of 50 million tonnes per annum. These conditions are contained in Appendix 2 of this Report.

Part C of the EPA advice concerns Operational Works – Tidal works, construction of shipping berth, wharf and infrastructure over tidal waters. PCQ will make application for these approvals at an appropriate time when the detailed design information about these project elements becomes available. These matters are further discussed below in Section 7.9.

7.7 Air Quality – dust suppression

Submissions from EPA
EPA sought increased clarity on the dust emission modelling, particularly its performance at the maximum level of dust emissions and worst case conditions. EPA also sought predictions of dust deposition rates as a monthly average, rather than an annual average, and the inclusion of background figures when comparing results to dust deposition guidelines. Because of the differences between Dalrymple Bay/Hay Point operations, where the dust models were developed, and the Abbot Point situation, EPA sought further details on the adaptation of the model.

Proponent's Response
PCQ indicated that modelling at Dalrymple Bay was derived from an extensive set of monitoring stations, and predicts dust conditions well, especially at the terminal boundaries. PCQ maintains that the model can be adequately applied to Abbot Point since the equipment and its operation is similar, and stockpile storage is operated in similar ways. The absence of water spraying of the stockpile at Abbot Point is the main point of difference. The EIS contains technical reports which demonstrate that the model is adapted to take into account coal type, wind tunnel tests, wind speeds, and comparative tests with and without stockpile water sprays. Based on these parameters, the comparative dust lift-off of Abbot Point is a factor of three times that of Dalrymple Bay. This factor is applied to the relative sizes of stockpiles and terminal throughput to enable the dust model to predict performance at Abbot Point.

From this analysis, dust emission and deposition rates for the expanded Abbot Point operations will be within air quality guidelines under all conditions at the boundary of the terminal, and beyond at sensitive receptors.

In summary, given the isolated location of the terminal, the lack of dust complaints over the twenty year operation of the terminal, the best practice dust controls being included in new equipment design and operation, and the modelling results which indicate future emissions will be within EPA guidelines, PCQ anticipates no dust issues from the expanded operations.

Coordinator-General's Conclusions
The EIS and Supplement satisfactorily explain the validation of the model for the Abbot Point dust emission predictions. The conclusions reached are that the emissions result in air quality conditions which are within EPA guidelines at the full 50 million tonnes per annum capacity of the terminal. I have received recommendations from EPA on the conditions for Environmentally Relevant Activities which include dust emission conditions that will be applicable to the operation of the terminal up to the full capacity of Stage 3. Briefly, the relevant sections on air quality cover the following requirements:

- nuisance must not be caused at any dust sensitive place;
- a management objective is placed on the monthly average dust deposition rate at such places;
- a management objective is placed on the 24 hour average concentration of particulate matter in air at dust sensitive places;
- reasonable and practical measures to minimise dust emissions are required; and
- the existing dust monitoring program must be continued and reviewed annually.

Appendix 2 contains the full set of EPA conditions applying to all aspects of Environmentally Relevant Activities, which I endorse.

7.8 Surface Water Quality

Submissions from EPA, Ian Lee, DPIF
The Abbot Point Caley Valley Wetlands is the land area into which any (infrequent) overflow of the Settling Pond system is directed. Photo 6 shows the Settling Pond system and the Caley Valley wetlands area beyond. The photo was taken after a period of high rainfall. The coal terminal is beyond the left of the photo.

Photo 6: Settling Ponds and Caley Valley wetlands

The EPA and Ian Lee submissions outlined concerns that the EIS developed appropriate water quality objectives for this area, so that appropriate water quality guidelines can be determined for the discharge. In particular, the potential for dust, acidic leachate, and residual chlorine in treated water effluent were raised as factors which may impact on the wetlands.

Another area of concern of all three submissions is the holding volume of the existing primary and secondary settlement ponds, and their capacity for dealing with runoff from the much larger stockpile area envisaged under Stage 3.

Proponent's Response

The EIS contains a description of the character of the large area of Abbot Point Caley Valley Wetlands. The wetland has limited surface water discharge, and following wet season inundation, most surface water evaporates from the wetland during the dry season. Soil salinity is high and results in hypersaline conditions generally. Over a 7 year period of measurement, wetland waters ranged from freshwater to 28% of seawater salinity, and were typically higher in salinity than the corresponding waters in the settling ponds.

The EIS indicates that dust emissions are likely to be well within EPA guidelines and so deposition in the wetlands would not be significant. Likewise, the potential for chlorine (from sewerage plant operation) to be present in overflow water is negligible since it is a very small flow in relation to the holding size of the ponds. While the terminal has handled some acidic coals, current information would suggest that the vast majority of future coals exported through Abbot Point will be lower sulphur coals that generate significantly less acidic water run-off.

There is infrequent overflow from the coal terminal settling ponds (three times in eight years), as the capacity of the holding ponds is large compared to the normal

flow of runoff. In addition, the volumes of stormwater from rain events provide large dilution which reduces impacts when overflow does take place. Calculations in the EIS show that the existing volume of the settling ponds will contain runoff from the EPA design criteria of a 1 in 10 year 24 hour rainfall event from the increased Stage 3 stockpiles.

The EIS demonstrates that there will be no deterioration in water quality discharged from the settling ponds and that overflow events will generally be confined to major storm events. However, operational flexibility will be enhanced with permission for the operator to manage a controlled discharge from the settling ponds after such rainfall events, to maintain freeboard (i.e. keeping the water level somewhat below the top of the pond walls) if ongoing wet season rainfall is being experienced.

Coordinator-General's Conclusions
The EIS and Supplement satisfactorily demonstrate that the existing water quality conditions can be maintained for the Stage 3 operations, and that the existing settling pond facilities have capacity to deal with increased runoff from stockpiles and capacity to deal with the EPA criteria of 1 in 10 year 24 hour rainfall event. I agree that it would be advantageous to include in the discharge conditions, an arrangement allowing discharge of stormwater from the ponds following excess rainfall events in order to provide freeboard for ongoing or repeated wet season rains, provided the discharge continues to meet the water quality release limits of normal discharges.

EPA has supplied me with recommended conditions for water discharge having the following elements:

- Discharge from the main settling pond locations can occur if a 1 in 10 year 24 hour rainfall event is exceeded;
- Controlled discharges of clean water to maintain "freeboard" in the water storage ponds can occur under defined conditions of ongoing rainfall;
- Discharges must be within pH and suspended solids limits; and
- Other specified minor discharges may be permitted elsewhere.

The EPA recommendations on the above matters have been incorporated into the Conditions listed in Appendix 2.

7.9 Offshore Works, Dredging

Submissions from EPA, DPIF, Great Barrier Reef Marine Park Authority(GBRMPA)
Operational Works approvals appear to be required for the following offshore works and dredging:

- Services Jetty redevelopment and dredging;
- Shipping Berth dredging;
- Establishment of new berth structures;
- Disposal of dredge spoil offshore; and

- Disturbance to marine plants

These permits are required under the *Coastal Management Act 1995* for tidal works below the high water mark, *Fisheries Act 1994* for potential marine plants impacts, or the *Great Barrier Reef Marine Park Regulations 1983* and the *Environmental Protection (Sea Dumping Act) 1981* for disposal of spoil. These are administered respectively by the EPA, DPIF, and the Great Barrier Reef Marine Park Authority (GBRMPA).

GBRMPA indicated that the EIS provides enough information for an assessment of the spoil disposal. DPIF did not express concerns about dredging or spoil disposal. EPA has advised that native title notification must be completed before it can approve the dredging.

Proponent's Response
With regard to the Services Jetty, this is an approved structure, having received its *Harbours Act 1955* Section 86 approval when it was constructed for the original Abbot Point port development. This approval is still valid, and the structure will only be rebuilt to its original design. The footprint will not change from the current approval. The location of the services jetty is open foreshore where there are no marine plants. Barges will use the area at mid to high tides, so no dredging requiring a coastal works permit is planned. If extra depth is later found operationally desirable, a separate application would be made to EPA at the time.

With regard to the main Shipping Berth offshore structures, PCQ does not yet have a detailed design. This will cost several million dollars and the design work will only be commissioned when the project receives financial commitment to proceed. Nevertheless, it would be desirable to obtain a preliminary or conceptual approval for this type of structure, which will generally match and serve the same purpose as the existing berth infrastructure.

With regard to the dredging of the new offshore berth, PCQ is of the opinion that all relevant information is contained in the EIS to serve as assessment material for approval of this dredging activity. This includes sediment analysis, plume dispersion modelling, marine ecology, marine fauna and coastal processes impact assessment. The conclusions of the EIS are that sediments are not contaminated, the dispersal of dredging plumes will be rapid over the three week dredging period, and turtle management arrangements will be made. PCQ contends that this should be sufficient information to enable conditions of approval to be given for the dredging program.

Coordinator-General's Conclusions
For the Service Jetty, examination of the *Harbours Act 1955* Section 86 approval documents dated 1985 indicate that the main conditions were that the structure must be maintained in a safe condition and be either fully restored or removed. The reconstruction proposed by PCQ, as long as it fully restores the structure, would satisfy the original approval.

I note that once restored this jetty would be used for transport of construction materials without dredging of the harbour waters, so no dredging permit or disturbance to marine plants approval is required.

Dredging of the Offshore Berth as specified in the EIS is subject to approval under the *Coastal Management Act 1995.* I consider that all relevant environmental impacts have been presented in the EIS and that the conclusions of the EIS that impacts are acceptable are soundly based. While I do not generally provide conditions for operational works approvals such as dredging, I note that general conditions for dredging activity have been provided by EPA for inclusion in the conditions for ERA 71 - Operating a Port. I therefore consider that this should guide the proponent and the approval agency in considering a dredging permit application.

I note that engineering design is necessary on the offshore wharf infrastructure prior to a formal approval of the works, and that PCQ would undertake this design when a financial commitment is made for the Stage 3 Project. Considering that the structures would generally match the function of existing wharf infrastructure, and that:

- the wharf will be located to the southeast of the existing berth;
- designs certified by qualified engineering consultants will be submitted to EPA for approval of plans;
- the general design follows the facilities described in the EIS for this Project; and
- an Environmental Management Plan for Construction will be submitted with the design to EPA.

I believe that there is no apparent impediment to the acceptability of the Offshore Wharf infrastructure. Further conditions for construction management could be set by EPA at the time of final approval for that infrastructure.

7.10 Greenhouse Gas Emission

Submission from Ian Lee
The submission from Ian and Dympna Lee provided commentary and raised issues regarding the Project and its potential impacts on the Greenhouse Effect. The thrust of this part of their submission is that "the production of greenhouse gases is almost certain to occur as a result of the action and can reasonably be imputed as within the contemplation of the proponent of the action." Mr Lee sought consideration of the impact of the "burning of 50 million tonnes of coal per annum ……..when assessing the likely impacts of the action and the justification for the action".

Proponent's Response
The Supplement sought recognition of the following points:

- The Project does not consume the coal being handled through the terminal.
- Greenhouse emissions relating to the burning of coal are dealt with by national and international policies.

- Discussion of the possible effects of global warming on the Project itself, such as sea level rise, is contained in the EIS.
- Greenhouse emissions from the coal sent offshore may be offset by consumers or producers of the energy.

Coordinator-General's Conclusions
I note that the Terms of Reference (ToR) did not specify that the EIS should present consideration of greenhouse gases, because the project does not involve the emission of significant amounts of greenhouse gas in its operation. The ToR requires that air quality predictions arising from gaseous emissions should be compared to the relevant goals in the National Environmental Protection Council (Ambient Air Quality) Measure (NEPM) and the *Environmental Protection (Air) Policy 1997* goals, but these do not specify any goals for greenhouse gases.

Greenhouse gas provisions, while they are contained in national and international policies, such as the Kyoto Protocol, are only applicable to the actual emission of greenhouse gases, not to the handling of the fuel itself. Furthermore, there are no provisions of Queensland law which allow conditions to be set on potential greenhouse gas implications, or handling of potentially greenhouse gas emitting fuels. I therefore cannot apply any binding greenhouse gas related conditions to an activity which generates negligible quantities of greenhouse gases.

7.11 Ecologically Sustainable Development

Submissions from Ian and Dympna Lee
These submissions pursue the question of comparing project justification with the requirements of ecologically sustainable development. The submission states that "the only ground that the proponent can produce to justify this development is the grounds of economic gain, a minor part of ESD." It is further stated that the proponent has "disregarded the principles of precaution, intergenerational equity, and conservation of biological diversity and integrity".

Proponent's Response
Appendix Q of the EIS lists, as required by the ToR, the Decision Criteria which the proponent believes are applicable to statutory decisions on the Project. As instructed by the ToR, the response addresses the principles underlying the *Environmental Protection Act* and ESD principles as outlined by the National Strategy for Ecologically Sustainable Development. This Appendix fully discusses how the EIS and the implementation of the development consider each principle in reaching its study conclusions, and in proposing mitigation and management strategies for the Project.

The EIS addresses intergenerational equity by establishing that present and future generations are served by a project which delivers local employment and plans for future income generation by delivering substantial capacity for economic growth.

At the same time, essential ecological processes are maintained by ensuring that the EIS has investigated and established that the proposed development is unlikely to have significant adverse effect on ecosystems both within the terminal area and in proximity to the site, including the Abbot Point Caley Valley Wetlands and intertidal and marine areas.

Coordinator-General's Conclusions
My role in overseeing this EIS process is to deliver the objectives of section 25 of the *SDPWO Act* to ensure that proper account is taken of the environmental effects. Hence, I consult widely with agencies and the public to produce ToR that ensure that economic environmental and social impacts are integrated into the EIS.

With respect to application of the precautionary principle, this requires that "where there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation" (Ref: *National Strategy for Ecologically Sustainable Development*). The proposed project involves expansion of an existing coal terminal that has operated for over twenty years. My EIS assessment benefits from existing knowledge of any impacts over more than 20 years, and the forward extrapolation of impacts based on that information. Further information on potential impact is also provided from information presented in the EIS, and from two large coal terminals in the region at Hay Point, to the south of Mackay.

The EIS undertaken for the project has included an assessment of the potential risks of environmental harm, consistent with the precautionary principle. Potential risks have been assessed as low. Environmental Management Plans (EMPs) are included in the EIS to address these potential risks, and this Assessment Report ensures that any approvals for the Project will be subject to implementation of these EMPs.

Community consultation, including with traditional owners, has been undertaken prior to and throughout the EIS process. The existing operation has been well accepted by the Bowen community and is a vital component of the local economic and social structure.

I consider that the high likelihood for economic growth arising from this Project which provides for expansion of export capacity over a long term, while maintaining environmental management processes, adequately satisfies the principle of intergenerational equity.

Overall I conclude that this Project and this EIS process satisfy the planning, reporting and assessment requirements of ESD.

8.0 Conclusions and Recommendations

Having regard to the documentation and other information provided by Ports Corporation of Queensland (PCQ), I consider that the EIS for the Abbot Point Stage 3 Expansion Project has adequately addressed the environmental and other impacts of the project, and generally meets the requirements of the Queensland Government for impact assessment in accordance with the provisions of Part 4 of the *State Development and Public Works Organisation Act 1971.*

On the basis of my assessment of the information provided by PCQ in the EIS for the Abbot Point Stage 3 Expansion Project, including advice from Advisory Agencies, and other information, I recommend that the project can proceed as described in the EIS, and that the potential adverse impacts associated with the project can be adequately addressed through the following measures:

(a) implementation of the project generally in accordance with the arrangements described in the EIS, and the Management Commitments nominated therein;
(b) finalisation and implementation of appropriate Environmental Management Plans as drafted in the EIS; and
(c) attachment of recommended requirements from this report (pursuant to s.39 of *SDPWO* Act) as conditions for development approvals under the *Environmental Protection Act 1994* and the *Integrated Planning Act 1997*, and listed in Appendix 1 and Appendix 2.

I note that the Project description in the EIS and other documentation available to me does not include sufficient detail of the proposed construction camp site to enable me to make any determinations with respect to the proposed construction camp site, other than an obligation on PCQ to make separate applications for development approval to the Bowen Shire Council under the *Integrated Planning Act 1997,* for a construction camp site.

I also note that separate applications for permits will be required under a number of Acts, as reported in section 4 of this Report. Although I am not required to make determinations on these matters, I have provided conditions requiring that the proponent makes applications if required, and other conditions that require the proponent to present information that can be considered by the assessment agencies when examining the applications for relevant development permits.

Copies of this report will be given to the:

- CEO of Ports Corporation of Queensland, pursuant to s.35(5)(a) of the *SDPWO Act;*
- Chief Executive of the Environmental Protection Agency, pursuant to s.40 of the *SDPWO Act;*
- CEO of Bowen Shire Council.

A copy of this report will be made publicly available on the Coordinator-General's website, currently accessible at: www.infrastructure.qld.gov.au/eis.

Ken Smith

Coordinator-General

Date ***/ /***

APPENDIX 1

List of Coordinator-General's Conditions relating to Abbot Point Stage 3 Project

Requirements that the Assessment Manager must attach to a Development Approval under the *Integrated Planning Act 1997*

Aspect of Development: Material Change of Use on strategic and non-strategic port land.

Condition 1

a. PCQ shall finalise the Environmental Management Plan (Construction) to the satisfaction of EPA prior to commencement of construction of the Stage 3 Expansion.

b. PCQ shall ensure the current Site Based Management Plan for the Abbot Point Coal Terminal is modified by the terminal operator to account for additional environmental management matters associated with the operation of the Stage 3 expansion, prior to commencement of operation of the coal terminal Stage 3 expansion.

c. PCQ shall implement the Management Commitments contained in the EIS for the Abbot Point Coal Terminal Stage 3 Expansion dated March 2006, and further identified in the EMPs (Construction and Operations).

EPA is the responsible agency for this condition.

Condition 2

a. If the unaccompanied construction workforce for any phase of the Project is projected to rise above 140 personnel, then:
- **(i) PCQ shall make application to the Bowen Shire Council for development approval under the *Integrated Planning Act 1997* for a construction camp to accommodate the forecast number of unaccompanied construction workers, with the Bowen Showgrounds site being the strongly preferred location;**
- **(ii) The application will oblige PCQ to consult with the Bowen Shire Council, and the Bowen Show Society if the showgrounds site is proposed, regarding appropriate infrastructure that will remain at the showground site after the construction camp is dismantled;**
- **(iii) PCQ shall ensure that a program is offered to make accommodation available outside of the construction camp for the required number of**

accompanied construction workers and their dependants in the Bowen region during the construction period;

b. Commencing not more than three months after a construction contractor is appointed, PCQ shall consult with Bowen Shire Council, Department of Housing, and Department of Primary Industry and Fisheries on a quarterly basis, during the construction period, to discuss project employment projections and accommodation trends in the Bowen region, with the objective of developing responses within each party's capability to address actions on accommodation issues.

The Bowen Shire Council is the agency responsible for this condition.

Condition 3

a. A Road Impact Assessment (RIA) Report and Road Management Plan (RMP) for state-controlled roads shall be prepared by PCQ in consultation with Main Roads (DMR) Northern (Townsville) District Office for transport tasks associated with each progressive and committed stage of the Project, in accordance with the current DMR Guidelines for Assessment of Road Impacts of Development at the time. The reports shall address at least the following issues:
   (i) Details of anticipated haulage routes, including intersection analysis, where those routes cross state-controlled roads;
   (ii) Configuration of proposed haulage vehicles including axle type;
   (iii) Operational matters, including safety of project traffic and other users of the state-controlled road network;
   (iv) Evaluation of any significant accelerated reduction in pavement life;
   (v) Evaluation of any increased maintenance requirements; and
   (vi) Assessment of the intersection and lighting requirements at the Bruce Highway – Abbot Point access road intersections to ensure designs manage safety (including proposed Stage 3 level use) of the intersection

b. PCQ shall submit the RIA Report and RMP for approval to the Director General of DMR within three months of the appointment of the principal construction contractor, and before commencement of major Stage 3 construction activities on site.

The Department of Main Roads is the agency responsible for this condition.

Condition 4

a. PCQ shall enter into a Transport and Traffic Pre-Construction Agreement with DMR to address issues relating to road use, maintenance, traffic management and contributions for infrastructure upgrading works, within two months of the production of the (RIA) Report and RMP, and before commencement of major Stage 3 construction activities on site.

b. If agreement is not reached within two months of production of the RMP, then PCQ will provide a letter of undertaking to DMR to address any outstanding matters defined in the RMP and RIA Report that have not been agreed with DMR.

DMR is the agency responsible for this condition.

Condition 5

In conjunction with Queensland Rail, PCQ shall carry out an assessment of the long term interaction of the rail crossings on the Abbot Point access road, with the adjacent Bruce Highway intersection, and submit the assessment to DMR for approval, before commencement of operations of the Stage 3 expansion.

DMR is the agency responsible for this condition.

Condition 6

a. PCQ shall lodge an application for a development permit accompanied by a proposal for vegetation offset under the *Vegetation Management Act* and the *Integrated Planning Act* for the clearing of vegetation on the proposed area of Strategic Port Land.

b. If the proposed vegetation offset is not acceptable to NRW, PCQ must conclude an agreement for supplying this offset arrangement within twelve months of the granting of the development permit for the Project;

c. In the event that a clearing permit is not granted, PCQ must propose an alternative option for environmental management of the affected vegetation area on the project site, which may include, but not limited to, an alternative offset area being offered, or other environmental management arrangements;

The Department of Natural Resources and Water is the agency responsible for this condition.

Condition 7

a. PCQ shall ensure a monitoring program of groundwater quality and hydrology is conducted based on at least the current investigation bores around the stockpile site and settling ponds, with monitoring parameters including pH, salinity, conductivity, and a suite of heavy metals. This program is to be approved by NRW and EPA.

b. This groundwater monitoring must begin before Stage 3 operations commence and be conducted over the first three years of operations of Stage 3. The results of monitoring must be submitted to DNRW and EPA after each period.

The Department of Natural Resources and Water is the agency responsible for this condition.

Condition 8

a. PCQ shall ensure that an inspection and maintenance program is commenced for the Splitters Creek borefield within three months of commencement of Stage 3 construction.

b. PCQ shall ensure that a groundwater salinity and flow monitoring program on this borefield is commenced within three months of commencement of Stage 3 construction, and the results submitted to NRW every two years, and at the time an application is made for increased allocation from the borefield.

c. If an application for increased allocation from this borefield is made, PCQ shall also submit a "water supply and demand options analysis" stating factors affecting the water supply and demand alternatives for the coal terminal.

The Department of Natural Resources and Water is the agency responsible for this condition.

END OF APPENDIX 1

APPENDIX 2

List of Other Conditions and Recommendations relating to Abbot Point Stage 3 Project

Part A

Conditions specified by the EPA as a concurrence agency that the Assessment Manager must attach to a development approval pursuant to the *Integrated Planning Act 1997.*

Aspect of Development:

ERA 71 Port – Operating a port (other than an airport) under the *Transport Infrastructure Act 1994*.
On land described as:
Lot 1 on RP748628
Lot 2 on RP748628
Lot 3 on RP748628
Lot 4 on RP738760
Lot 47 on SP117913
Lot 49 on HR1647
Lot 52 on HR1732
Lot 46 on SP156160

Gen 1 Site Based Management Plan.

From commencement of an ERA to which this approval relates, a site based management plan (SBMP) must be implemented. The SBMP must identify all sources of environmental harm, including but not limited to the actual and potential release of all contaminants, the potential impact of these sources and what actions will be taken to prevent the likelihood of environmental harm being caused. The SBMP must also provide for the review and 'continual improvement' in the overall environmental performance of all ERAs that are carried out.

The SBMP must address the following matters:
(a) Environmental commitments - a commitment by senior management to achieve specified and relevant environmental goals.
(b) Identification of environmental issues and potential impacts.
(c) Control measures for routine operations to minimise likelihood of environmental harm.

(d) Contingency plans and emergency procedures for non-routine situations.
(e) Organisational structure and responsibility.
(f) Effective communication.
(g) Monitoring of contaminant releases.
(h) Conducting environmental impact assessments.
(i) Staff training.
(j) Record keeping.
(k) Periodic review of environmental performance and continual improvement.

Gen 2 Dredging may only be carried out within port limits as designated by the *Transport Infrastructure Act 1994*.

Gen 3 Dredge spoil must not be disposed of into Queensland waters that are within the limits of the State, or are coastal waters of the State.

Gen 4 A turtle excluding device must be used on the draghead suction of any dredge used.

Gen 5 No dredging is permitted between November to March inclusive in order to minimise the impact on the marine environment.

Aspect of Development:

ERA 74 Stockpiling, loading or unloading goods in bulk- commercially loading, unloading or stockpiling materials or goods in association with an activity mentioned in item 71, using a crane, conveyor or pump or other similar way at a rate of more than 100t a day.

On Lot 1 rp748628
Lot 2 on rp748628
Lot 3 on rp748628
Lot 4 on rp738760
Lot 47 on sp117913
Lot 49 on HR1647
Lot 46 on SP156160
Lot 52 on HR1732

Agency Interest **General**

Gen 1. This development permit authorises a maximum annualised throughput of 50 million tonne of coal per year.

Gen 2. Prevent and/or minimise likelihood of environmental harm.

In carrying out an ERA to which this approval relates, all reasonable and practicable measures must be taken to prevent and / or to minimise the likelihood of environmental harm being caused.

Gen 3. Maintenance of Measures, Plant and Equipment.

The operator of an Environmentally Relevant Activity (ERA) to which this approval relates must:
(a) install all measures, plant and equipment necessary to ensure compliance with the conditions of this approval; and
(b) maintain such measures, plant and equipment in a proper and efficient condition; and
(c) operate such measures, plant and equipment in a proper and efficient manner.

Gen 4. Site Based Management Plan.

From commencement of an ERA to which this approval relates, a site based management plan (SBMP) must be implemented. The SBMP must identify all

sources of environmental harm, including but not limited to the actual and potential release of all contaminants, the potential impact of these sources and what actions will be taken to prevent the likelihood of environmental harm being caused. The SBMP must also provide for the review and 'continual improvement' in the overall environmental performance of all ERAs that are carried out.

The SBMP must address the following matters:

(a) Environmental commitments - a commitment by senior management to achieve specified and relevant environmental goals.
(b) Identification of environmental issues and potential impacts.
(c) Control measures for routine operations to minimise likelihood of environmental harm.
(d) Contingency plans and emergency procedures for non-routine situations.
(e) Organisational structure and responsibility.
(f) Effective communication.
(g) Monitoring of contaminant releases.
(h) Conducting environmental impact assessments.
(i) Staff training.
(j) Record keeping.
(k) Periodic review of environmental performance and continual improvement.

Gen 5. The site based management plan must not be implemented or amended in a way that contravenes any condition of this approval.

Gen 6. Records.

Record, compile and keep all monitoring results required by this approval and present this information to the administering authority when requested.

Gen 7. All records required by this approval must be kept for 5 years.

Gen 8. Waste Records.

A record of all waste must be kept detailing the following information:

a) date of pickup of waste;
b) description of waste;
c) quantity of waste;
d) origin of the waste; and
e) destination of the waste.

Note: Trackable wastes as listed in Schedule 1 of the *Environmental Protection (Waste Management) Regulation 2000* are not covered by this condition. Trackable wastes have similar recording requirements to this condition in accordance with a waste tracking system established under the above Regulation.

Gen 9. Monitoring.

A competent person(s) must conduct any monitoring required by this approval.

Gen 10. Equipment Calibration.

All instruments, equipment and measuring devices used for measuring or monitoring in accordance with any condition of this approval must be calibrated, and appropriately operated and maintained.

Gen 11. Spill Kit.

An appropriate spill kit, personal protective equipment and relevant operator instructions/emergency procedure guides for the management of wastes and chemicals associated with the ERA must be kept at the site, and in each vehicle used if the activity is a mobile ERA.

Gen 12. Spill Kit Training.

Anyone operating under this approval must be trained in the use of the spill kit.

Gen 13. Notification.

Telephone the EPA's Pollution Hotline or local office as soon as practicable after becoming aware of any release of contaminants not in accordance with the conditions of this approval.

Gen 14. Information About Spills.

A written notice detailing the following information must be provided to the EPA within 14 days of any advice provided in accordance with condition Gen13:

a) the name of the operator, including their approval / registration number;
b) the name and telephone number of a designated contact person;
c) quantity and substance released;
d) vehicle and registration details;
e) person/s involved (driver and any others);
f) the location and time of the release;
g) the suspected cause of the release;
h) a description of the effects of the release;
i) the results of any sampling performed in relation to the release,
j) actions taken to mitigate any environmental harm caused by the release; and
k) proposed actions to prevent a recurrence of the release.

Agency Interest **Air**

Air 1. Nuisance

The release of noxious or offensive odours or any other noxious or offensive airborne contaminants resulting from the activity must not cause a nuisance at any nuisance sensitive or commercial place.

Air 2. Dust Nuisance

The release of dust and/or particulate matter resulting from the ERA must not cause an environmental nuisance at any nuisance sensitive or commercial place.

Air 3. Air Monitoring

The release of dust contaminants to the atmosphere shall have management objectives measured at a nuisance sensitive place as set out below:

(a) Dust deposition

60 milligrams per square metre per day above background (i.e. at the most upwind sampling station) expressed as a monthly average.

(b) Particulate matter

A concentration of particulate matter with an aerodynamic diameter of less than 10 micrometre (µm) (PM10) suspended in the atmosphere of 150 micrograms per cubic metre at any time, over a 24 hour averaging period, when monitored in accordance with:

1) Australian Standard AS 3580.9.6 "Ambient air - Particulate matter - Determination of suspended particulate PM10 high-volume sampler with size-selective inlet - Gravimetric method"; or

2) An alternative method of monitoring PM10 may be permitted in writing by the administering authority or by the "Air Quality Sampling Manual" as published from time to time by the administering authority;

Air 4 All reasonable and practicable measures must be undertaken to minimise emissions of dust and particulate matter to the atmosphere. Reasonable and practicable measures may include but not be limited to:

(a) use of water sprays on unsealed trafficable areas;
(b) handling materials in a moist state;
(c) install belt cleaners at transfer points on all new conveyors

(d) design chutes in new transfer towers for minimal dust generation.
(e) Provide water sprays on the new stacker reclaimers

Air 5. The dust monitoring program described in the Abbot Point Bulkcoal Pty Ltd's Integrated Environmental Management System (Feb 2005 or later versions) must be implemented. The dust monitoring and management program must be reviewed on an annual basis.

Agency Interest- **Land**

Land 1. Spillage of all chemicals and fuels must be contained within an on-site containment system and controlled in a manner that prevents environmental harm.

NOTE: All petroleum product storage's must be designed, constructed and maintained in accordance with AS 1940 - Storage and Handling of Flammable and Combustible Liquids.

Land 2. Discharges to land must only be released from discharge locations W3 and W4 if a 1 in 2 year, 24 hour rainfall event is exceeded.

-Discharge W3 - land adjacent to the surge bin sediment sump at Abbot Point as depicted in map 1.
-Discharge W4 - land adjacent to the main sub station sediment sump onto land at Abbot Point as depicted in map 1.

Agency Interest- **Noise**

Noise 1. Noise Nuisance.

Noise from the ERA must not cause an environmental nuisance at any nuisance sensitive place or commercial place

Agency Interest- Social

Soc 1. Complaint Response.

The operator of the ERA must record the following details for all complaints received and provide this information to the administering authority on request:
a) Time, date, name and contact details of the complainant;
b) reasons for the complaint;
c) any investigations undertaken;

d) conclusions formed; and
e) any actions taken.

Agency Interest- **Waste**

Waste 1 The operator of the activity must not:
(a) burn waste on the site
(b) allow waste to be burned on the site; or
(c) remove waste from the site for burning elsewhere.

Waste 2. All waste generated from the activity shall be disposed of to a facility lawfully able to accept such waste.

Agency Interest- **Water**

Water 1. Contaminants other than settled/treated stormwater runoff waters must not be released from the site to surface waters or the bed or bank of surface waters unless otherwise authorised by this approval.

Water 2 A discharge may only occur from discharge location W1 if:
(a) a 1 in 10 year , 24 hour rainfall event is exceeded, or
(b) A controlled release of water after a rainfall event is required to maintain freeboard in the Secondary Settlement pond to handle continuing rainfall events. This controlled release is not to exceed 50% of the capacity of the Secondary Settlement pond on each occasion it is required and is only authorised when it meets the quality criteria in Table 1.

Water 3. A discharge may only occur from discharge location W2 if a 1 in 2 years, 24 hour rainfall event is exceeded.

Water 4. Stormwater from all stockpiles must be directed to stormwater settlement ponds, which must be capable of containing runoff from a one in ten year, 24 hour rainfall event as measured at the nearest official Bureau of Meteorology rainfall station.

Water 5. Stormwater runoff must only be released in compliance with the release limits listed in Table 1. Contaminant release limits to water,
from the following discharge locations:
- Discharge Location W1 - the discharge point adjacent to the secondary settlement pond into the waters known as the Caley Valley Wetland depicted in Map 1.
-Discharge Location W2 - the sample station wash water drain into the ocean at Abbot Point as depicted in Map 1.

Water 6 Monitoring.

Monitoring must be undertaken and records kept of contaminant releases to waters from the discharge location for the quality characteristics and not less frequently than specified in Table 1- Contaminant release limits to water. All determinations of the quality of contaminants released must be:
a) made in accordance with methods prescribed in the latest edition of the Environmental Protection Agency Water Quality Sampling Manual; and
b) carried out on samples that are representative of the discharge.

Water 7. Pond Conditions.

All ponds used for the storage or treatment of contaminants, sewage or wastes at or on the authorised place must be constructed, installed and maintained:
a) so as to minimise the likelihood of any release of contaminants through the bed or banks of the pond to any waters (including ground water),
b) so as to ensure the stability of the ponds' construction, and
c) so as to maintain adequate freeboard in order to minimise uncontrolled releases.

Aspect of Development:

ERA 15 (b) Standard Sewage treatment works- having a peak design capacity to treat sewage of 100 or more equivalent persons but less than 1500 equivalent persons
On Lot 47 on SP117913

Agency Interest- **General**

Gen 1 Prevent and/or minimise likelihood of environmental harm.

In carrying out an ERA to which this approval relates, all reasonable and practicable measures must be taken to prevent and / or to minimise the likelihood of environmental harm being caused.

Gen 2 Site Based Management Plan.

From commencement of an ERA to which this approval relates, a site based management plan (SBMP) must be implemented. The SBMP must identify all sources of environmental harm, including but not limited to the actual and potential release of all contaminants, the potential impact of these sources and what actions will be taken to prevent the likelihood of environmental harm being caused. The SBMP must also provide for the review and 'continual improvement' in the overall environmental performance of all ERAs that are carried out.

The SBMP must address the following matters:
(a) Environmental commitments - a commitment by senior management to achieve specified and relevant environmental goals.
(b) Identification of environmental issues and potential impacts.
(c) Control measures for routine operations to minimise likelihood of environmental harm.
(d) Contingency plans and emergency procedures for non-routine situations.
(e) Organisational structure and responsibility.
(f) Effective communication.
(g) Monitoring of contaminant releases.
(h) Conducting environmental impact assessments.
(i) Staff training.
(j) Record keeping.
(k) Periodic review of environmental performance and continual improvement.

Gen 3 The site based management plan must not be implemented or amended in a way that contravenes any condition of this approval.

Gen 4 Records.

Record, compile and keep all monitoring results required by this approval and present this information to the administering authority when requested.

Gen 5 All records required by this approval must be kept for five years.

Gen 6 Waste Records.

A record of all waste must be kept detailing the following information:

a) date of pickup of waste;
b) description of waste;
c) quantity of waste;
d) origin of the waste; and
e) destination of the waste.

Note: Trackable wastes as listed in Schedule 1 of the *Environmental Protection (Waste Management) Regulation 2000* are not covered by this condition. Trackable wastes have similar recording requirements to this condition in accordance with a waste tracking system established under the above Regulation.

Gen 7 Monitoring.

A competent person(s) must conduct any monitoring required by this approval.

Gen 8 Notification.

Telephone the EPA's Pollution Hotline or local office as soon as practicable after becoming aware of any release of contaminants not in accordance with the conditions of this approval.

Gen 9 Information About Spills.

A written notice detailing the following information must be provided to the EPA within 14 days of any advice provided in accordance with condition Gen 8

a) the name of the operator, including their approval / registration number;
b) the name and telephone number of a designated contact person;
c) quantity and substance released;
d) vehicle and registration details;
e) person/s involved (driver and any others);

f) the location and time of the release;
g) the suspected cause of the release;
h) a description of the effects of the release;
i) the results of any sampling performed in relation to the release,
j) actions taken to mitigate any environmental harm caused by the release; and
k) proposed actions to prevent a recurrence of the release.

Gen 10 Maintenance of Measures, Plant and Equipment.

The operator of an ERA to which this approval relates must:
(a) install all measures, plant and equipment necessary to ensure compliance with the conditions of this approval; and
(b) maintain such measures, plant and equipment in a proper and efficient condition; and
(c) operate such measures, plant and equipment in a proper and efficient manner.

Gen 11 Equipment Calibration.

All instruments, equipment and measuring devices used for measuring or monitoring in accordance with any condition of this approval must be calibrated, and appropriately operated and maintained.

Agency Interest- **Air**

Air 1 Nuisance.

The release of noxious or offensive odours or any other noxious or offensive airborne contaminants resulting from the activity must not cause a nuisance at any nuisance sensitive or commercial place.

Agency Interest- **Land**

Land 1 The daily volume of contaminants released to land must be determined or estimated by an appropriate method, for example a flow meter, and records kept of such determinations and estimates.

Land 2 Spillage of all chemicals and fuels must be contained within an on-site containment system and controlled in a manner that prevents environmental harm.

NOTE: All petroleum product storage's must be designed, constructed and maintained in accordance with AS 1940 - Storage and Handling of Flammable and Combustible Liquids.

Land 3 Waste water must only be released to land in compliance with the release limits listed in Table 2. Contaminant release limits to land, from the following discharge location;
W7- outflow from the final holding tank of the Sewage Treatment Plant.

Land 4 Monitoring.

Monitoring must be undertaken and records kept of contaminant releases to land from the discharge location for the quality characteristics and not less frequently than specified in Table 2 - Contaminant release limits to land.
All determinations of the quality of contaminants released must be:
a) made in accordance with methods prescribed in the latest edition of the Environmental Protection Agency Water Quality Sampling Manual; and
b) carried out on samples that are representative of the discharge.

Land 5 Waste water released from the sewage treatment plant in compliance with the limits set in Table 2- Contaminant Releases to Land, must only be reused for the purpose of dust suppression and soil compaction during construction activities, and dust suppression on coal stockpiles.

Land 6 When the capacity of the Sewage Treatment Plant's holding tank is exceeded, effluent may be discharged to the primary settlement pond.

Land 7 Notices must be prominently displayed at all areas where treated effluent is used for dust suppression and soil compaction to provide warning that treated effluent is being used and not to drink or otherwise use the effluent. These notices must be maintained in a visible and legible condition

Agency Interest- **Noise**

Noise 1 Noise Nuisance.

Noise from the ERA must not cause an environmental nuisance at any nuisance sensitive place or commercial place

Agency Interest- **Social**

Complaint Response.

The operator of the ERA must record the following details for all complaints received and provide this information to the administering authority on request:

a) Time, date, name and contact details of the complainant;
b) reasons for the complaint;
c) any investigations undertaken;
d) conclusions formed; and
e) any actions taken.

Agency Interest- **Waste**

Waste 1 All waste generated from the activity shall be disposed of at a facility lawfully able to accept such waste.

Agency Interest- **Water**

Water 1 Stormwater Management.

There must be no release of stormwater runoff that has been in contact with any contaminants at the site to any waters, roadside gutter or stormwater drain.

Aspect of Development

ERA 28 Motor Vehicle Workshop,-operating a workshop or mobile workshop in the course of which motor vehicle mechanical or panel repairs are carried out in the course of a commercial or municipal enterprise (other than on a farm or under a mining tenement) or on a commercial basis.

On Lot 3 on RP748628

Agency Interest- **General**

Gen 1 Prevent and/or minimise likelihood of environmental harm.

In carrying out an ERA to which this approval relates, all reasonable and practicable measures must be taken to prevent and /or to minimise the likelihood of environmental harm being caused.

Gen 2 Maintenance of measures, plant and equipment.

The operator of an ERA to which this approval relates must;

(a) install all measures, plant and equipment necessary to ensure compliance with the conditions of this approval; and
(b) maintain such measures plant and equipment in a proper and efficient condition and
(c) operate such measures, plant and equipment in a proper and efficient manner.

Gen 3. Site Based Management Plan.

From commencement of an ERA to which this approval relates, a site based management plan (SBMP) must be implemented. The SBMP must identify all sources of environmental harm, including but not limited to the actual and potential release of all contaminants, the potential impact of these sources and what actions will be taken to prevent the likelihood of environmental harm being caused. The SBMP must also provide for the review and 'continual improvement' in the overall environmental performance of all ERAs that are carried out.

The SBMP must address the following matters:

(a) Environmental commitments - a commitment by senior management to achieve specified and relevant environmental goals.
(b) Identification of environmental issues and potential impacts.
(c) Control measures for routine operations to minimise likelihood of environmental harm.
(d) Contingency plans and emergency procedures for non-routine situations.
(e) Organisational structure and responsibility.

(f) Effective communication.
(g) Monitoring of contaminant releases.
(h) Conducting environmental impact assessments.
(i) Staff training.
(j) Record keeping.
(k) Periodic review of environmental performance and continual improvement.

Gen 4 All records required by this approval must be kept for five years.

Gen 5 The site based management plan must not be implemented or amended in a way that contravenes any condition of this approval.

Gen 6 Waste Records.

A record of all waste must be kept detailing the following information:

a) date of pickup of waste;
b) description of waste;
c) quantity of waste;
d) origin of the waste; and
e) destination of the waste.

Note: Trackable wastes as listed in Schedule 1 of the *Environmental Protection (Waste Management) Regulation 2000* are not covered by this condition. Trackable wastes have similar recording requirements to this condition in accordance with a waste tracking system established under the above Regulation

Gen 6 Notification.

Telephone the EPA's Pollution Hotline or local office as soon as practicable after becoming aware of any release of contaminants not in accordance with the conditions of this approval.

Gen 7 Information About Spills.

A written notice detailing the following information must be provided to the EPA within 14 days of any advice provided in accordance with condition Gen 6

a) the name of the operator, including their approval / registration number;
b) the name and telephone number of a designated contact person;
c) quantity and substance released;
d) vehicle and registration details;
e) person/s involved (driver and any others);
f) the location and time of the release;
g) the suspected cause of the release;
h) a description of the effects of the release;

i) the results of any sampling performed in relation to the release;
j) actions taken to mitigate any environmental harm caused by the release; and
k) proposed actions to prevent a recurrence of the release.

Gen 8 Monitoring

A competent person(s) must conduct any monitoring required by this approval.

Gen 9 Equipment Calibration

All instruments, equipment and measuring devices used for measuring or monitoring in accordance with any condition of this approval must be calibrated, and appropriately operated and maintained.

Agency Interest- **Air**

Air 1 Nuisance.

The release of noxious or offensive odours or any other noxious or offensive airborne contaminants resulting from the activity must not cause a nuisance at any nuisance sensitive or commercial place.

Agency Interest- **Land**

Land 1 Discharges to land must only be released in compliance with the release limits listed in Table 2. Contaminant releases limits to land, from the following discharge locations:
Discharge W6- outflow from oil/water separator of the motor vehicle workshop.

Land 2 Monitoring must be undertaken and records kept of contaminant releases to land from the discharge location for the quality characteristics and not less frequently than specified in Table 2- Contaminant release limits to land.

All determinations of the quality of contaminants released must be;

a) made in accordance with methods prescribed in the latest edition of the Environmental Protection Agency Water Quality Sampling Manual; and
b) carried out on samples that are representative of the discharge.

Agency Interest- **Noise**

Noise 1 Noise Nuisance.

Noise from the ERA must not cause an environmental nuisance at any nuisance sensitive place or commercial place

Agency Interest- **Waste**

Waste 1 All waste generated from the activity shall be disposed of at a facility lawfully able to accept such waste.

Agency Interest- **Water**

Water 1 Stormwater Management.

There must be no release of stormwater runoff that has been in contact with any contaminants at the site to any waters, roadside gutter or stormwater drain.

Aspect of Development

ERA 23 (a) Abrasive Blasting- commercially cleaning equipment or structures using a stream of abrasives- if the activity is carried out at a permanent location.

On Lot 3 on RP748628
Lot 47 on SP117913
Lot 49 on HR1647 and
Lot 4 on RP738760
Lot 46 on SP156160

Agency Interest- **General**

Gen 1 Prevent and/or minimise likelihood of environmental harm.

In carrying out an ERA to which this approval relates, all reasonable and practicable measures must be taken to prevent and / or to minimise the likelihood of environmental harm being caused.

Gen 2 Maintenance of measures, plant and equipment.

The operator of an ERA to which this approval relates must;
(a) install all measures, plant and equipment necessary to ensure compliance with the conditions of this approval; and
(b) maintain such measures plant and equipment in a proper and efficient condition and
(c) operate such measures, plant and equipment in a proper and efficient manner.

Gen 3. Site Based Management Plan.

From commencement of an ERA to which this approval relates, a site based management plan (SBMP) must be implemented. The SBMP must identify all sources of environmental harm, including but not limited to the actual and potential release of all contaminants, the potential impact of these sources and what actions will be taken to prevent the likelihood of environmental harm being caused. The SBMP must also provide for the review and 'continual improvement' in the overall environmental performance of all ERAs that are carried out.

The SBMP must address the following matters:
(a) Environmental commitments - a commitment by senior management to achieve specified and relevant environmental goals.
(b) Identification of environmental issues and potential impacts.
(c) Control measures for routine operations to minimise likelihood of environmental harm.
(d) Contingency plans and emergency procedures for non-routine situations.
(e) Organisational structure and responsibility.

(f) Effective communication.
(g) Monitoring of contaminant releases.
(h) Conducting environmental impact assessments.
(i) Staff training.
(j) Record keeping.
(k) Periodic review of environmental performance and continual improvement.

Gen 4 The site based management plan must not be implemented or amended in a way that contravenes any condition of this approval.

Gen 5 All records required by this approval must be kept for 5 years.

Gen 6 Waste Records.

A record of all waste must be kept detailing the following information:

a) date of pickup of waste;
b) description of waste;
c) quantity of waste;
d) origin of the waste; and
e) destination of the waste.

Note: Trackable wastes as listed in Schedule 1 of the *Environmental Protection (Waste Management) Regulation 2000* are not covered by this condition. Trackable wastes have similar recording requirements to this condition in accordance with a waste tracking system established under the above Regulation

Gen 7 Notification.

Telephone the EPA's Pollution Hotline or local office as soon as practicable after becoming aware of any release of contaminants not in accordance with the conditions of this approval.

Gen 8 Information About Spills.

A written notice detailing the following information must be provided to the EPA within 14 days of any advice provided in accordance with condition Gen 7

a) the name of the operator, including their approval / registration number;
b) the name and telephone number of a designated contact person;
c) quantity and substance released;
d) vehicle and registration details;
e) person/s involved (driver and any others);
f) the location and time of the release;
g) the suspected cause of the release;
h) a description of the effects of the release;
i) the results of any sampling performed in relation to the release;
j) actions taken to mitigate any environmental harm caused by the release; and
k) proposed actions to prevent a recurrence of the release.

Gen 9 Spill Kit

An appropriate spill kit, personal protective equipment and relevant operator instructions/emergency procedure guides for the management of wastes and chemicals associated with the ERA must be kept at the site, and in each vehicle used if the activity is a mobile ERA.

Gen 10 Spill Kit Training

Anyone operating under this approval must be trained in the use of the spill kit.

Agency Interest- **Air**

Air 1 Nuisance.

The release of dust and/or particulate matter resulting from the ERA must not cause an environmental nuisance at any nuisance sensitive or commercial place.

Agency Interest- **Land**

Land1 Preventing Contaminant Release to land

Contaminants must not be released to land.

Land2 Spillage of all chemicals and fuels must be contained within an on site containment system and controlled in a manner that prevents environmental harm.

Note: All petroleum product storages must be designed, constructed and maintained in accordance with AS 1940- Storage and Handling of Flammable and Combustible Liquids.

Agency Interest- **Noise**

Noise 1 Noise Nuisance.

Noise from the ERA must not cause an environmental nuisance at any nuisance sensitive place or commercial place

Agency Interest- **Social**

Social 1 Complaint Response.

The operator of the ERA must record the following details for all complaints received and provide this information to the administering authority on request:

a) Time, date, name and contact details of the complainant;
b) reasons for the complaint;
c) any investigations undertaken;
d) conclusions formed; and
e) any actions taken.

Agency Interest- **Waste**

Waste 1 As far as is reasonable and practicable, all waste generated by Abrasive Blasting activities at the dedicated abrasive blasting area must be captured within an onsite containment system and controlled in a manner that prevents environmental harm.

Waste 2 All waste generated from the activity must be disposed of at a facility lawfully able to accept such waste.

Agency Interest- **Water**

Water 1 Stormwater Management.

There must be no release of stormwater runoff that has been in contact with any contaminants at the site to any waters, roadside gutter or stormwater drain.

Aspect of Development

ERA 25 (d) Metal Surface Coating- commercial spray painting (other than spray painting motor vehicles), powder coating, enamelling, electroplating, anodising, or galvanising in works having an annual through put of metal products of 30 000 t or more.

On Lot 3 on RP748628
Lot 46 on SP156160
Lot 47 on SP117913
Lot 49 on HR1647 and
Lot 4 on RP738760

Agency Interest- **General**

Gen 1 Prevent and/or minimise likelihood of environmental harm.

In carrying out an ERA to which this approval relates, all reasonable and practicable measures must be taken to prevent and / or to minimise the likelihood of environmental harm being caused.

Gen 2 Maintenance of measures, plant and equipment.

The operator of an ERA to which this approval relates must;

(a) install all measures, plant and equipment necessary to ensure compliance with the conditions of this approval;
(b) maintain such measures plant and equipment in a proper and efficient condition; and
(c) operate such measures, plant and equipment in a proper and efficient manner.

Gen 3. Site Based Management Plan.

From commencement of an ERA to which this approval relates, a site based management plan (SBMP) must be implemented. The SBMP must identify all sources of environmental harm, including but not limited to the actual and potential release of all contaminants, the potential impact of these sources and what actions will be taken to prevent the likelihood of environmental harm being caused. The SBMP must also provide for the review and 'continual improvement' in the overall environmental performance of all ERAs that are carried out.

The SBMP must address the following matters:

(a) Environmental commitments - a commitment by senior management to achieve specified and relevant environmental goals.
(b) Identification of environmental issues and potential impacts.
(c) Control measures for routine operations to minimise likelihood of environmental harm.

(d) Contingency plans and emergency procedures for non-routine situations.
(e) Organisational structure and responsibility.
(f) Effective communication.
(g) Monitoring of contaminant releases.
(h) Conducting environmental impact assessments.
(i) Staff training.
(j) Record keeping.
(k) Periodic review of environmental performance and continual improvement.

Gen 4 The site based management plan must not be implemented or amended in a way that contravenes any condition of this approval.

Gen 5 All records required by this approval must be kept for 5 years.

Gen 6 Waste Records.

A record of all waste must be kept detailing the following information:

a) date of pickup of waste;
b) description of waste;
c) quantity of waste;
d) origin of the waste; and
e) destination of the waste.

Note: Trackable wastes as listed in Schedule 1 of the *Environmental Protection (Waste Management) Regulation 2000* are not covered by this condition. Trackable wastes have similar recording requirements to this condition in accordance with a waste tracking system established under the above Regulation

Gen 6 Notification.

Telephone the EPA's Pollution Hotline or local office as soon as practicable after becoming aware of any release of contaminants not in accordance with the conditions of this approval.

Gen 7 Information About Spills.

A written notice detailing the following information must be provided to the EPA within 14 days of any advice provided in accordance with condition Gen 6

a) the name of the operator, including their approval / registration number;
b) the name and telephone number of a designated contact person;
c) quantity and substance released;
d) vehicle and registration details;
e) person/s involved (driver and any others);
f) the location and time of the release;
g) the suspected cause of the release;
h) a description of the effects of the release;
i) the results of any sampling performed in relation to the release,

j) actions taken to mitigate any environmental harm caused by the release; and
k) proposed actions to prevent a recurrence of the release.

Gen 8 Spill Kit

An appropriate spill kit, personal protective equipment and relevant operator instructions/emergency procedure guides for the management of wastes and chemicals associated with the ERA must be kept at the site, and in each vehicle used if the activity is a mobile ERA.

Gen 9 Spill Kit Training

Anyone operating under this approval must be trained in the use of the spill kit.

Agency Interest- **Air**

Air 1 Nuisance.

The release of noxious or offensive odours or any other noxious or offensive airborne contaminants resulting from the activity must not cause a nuisance at any nuisance sensitive or commercial place.

Agency Interest- **Land**

Land 1 Preventing Contaminant Release to land

Contaminants must not be released to land.

Land 2 Spillage of all chemicals and fuels must be contained within an on site containment system and controlled in a manner that prevents environmental harm.

Note: All petroleum product storages must be designed, constructed and maintained in accordance with AS 1940- Storage and Handling of Flammable and Combustible Liquids.

Agency Interest- **Noise**

Noise 1 Noise Nuisance.

Noise from the ERA must not cause an environmental nuisance at any nuisance sensitive place or commercial place

Agency Interest- **Social**

Social 1 Complaint Response.

The operator of the ERA must record the following details for all complaints received and provide this information to the administering authority on request:

a) Time, date, name and contact details of the complainant;
b) reasons for the complaint;
c) any investigations undertaken;
d) conclusions formed; and
e) any actions taken.

Agency Interest- **Waste**

Waste 1: all waste generated from the activity shall be disposed of at a facility lawfully able to accept such waste.

Agency Interest- **Water**

Water 1 Stormwater Management.

There must be no release of stormwater runoff that has been in contact with any contaminants at the site to any waters, roadside gutter or stormwater drain.

Attachment - Tables

Table 1 Contaminant release limits to water

Monitoring point	Discharge location	Quality characteristics	Release limit				Monitoring frequency
			Minimum	50th Percentile	80th Percentile	Maximum	
W1	Discharge point from the secondary settlement pond	pH	6			8	Each time a release occurs
		Suspended solids				30mg per litre	
W2	Sample station wash water drain	pH	6			8	Each time a release occurs
		Suspended solids				30mg/l	

Table 2 - Contaminant release limits to land

Monitoring point	Discharge location	Quality characteristics	Release limit				Monitoring frequency
			Minimum	50th Percentile	80th Percentile	Maximum	
W3	Land adjacent to the surge bin sediment sump	pH	6			8	Each time a release occurs
		Suspended solids				30mg/l	
W4	Land adjacent to the main substation sudiment sump	pH	6			8	Each time a release occurs
		Suspended solids				30mg/l	
W6	Outflow from the oil/water separator from the motor vehicle workshop	Grease/oil				20 mg/l	When a release occurs
W7	Outflowfrom the final holding tank of the sewage treatment plant	Faecal coliforms				10cfu per 100ml	Monthly
		pH	6			8	Daily
		Suspended solids				30mg/l	Monthly
		BOD				20 mg/l	Monthly
		Dissolved oxygen	2 mg/l				Daily

		Residual chlorine following a min contact time of 30 min	1 mg/l				Daily

Attachment – Definitions

Words and phrases used throughout this permit[1] are defined below. Where a definition for a term used in this approval is sought and the term is not defined within this approval the definitions provided in the relevant legislation shall be used.

"administering authority" means the Environmental Protection Agency or its successor.

"annual return" means the return required by the annual notice (under section 316 of the *Environment Protection Act 1994*) for the section 73F registration certificate that applies to the development approval.

"approval" means 'notice of development application decision' or 'notice of concurrence agency response' under the *Integrated Planning Act 1997*.

"authorised place" means the place authorised under this development approval for the carrying out of the specified environmentally relevant activities.

"commercial place" means a place used as an office or for business or commercial purposes.

"dwelling" means any of the following structures or vehicles that is principally used as a residence –

- a house, unit, motel, nursing home or other building or part of a building;
- a caravan, mobile home or other vehicle or structure on land;
- a water craft in a marina.

"ignitable, corrosive, reactive or toxic materials" are materials as defined in the Queensland Government Environmental Protection Agency 'Technical guideline on landfill siting, design, operation and rehabilitation', 2003.

"intrusive noise" means noise that, because of its frequency, duration, level, tonal characteristics, impulsiveness or vibration –

- is clearly audible to, or can be felt by, an individual; and
- annoys the individual.
- In determining whether a noise annoys an individual and is unreasonably intrusive, regard must be given to Australian Standard 1055.2 – 1997 Acoustics – Description and Measurement of Environmental Noise Part 2 – Application to Specific Situations.

"land" in the "land schedule" of this document means land excluding waters and the atmosphere.

"mg/L" means milligrams per litre.

"noxious" means harmful or injurious to health or physical well being.

"nuisance sensitive place" includes –

- a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises; or
- a motel, hotel or hostel; or
- a kindergarten, school, university or other educational institution; or
- a medical centre or hospital; or
- a protected area under the *Nature Conservation Act 1992*, the *Marine Parks Act 1992* or a World Heritage Area; or
- a public thoroughfare, park or gardens; or

and includes a place within the curtilage of such a place reasonably used by persons at that place.

"offensive" means causing offence or displeasure; is disagreeable to the sense; disgusting, nauseous or repulsive.

"protected area" means –

- a protected area under the *Nature Conservation Act 1992*; or
- a marine park under the *Marine Parks Act 1992*; or
- a World Heritage Area.

"regulated waste" means non-domestic waste mentioned in Schedule 7 of the *Environmental Protection Regulation 1998* (whether or not it has been treated or immobilised), and includes -

- for an element - any chemical compound containing the element; and
- anything that has contained the waste.

"statistically significant" means when the difference between groups of data is sufficient for a statistical test to reject the *null hypothesis.* For example, a requirement for a statistical test is that you have a minimum of two hypotheses, the null hypothesis and one or more alternative hypotheses. If you have data from two groups of bores (say A = background values and B = values at locations hydraulically down gradient of the landfill unit), and you wish to test whether A is different from B, the *null hypothesis* would be that A and B are from the same population (no significant difference). After performing the statistical test, you will either accept or reject the null hypothesis.

"site" means the place to which this development approval relates or the premises to which this development approval relates.

"waters" includes river, stream, lake, lagoon, pond, swamp, wetland, unconfined surface water, unconfined water natural or artificial watercourse, bed and bank of any waters, dams, non-tidal or tidal waters (including the sea), stormwater channel, stormwater drain, roadside gutter, stormwater run-off, and groundwater and any part-thereof.

"50th percentile" means not more than three (3) of the measured values of the quality characteristic are to exceed the stated release limit for any six (6) consecutive samples for a release/monitoring point at any time during the environmental activity(ies) works.

"80th percentile" means not more than one (1) of the measured values of the quality characteristic is to exceed the stated release limit for any five (5) consecutive samples for a sampling point at any time during the environmental activity(ies) works


Site Drainage & Monitoring Locations
Abbot Point Bulkcoal
LEGEND
Sediment Sump
Coal Fines Collection System
Rising Stage Sampler
Dust Gauge
Beach Monitoring Location
Stormwater Discharge Point (eg. W1)
Pipeline
Drain
Secondary Settlement Pond
Primary Settlement Pond
W2
Stage 1in
Old Pier
W3
W4
Settlement Ponds
Primary Settlement Pond
Secondary Settlement Pond
W1
Skimming Weir
Coal Fines Collection System
Cross Drain
Cross Drain
Rail Loop

MAP 1

Provisions specified by the EPA as a concurrence agency that are recommended to the Assessment Manager for a preliminary approval pursuant to the *Integrated Planning Act 1997.*

Aspect of Development:

ERA 15 (a) Standard Sewage treatment works- having a peak design capacity to treat sewage of 21 or more equivalent persons but less than 100 equivalent persons

Lot 3 RP 748628

Nil conditions

END OF CONDITIONS PART A

Part B - Recommendations provided by the EPA as advice for conditions related to the construction phase.

The conditions contained in Part B establish the additional environmental requirements that apply only to the construction phase of the project. These conditions apply to the development sites.

Nuisance

(B1) Notwithstanding any other condition of this Approval, this Development Approval does not authorise any release of contaminants which causes or is likely to cause an environmental nuisance beyond the boundaries of the place to which this Approval relates.

Erosion and sediment control

(B2) An Erosion and Sediment Control Plan is to be developed and implemented prior to the commencement of construction activities. As a minimum requirement, it will include the features detailed in the Environmental Management Plan contained in Abbot Point Coal Terminal EIS (March 2006) and the Supplementary Report (Dec 2006).

(B3) Erosion protection measures and sediment control measures must be implemented and maintained to minimise erosion and the release of sediment. The size of any sedimentation dam must be sufficient to contain the run-off expected from a 24 hour storm with an average recurrence interval of 1 in 5 years.

Complaint Recording

(B4) All complaints received relating to releases of contaminants from construction and commissioning must be recorded and kept with the following details:

(a) time, date and nature of complaint;
(b) type of communication (telephone, letter, personal etc.);
(c) name, contact address and contact telephone number of complainant (Note: if the complaint does not wish to be identified the "Not identified" is to be recorded);
(d) response and investigation undertaken as a result of the complaint;
(e) name of person responsible for investigating complaint; and
(f) action taken as a result of the complaint investigation and signature of responsible person.

Acid Sulfate Soils

(B5) Works must comply with Instructions For the Treatment and Management of Acid Sulfate Soils, 2001 Queensland Government Environmental Protection Agency,

or any updates as they become available.

(B6) Acid sulphate soils must be managed such that contaminants are not directly or indirectly released from the works to any waters unless otherwise authorised under a condition of approval.

Waste management

(B7) A Waste Management Plan incorporating waste avoidance, minimisation, reuse, and recycling strategies must be prepared and implemented. As a minimum requirement, it will include the features detailed in the Environmental Management Plan contained in the Abbot Point coal terminal EIS (March 2006) and the Supplementary Report (Dec 2006). The plan will be finalised by with regard to the comments provided by the Environmental Protection Agency.

Rehabilitation

(B8) Sites disturbed during construction not otherwise required for ongoing operations should be rehabilitated (including all disturbed areas such as slopes, borrow pits, stormwater or waste water collection pits, stockpile and screening areas) in a manner such that:

- If practical, suitable native species of vegetation are planted and established
- Potential for erosion of the site is minimised
- The quality of stormwater, water and seepage released from the site is such that releases of contaminants are not likely to cause environmental harm
- Environmental nuisance caused by release of dust is avoided

END OF CONDITIONS PART B

Part C Recommendation to the Assessment Manager

The proponent has requested that additional conditions be provided to define at what point the relevant conditions within this Appendix should take effect beyond existing operations. It is requested that the Assessment Manager (of the required *Integrated Planning Act 1997* approvals) provide the necessary condition/s on any decision notice issue to provide clarity in this regard.

END OF RECOMMENDATION PART C

END OF APPENDIX 2

APPENDIX 3

Difficulties Observed in the Application of the Vegetation Clearing Exemption Under the *Vegetation Management Act (VMA)* for the Abbot Point Coal Terminal Stage 3 Expansion Project

There are several categories of exemption from a Vegetation Management clearing permit recognised under Schedule 8 of the *Integrated Planning Act*. These include:

1. where the clearing is necessary for Routine Management (for establishing necessary infrastructure) if the total clearing area is less than 2 hectares, and where the infrastructure is also less than 2 hectares; [Table 4 Item 1A clause (h)]
2. land for Urban purposes in an Urban area; [Table 4 Item 1A clause (g)]
3. for a Specified Activity, including: [Table 4 Item 1A clause (j)]
    a. Mining or petroleum activity
    b. Activity under certain sections of the *Electricity Act*
    c. State-controlled roads
    d. Rail corridors

Taking these in turn, the first exemption sets a reasonable threshold (of two hectares) below which the legislation contemplates that the clearance permit process is not justified. However the infrastructure clearing for this Project is greater than 2 hectares in total. As the clearing for infrastructure on adjacent land is either exempt from requiring a clearing permit under VMA, or does not involve clearing, the actual area of the infrastructure as a whole might be considered immaterial. It seems to be an unnecessary outcome to treat this trivial (one hectare) area in the same way as broadscale clearing is intended to be treated by the VMA.

Exemption 2 applies for urban areas only and does not extend to Strategic Port Land (which is outside the local authority planning scheme). In this case, it might be claimed that Strategic Port Land with an industrial use category on an approved Land Use Plan has the same character as an industrial land use in a local authority planning scheme, which is categorised as an Urban purpose in an Urban area. Consequently there are fundamental discrepancies between the exemption treatment of adjacent lands serving the same purpose – port infrastructure - in the one case under the control of a local authority planning scheme, and in the other case under a corresponding land use plan for Strategic Port Land.

The project spans Strategic Port Land and non-strategic port land. These primary designations follow land parcel boundaries. Figure 4 shows the proposed clearing area (green), which spans non-strategic port land (yellow) and Strategic Port Land (pink).

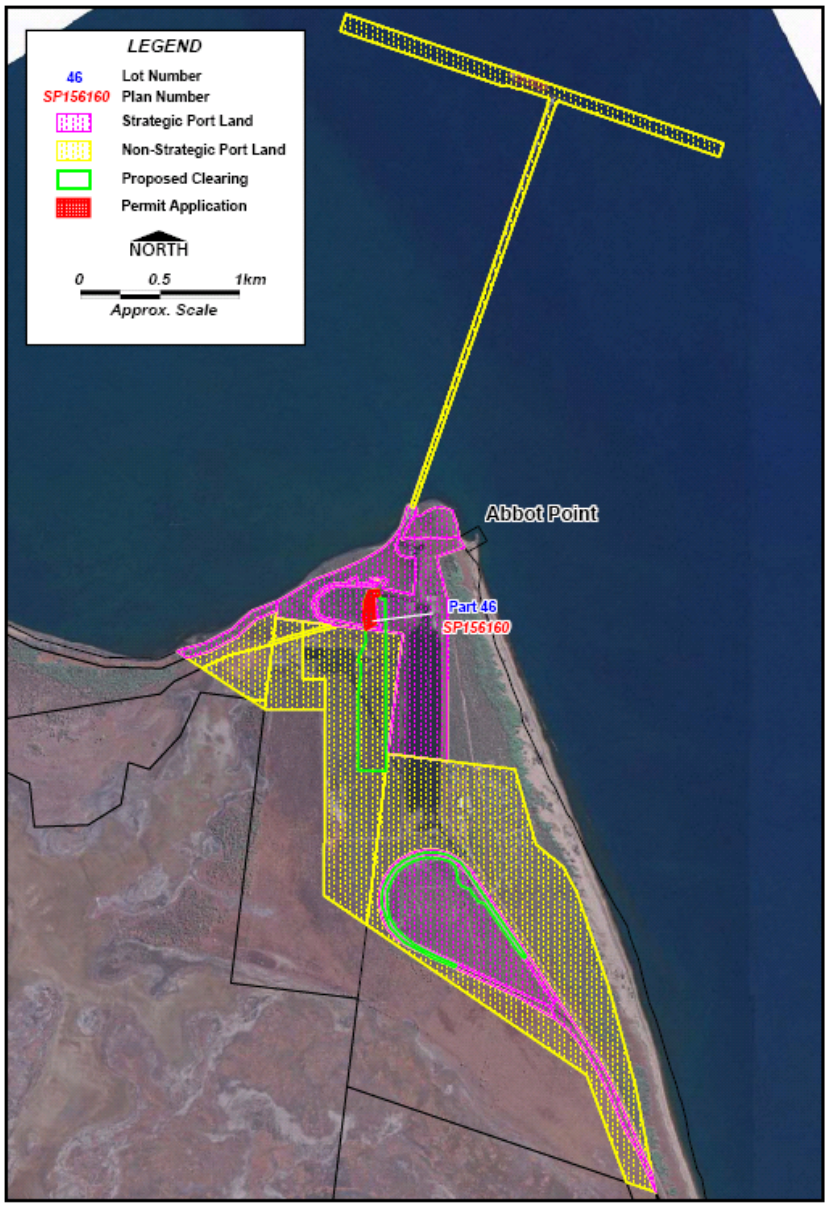

Figure 4: Strategic and non-strategic port land areas.

The exemption 3 list appears incomplete without Strategic Port Land, being an item of infrastructure publicly designated for transport purposes. Exemptions for land uses for other transport infrastructure are treated one way, and port infrastructure another.

In order to deal with the potential for improvements to vegetation management administration that have been highlighted by this case, I make the following recommendations to NRW:

1. The vegetation management assessment process followed by NRW for significant projects declared under the SDPWO Act should be reviewed to ensure that the Coordinator-General receives early advice on the potential for

vegetation management outcomes to be provided during the EIS process;

2. The IPA Schedule 8 Table 4 exemptions from vegetation clearing permits should be reviewed to consider the development of Strategic Port Land to be treated identically to urban use under local government planning schemes.

END OF APPENDIX 3