

Assessment Report under the
Environmental Protection Act 1994

about the

Environmental Impact Statement

for the

**New Acland Coal Mine Stage 2
Expansion Project**

proposed by

New Acland Coal Pty Ltd

August 2006

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(i) Glossary, Abbreviations and Units

Term	Definition
Administering Authority	For the purposes of the EIS Process under Chapter 3 of the <i>Environmental Protection Act 1994</i> the Administering Authority is the Chief Executive of the Environmental Protection Agency
ARI	Average Recurrence Interval—a statistical estimate of the average period in years between the occurrence of a flood of a given size or larger
CHMP	Cultural Heritage Management Plan
CHPP	Coal handling and processing plant—a facility where coal is crushed, washed and sized in preparation for export
DEH	Commonwealth Department of Environment and Heritage
DNRM&W	Department of Natural Resources, Mines and Water
EA	Environmental authority (mining lease)
EC	Electrical conductivity—a measure of the total concentration of ionic salts in water
EIS	Environmental Impact Statement prepared under Chapter 3 of the <i>Environmental Protection Act 1994</i> and submitted to the EPA on 15 November 2005
EM plan	Environmental management plan—the purpose of which is to propose environmental protection commitments to help the administering authority prepare the draft environmental authority for the application (Refer to section 203 of the EP Act for content requirements)
EP Act	<i>Environmental Protection Act 1994</i>
EP Reg	<i>Environmental Protection Regulation 1998</i>
EPA	Queensland Environmental Protection Agency
EPBC Act	Commonwealth <i>Environment Protection and Biodiversity Conservation Act 1999</i>
Good quality agricultural land	In Rosalie Shire: Land defined as crop land (Class A), marginal crop land (Class B) and land suitable for improved pastures
ha	hectare (1ha equals 10,000 square metres)
km	kilometre (1km equals 1000 metres)
m	metre (1 metre equals 100 centimetres)
MDL	Mineral Development Licence
ML	Mining Lease
ML/a	Million litres per annum
MLA	Mining Lease Application
Mtpa	Million tonnes per annum
NAC	New Acland Coal Pty Ltd
NCA	<i>Nature Conservation Act 1994</i>
NES	National Environmental Significance

PM ₁₀	Airborne mass for particles with aerodynamic diameter less than 10µm
QR	Queensland Rail
Response to Submissions Report	The proponent's response to all properly made submissions on the EIS (including a summary of the submissions, a statement of the proponent's response to the submissions and any amendments of the submitted EIS because of the submissions)
ROM	Run-of-mine
Streamlined Level 1 Conditions	Standard set of conditions for an environmental authority (mining lease) used by the EPA to licence activities proposed as part of a mining project
Submitted EIS	The submitted EIS includes: <ul style="list-style-type: none"> (i) The EIS that was released for public comment on 30 January 2006 (until 10 March 2006). (ii) The Response to Submissions Report received by the EPA on 28 April 2006 and provided to advisory body members that commented on the EIS. (iii) Additional information about the status of the bluegrass community provided to DEH and forwarded to the EPA by DEH on 26 May 2006. (iv) Additional information about road and rail impacts received by the EPA on 22 June 2006. (v) The response to the EPA's request for additional information received by the EPA on 28 June 2006.
TOR	Final Terms of Reference issued to the proponent on 8 July 2005. The final TOR is a document outlining the information requirements for preparing the EIS for the project
TSF	Tailings storage facility
TSP	Total suspended particulates—tiny airborne particles or aerosols that are less than 100 micrometres in diameter
µS/cm	microSiemens per centimetre—a unit used to measure electrical conductance of ionic salts in water
VMA	<i>Vegetation Management Act 1999</i>

1. Introduction

This report provides an evaluation of the Environmental Impact Statement (EIS) process pursuant to Chapter 3 of the *Environmental Protection Act 1994* (EP Act) for the New Acland Coal Mine Stage 2 Expansion Project proposed by New Acland Coal Pty Ltd, a fully owned subsidiary of New Hope Corporation Ltd. The EIS process was coordinated by the Environmental Protection Agency (EPA) as the administering authority of the EP Act. The EIS assessed in this report was required to progress an application for an environmental authority (mining lease) (EA) for the new Mining Lease Application (MLA) 50216 on which the proposed mine expansion activities will take place. If granted, the new EA will contain conditions to manage all aspects of both the current and proposed operations and will ultimately replace the existing EA for the Stage 1 operation.

This assessment report has been prepared pursuant to Sections 58 and 59 of the EP Act.

The objective of this assessment report is to:

- (a) summarise key issues associated with the potential adverse and beneficial environmental, economic and social impacts of the New Acland Coal Mine Stage 2 Expansion Project and the management, monitoring, planning and other measures proposed to minimise any adverse environmental impacts of the project; and
- (b) make recommendations on the suitability of the New Acland Coal Mine Stage 2 Expansion Project to proceed and where so, to make recommendations on necessary conditions for any approval required for the project.

Section 58 of the EP Act lists the criteria that the EPA must consider when preparing an EIS assessment report, while section 59 of the EP Act states what the content must be. In summary, this assessment report addresses the adequacy of the EIS in addressing the final terms of reference (TOR), the suitability of the draft environmental management plan (EM plan) and other prescribed matters.

This report provides a summary and assessment of the key issues identified through the EIS process, and discusses in greater detail those issues of particular concern that were either not resolved or required specific conditions for the project to proceed. With regard to conditions, the EPA has developed a basic set that would typically apply to a level 1, non-code compliant mining lease. Those are referred to in this report as the streamlined level 1 conditions. Those conditions will be applied to the EA for the New Acland Coal Mine Stage 2 Expansion Project, except where this report recommends modification of a condition in the streamlined set, or additional conditions.

Delivery of this EIS assessment report to the proponent completes the EIS process under the EP Act.

1.1 Project details

New Acland Coal Pty Ltd (NAC) is the proponent for a coal mine expansion project known as the New Acland Coal Mine Stage 2 Expansion Project (NAC Stage 2 Project).

The proposed NAC Stage 2 Project would be located 35km north-west of Toowoomba City, 14km north of Oakey and 1.5km north of the township of Acland, within Rosalie Shire, in south-western Queensland. Toowoomba City is part of the Darling Downs region with a 2001 population of 203,297. Oakey township is part of the Jondaryan local government area with a 2001 population of 12,323. Prior to this EIS process Acland township had a population of around 80 people. However, during the EIS process the majority of Acland residents sold their properties to NAC and moved elsewhere.

The NAC Stage 2 Project deposit consists of a 64 million tonne (Mt) product coal resource within the Acland-Sabine, Waipanna and Balgowan sequences of the Walloon coal measures. The proposed project layout is shown in the EIS (Figure 2-1). The NAC Stage 2 Project will be located on the granted mining lease ML50170 and the mining lease application (MLA) 50216. Existing facilities, including the administration buildings, heavy vehicle workshop, tailings storage facility (TSF) and coal handling and processing plant (CHPP) on ML50170 will be upgraded and/or extended to cater for Stage 2 operations.

The expanded operation will produce up to 7.4 million tonnes per annum (Mtpa) of thermal ROM coal, to be processed by an additional module at the CHPP to provide up to 4Mtpa of saleable product coal for domestic and export markets for at least 15 years.

NAC proposes to manage the NAC Stage 2 Project as a conventional open-cut truck and shovel strip mining operation. Mine pit overburden will be drilled and blasted and removed by an excavator and truck fleet. Current operations producing 4.6Mtpa of run-of-mine (ROM) coal will continue in the north pit until all reserves have been mined out by around the year 2015. Mining operations producing 2.8Mtpa of ROM coal are proposed to commence in the south pit during early 2007. Mining operations producing 4.6Mtpa of ROM coal will begin in the centre pit in 2015 to replace the north pit operation. Mining will progress in the centre and south pits until the end-of-mine life scheduled for the year 2021. These two pits will eventually join together at the end-of-mine life leaving a final void of about 50ha and between 40-60m deep where the two pits meet. The initial box-cut spoil from the centre pit will be used to backfill the north pit void.

Approximately 2.95Mtpa of product coal will be transported about 16km via truck along the Jondaryan-Muldu Road to the existing rail siding and coal loading facility adjacent to the Warrego Highway. The coal will be loaded onto trains and transported via rail to the Port of Brisbane for export. The remaining 1.05Mtpa of product coal will be transported via truck and rail to Swanbank and Tarong power stations under existing contractual agreements.

The existing TSF will be modified to implement a super cell storage arrangement within the TSF depositional area to increase the storage life of the existing structure. The super cell storage arrangement will allow NAC time to prepare for in-pit disposal of tailings during later stages of the operation. In the interim, supernatant wastewater from the TSF will be recycled for dust suppression or reused in the CHPP. Course reject material will continue to be buried during the progressive backfilling of mined out pits.

A 3km long levee bank is also proposed along the south-eastern boundary of the project area parallel to Lagoon Creek to protect mining operations from flooding up to the 1-in-100-year Average Recurrence Interval (ARI) flood event. No creek diversions are proposed for the NAC Stage 2 Project.

The initial workforce during project commissioning will consist of approximately 180 staff including contractors and NAC staff. The operation workforce (including production and maintenance staff) will consist of approximately 180 full-time permanent staff.

The water balance model for the project indicates that approximately 1,700 megalitres per annum (ML/a) of non-potable water will be required for project operations. This will consist of 1,200ML/a for washing coal in the CHPP and 500ML/a of water for dust suppression. The water will be obtained from existing entitlements in the Helidon and Hutton Sandstone aquifers for the first four years of operations. An additional allocation of 290ML will be required from the Helidon Sandstone aquifer to meet these demands. Subsequent non-potable water supply will be sourced as recycled water from the Toowoomba City Council's Wetalla Wastewater Treatment Plant. A total of 160ML/a of potable water will be sourced from an existing Basalt aquifer allocation.

1.2 Approvals

The following approvals are required for the NAC Stage 2 Project:

Approval	Legislation (Administering Authority)
Environmental authority (mining lease)	<i>Environmental Protection Act 1994</i> (Environmental Protection Agency)
Water Licences (Taking water from an aquifer and using the water for coal processing and dust suppression. Pit dewatering which interferes with the flow of water in an aquifer)	<i>Water Act 2000</i> (Department of Natural Resources, Mines and Water)
Approval to undertake action that may impact on a matter of national environmental significance (Nationally listed threatened species and ecological communities)	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Commonwealth Department of Environment and Heritage)

1.3 Impact assessment process

1.3.1 The EIS process

The environmental impact statement (EIS) for the NAC Stage 2 Project was conducted under Chapter 3 of the EP Act. This process is described in the EPA's guideline "*The EIS process for non-standard mining projects*" [NB: non-standard mining projects are now known as level 1 mining projects].

The assessment process was initiated by NAC on 1 February 2005 by lodgement to the EPA of an EA application for MLA50216, including an Initial Advice Statement describing the project. The EPA gave notice to NAC on 14 February 2005 that the EA application was a non-standard application requiring an EIS under Chapter 3 of the EP Act. The draft Terms of Reference (TOR) for the NAC Stage 2 Project was received by the EPA on 21 February 2006. The EPA requested amendments be made to the draft TOR and a revised draft TOR was received by the EPA on 1 March 2006. The EPA approved the revised draft TOR and issued a notice of publication of draft TOR to NAC on 18 March 2005.

The draft TOR were available for public comment from 21 March until 5 May 2005 with the EPA placing a public notice on the EPA's website on 19 March 2005 and in *The Courier-Mail* and *Toowoomba Chronicle* on 19 March 2005. NAC issued copies of the public notice to affected and interested persons.

Fifteen submissions were received by the EPA on the draft TOR within the public notification period. Submissions were received from eight State government departments and agencies, two local government authorities, one non-government organisation and four local landholders. These submissions, together with one from the EPA, were forwarded to NAC on 18 May 2005. The EPA received a response to submissions on 16 June 2005. The EPA considered all submissions received on the draft TOR and NAC's responses prior to issuing the final TOR to NAC on 8 July 2005.

NAC submitted the EIS on 15 November 2005 to the EPA for review prior to public notification. The EPA compared the EIS to the final TOR and advised NAC on 13 January 2006 that the EIS sufficiently addressed the TOR and was suitable to proceed to public notification. The public notification and submission period was set at 30 business days.

The EIS was available for public comment from 30 January to 10 March 2006. The EPA placed a public notice on the EPA's website on 30 January 2006 and NAC placed a public notice in *The Courier-Mail* and *Toowoomba Chronicle* on 28 January 2006. NAC also issued copies of the public notice to affected and interested persons.

Twenty-three submissions were received by the EPA on the EIS within the submission period. Submissions were received from one Commonwealth department, nine State government departments and agencies, three local government authorities, three non-government organisations and eight local and regional landholders. These submissions, together with one from the EPA, were forwarded to NAC for consideration on 24 March 2006. NAC submitted a Response to Submissions Report (including a summary of submissions, a response to submissions and amendments to the submitted EIS) to the EPA on 28 April 2006.

On 2 May 2006, copies of the Response to Submissions Report were issued to members of the advisory body who had requested additional information. These advisory body members were requested to consider the response to submissions and provide comments by 19 May 2006.

Eight submissions were received on the Supplementary EIS. Six submissions were received from State Government and two from non-government organisations.

Comments from the advisory body and other interested parties were considered by the EPA in the preparation of this EIS assessment report. Copies of this EIS assessment report are to be forwarded to all members of the advisory body, interested and affected persons and is to be available on the EPA's website (www.epa.qld.gov.au).

1.3.2 Consultation program

Public consultation

In addition to the statutory requirements for public notification of the draft TOR and EIS, NAC included a community consultation program during the development of the draft TOR and EIS. This program

included community meetings, group presentations, individual discussions and community notice board information. There were also face-to-face discussions and public information sessions with the following groups:

- local landholders on, adjacent to and neighbouring the project area; and
- representatives of Jondaryan and Rosalie Shire Councils and Toowoomba City Council.

Advisory Body

The EPA invited the following organisations to assist in the assessment of the TOR and EIS by participating as members of the advisory body for the NAC Stage 2 Project:

- Condamine Alliance;
- Department of Environment and Heritage (Commonwealth);
- Department of Natural Resources, Mines and Water;
- Department of Local Government, Planning, Sport and Recreation;
- Department of Communities;
- Department of Housing;
- Department of Emergency Services;
- Department of Primary Industries and Fisheries;
- Department of Main Roads;
- Education Queensland;
- Jondaryan Shire Council;
- Lagoon Creek Landcare Group;
- North East Downs Landcare Group;
- Office of the Coordinator-General;
- Queensland Health;
- Queensland Rail;
- Queensland Transport; and
- Rosalie Shire Council;

Advisory body briefings were held in Brisbane and at the project site during the draft TOR and draft EIS stages of the EIS process.

Public notification

In accordance with the statutory requirements, advertisements were placed in The Courier-Mail and the Toowoomba Chronicle to notify the availability of the draft TOR and draft EIS for review and public comment as stated in Section 1.3.1 above. In addition, notices advising the availability of the draft TOR and the draft EIS for public comment were displayed on the EPA website.

The draft TOR and draft EIS were placed on public display at the following locations during their respective public notification/submission periods:

- EPA Website (draft TOR and IAS only);
- Naturally Queensland Information Centre, EPA Central Office, Brisbane;
- EPA District Office, Toowoomba;
- Rosalie Shire Council;
- New Hope Coal Australia Website (EIS only); and
- copies of the EIS could also be purchased from NAC.

Site visit

A site visit was organised for the advisory body on 23 February 2006 during the public notification period for the EIS. The purpose of the site visit was for NAC to show members of the advisory body key features of the project area including Acland township, Lagoon Creek, the proposed flood protection levee bank location and the proposed mining areas. NAC also showed members of the advisory body the current

New Acland coal mining operations, including existing operating pits, the existing CHPP and re-profiled waste rock dumps undergoing rehabilitation. The advisory body members asked questions about the project to clarify issues of interest or concern. The site visit was attended by a number of advisory body members, including representatives from Condamine Alliance, Department of Communities, Department of Main Roads, Department of Natural Resources, Mines and Water, Department of Primary Industries and Fisheries, Lagoon Creek Landcare, North East Downs Landcare, Office of the Coordinator-General, Queensland Transport, and the Environmental Protection Agency.

1.3.3 Environment Protection and Biodiversity Conservation Act 1999

The NAC Stage 2 Project was referred (EPBC 2004/1885) under section 68 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) to the Commonwealth Department of Environment and Heritage (DEH) on 24 November 2004. DEH declared the NAC Stage 2 Project a controlled action under section 75 of the EPBC Act on 21 December 2004. The controlling provisions for the action are sections 18 and 18A (Listed threatened species and ecological communities) of the EPBC Act. The listed ecological communities of conservation significance likely to occur on-site included *Dichanthium sericeum* (bluegrass) and *Acacia harpophylla* dominant and co-dominant (brigalow), which are both listed as endangered under the EPBC Act. The listed flora species of conservation significance likely to occur on-site consisted of three grass species including *Homopholis belsonii* and *Bothriochloa biloba* (lobed blue grass), which are both listed as vulnerable under the EPBC Act; and *Digitaria porrecta* (finger panic grass), which is listed as endangered under the EPBC Act. DEH determined on 14 March 2005 that assessment would be by accreditation of the State EIS process under the Bilateral Agreement between the Queensland and Australian governments on the basis that there may be significant impact on threatened species and communities. DEH was included by the EPA as an advisory body for the NAC Stage 2 Project and commented on the draft TOR and EIS.

Field flora surveys were undertaken for the project area in 1998 and 1999. During the preparation of the EIS, NAC conducted additional field surveys of the vegetation communities on-site. The surveys confirmed that bluegrass and brigalow regional ecosystems were inaccurately mapped. Consequently, the Queensland Herbarium was requested to prepare a map amendment of the project area, to accurately map the ecosystems. In August 2005, the field survey for the map amendment was undertaken which found no brigalow on the site. The only ecological community found on-site during the field survey was a 2.5ha area of bluegrass located within the ML area, but outside of the mining footprint on the western side of Acland-Muldu Road. Version 4 of the regional ecosystem mapping has been updated to identify the extent of this community.

***Dichanthium sericeum* (bluegrass)**

The distribution and significance of the ecological community bluegrass on the project site was not well documented in the draft EIS. Therefore, an additional field survey was undertaken on 17 and 18 May 2006. A summary of the field survey findings follow:

- Bluegrass was identified within ML50216 but the nature and extent of the ecological community was unable to be determined within the NAC Stage 2 Project site.
- The ground layer is in poor condition due to lower than average rainfall over the summer months.
- The area is infested with a range of weeds including *Lycium ferrocissimum* (African boxthorn) and Mexican poppy that form a continuous cover over much of the area, providing little opportunity for other species colonisation.
- In areas of less dense weed infestation grasses, forbes and herbs are present. However, as a result of the recent presence of stock the ground layer is down-trodden and heavily disturbed. Consequently, it was not possible to identify the species that comprise the ground layer.
- Although the nature and extent of the bluegrass community could not be determined from the recent survey, it may be more clearly identifiable during more favourable conditions.
- NAC proposes to conduct additional surveys of the area where the bluegrass community has been mapped in an effort to determine the nature and extent of the community. Survey information will be forwarded to DEH. NAC proposes to meet with DEH to review the survey result to determine whether the nature and extent of the community is significant.

Based on the above information it is evident that while the extent of the bluegrass community has not been identified during recent surveys, it may be more clearly identifiable under more favourable conditions. Therefore, any approval granted under the EPBC Act should consider the inclusion of conditions requiring further surveys of the area to be undertaken and for the results to be forwarded to DEH in a report. Furthermore, if the affected area is currently being grazed the conditions should require cattle to be removed and appropriate fencing and signage to be erected to protect the area from any further direct disturbance. It would be reasonable to establish a fencing perimeter with a 50m buffer around the area mapped as bluegrass to ensure that the regeneration of the bluegrass community is maximised. While no active revegetation of this area is proposed, NAC has committed to developing a weed management plan for the project site, including active weed removal. Conditions of approval should require active weed removal in the affected area to promote maximum regeneration of the bluegrass community.

Homopholis belsonii

Field surveys undertaken in 1998/99 found that *Homopholis belsonii* listed as vulnerable under the EPBC Act was the only one of the three likely grass species listed under the EPBC Act to be identified on-site, and was located adjacent to the southern ML boundary. This species is sparsely distributed on the project site and not significant as defined under the EPBC Act. Therefore, the project is unlikely to have a significant impact on this species.

Reptiles

Field fauna surveys undertaken as part of the EIS were conducted in 1998/99. No fauna of conservation significance were identified during these surveys. However, since the time of these fauna surveys additional information has become available about the distribution of a range of listed reptile species including *Anomalopus mackayi* (five-clawed worm-skink, long-legged worm-skink) and *Furina dunmalli* (Dunmall's snake), which are both listed as vulnerable under the EPBC Act; and *Tympanocryptis pinguicolla* (grassland earless dragon, south-eastern lined earless dragon), which is listed as endangered under the EPBC Act. NAC has committed to undertaking additional field fauna surveys, particularly focussing on identifying reptiles on-site. Any approval granted under the EPBC Act should consider the inclusion of conditions outlining the requirements of additional fauna field surveys.

Approval

In accordance with Section 130(1B) of the EPBC Act, a notice from the EPA delegate is to be given to DEH, stating that matters not covered by the controlling provisions have been assessed to the greatest extent practicable, before the Commonwealth Minister for Environment and Heritage can decide the action. The State's assessment of proposed management and mitigation measures to protect flora and fauna of conservation significance is outlined in section 3.4 of this EIS assessment report.

DEH has indicated that the assessment of significance of impacts on the bluegrass community and listed reptile species provided in the EIS is adequate to enable a decision on the controlled action to be made. However, additional flora and fauna surveys will be required to determine the extent and distribution of the listed bluegrass community and listed reptile species prior to establishing whether any additional management and mitigation measures are necessary to protect them.

The Bilateral Agreement covers Part 8 (Assessment Stage) of the EPBC Act process and this EIS assessment report concludes the assessment stage. DEH retain separate approval powers under Part 9 (Approval stage) of the EPBC Act. The options available to DEH under the EPBC Act are:

- approve the action without conditions;
- approve the action with conditions; or
- refuse the action.

2. Matters considered in the EIS assessment report

Section 58 of the EP Act requires, when preparing this EIS assessment report, the consideration of the following matters:

- (a) the final TOR for the EIS;
- (b) the submitted EIS;

- (c) all properly made submissions and any other submissions accepted by the chief executive;
- (d) the standard criteria;
- (e) another matter prescribed under a regulation.

These matters are addressed in the following subsections.

2.1 The final TOR

The final TOR document, issued on 8 July 2005, was considered when preparing this EIS assessment report. While the TOR were written to include all the major issues associated with the project that were required to be addressed in the EIS, they were not necessarily exhaustive, nor were they to be interpreted as excluding all other matters from consideration. The TOR stated that if significant matters arose during the course of preparation of the EIS that were not incorporated in the TOR (e.g. currently unforeseen issues that emerge as important or significant from environmental studies) then these issues should also be fully addressed in the EIS.

Where matters outside of those listed in the final TOR were addressed in the EIS, those matters have been considered when preparing this EIS assessment report.

2.2 The submitted EIS

The submitted EIS was considered when preparing this EIS assessment report. The submitted EIS comprised:

- (i) the EIS that was publicly released on 30 January 2006 (until 10 March 2006);
- (ii) the Response to Submissions Report received by the EPA on 28 April 2006 that was provided to relevant advisory body members;
- (iii) additional information about the status of the bluegrass community provided to DEH and forwarded to the EPA by DEH on 26 May 2006;
- (iv) additional information about road and rail impacts received by the EPA on 22 June 2006; and
- (v) the response to the EPA's request for additional information received by the EPA on 28 June 2006.

2.3 Properly made submissions

Twenty-three submissions were received by the EPA on the submitted EIS. Eight submissions were received by the EPA on the Response to Submissions Report. All were properly made and all were considered when preparing this EIS assessment report.

2.4 The standard criteria

Section 58 of the EP Act requires that, among other matters, the standard criteria listed in Schedule 3 of the EP Act must be considered when preparing the EIS assessment report. The standard criteria are:

- (a) *the principles of ecologically sustainable development as set out in the National Strategy for Ecologically Sustainable Development;*
- (b) *any applicable environmental protection policy;*
- (c) *any applicable Commonwealth, State or local government plans, standards, agreements or requirements;*
- (d) *any applicable environmental impact study, assessment or report;*
- (e) *the character, resilience and values of the receiving environment;*
- (f) *all submissions made by the applicant and submitters;*
- (g) *the best practice environmental management for activities under any relevant instrument, or proposed instrument, as follows—*
 - (i) *an environmental authority;*
 - (ii) *an environmental management program;*
 - (iii) *an environmental protection order;*
 - (iv) *a disposal permit;*

- (h) *the financial implications of the requirements under an instrument, or proposed instrument, mentioned in paragraph (g) as they would relate to the type of activity or industry carried out, or proposed to be carried out, under the instrument;*
- (i) *the public interest;*
- (j) *any applicable site management plan;*
- (k) *any relevant integrated environmental management system or proposed integrated environmental management system;*
- (l) *any other matter prescribed under a regulation.*

The EPA has considered the standard criteria when assessing the project. With regard to criterion (l), there was no other matter prescribed under a regulation that required consideration.

3. Adequacy of the EIS in addressing the TOR

The submitted EIS adequately addressed most components of the TOR. These sections are generally not discussed in this assessment report except where they were of particular importance in the assessment of the project, such as requiring modification of, or addition to, the streamlined conditions.

However, a number of sections in the TOR were inadequately addressed by the submitted EIS and/or EM plan including issues relating to:

- the protection of modified aquatic ecosystems;
- the management and use of water on-site, including groundwater dewatered from mining pits and the controlled discharge of water off-site; and
- the identification and management of flora and fauna species of conservation significance on-site;
- the control and management of dust nuisance at sensitive receptors;
- the control and management of light emissions at sensitive receptors;
- a suitably documented community complaint response procedure;
- a suitably documented emergencies and incidents notification procedure;

and these sections have been discussed below.

3.1 Land Resources

Adequacy of the EIS in addressing the final TOR

The requirements of the TOR have been adequately addressed by the submitted EIS. The EIS identified the environmental values of the land resource on-site and included adequate information about the impacts of the project on those environmental values. Information on land resources was provided in Section 3—Land Resources and Section 16—Draft Environmental Management Plan of the EIS. Additional information about land resources was provided in Sections 4, 5 and Appendix C of the Response to Submissions Report. Additional information was also provided to the EPA on 28 June 2006.

In summary the major impacts of the NAC Stage 2 Project on land resources include the following:

- approximately 430ha of open-cut mining pits;
- loss of 425ha of Class A good quality agricultural land;
- a significant reduction in land suitability of mined areas for dryland cropping and beef cattle grazing;
- a 50ha, 40m deep final void remaining at the end-of-mine life;
- a tailings storage facility (TSF); and
- hydrocarbon spills from machinery, fuel storage and vehicle maintenance areas and contained contamination of surface soils.

The following mitigation measures are proposed to manage disturbance of the NAC Stage 2 Project on land resources:

- minimise mine footprint to areas of necessary disturbance;

- areas to be cleared will be clearly marked and pegged within the limits of design drawings;
- disturbed areas (including waste rock dumps) will be stabilised as quickly as possible and will be progressively rehabilitated to minimise erosion;
- sodic and potentially acid forming spoil and coarse reject material will be selectively handled and buried in-pit at an appropriate depth to minimise the likelihood of erosion and acid rock drainage;
- the north pit will be completely backfilled with waste rock material from the centre pit's boxcut;
- the TSF will be capped and rehabilitated with a self-sustaining plant cover;
- contaminants from vehicle workshop and washdown areas will be appropriately drained and stored for treatment and disposal;
- fuel storage and vehicle maintenance areas will be bunded to prevent spread of any hydrocarbon contamination and emergency spill response procedures will be established;
- contaminated land will be recorded on a register and remediated as soon as practicable;
- project infrastructure will be decommissioned and affected land rehabilitated at the end-of-mine life.

The above mitigation measures proposed to manage the impacts of the project on land resources are generally adequate. However, some impacts of the project on land are unmanageable and will result in irreversible change to the post-mining landscape and land uses within the ML area. These impacts are discussed in greater detail below.

Adequacy of the EM plan for the Project

The EM plan (Schedule E—Land) generally proposes management and mitigation measures that are consistent with the streamlined level 1 conditions for land and are suitable to manage the majority of impacts of the project on land resources. However, the project's location is dictated by the position of the coal resource and some of the land impacts such as vegetation clearing, elevated waste rock dumps, a final void and a reduction in area of good quality agricultural land will be a direct consequence of mining the coal resource. These impacts prevent the area from being rehabilitated to the pre-mining landforms and the pre-mining land uses cannot be re-established due to economic constraints, or in some cases practical limitations. However, the NAC Stage 2 Project will provide the following economic and community benefits:

- utilisation of the coal resources of the State;
- substantial immediate and long-term local employment and support of community infrastructure and social services within Rosalie Shire and elsewhere in Queensland;
- the continuation and expansion of a locally significant industry that provides substantial export income to the State;
- continued utilisation of infrastructure associated with the existing New Acland Coal Mine.

The NAC Stage 2 Project will protect local and regional biological diversity by maintaining 50ha of remnant vegetation and riparian vegetation along Lagoon Creek within ML areas. A rehabilitation vegetation management plan is also proposed to be undertaken to restore remnant vegetation connectivity and provide habitat for fauna (refer to Section 3.4 Flora and Fauna). Areas of good quality agricultural land outside of the mining footprint will be retained and returned to agricultural uses subsequent to mine site rehabilitation.

Therefore, implementing the proposed mitigation measures outlined in the EIS and incorporating into the EM plan and EA a best practice environmental protection, management, monitoring and rehabilitation methodology as set out in the EPA streamlined level 1 conditions will reduce the likelihood of serious environmental impacts arising from mining activities and maintain biological diversity.

Recommendations

There are no additional requirements to the streamlined conditions recommended for protecting land resources.

3.2 Surface water resources

What the TOR required

Amongst other things, the TOR (Section 4.2.1.1) required the environmental values of the surface waterways of the affected area to be described in terms of the values identified in the *Environmental Protection (Water) Policy 1997*, including the biological integrity of modified aquatic ecosystems. The TOR (Section 4.2.2.1) also required a water management strategy to be developed to maintain sufficient quantity and quality of surface waters to protect existing beneficial downstream uses of those waters (including maintenance of in-stream biota).

Adequacy of this section of the EIS in addressing the final TOR

Generally, the requirements of the TOR for surface water resources have been adequately addressed by the submitted EIS. The submitted EIS provided information on surface water resources in Section 4—Water Resources and Section 16—Draft Environmental Management Plan of the EIS. Additional information about surface water resources was provided in Sections 2 & 4 of the Response to Submissions Report. Further information about the likely impacts of the NAC Stage 2 Project on water resource environmental values and proposed management measures was also provided to the EPA on 28 June 2006.

However, based on the above requirements of the TOR, the submitted EIS is deficient with regard to the following matters:

- insufficient protection of modified aquatic ecosystems as defined under the *Environmental Protection (Water) Policy 1997*; and
- insufficient information about the design and implementation of the site water management system.

With regard to the first deficiency, the information provided in the submitted EIS defines the environmental values of the surface waters as irrigation and livestock drinking water quality. However, a formal assessment of aquatic ecosystem health in the local waterways was not undertaken and the assumption that irrigation and livestock drinking water quality are the only environmental values requiring protection is not supported by the information provided in the submitted EIS. While it is acknowledged that the local catchments have been modified by agricultural activities, modified aquatic ecosystems still have significance for maintaining biological integrity of waterways. Consequently, modified aquatic ecosystems are an environmental value defined under the *Environmental Protection (Water) Policy 1997* that requires protection.

Therefore, the modified aquatic ecosystem environmental values of receiving waters must be protected by developing and implementing appropriate water quality objectives. The development and implementation of these water quality objectives should be provided as part of the site water management plan discussed below.

With regard to the second deficiency, further information is required regarding the design of the site water management system. The proposed site water supply for the NAC Stage 2 Project proposed in the EIS included pumping 2000ML/a of recycled water from the Wetalla water treatment plant. This water supply option would create a site water surplus and further information is required about the storage, management and use of this water on the project site. However, this water supply option has been deferred until further information about the proposed Wetalla water recycling program is received from Toowoomba City Council. Therefore, at a meeting with NAC on 9 June 2006, the EPA agreed that further information about the site water management system design and management can be provided subsequent to the EIS process. A commitment to develop a water management plan has been included in the EM plan as a recommended condition of the EA. However, the condition requires expansion to address the requirements of the EPA and to provide a timeframe for developing the plan and a mechanism for making the plan available to mine and emergency services personnel. The recommended conditions for developing a suitable water management plan are discussed in the EM plan section below.

Furthermore, with regard to the second deficiency, the EIS (Section 4.6.1.2) predicts that more than 12,500ML of groundwater and rainfall run-off will be dewatered from mining pits between 2006 and 2018 and used as part of the site water management system. However, inadequate information has been provided about the on-site management and use of this water. As discussed with NAC on 9 June 2006, a consultant has been commissioned to conduct a sensitivity analysis of the groundwater model to determine the reliability of the groundwater volume predictions. The outcomes of this assessment should

form part of the site water balance and should be provided to the EPA as part of the site water management plan discussed in the EM plan section below.

Adequacy of this section of the EM plan

The EM plan (Schedule C—Water Resources) proposes management and mitigation measures that are consistent with the streamlined level 1 conditions for surface waters and is suitable to manage the impacts of the project on surface water resources. However, the proposed condition (C39) for developing a water management plan proposed in Schedule C of the EM plan should be replaced with the following conditions to address the deficiencies discussed above.

Recommendations

19. The Water Management Plan must identify methods to:

- (a) protect the modified aquatic ecosystem environmental values of Lagoon and Spring Creek including the development of water quality objectives that demonstrate the values will be protected;**
- (b) incorporate a risk management approach to how changing levels of flood, drought and water quality risks should be addressed;**
- (c) manage stormwater discharge;**
- (d) develop and implement a system for emergency spills or discharges including procedures to minimise extent and duration of release, staff training, investigation and reporting procedures;**
- (e) separate clean water from undisturbed areas and water from disturbed areas;**
- (f) manage site water quality and quantity during the (3) phases of mining: development, operation and decommissioning and include a site water balance including groundwater generated through mine dewatering;**
- (g) safeguard against the potential for soil erosion and acid drainage; and**
- (h) provide details of operational monitoring and monitoring of hydrological processes including associated performance indicators.**

20. The holder of this EA must submit to the administering authority a draft of the Water Management Plan within six months of the date the EA takes effect for comment prior to implementation of the plan.

21. A copy of the Water Management Plan and any subsequent amendment of the Water Management Plan must be kept at the place to which this environmentally relevant activity relates and be available for examination by Emergency Services Personnel or an authorised person on request.

3.3 Groundwater resources

Adequacy of the EIS in addressing the final TOR

The requirements of the TOR have been adequately addressed by the submitted EIS. The submitted EIS identified the environmental values of the groundwater resources on-site and included adequate information about the impacts of the project on those environmental values. Information on groundwater resources is provided in Section 4—Water Resources and Section 16—Draft Environmental Management Plan of the EIS. Additional information about groundwater resources was provided in Sections 2, 3, 4, 5 and Appendix A from the Response to Submissions Report. Further information was also provided to the EPA on 28 June 2006.

In summary the major impacts of the NAC Stage 2 Project on groundwater resources include the following:

- an additional 290ML/a groundwater allocation from the Helidon Sandstone aquifer producing a worst case scenario over the life of the mine of between 0.7-3m of additional drawdown, without impact on yields from neighbouring groundwater bores;

- an additional 210ML/a groundwater usage from an existing (currently dormant) neighbouring groundwater allocation producing a groundwater drawdown over 4 years of around 2m, without impact on yields from neighbouring groundwater bores; and
- dewatering of groundwater aquifers during mine pit development.

The following mitigation measures are proposed to manage disturbance of the NAC Stage 2 Project on groundwater resources:

- monitor groundwater levels and quality to determine any impact on surrounding groundwater users; and
- supplement and eventually replace groundwater supply with 2000ML/a of recycled wastewater from the Wetalla water reclamation plant.

The above mitigation measures proposed to manage the impacts of the project on groundwater resources are adequate. However, the taking of groundwater from the Helidon Sandstone aquifer is managed under the *Water Resource (Great Artesian Basin) Plan 2006* and the *Water Act 2000* and DNRM&W is the lead agency for assessing groundwater licence applications. Under section 10 of the Plan the Chief Executive of DNRM&W cannot make a decision to approve a new groundwater allocation application if that decision would increase the average volume of water that may be taken from the Great Artesian Basin resource. NAC are currently in discussions with DNRM&W to determine whether the additional 290ML/a groundwater allocation from the Helidon Sandstone aquifer required to meet water requirements on-site is permitted under the Water Resource Plan. If this groundwater allocation is not permitted under the Plan, NAC will need to investigate alternative water supply options for the project.

Adequacy of the EM plan for the Project

The EM plan (Schedule C—Water Resources) proposes management and mitigation measures that are consistent with the streamlined level 1 conditions for groundwater and are considered suitable to minimise the likelihood of serious environmental impacts of the project on groundwater resources.

3.4 Flora and Fauna

What the TOR required

Amongst other things, the TOR (Section 4.6.1) required a description of the environmental values for nature conservation that may be affected by the project including a species list of rare and threatened fauna species present or likely to be present in the area and a discussion of range, habitat, breeding, recruitment, feeding and movement requirements of any rare or threatened species. The TOR (Section 4.6.2) also required information about the potential environmental harm to important habitats of species listed under the *Nature Conservation Act 1992* (NCA) and strategies for protecting any rare or threatened species and communities.

Adequacy of this section of the EIS

Generally, the requirements of the TOR have been adequately addressed by the submitted EIS. Information about flora and fauna was provided in Section 5—Nature Conservation and Section 16—Draft Environmental Management Plan of the EIS. Additional information about flora and fauna was provided in Sections 4 and 5 of the Response to Submissions Report.

The EIS (Section 5.3) identified on-site three species of State conservation significance including RE11.3.17 (*Eucalyptus populnea* woodland with *Acacia harpophylla* and/or *Casuarina cristate* on alluvial plains) and RE11.9.10 (*Acacia harpophylla*, *Eucalyptus populnea* open forest on Cainozoic fine-grained sedimentary rocks), which are both listed as of concern under the *Vegetation Management Act 1999* (VMA); and RE11.3.21 (*Dichanthium sericeum* and/or *Astrebla spp.* grassland on alluvial plains) (bluegrass), listed as endangered under the VMA.

The likely impacts of the NAC Stage 2 Project on these flora communities of significance and fauna include:

- clearing 25.4ha of remnant vegetation for mining activities, including 8.8ha of RE11.9.10 (*Acacia harpophylla*, *Eucalyptus populnea* open forest on Cainozoic fine-grained sedimentary rocks); and

3.1ha of RE11.3.17 (*Eucalyptus populnea* woodland with *Acacia harpophylla* and/or *Casuarina cristate* on alluvial plains); and

- loss of fauna habitat, with the removal of tree hollows, scattered timber, rocks and trees providing protective cover associated with vegetation clearing and construction of mining infrastructure.

The mitigation measures proposed to manage and off-set the above impacts of the NAC Stage 2 Project on flora communities and fauna include:

- retention of approximately 50ha of remnant vegetation and other riparian buffer areas along Lagoon Creek within the project area that will continue to provide viable habitat for fauna to use for feeding, shelter and roosting;
- implementation of a weed removal program for areas on-site not directly affected by the project, including active removal of declared weeds and weeds of concern in accordance with local management practices and the DNRM&W—Pest Fact Sheets;
- implementation of a site-specific revegetation plan to enhance local biodiversity and improve the viability of areas not directly affected by the project for fauna habitat; and
- conducting additional field surveys for reptiles to more definitively identify any species of conservation significance.

The submitted EIS provided information about the flora and fauna present, or likely to be present on-site and included information about the likely impacts of the project on flora and fauna identified. Furthermore, the submitted EIS outlined measures for protecting and enhancing the nature conservation values of the site, including the values of listed vegetation communities. The submitted EIS also outlined suitable commitments for maintaining and enhancing conservation values on-site. Therefore, these requirements of the TOR have been adequately addressed by the submitted EIS. However, a number of issues have not been adequately addressed and these are discussed in the section below.

Adequacy of this section of the EM plan

The submitted EM plan is deficient with regard to the following matters:

1. The recommended condition of the EA included in the EM plan to carry out additional reptile field surveys does not include a feedback mechanism to the EPA for reporting the survey results.
2. The commitment made in the submitted EIS to conduct additional surveys within the potential bluegrass site has not been included in the EM plan as a recommended condition of the EA.
3. The commitment made in the submitted EIS to develop a site-specific revegetation plan with a methodology for achieving nil loss of conservation value on-site has not been included in the EM plan as a recommended condition of the EA.

Assessment

With regard to the first deficiency, fauna survey information presented in the submitted EIS found no species of conservation significance listed under the *Nature Conservation Act 1994* (NCA). However, since the time of the fauna surveys, additional information has become available about the distribution of a number of listed reptile species, particularly *Anomalopus mackayi* (five-clawed worm-skink, long-legged worm-skink) and *Tympanocryptis pinguicollis* (grassland earless dragon, south-eastern lined earless dragon), both listed as endangered under the NCA. NAC has included in the EM plan a proposed condition of the EA to undertake additional fauna field surveys to more definitively determine the presence or absence of the above reptile species. However, the condition does not explain by whom and when the results of the fauna surveys will be reported to the administering authority.

Recommendation

It is recommended that the EM plan (Schedule F–Nature Conservation–Condition (F-4)) be replaced with the following:

4. ***Within 3 months of the date of granting the EA, the holder of this EA must undertake an additional fauna field survey of the project area to specifically target the presence of the following species:***

(a) *Anomalopus mackayi* (five-clawed worm-skink, long-legged worm-skink); and

- (b) *Tympanocryptis pinguicolla* (grassland earless dragon, south-eastern lined earless dragon).

The survey methodology, techniques and survey effort should be sufficiently robust to determine the likely presence or absence of the above reptile species. A report containing the field survey methodologies, together with the results of the surveys and a map showing suitable habitat and a procedure for potential translocation (if either reptile species is identified) must be submitted to the EPA within 28 days of completing the survey.

5. *The holder of the EA must ensure that staff induction and environmental awareness programs include reference to *Anomalopus mackayi* (five-clawed worm-skink, long-legged worm-skink) and *Tympanocryptis pinguicolla* (grassland earless dragon, south-eastern lined earless dragon) to ensure that any individuals that might be present in the project area are identified and reported to the mine site environmental officer for recovery and release into suitable habitat.*

With regard to the second deficiency *Dichanthium sericeum* (bluegrass) has previously been identified within MLA50216, but outside of the mining footprint on the western side of Acland-Muldu Road (refer to section 1.1.3 of this report for further information). However, recent field surveys were unable to determine the distribution and significance of this community due to the poor condition of the ground layer in this area as a result of weed infestations and grazing pressure. Although the extent of the bluegrass community has not been identified from the recent survey, it may be more clearly identifiable under more suitable conditions. NAC, in additional information dated 26 May 2006, propose to conduct additional surveys of the area where the bluegrass community has been mapped in an effort to confirm the nature and extent of the community. However, this commitment has not been included in the EM plan as a recommended condition of the EA.

Recommendation

It is recommended that the EM plan (Schedule F—Nature Conservation—Section 16.3.7.8) be amended to include the following condition:

6. *As soon as conditions allow¹ the holder of this EA must conduct an additional flora field survey of the project site to determine the area and abundance of the *Dichanthium sericeum* (bluegrass) ecological community. In the interim, any cattle on this area should be removed and appropriate signage and fencing erected to provide a 50m buffer around the perimeter of the mapped area (according to Version 4 of the regional ecosystem mapping) to minimise direct and indirect disturbance and maximise the opportunity for bluegrass regeneration. Furthermore, active weed removal of declared weeds and weeds of concern as defined by any applicable weed management plans for Rosalie Shire should be undertaken within the fenced off area.*
7. *Within 28 days of completing the survey the holder of this EA must submit to the administering authority and DNRM&W a report assessing the condition of any bluegrass community. The report must include the following information:*
- (a) *a map defining the extent of any bluegrass community;*
 - (b) *flora species composition, abundance and percentage cover;*
 - (c) *the level of weed infestation;*
 - (d) *the value of this remnant regional ecosystem in a regional context; and*
 - (e) *potential impact of mining activities on the bluegrass remnant.*

With regard to the third deficiency a commitment was made in section 5.4.3 of the EIS to develop a site-specific revegetation plan to offset the loss of 25.4ha of remnant vegetation be cleared as part of the NAC

¹ **As soon as conditions allow** means as soon as there has been sufficient rainfall to enable the plants within the *Dichanthium sericeum* (bluegrass) dominant grassland ecological community to recover to a point where the extent of the community, flora species composition, abundance and percentage cover and the level of weed infestation can be determined.

Stage 2 Expansion Project. However, this commitment has not been carried through to the EM plan as a recommended condition of the EA. Furthermore, the commitment fails to explain how the revegetation plan will be implemented to achieve a nil loss of conservation value.

More detailed information about the implementation of the revegetation plan is necessary. For example, the current commitment contains no management objectives defining the proposed vegetation communities to be rehabilitated on-site. No performance criteria are proposed to measure the success of achieving the rehabilitation management objectives. There are no strategies or action programs proposed to be implemented to achieve the performance criteria. Furthermore, there is no information defining how the revegetation plan will be monitored to demonstrate performance, audited to demonstrate implementation of a management strategy and compliance with agreed performance criteria, and by who and when the results will be reported to the administering authority. Lastly, there are no corrective actions proposed to be implemented if monitoring identifies that a performance requirement has not been achieved.

Recommendation

It is recommended that the EM plan (Schedule F—Nature Conservation—Section 16.3.7.8) be amended to include the following condition:

- 8. *The holder of this EA must develop an Environmental Rehabilitation Management Plan and submit the Plan to the Administering Authority and DNRM&W at least 28 days prior to project commissioning. The Plan must include:***
 - (a) A map outlining the progressive revegetation of a surface area covering no less than the surface area of REs proposed to be cleared. The areas chosen to rehabilitate should achieve the key objectives of enhancing corridor connectivity and promoting long-term local biodiversity. The locations should include riparian areas of Lagoon Creek, existing stands of RE11.3.17 and RE11.9.10, Bottle Tree Hill and other disturbed areas within the ML areas.***
 - (b) Specific rehabilitation acceptance criteria for native RE communities including indicators of soil profile development, floristic characteristics such as species composition, cover percent, diversity and distribution, and ecosystem functionality characteristics such as key species recruitment, nutrient cycling, successional change and habitat complexity.***
 - (c) A rehabilitation monitoring program designed to demonstrate progression of rehabilitated communities towards self-sustaining vegetation communities based on local reference site/s.***
 - (d) An auditing and reporting mechanism that would be capable of identifying, in a timely manner, when rehabilitation is not achieving the required outcomes.***
 - (e) Proposed remedial actions for rehabilitation areas not achieving the required outcomes.***

3.5 Air Environment

Adequacy of the EIS in addressing the final TOR

The requirements of the TOR have been adequately addressed by the submitted EIS. The EIS identified the environmental values (sensitive receptors) within the air environment surrounding the project site and included adequate information about the likely impacts of the project on those environmental values. Information on the air environment was provided in Section 6—Air Quality and Section 16—Draft Environmental Management Plan of the EIS. Additional information about the air environment was provided in Sections 4 and Appendix B of the Response to Submissions Report.

The impacts of the NAC Stage 2 Project on the air environment include a minor increase in predicted PM₁₀, total suspended particulate (TSP) and dust deposition concentrations at most sensitive receptors in the vicinity of the project site during project operations and peaking in year 2015. However, the predicted values are still within the air quality goals defined in the *Environmental Protection (Air) Policy 1997*.

The following mitigation measures are proposed to manage the potential impacts of the NAC Stage 2 Project on the air environment:

- water down/spraying exposed areas (particularly haul roads) and coal handling facilities that produce excessive dust (e.g. crusher, transfer points) during project operations;
- enforce a speed limit of 60km/hr on unsealed roads to minimise dust generation;
- restrict land disturbance within the ML area to the necessary operating areas;
- burn cleared vegetation when wind is blowing away from sensitive receptors;
- implement progressive rehabilitation of disturbed areas including disused roads, waste rock dumps and exposed topsoil to reduce the potential for dust generation;
- maintain a register of dust complaints and promptly investigating dust complaints and implementing appropriate management measures to reduce dust nuisance, including avoiding or limiting the activity in question when the sensitive receptor is downwind; and
- conduct monthly dust deposition and PM₁₀ monitoring at existing monitoring locations to assess the validity of the modelling prediction and assess the effectiveness of dust and particulate suppression measures and report this information annually to the EPA.

Assessment

It is expected that some additional impact will result on the air environment at sensitive receptors as mining operations expand into MLA50216. A number of submissions made on the EIS by local landholders raised concerns about existing dust levels from the Stage 1 operations. It appears that current dust levels are causing a continuing nuisance to some nearby residents. Given that Stage 2 operations will progressively move closer to a number of sensitive receptors, NAC should begin negotiations with affected landholders with the aim of investigating and implementing suitable dust reduction measures to minimise the nuisance at these dwellings.

Recommendations

- 9. It is recommended that NAC begin negotiations with landholders currently affected, or likely to be affected in the future, by dust nuisance with the aim of investigating and implementing suitable dust reduction measures to minimise the dust nuisance at these dwellings caused by Stage 2 mining activities.**

Adequacy of the EM plan

The recommended EA conditions included in the EM plan are generally consistent with the EPA's streamlined level 1 conditions. However, given the close proximity of mining operations to sensitive receptors during Stage 2 operations, a number of additional conditions regarding the management and mitigation of dust leaving the site are recommended below. Implementing the proposed mitigation measures outlined in the EIS and incorporating into the EM plan a best practice environmental protection, management, monitoring and rehabilitation methodology as set out in the EPA streamlined level 1 conditions, and additional conditions recommended below will reduce the likelihood of serious environmental impacts on the air environment arising from mining activities.

Recommendations

It is recommended that the EM plan (Schedule B—Air—Section 16.3.3.6) be amended to include the following conditions:

- 10. Rehabilitation must be carried out in such a manner as to minimise releases of wind-blown dust and erosion.***
- 11. Dust emissions from mining activities must be suppressed by the use of water to prevent a dust nuisance at a sensitive place.***
- 12. All sealed traffic areas must be cleaned as necessary to minimise the release of dust and particulate matter to the atmosphere.***
- 13. Trafficable areas must be sealed with bitumen or an equivalent hard surface, or otherwise maintained to the satisfaction of the administering authority, in a condition that minimises the release of wind blown or traffic-generated dust.***
- 14. Temporary roads used for material haulage must be watered or treated in any other suitable manner, to minimise wind-blown or traffic generated dust.***

3.6 Noise and Vibration

Adequacy of the EIS in addressing the final TOR

The requirements of the TOR have been adequately addressed by the submitted EIS. The EIS identified the environmental values (sensitive receptors) within the noise environment surrounding the project site and included adequate information about the likely impacts of the project on those environmental values. Information on the noise environment was provided in Section 7—Noise and Vibration and Section 16—Draft Environmental Management Plan of the EIS. Additional information about the noise environment was provided in Section 4 of the Response to Submissions Report.

The impacts of the NAC Stage 2 Project on the noise environment include a minor audible increase to the existing background noise levels at most sensitive receptors in the vicinity of the project site during the continuous NAC Stage 2 Project operation. Noise levels at sensitive receptors from mining activities will fluctuate depending on the distance of the sensitive receptor to the pit, the depth of mining equipment in the pit and meteorological conditions.

The number of trucks hauling coal along Jondaryan-Muldu Road to the rail siding will increase from 100 trucks per day (5 trucks per hour) to 165 trucks per day (7 trucks per hour) increasing noise levels from 53dB(A) to 56dB(A). This level is below the Road Traffic Noise Criteria average 1-hour level of 68dB(A).

Blasting will be undertaken on a two-weekly basis with the south and centre pits each being blasted once per month. Airblast overpressure levels from blasting during Stage 2 operations may slightly exceed the *Environmental Protection Regulation 1998* (EP Reg) limit of less than 115dBL for four out of five blasts at sensitive receptors located within 1.5-2km from blasting activities. Peak ground vibration from blasts with standard blast loading specifications are predicted to be less than 3mm/s at the nearest sensitive receptor. This is within the EP Reg limit of 10mm/s.

The following mitigation measures are proposed to manage disturbance caused by noise and vibration:

- Provision of an after hours mine site contact number to all near neighbours for prompt response and investigation of noise complaints.
- Blasting parameters such as blast specifications will be varied depending on the type of blast and distance to sensitive receptors.
- Meteorological conditions will be factored into the timing and execution of certain operations.
- Overburden material will be selectively placed as bunds between operations and nearby sensitive receptors to provide acoustic barriers.
- Equipment will be operated correctly and regularly maintained to reduce operational sound power levels.
- Noisier operations will be scheduled during daylight hours or in-pit during night-time hours.
- Truck speeds will be kept to an operational minimum to reduce noise levels.
- Haul roads will be maintained in good condition to reduce noise levels.
- NAC will continue to investigate new technologies such as alternatives to reversing beepers that may assist in reducing noise levels.

Assessment

It is expected that some additional noise impact will occur at sensitive receptors as mining operations expand into MLA50216. Night-time background noise levels monitored subsequent to the commencement of mining in the north pit as part of Stage 1 operations have periodically exceeded 40dB(A) at most noise sensitive receptors. On some of these occasions mining operations have been the dominant noise source. Noise modelling indicates that mining activities for the Stage 2 operation may contribute up to 37dB(A) at noise sensitive locations. Therefore, if the background noise level at a sensitive receptor is 40dB(A), mining noise of 37dB(A) would contribute an additional 2dB(A) to background levels, producing an overall noise level of 42dB(A). Consequently, the night-time noise limit of 40dB(A) recommended in the EM plan (Schedule D—Table 1) may sometimes be exceeded at noise sensitive receptors during Stage 2 operations. However, the 40dB(A) noise limit is based on the World Health Organisation limits for sleep disturbance and provides a realistic compromise between community expectations (for a lower limit) and practical limitations for mining noise control. Therefore, the recommended night-time noise limit of 40dB(A) should be maintained.

A number of submissions made on the EIS by local landholders raised concerns about existing noise levels from the Stage 1 operations. It appears that current noise levels are causing a continuing nuisance to some nearby residents. Given that Stage 2 operations will progressively move closer to a number of sensitive receptors, NAC should begin negotiations with noise affected landholders with the aim of investigating and implementing suitable noise reduction measures to minimise the disturbance at these dwellings.

Recommendation

- 15. It is recommended that NAC begin negotiations with landholders currently affected, or likely to be affected in the future, by noise emissions with the aim of investigating and implementing suitable noise reduction measures to minimise the noise disturbance at these dwellings caused by mining activities.**

Adequacy of this section of the EM plan

The EM plan (Schedule D—Noise) is consistent with the EPA's streamlined level 1 conditions. Implementing the proposed mitigation measures outlined in the EIS and following the best practice environmental protection, management and monitoring methodology proposed in the EM plan will reduce the likelihood of serious environmental impacts on the acoustic environment as a result of mining activities.

3.7 Cultural Heritage

The requirements of the TOR have been adequately addressed by the submitted EIS. The submitted EIS identified the Aboriginal and European cultural heritage values of the site and surrounding areas affected by the project and included adequate information about the impacts of the project on the cultural heritage values. Information about Aboriginal and European cultural heritage values and impacts is provided in Section 8—Cultural Heritage of the EIS. Additional information about cultural heritage values and impacts is provided in Section 4 of the Response to Submissions Report. Further information about cultural heritage values, impacts and management was provided to the EPA on 28 June 2006.

NAC currently has in place separate co-operative agreements with the Traditional Owners from the Jarowair and the Western Wakka Wakka people as part of the Stage 1 operation. Both co-operative agreements are designed to facilitate the relationship between NAC and the Traditional Owners and preserve the cultural significance of the existing ML50170 area. In accordance with the *Aboriginal Cultural Heritage Act 2003*, NAC has completed and countersigned Cultural Heritage Management Plans (CHMPs) with the Jarowair and Western Wakka Wakka peoples to cover the new MLA50216 area.

No sites of significant European cultural heritage were found on the project site. However, Acland contains some sites of European cultural heritage significance to the local and regional area. Mining had a significant effect on the development of the Acland and surrounding region. Coal mining near Acland commenced in 1913, with production at the Acland No.2 Colliery at Hoff's Well located on the outskirts of Acland commencing in 1929 with continuous coal mining until 1966. Intermittent coal mining continued at this site until 1984 when it was permanently closed down. The mine's significance from a heritage perspective provides an insight into the development of mining technology and methodologies over the long period of its operation. The majority of the history from the mining operation has been recorded and preserved at the Acland mine museum site located on the outskirts of the Acland township.

A number of other structures of heritage significance to the Acland community include the Soldier's Roll of Honour, the Public Hall and the Church of England. NAC is presently in discussion with Rosalie Shire Council regarding an off-site Pioneer/Heritage Park to display Acland's significant heritage items as a tourist attraction.

The remaining Acland residents have a strong connection to Acland's heritage and have expressed concern about re-locating Acland's significant heritage sites as this action, in their eyes, would irreversibly detract from the heritage significance. NAC during future discussions with Rosalie Shire Council should consider whether it is more appropriate to retain and restore the heritage sites of Acland in their existing locations to retain as much of their cultural heritage significance as possible. Alternatively, a specific heritage building/location within the Acland township (e.g. the Acland No.2 Colliery site) could form the core area and the other culturally significant heritage sites could be relocated to the core heritage area.

This approach would limit the intrinsic damage to Acland's European cultural heritage significance. The remaining Acland residents should also be consulted about the possible future options for Acland's sites of cultural heritage significance.

Recommendations

- 16. During future negotiations with Rosalie Shire Council, NAC should investigate the possibility of retaining and restoring the heritage sites of Acland in their existing locations to retain as much of their cultural heritage significance as possible. Alternatively, investigate options for retaining a core heritage area on-site (e.g. the Acland No.2 Colliery site) to relocate the remainder of Acland's European heritage of significance.**
- 17. It is recommended that NAC consult with remaining Acland residents about the options for protecting and enhancing Acland's European cultural heritage sites of significance.**

3.8 Scenic values and lighting

The requirements of the TOR have been adequately addressed by the submitted EIS. The submitted EIS identified the visual impacts of the NAC Stage 2 Project from the surrounding area and proposed adequate measures to mitigate these impacts. Information about visual impacts is provided in Section 9—Scenic Values of the EIS. Additional information about scenic values is provided in Section 4 of the Response to Submissions Report.

The likely visually unfavourable aspects of the NAC Stage 2 Project from the surrounding area include:

- the elevated parts of the south pit waste rock dump;
- various site water management dams;
- existing site infrastructure such as the TSF; and
- extraneous light from light sources during night-time operations.

The mitigation measures proposed to manage visual impacts of the NAC Stage 2 Project on the surrounding area include:

- the retention of existing roadside and fence line vegetation to screen the mine expansion areas;
- tree screening activities along Oakey-Cooyar and Acland-Silverleigh Roads to reduce the visual impact of the south pit operation and south pit waste rock dump development;
- inward orientated lighting associated with night-time mining activities and lighting with shields around the globes to limit extraneous light emissions; and
- consultation with local residents if further impacts are identified to discuss appropriate forms of mitigation.

Adequacy of this section of the EM plan

Visual and aesthetic amenity is not directly covered in the EM plan and there are no conditions recommended to be included in the EA for the project. While the project is located within a rural setting pit excavations will progressively move closer to a number of local residences as the mining operations expand. Therefore, visual and lighting impacts may become more relevant during the life of the mine and has the potential to impact on the aesthetic amenity of nearby residents. A number of submissions on the EIS raised concerns about the potential light impacts of the expanding operation on surrounding areas. Consequently, it is recommended that a new schedule of conditions be included in the EA to manage any potential impacts from extraneous light emissions on surrounding residences.

Recommendations

It is recommended that the EA be expanded to include Schedule J—Light that incorporates the following conditions relating to the management of light emissions:

Schedule J-Light

- 22. (J1) Subject to condition (J2), the emission of light resulting from the mining activity must not cause an environmental nuisance at any sensitive place.**

23. ***(J2) When requested by the administering authority, an assessment of the light nuisance* must be undertaken within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaint (which is neither frivolous nor vexatious based on the opinion of the authorised officer) of environmental nuisance at any sensitive place, and the results of the assessment must be notified within 14 days of the administering authority following completion of the assessment.***
24. ***(J3) If the assessment indicates condition (J1) is not being met then the EA holder must:***
- (a) immediately implement light abatement measures so the emissions of light from the activity do not result in further environmental nuisance; or***
 - (b) address the complaint by other means including the use of appropriate dispute resolution, if required.***
- (* Assessment to be conducted according to and with reference to the limits specified in AS 4282-1997 Control of the Obtrusive Effects of Outdoor lights).***

3.9 Road and Rail Infrastructure and Transport

Adequacy of the EIS in addressing the final TOR

The requirements of the TOR have been adequately addressed by the submitted EIS. The EIS identified the existing road and rail networks utilised as part of the current coal mining operation and included adequate information about the likely impacts of the Stage 2 operations on the road and rail networks. However, Queensland Rail (QR) requested an additional assessment to determine the potential impact of increased vehicle traffic on all level road/rail crossings between the New Acland Mine and the Port of Brisbane. The requirements of this assessment have been formulated into an agreement between NAC and QR and are outlined in the mitigation measures below. Information on road and rail infrastructure and transport was provided in Section 11—Infrastructure and Traffic of the EIS. Additional information about road and rail infrastructure and transport was provided in Section 4 of the Response to Submissions Report and additional advice about road and rail usage was provided on 22 June 2006 and 28 June 2006.

The potential impacts of the NAC Stage 2 Project on road and rail infrastructure include:

- An increase in construction and contractor workforce during the six month project construction phase generating approximately 25 additional light vehicle movements to and from the site per day along Oakey-Cooyar Road, Jondaryan-Muldu Road, Kingsthorpe-Haden Road and/or Acland-Muldu Road.
- An increase in construction workforce during the six month project construction phase generating 5-10 standard and over-dimensional, oversize heavy vehicle loads per week originating from Brisbane and the surrounding local area via the Warrego Highway and using the Jondaryan-Muldu Road to access the project site.
- An increase in operational workforce during the 15-year operational life of the project generating approximately 30 additional light vehicle movements to and from the site per day along Oakey-Cooyar Road, Jondaryan-Muldu Road, Kingsthorpe-Haden Road and/or Acland-Muldu Road.
- An increase in coal truck haulage during the 15-year operational life of the project generating approximately 60 additional haul truck movements per day to and from the mine site and the Jondaryan rail loading facility.
- Realignment and/or closure of the Acland-Muldu Road during mining operations to allow for development of the centre pit.
- An increase from 3 coal train movements to 5 coal train movements per day from the New Acland Coal rail siding to the Port of Brisbane.

The mitigation measures proposed to manage impacts of the NAC Stage 2 Project on the road and rail networks include:

- Consult with Department of Main Roads and Rosalie Shire Council prior to the movement of any over-dimensional, oversized loads and the implementation of standard permit approval processes and warning vehicle escorts from Brisbane, as required.
- Undertake an upgrade of the existing unsealed road to the west of Acland-Muldu Road, prior to closure/realignment of Acland-Muldu Road, if necessary.
- Design any new road sections and intersections in accordance with the appropriate safety and geometric standards to the satisfaction of Department of Main Roads and Rosalie Shire Council.
- Continue the 20-year road maintenance agreement with Rosalie Shire Council, including progressively upgrading the Jondaryan-Muldu road base strength and widening the edge run at risk pavements in low stability areas.
- Undertake a joint assessment with Queensland Rail to determine the potential impact of increased vehicle traffic on all level road/rail crossings between the New Acland Mine and the Port of Brisbane;
The wording of this agreement follows:
 - “Queensland Rail and the Proponent have agreed to undertake an assessment of the potential impact of increased vehicle traffic on all level road/rail crossings between the New Acland Coal Mine (Jondaryan Rail Loading Facility) and the Port of Brisbane, prior to running any additional trains associated with the New Acland Stage 2 mine. QR’s assessment will include the potential increase in safety risk and general queuing lengths at each level road/rail crossing. The results of QR’s assessment may be provided to the EPA and other interested parties.”

The impacts on road and rail transport generated by the NAC Stage 2 Project will be adequately managed by the above mitigation measures and any additional mitigation measures considered appropriate based on the assessment outcomes of the above agreement with QR.

Recommendations

There are no recommendations for the road and rail infrastructure and transport section.

3.10 Social Environment

Adequacy of the EIS in addressing the final TOR

The requirements of the TOR have been adequately addressed by the submitted EIS. The submitted EIS identified the social values of the affected communities and included adequate information about the impacts of the project on these social values. Information about social values and impacts is provided in Section 13—Social Environment of the EIS. Additional information about social values and impacts is provided in Section 4 of the Response to Submissions Report. Further information about impacts on the social environment in Acland was provided to the EPA on 28 June 2006.

The likely impacts of the NAC Stage 2 Project on the surrounding social environment include the following:

- Private residence housing demand for the additional 60 persons workforce with potential impacts on rental and permanent housing availability and prices in the nearby centres of Oakey, Jondaryan and Toowoomba; and
- Potential skill and labour shortages in local enterprises due to mining workforce expansion.

The following mitigation measures are proposed to limit the impact on the surrounding social environment:

- Use of a locally sourced workforce where possible to limit any oversupply strain of additional non-local workers on the local rental and property markets in the centres of Oakey, Jondaryan and Toowoomba; and
- Recruitment of local people with a range of skill profiles and the provision of training and employment opportunities for local and regional areas.

An indirect impact of the project has seen NAC purchase approximately 50 privately owned properties in the nearby town of Acland. Most sellers have relocated within the Rosalie or adjacent shires. NAC has

commenced a tender process for the removal of suitable houses from the Acland township. The tender process will ensure that the houses are relocated and/or recycled for future beneficial use. However, the removal of houses will detract from the visual and aesthetic amenity of the town for remaining residents. The remaining local Acland services and facilities, including the Acland School, Country Women's Association, service station garage, local store and local fruit and vegetable vendor have closed and/or ceased servicing the Acland township. Remaining local residents must now travel to Oakey to purchase essential foodstuffs such as bread and milk. This loss of local services, together with the removal of existing houses will detract from the appeal of Acland as a small rural town for potential buyers wishing to settle in Acland and will limit any future rise in property values for remaining residents.

Since April 2006, NAC has approached the eight remaining residents in Acland and offered to purchase their properties. NAC has secured three new sale contracts and is negotiating sale conditions with two other residents. A total of three property owners remain in Acland and do not wish to sell their properties at this time, but are willing to recommence negotiations with NAC if their circumstances change in the future. NAC (in additional information provided to the EPA on 28 June 2006) have committed to conducting monthly community consultation with remaining residents to provide them with relevant monitoring data and inform them about project approval process and timelines, and key project milestones.

Assessment

The impacts of the project on road safety, supply and demand for permanent and rental housing, services and facilities on the greater social environment are expected to be manageable through ongoing consultation with the Jondaryan and Rosalie Shire Councils. However, the social structure, vitality and lifestyle of the small, rural Acland community has been significantly diminished as a result of NAC purchasing and commencing a tender process to remove/relocate the majority of properties in the Acland township. Consequently, there is currently significant emotional distress being experienced by remaining Acland residents. Therefore, it is suggested that NAC offer an ongoing community support process to remaining Acland residents, including an individual counselling service for those residents who desire and request to participate.

Recommendation

25. It is recommended that NAC provide a readily available individual counselling service for those residents who desire and request to participate in this service. If there is a cost incurred when providing this service, NAC should consider meeting this cost, or at least negotiating how this service might be provided free of charge to those utilising it. The Department of Communities can be contacted on telephone (07) 4699 4211 to assist NAC in identifying an appropriate agency to conduct this process.

Adequacy of this section of the EM plan

The EM plan (Schedule H—Community) is generally consistent with the EPA's streamlined level 1 conditions. However, a number of sensitive air, noise and light receptors will be located within close proximity to the Stage 2 operations as the centre and southern pits open and progressively expand towards the ML50216 boundary. Therefore, the EPA requires the recommended EA condition (H1) in Schedule H—Community of the EM plan to be expanded to clearly define the complaint recording and response reporting requirements.

Recommendation

26. It is recommended that Condition (H1) in Schedule H—Community of the EM plan be replaced with the following:

(H1) All complaints received by the holder of this EA relating to the environmentally relevant activity must be recorded in a logbook with the following details:

- **time and date of complaint;**
- **type of communication (telephone, letter, personal etc.);**

- ***name, contact address and contact telephone number of complainant (Note: if the complainant does not wish to be identified then “Not identified” is to be recorded);***
- ***response and investigation undertaken as a result of the complaint;***
- ***name of person responsible for investigating complaint; and***
- ***action taken as a result of the complaint investigation and signature of responsible person.***

3.11 Hazard and Risk

Adequacy of the EIS in addressing the final TOR

The requirements of the TOR have been adequately addressed by the submitted EIS. The submitted EIS identified the potential hazards and risks associated with mining activities during the construction and operational phases of the project and included adequate information about the operational health and safety measures to control the risk to the project workforce, surrounding landholders, general public and the environment. Information about hazards and risks of the project and operational health and safety measures is provided in Section 15—Social Environment of the EIS. Additional information about hazard and risk is provided in Section 4 of the Response to Submissions Report.

The major potential hazards and risks of the NAC Stage 2 Project on the construction and operational workforce, surrounding landholders, general public and the environment include:

- handling, transport and use of explosives on-site;
- construction and operating activities associated with open-cut coal mining and site rehabilitation;
- storage of flammable and combustible liquids on-site; and
- traffic movements to and from the site.

The operational health and safety measures proposed to control hazards and risks of the project include:

- compliance with the *Explosives Act 1999* and AS2187 ‘Explosives—Storage, transport and use’;
- compliance with the *Coal Mining Safety and Health Act 1999* and implementation of existing mine safety and occupational health standards to manage construction and operational risks;
- compliance with the *Dangerous Goods Act 1985* to manage the storage and use of flammable and combustible liquids;
- implementation of a traffic management plan including training for light and heavy vehicle operators and appropriate road design and maintenance measures; and
- implementation of an Emergency Response Plan containing emergency response procedures and incident management measures.

The above mitigation measures are consistent with existing mechanisms on-site for managing hazard and risk and meet the legislative requirements for managing the hazards and risks of the NAC Stage 2 Project.

Adequacy of this section of the EM plan

Incident and non-compliance reporting have been included as commitments in Section 16.5 of the EM plan. However, no conditions were recommended to be included in the EA. Incident and non-compliance reporting conditions are considered necessary and desirable to ensure the EPA is kept informed of environmental spills and contamination so that an appropriate response can be quickly established and efficiently implemented.

Recommendations

It is recommended that the EA be expanded to include Schedule K—Reporting that incorporates the following incident and non-compliance reporting conditions:

Schedule K—Reporting

Notification of Emergencies and Incidents

27. **(K1) As soon as practicable after becoming aware of any emergency or incident which results in the release of contaminants not in accordance, or reasonably expected to be not in accordance with the conditions of this EA, the holder of this EA must notify the administering authority of the release by telephone or facsimile.**
28. **(K2) The notification of emergencies or incidents as required by condition (K1) must include but not be limited to the following:**
- **the holder of the EA;**
 - **the location of the emergency or incident;**
 - **the number of the EA;**
 - **the name and telephone number of the designated contact person;**
 - **the time of the release;**
 - **the time the holder of the EA became aware of the release;**
 - **the suspected cause of the release;**
 - **the environmental harm and or environmental nuisance caused, threatened, suspected, or likely to be caused by the release; and**
 - **actions taken to prevent further any release and mitigate any environmental harm and or environmental nuisance caused by the release.**
29. **(K3) Not more than fourteen (14) days following the initial notification of an emergency or incident, the holder of the EA must provide written advice of the information supplied in accordance with condition (K2) in addition to:**
- **proposed actions to prevent a recurrence of the emergency or incident;**
 - **outcomes of actions taken at the time to prevent or minimise environmental harm and or environmental nuisance; and**
 - **the results of any environmental monitoring performed.**

Exception Reporting

30. **(K4) The holder of this EA must notify the administering authority in writing of any monitoring result that indicates an exceedence of or non-compliance with any EA limit within twenty-eight (28) days of completion of analysis.**
31. **(K5) The written notification required by condition (K4) above must include:**
- **the full analysis results;**
 - **details of investigation or corrective actions taken; and**
 - **any subsequent analysis.**

4. Adequacy of the EM plan for the project

A draft EM plan was included with the submitted EIS that was released for public notification. A number of submissions on the submitted EIS raised issues that required amendments to the draft EM plan and many of these amendments were agreed to by NAC in the Response to Submissions Report. The EPA requested additional information about the project on 29 May 2006 and NAC provided additional information, together with a revised draft EM plan on 28 June 2006. The EPA has reviewed the amendments to the draft EM plan agreed to by NAC, but considers that the recommendations outlined in this EIS assessment report should also be fully integrated into the EM plan before the document would be acceptable. In its present form the EM plan is not considered to be adequate. A revised EM plan must be submitted before the administering authority will make a decision under Section 207 of the EP Act.

5. Suitability of the project

Project issues and recommendations were outlined in Section 3 above. The EPA has considered the final TOR, the submitted EIS, all submissions on the submitted EIS, and the standard criteria. Despite some areas where the TOR were not fully addressed, the submitted EIS (including the EIS, the Response to Submissions Report and additional information provided between 26 May and 28 June 2006) have not identified impacts of sufficient magnitude to prevent the project from proceeding. However, the recommendations of this EIS assessment report should be fully implemented.

Disclaimer:

While this document has been prepared with care it contains general information and does not profess to offer legal, professional or commercial advice. The Queensland Government accepts no liability for any external decisions or actions taken on the basis of this document. Persons external to the Environmental Protection Agency should satisfy themselves independently and by consulting their own professional advisors before embarking on any proposed course of action.

6. Approved by

Signature

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