



NEWACLAND COAL MINE STAGE 3. INITIAL ADVICE STATEMENT



New Acland Coal Mine Stage 3 Expansion Project

Initial Advice Statement

April 2007



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Executive Summary

New Acland Coal Pty Ltd (NAC) proposes to develop the New Acland Coal Mine Stage 3 Expansion Project (the "Project" or "Stage 3"). The Project will involve the expansion of the existing New Acland Coal Mine ("Stages 1 & 2") and associated on site infrastructure to produce up to 9 million tonnes per annum of thermal coal for the domestic and export markets. The Project manager is NAC.

The proposed principal domestic market for NAC's coal will be the Tarong Power Station, which supplies approximately 25% of Queensland's electricity needs. NAC currently has a Coal Supply Agreement with Tarong Energy and is awaiting a final decision by Tarong Energy as to its preferred option for the long term supply of coal to the Tarong Power Station. Two other possible options are being assessed for the long term coal supply contract with Tarong Energy.

It is proposed that The Project will be a conventional truck/shovel mining operation, with production commencing in 2010 and extending for approximately 25-30 years. The Project is approximately 14 kilometres north-northwest of Oakey and 35 kilometres northwest of Toowoomba. New Acland Coal Mine is also situated within NAC's Mineral Development Licence (MDL) 244.

The proposed Project is expected to:

- Contribute significantly to the State's economy and maintain employment for over 400 people (direct and flow-on, full time and part-time).
- Directly employ an estimated 360 people, including contractors, during operations. The construction workforce is expected to peak at also 360. In addition, there will be opportunities for local employment in construction, transport, and the supply of goods and services.
- Require approximately AUD\$500 million of capital to bring it to full production and a projected further AUD\$400 Million for replacement capital over the life of the Project.
- A total estimated value of over \$AUD8.5 Billion is expected to be generated from coal export sales and sales to Tarong Power Station over the life of the Project (i.e. based on a current fixed price for the coal and the proposed available reserves).
- Add considerable value to the local and State economy including contributions over the life of the Project through the multiplier effect of wages spent and invested and the use of external businesses.



- Provide a superior environmental outcome for Queensland and Australia through the use of NAC's low emission, high energy coal which will reduce the amount of Greenhouse gas emissions, other gaseous pollutants (e.g. NO_x and SO_x) and solid waste (e.g. fly ash) produced by Tarong Power Station.

The key environmental and physical impacts of the Project are likely to be associated with:

- The requirement for inter-Departmental coordination for permitting and approvals. The Project requires an application for a new Mining Lease and amended Environmental Authority, the realignment of local government controlled roads under the *Land Act 1994*, approvals under the *Water Act 2000*, approvals for an external water supply (e.g. pipeline from Toowoomba) and certain local government approvals. The Project may also be considered to have a potentially significant local impact on a threatened ecological communities and species listed under the Commonwealth *Environmental Protection and Biodiversity Conservation Act* (EPBC Act). A referral will be made to the Commonwealth for a determination of whether the project is a "controlled" action or not. It is envisaged that the Project will be deemed a "controlled action" by the Commonwealth, and therefore, require approval under the EPBC Act.
- The possible diversion of Lagoon Creek. A section of Lagoon Creek may need to be diverted to allow mining to take place in the Manningvale Pit.
- Removal of the town of Acland to allow mining in the Manningvale Pit.
- The negotiations between the Queensland Heritage Council and NAC over the future management of the 'Former Acland No. 2 Colliery', which has been "provisionally listed" under the Queensland Heritage Act 1992.
- Land clearing to allow mine development. Bluegrass communities, and species listed under nature conservation legislation will be disturbed.
- Rehabilitation of the former mined land to a suitable post mine land use.



1. Introduction

1.1 Project Background and Location

The New Acland Stage 3 Expansion Project (the “Project” or “Stage 3”) involves the development and operation of an open cut mine producing 9 tonnes per annum (Mtpa) of thermal coal for the domestic and export markets. Stage 3 will have a mine life of approximately 25-30 years.

The Project is approximately 14 kilometres north-northwest of Oakey and 35 kilometres northwest of Toowoomba (see **Figure 1**). Coal will be transported to the Tarong Power Station by either rail or by overland conveyor. Tarong Energy will be responsible for the transport of the coal from New Acland Coal Mine to Tarong Power Station.

1.2 Proponent

The Project Proponent, NAC, is a subsidiary of New Hope Corporation Limited (New Hope Coal Australia) and currently operates the New Acland Coal Mine on Mining Leases (MLs) 50170 and 50216 within the Rosalie Shire on the Darling Downs in southern Queensland.

New Hope Corporation Limited is an independent Australian company, publicly listed on the Australian Stock Exchange. Operating under the business name of New Hope Coal Australia (NHCA), direct interests include coal mining, port operations, real estate, forestry and resource based activities in Queensland. NHCA also possess indirect interests in coal seam methane gas production through recent investment in Arrow Energy Pty Ltd.

NHCA’s mines contribute substantially to the economy of Queensland and its communities through income, employment, use of external businesses and payments to the Queensland government and government-owned corporations.

The estimated net contribution to State Product from NHCA’s operations is significant in terms of capital expenditure and employment opportunities and will increase as a result of Stage 3.

1.3 Need for the Project

The current coal supply contract for Tarong Power Station will expire at the end of 2010. Therefore, Tarong Energy is required to acquire a new reliable coal source to provide a consistent electricity supply to the South East Queensland region from the start of 2011.

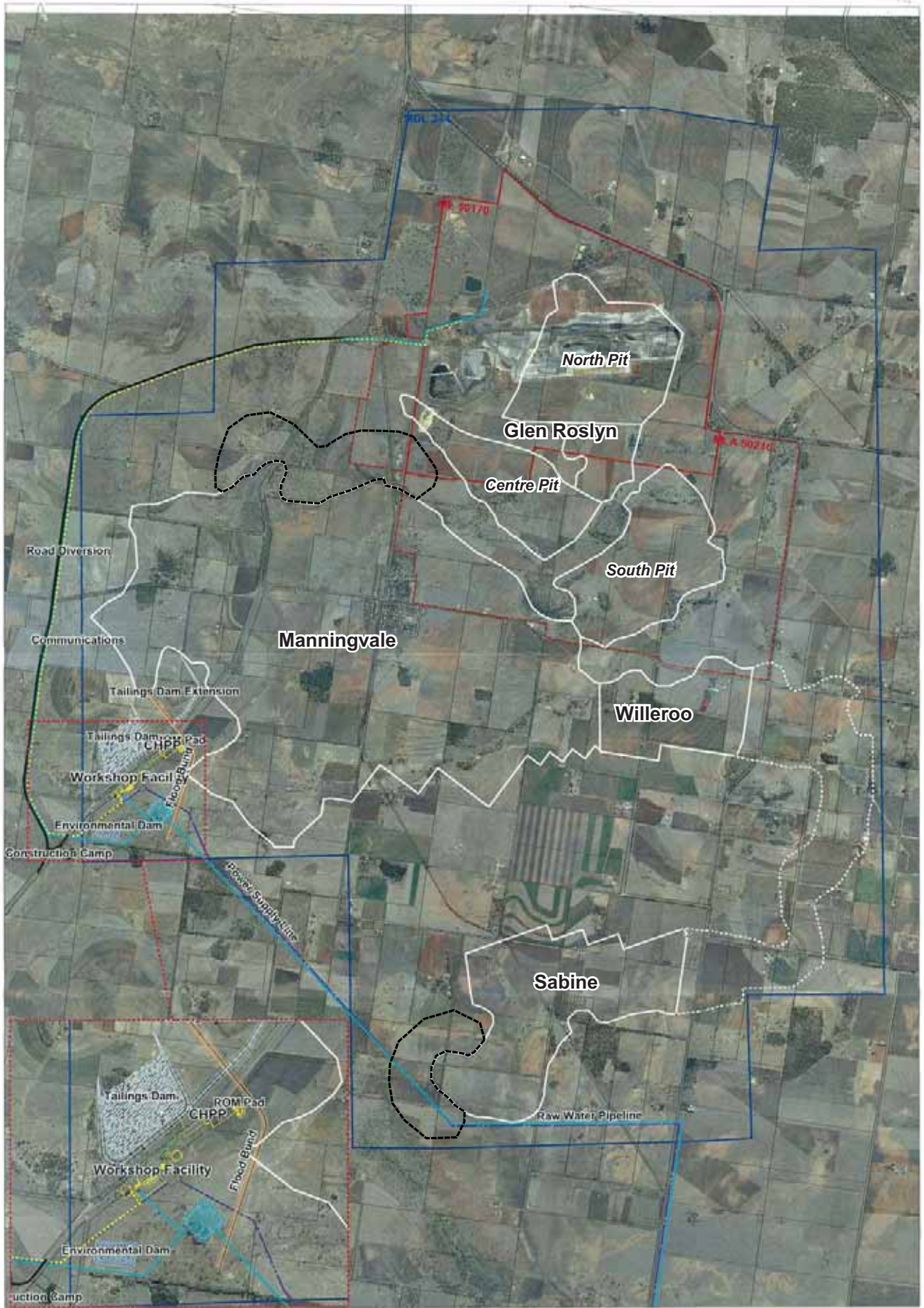
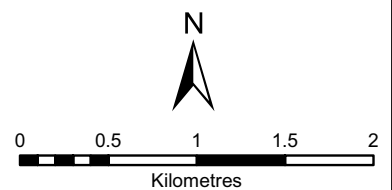


Figure 1
Location Plan



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COAL MINE **STAGE 3.**
 INITIAL ADVICE STATEMENT





New Acland Coal Mine is one of three viable long term coal supply options being considered by Tarong Energy. As a result, NAC and Tarong Energy have signed a Coal Supply Agreement (CSA). NAC has been working with Tarong Energy within the bounds of the current CSA.

If selected, NAC's coal will provide Tarong Energy with the ability to improve the efficiency of power production and reduce the amount of pollutants and waste produced at Tarong Power Station.

1.4 Purpose and Scope of the Document

This Initial Advice Statement (IAS) has been prepared by NAC to provide information to:

- Enable the Coordinator-General to determine whether the Project meets the criteria for declaration as a 'significant project' under the *State Development and Public Works Organisation Act 1971*; and
- Provide sufficient detail to enable advisory agencies and other stakeholders to have effective input into establishing a Terms of Reference (ToR) for an Environmental Impact Statement (EIS) for the Project.



2. Project Description

The Project description presented in this section is based on the pre-feasibility studies carried out by NAC.

2.1 The Resource

The New Acland coal deposit is a high quality coal resource. The total reserves included within the life of mine schedule are 415 million Run-Of-Mine (ROM) Tonnes to provide approximately 230 million product tonnes of coal over 25-30 years. The coal resource is contained within the Surat Basin, in the Walloon Coal Measures. Three major coal seam sequences have been identified within the Walloon Coal Measures at Acland. These are, in descending stratigraphic order:

- Waipanna;
- Acland-Sabine; and
- Balgowan.

The principal coal seam sequence associated with this project is the Acland-Sabine Sequence. The Acland-Sabine sequence typically comprises 20 to 30 m of alternating coal and waste rock (interburdens), of which approximately half consists of coal.

The Waipanna Sequence is stratigraphically located 20 to 40 m above the Acland-Sabine Sequence and the Balgowan Sequence is located some 30 m below the Acland-Sabine Sequence.

The resource areas for the Stage 3 expansion comprise four different mining areas:

Glen Roslyn (existing mining areas – Stage 1 & 2) – which consists of the North, South and Centre pits;

- Manningvale – this is the largest reserve area and includes the township of Acland;
- Sabine – the Sabine reserve area is situated in the south of the MDL; and
- Willeroo – This reserve area extends off the eastern edge of the Manningvale reserve. Coal extraction from the Willeroo Pit will be limited by the Oakey-Cooyar Road which creates an artificial eastern extent to the mineable reserve area.

The resource areas for the Stage 3 Expansion are shown in **Figure 1**.



2.2 New Acland Stage 3 Expansion Project Description

2.2.1 Mining

The proposed Project involves the Stage 3 expansion of New Acland Coal Mine through the development and operation of two new open cut pits (Manningvale and Sabine/Willeroo Pits) to the south of existing operations (Stage 1 and 2). The commencement of Stage 3 mining operations is closely linked to obtaining the long term coal supply contract for the Tarong Power Station. Negotiation between NAC and Tarong Energy are advancing in relation to this matter. Current mine plans provide for production to commence in 2010 to guarantee the agreed coal supply rate is reached by the critical start date at the beginning of 2011 (i.e. to ensure continuity of electricity supply for southeast Queensland).

The Project will involve the staged development of two new pits over the life of the Project, namely the Manningvale and Sabine/Willeroo Pits, using a conventional open cut truck/shovel operation. The current mine plan allows for the initial development of the Manningvale Pit 'box-cut' in the second quarter of 2010. Construction of the box-cut involves pre-stripping operations (removal of topsoil for future rehabilitation activities), overburden removal down to the first sequence of coal seams and construction of an out-of-pit dump from the overburden. Scrapers, excavators and trucks will be used to conduct these activities. Approximately 6 months after the commencement of the pre-stripping, the coal extraction fleet begins production, mining the coal and thin partings.

Mining operations at the Manningvale deposit will progress via a series of strips across the deposit in roughly a north to south direction. The strip ratio for the deposit ranges between 1.5 - 4 bank cubic metres (bcm) waste per tonne of ROM coal. After approximately 12-18 months of mining, adequate pit floor will become available in the Manningvale Pit to allow the progression from out-of-pit spoil dumping to in-pit spoil dumping. It is proposed that the remainder of mining within the Manningvale Pit will then involve in-pit spoil dumping as the mining strips progress across the coal deposit, which represents a majority of the waste rock disposal for the pit.

Development of the Sabine/Willeroo Pit under the current mine plan is scheduled to commence around the end of 2021 within the Sabine reserve area. Mining of this coal deposit will follow the same series of developmental steps as the Manningvale Pit, which includes pre-stripping operations, box-cut development, initial coal extraction, progression of mining strips across the deposit until the economic reserves are exhausted, and a progression from out-of-pit spoil dumping to in-pit spoil dumping.



The final coal reserves to be developed will be the Willeroo reserve area in 2032. Mining will cease within the Willaroo and Manningvale reserve areas in around 2035-2040. The out-of-pit dumping requirements for the Willeroo reserves may be negated by using the spoil from this area to backfill the final void of the Glen Roslyn South Pit. The proposed post-mining land form will comprise waste rock dumps (out-of-pit/in-pit) and final voids.

Rehabilitation will be conducted progressively behind the active mine path as areas become operationally available. Currently, Stage 1 & 2 has approval for “grazing activities” as the final land use, which involves the re-establishment of mainly exotic pasture grass and legume species with scattered areas of local native tree species. Progressive and final rehabilitation requirements will be guided by the outcomes of the Environmental Impact Assessment process in which alternative final land use options will be explored.

Within the Project area, there is a small ill defined and highly disturbed ephemeral watercourse known as Lagoon Creek. This creek may require diversion prior to 2015, at which time the Manningvale Pit is scheduled to first intercept it. Whilst further investigation will be conducted to determine the method of diversion used, preliminary diversion investigations and baseline environmental studies are currently underway.

Initial consultation with the Department of Natural Resources and Water will be conducted in relation to this matter in the near future. Some preliminary discussions about this matter have been held with the Environmental Protection Agency. The local Landcare groups and Rosalie Shire Council will also be closely involved in the consultation process.

Mine infrastructure will be located mid way along the proposed Stage 3 mining lease on the western boundary and mirror the facilities currently used by Stages 1 and 2 of New Acland Coal Mine.

Periodic blasting will be used to loosen overburden. Coal will not be blasted. Currently, an external contractor conducts blasting at New Acland Coal Mine in discrete campaigns. As a result, minimal explosive components are stored on site at any time. It is envisaged that this practice will continue for the life of the mine.

The current mining fleet used will be significantly expanded to facilitate the proposed increase in production. Equipment to be used will include excavators, front-end loaders, scrapers, dozers, graders and rear dump trucks. Ancillary equipment used will include light vehicles, service trucks and water trucks.



2.2.2 Coal Preparation and Handling

Prior to and during the development of the Manningvale Pit associated mine infrastructure, including a new Coal Handling and Preparation Plant (CHPP) and Tailings Storage Facility (TSF) will be constructed with reference to the coal deposit and the proposed load-out facility for supply to Tarong Energy's selected transport option (either rail or conveyor). The new CHPP and TSF will be commissioned to coincide with the initial supply of coal from the Manningvale Pit.

The CHPP's infrastructure comprises a modular Washplant, ROM Pad, ROM feed infrastructure, product load-out infrastructure, a waste transport system for the tailings and coarse rejects, a TSF (and possible TSF extension), control room, workshops and offices.

2.2.3 Waste Management

The waste rock dumps have been designed to minimise haul distance and limit the size of disturbed areas. The timing of overburden dumping is discussed in **Section 2.2.1**.

A study is currently being undertaken to assess the geochemical characteristics of overburden materials to identify any potentially acid forming, dispersive or saline materials and map their distribution. Based on previous experience at New Acland Coal Mine, overburden management is not expected to be a major issue as the spoil at existing operations has been non-acid forming and dispersion has not been a major problem. As required, management plans will be prepared for materials identified as requiring selective handling or special rehabilitation techniques.

Coarse reject (coarse waste stream) from the washplant are disposed of in cells within the spoil dump (e.g. in-pit cells). This current disposal method for coarse rejects will be maintained for Stage 3.

Figure 1 outlines the possible location of a TSF and possible TSF extension. Based on the size of these dams it is envisaged that the first TSF will provide enough room for tailings for 5 years of production, with the TSF extension providing a further 5 years of tailings capacity. The Stage 3 TSFs will only receive tailings from the Stage 3 CHPP. By 2021, production within the Sabine/Willeroo Pit will see the western edge of the Manningvale reserve being mined out, leaving behind a pit void within the vicinity of the Stage 3 CHPP. It is envisaged that this pit void will be used for in-pit tailings disposal for the remaining life of the Project.

In-pit tailings disposal options are currently being investigated for use by the existing Stage 1 & 2 CHPPs. It is envisaged that an in-pit tailings method will be developed for the remainder of the life of the Project.



2.2.4 Infrastructure Requirements

Site infrastructure for Stage 3 will include offices (administration, lunch room, bath house, etc.), sewage treatment and potable water treatment plants, CHPP (and associated infrastructure), TSF (and possible TSF extension), roads, a fuel farm, workshop/warehouse, wash bays, tyre handling and equipment lay down pad, environmental dams and other water management structures (e.g. diversion drains, etc.).

Power supply investigations will examine network/grid supply specifically looking at the issues of upgrade requirements, alternative supply arrangements, reliability of supply and the required changes to the internal distribution network.

A majority of the coal from the new CHPP will be loaded directly on to a train or conveyor for transport to Tarong Power Station (i.e. based on Tarong Energy's choice on the mode of coal transport). The first loads of thermal coal will be transported in late 2010 to ensure sufficient stocks are available for full supply at the start of 2011. NAC will be responsible for delivering the coal at the required rate to Tarong Energy's rail or conveyor head. NAC's choice on the delivery system for the coal to Tarong Energy's rail or conveyor head from the CHPP will depend on the mode of transport to Tarong Power Station, establishment and operational costs, efficiency and reliability.

The remainder of coal produced by the Project for export and local domestic markets will be transported 16km by road trucks to the southwest along the Jondaryan-Muldu Road to New Acland Coal Pty Ltd's existing rail siding and coal loading facility, east of Jondaryan. NAC is currently investigating alternative methods of coal transport to Jondaryan (e.g. conveyor).

A small percentage of the washed coal is transported exclusively by road to local domestic markets (e.g. Swanbank Power Station). The Jondaryan-Muldu Road will not receive a significant increase in truck movements as a result of the planned increase in production by the Project. In addition, the existing transport of coal by road to Swanbank Power Station will not increase.

Other key infrastructure issues such as water supply are under investigation. Currently, New Acland Coal Mine's main water source is groundwater from the Great Artesian Basin (mainly the Helidon Sandstone).

There is no current plan to increase groundwater use for Stage 3 due to the lack of available reserves (State or General) under the new Resource Operations Plan for the Great Artesian Basin and the *Water Resource (Great Artesian Basin) Plan 2006*. The option of increasing groundwater use via the proposed water trading scheme may be investigated.



NAC has commenced discussions with the Toowoomba City Council into the possible use of one of the waste water streams from the upgraded Wetalla Waste Water Treatment Plant in Toowoomba to the Project (i.e. at an agreed water quality). A pipeline would need to be established under a separate approval. NAC is also exploring other possible water supply options. Reliability of water supply is a key issue for the Project.

The current sewage treatment plant and potable water treatment plant on site will require upgrades via the construction of additional units within the Stage 3 area to handle the demand of the increased workforce.

The possible use of a construction camp is being investigated and will be influenced by the development timetable for the Project's infrastructure and Tarong Energy's final transport solution for transport of the coal from the Project to Tarong Power Station.

During Project operation, the majority of the mine workforce is expected to choose to seek housing in Oakey, Toowoomba and surrounding districts. The supply of accommodation in the town of Oakey, Toowoomba and surrounding districts is expected to be adequate for the construction and operational phase of the Project.

2.2.5 Road Diversions

The product coal haul road (Jondaryan-Muldu Road) from New Acland Coal Mine to the Jondaryan coal loading facility passes directly over one of the Stage 3 coal deposits (Manningvale), and therefore, must be relocated. This road is controlled by the Rosalie Shire Council and was upgraded by the Rosalie Shire Council for Stage 1 of the New Acland Coal Mine and is currently being re-upgraded for Stage 2 of the New Acland Coal Mine. The issues associated with the proposed road diversion are currently being investigated by NAC. The alignment of the proposed diversion of the Jondaryan-Muldu Road is shown in **Figure 1**.

2.3 Project Tenure

The Project tenure details are presented in **Figure 2**. Currently, New Acland Coal Mine comprises MLs 50170 and 50216. Stage 3 will require a new ML within MDL 244. NAC will submit an ML application under the *Mineral Resources Act 1989* and a new Project Environmental Authority under the *Environmental Protection Act 1994* following the Coordinator General's decision on whether Stage 3 is a 'Project of State Significance'.

The property within MDL 244 is either freehold or leasehold tenures and miscellaneous reserves (e.g. road). NAC through its sister company, Acland Pastoral Company, is in the process of acquiring the properties within the Project area.

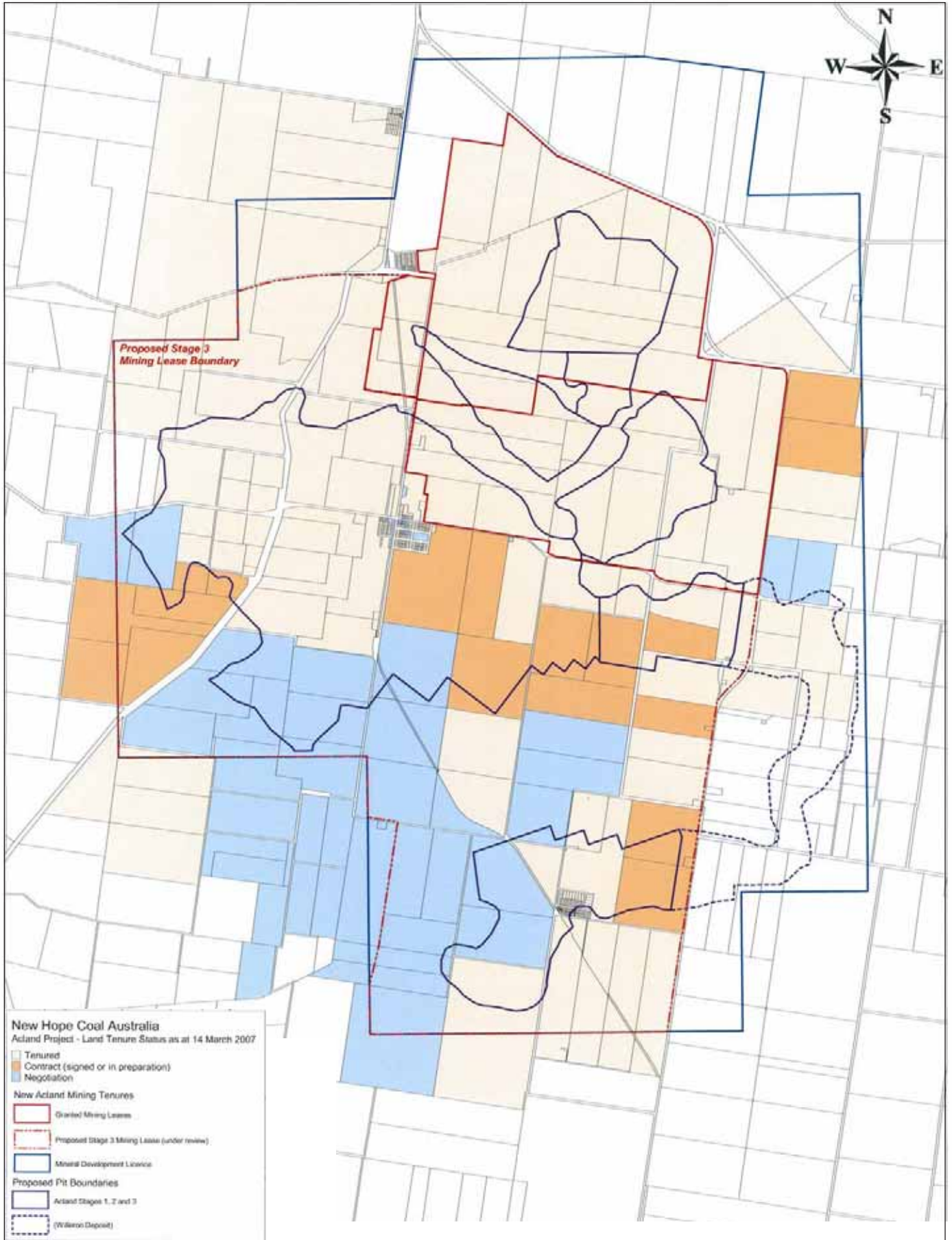
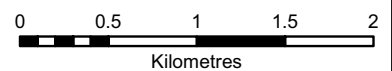


Figure 2
Tenure of Project and Surrounds

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INITIAL ADVICE STATEMENT





The planned product coal haul road diversion is largely outside the proposed Stage 3 Mining Lease area and is covered mainly by existing road reserve and to a lesser extent freehold and leasehold tenures.

NAC currently holds Authority to Prospect (ATP) 812P for petroleum exploration, which completely underlies MDL 244. ATP 812P is held by NAC to investigate the coal seam methane gas potential within the Acland area.

A Development Plan is currently lodged with the Department of Mines and Energy for New Acland Coal Mine Stage 1 and 2 and ATP 812P. This plan will be updated for Stage 3.

2.4 Employment Opportunities

At full production the Project will directly employ approximately 360 people. Apart from direct employment, many more people will be employed indirectly as a result of flow-on effects. For example, contractors are used on site for many tasks (e.g. maintenance).

Currently, 25% of New Acland Coal Mine's workforce live within 25km of the Mine and 75% of New Acland Coal Mine's workforce live within 50km of the Mine. It is believed for Stage 3 that these figures may grow to 30% and 85%, respectively.

The construction phase will provide opportunities for local employment in construction, transport, and the supply of goods and services. The construction workforce is expected to peak at approximately 360.

The construction phase will involve establishment of the mine infrastructure, CHPP and TSF, and is expected to take approximately 12 months.

2.5 Project Investment and Significance

The preliminary estimate of the capital cost to take the Project to full production is approximately AUD\$500 million.

The coal from the Project will replace product from the Meandu Mine which is the current coal source for the Tarong Power Station.

Therefore, the economic importance of the Project to the economy is expected to be significant, as Tarong Power Station supplies approximately 25% of Queensland's power.



The Project is expected to:

- Contribute significantly to the local and State economy through the multiplier effect of associated mining related expenditure, investment, employment and opportunities for external support businesses.
- Maintain employment for over 400 people (direct and indirect, full time and part-time). Given the level of income earned by NAC's employees, local expenditure by these employees will be a significant factor in supporting local communities.
- Provide a reliable coal supply, which is recognised world wide as a superior coal product because of its high energy content, low rate of emissions (Greenhouse and other gaseous pollutants) and reduced fly ash production, to Tarong Power Station.



3. Existing Environment, Potential Impacts and Environmental Management Strategies

3.1 Surface Water

All watercourses in the vicinity of New Acland Coal Mine are ephemeral. The majority of the Project area is drained by Lagoon Creek, which flows in a south westerly direction through MDL 244. The Lagoon Creek catchment possesses a long history of agricultural use in the form of grazing and dryland cropping, and as a result, Lagoon Creek is a highly disturbed creek system.

The key Project activities that are likely to affect surface water flows are:

- The potential diversion of a section of Lagoon Creek to allow the complete development of the Manningvale Pit;
- The construction of a flood levee to prevent floodwaters from Lagoon Creek entering the proposed Stage 3 mining and industrial areas.

Potential impacts on surface water quality at the site include run-off from disturbed areas such as overburden dumps. The main pollutant is suspended solids and to a lesser degree salinity (depending on the Project's water supply source).

The following mitigation strategies will reduce potential impacts on surface water flows and quality:

- The Lagoon Creek diversion will be designed and constructed to provide a stable channel compatible with the local hydrological regime.
- Implementation of a "clean water – dirty water" system to divert clean runoff around disturbed areas and direct run-off from disturbed areas to retention dams for treatment – which is the current management strategy for the existing mining operations.
- The development of a detailed water management plan for Stage 3 to ensure water released off site meets the licensed discharge limits and the water quality objectives for Lagoon Creek.

3.2 Groundwater

The Project area is located within the Cecil Plains Sub-basin 4223, the western section of the Clarence-Moreton Basin. Groundwater investigations dating back to 1998 have been conducted by Shell Coal Pty Ltd and NAC within the Project area and immediate surrounds. More recently (since 2001), groundwater assessment of ML 50170 and ML50216 has been undertaken using a combination of field surveys and numerical groundwater modelling.



Groundwater modelling has been used to simulate the current groundwater environment and to assist in prediction of regional impacts on groundwater users and the environment resulting from mine related groundwater extraction. Potential groundwater impacts have been assessed in terms of water used by New Acland Coal Mine (i.e. mainly from deeper aquifers – Marburg and Helidon Sandstone aquifers) and the effect of removal of the shallower coal seam aquifers on the existing groundwater environment.

The existing Stage 1 and 2 operations currently draws groundwater from a number of aquifers via on-site extraction bores. The current groundwater allocation to the New Acland Coal Mine is 710 ML/yr from the Helidon Aquifer, 500 ML/yr from the Hutton Aquifer and 160 ML/yr from the Basalt Aquifer. The Stage 3 expansion does not plan to use more groundwater. Studies are currently underway to delineate the possible groundwater impact from operation of the Project and will be detailed in the EIS.

3.3 Land Resources

The landscape is generally near flat to gently undulating plains and comprises a number of soil types, including alluvium, basalt and cracking clays. Vegetation has been extensively cleared to allow dryland cropping and the sowing of improved pastures for grazing.

The likely impacts on land resources from the Project include changes to:

- landform;
- drainage patterns;
- land capability and suitability; and
- land uses.

The proposed pit and waste rock dumps will reduce the area available for dryland cropping within the Project area. The topsoil resources present are more than adequate for rehabilitation purposes.

A number of options for rehabilitating disturbed areas will be evaluated, including rehabilitation to improved pastures for grazing. The knowledge gained from the current operations will be applied to the Stage 3 expansion.

3.4 Flora

Several floristic surveys of the Project area have been carried out. Although a substantial proportion of the Project area is used for cropping or grazing, remnant communities of native vegetation occur in MDL 244 and within existing roadside reserves.

The regional ecosystems identified on the site and their conservation significance are summarised in the **Table 1**.

In addition to the regional ecosystems of conservation significance, the following species of conservation significance have been identified and previously recorded in the Project area:

- *Homopholis belsonii* (Belson’s Grass), which is listed as ‘Endangered’ under the *Nature Conservation (Wildlife) Regulation 1994* (NCWR 1994) and (Vulnerable)’ under the EPBC Act.
- *Bothriochloa biloba* (Lobed Blue Grass), which is listed as ‘Vulnerable’ under the EPBC Act.
- *Digitaria porrecta* which is listed as ‘Rare’ under the NCWR 1994 and Endangered under the EPBC Act.

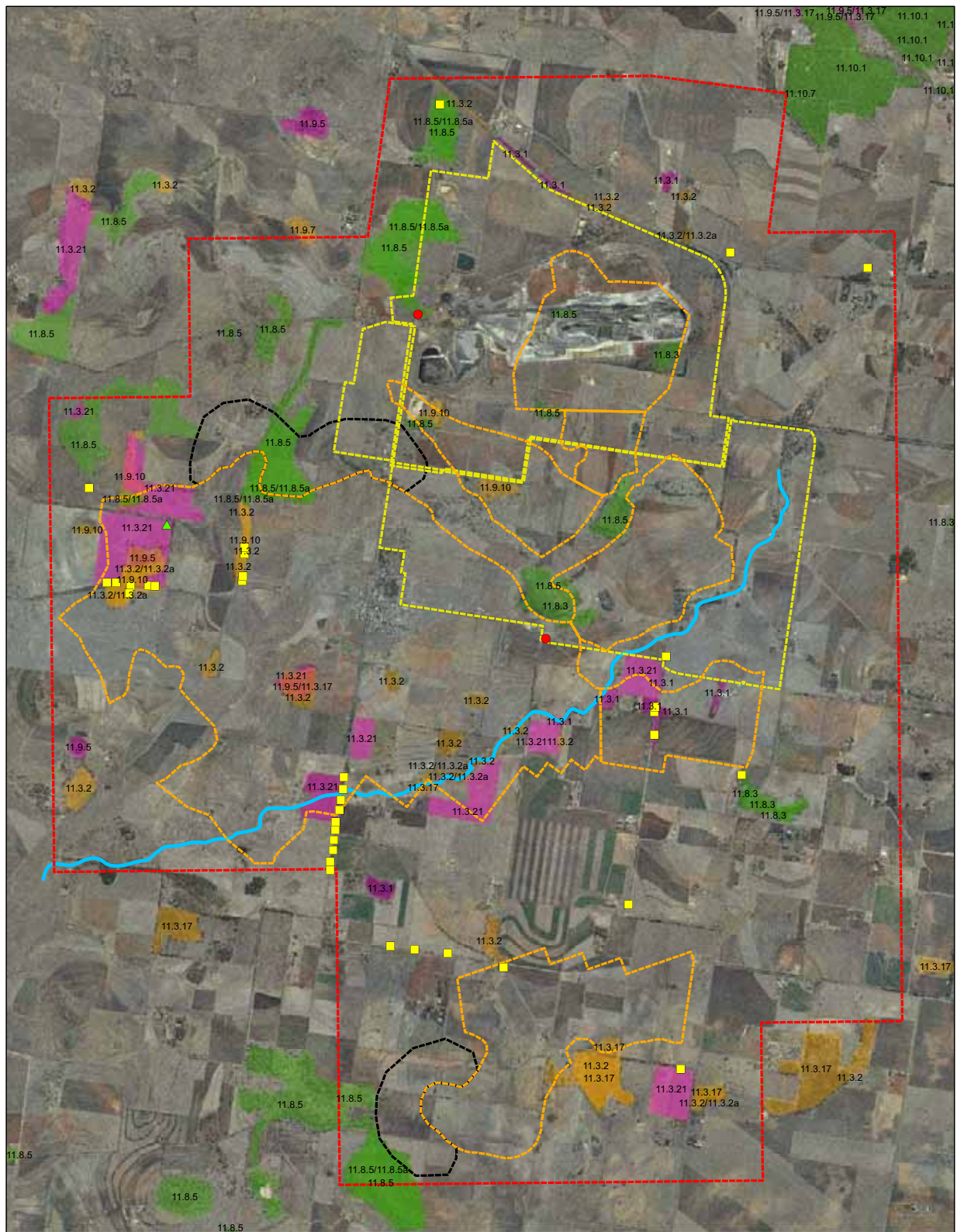
Table 1: Regional Ecosystems and their Status

RE Code	Description	VMR status ¹	EPBC Act Status ²
11.3.1	<i>Acacia harpophylla</i> and/or <i>Casuarina cristata</i> open forest on alluvial plains.	Endangered	Endangered
11.3.2; 11.3.2a	<i>Eucalyptus populnea</i> woodland on alluvial plains; <i>Eucalyptus conica</i> woodland on alluvial plains.	Of Concern	N/A
11.3.17	<i>Eucalyptus populnea</i> woodland with <i>Acacia harpophylla</i> and/or <i>Casuarina cristata</i> on alluvial plains.	Of Concern	Endangered
11.3.21	<i>Dichanthium sericeum</i> and/or <i>Astrebla spp.</i> grassland on alluvial plains. Cracking clay soils.	Endangered	Endangered
11.8.3	Semi-evergreen vine thicket on Cainozoic igneous rocks.	Not of Concern	N/A
11.8.5; 11.8.5a	<i>Eucalyptus orgadophila</i> open woodland on Cainozoic igneous rocks; <i>Eucalyptus orgadophila</i> woodland with a dense understorey of low trees species.	Not Of Concern	N/A
11.9.10	<i>Acacia harpophylla</i> , <i>Eucalyptus populnea</i> open forest on Cainozoic fine-grained sedimentary rocks.	Of Concern	Endangered

¹ Status under the *Vegetation Management Regulation 2002*.

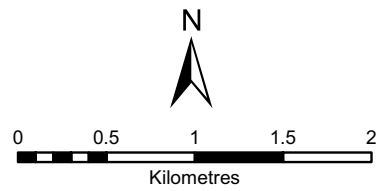
² Status under the *Environmental Protection and Biodiversity Conservation Act 1999*.

Locations of significant flora communities and species are shown in **Figure 3**.



- Legend**
- Stage 2
 - Stage 3 MDL
 - Stage 3 Pit Outline
 - Stage 3 Dumps
 - Lagoon Creek
 - *Bothriochloa biloba*
 - ▲ *Digitaria porrecta*
 - *Homopholis belsonii*
 - Endangered
 - Of Concern
 - Not Of Concern

Figure 3
Vegetation Types





A comparison between the mine footprint of disturbance and locations of significant flora species and communities indicates that:

- Of the eleven areas where *Homopholis belsonii* occurs on MDL 244, four of these would be cleared for the construction of the pit and waste rock dumps;
- Of the two patches of *Bothriochloa biloba* within the MDL 244 one of the patches would be cleared for the construction of the pit and the other patch may be impacted by the construction of a new road for the proposed mine expansion;
- A single patch of *Digitaria porrecta* is present within the MDL 244 and will be removed for the construction of the pit and waste rock dumps;
- Of the seven patches of *Dichanthium sericeum* grassland mapped within the MDL 244, three patches will be totally removed and another three patches will be partly removed. One patch will be retained at the southern end of the MDL 244 area. The remaining area of the three patches being partly removed will be protected from further disturbance from mining activities.
- Areas of Brigalow adjacent to Lagoon Creek will be cleared for the proposed pit and waste rock dumps and comprise five small disturbed patches. A patch of Brigalow will be retained at the northern end of the MDL 244 area.

Threatened grass species occurs within roadside vegetation in open areas and underneath shrubs and trees. Patches of these species proposed to be removed could be trans-located to areas of retained woodland vegetation and grassland. Disturbed grassland areas could potentially be restored to support *Dichanthium sericeum* grassland.

Trials have successfully re-established *Dichanthium sericeum* grassland on disturbed areas at the Blair Athol Mine in central Queensland. Remnant vegetation outside the Project's required footprint of disturbance will be protected from mining activities and appropriately managed.

NAC will look at the possibility of 'off setting' the losses of significant vegetation that result from the Project's operations and will consult with the applicable departments (State and Commonwealth) to establish suitable criteria for 'off set' selection.

3.5 Fauna

Fauna surveys of the Project area have recorded or observed a total of 134 fauna species. These included 9 amphibians, 10 reptiles, 92 birds and 23 mammals.



Three species of conservation significance have been identified and previously recorded in the Project area during fauna surveys:

- Grey-headed Flying-fox (*Pteropus poliocephalus*) which is listed as 'Threatened (Vulnerable)' under the EPBC Act. This is a wide-ranging species that forages on the fruits and flowers of a variety of native and exotic plant species. There will be no roosting colonies disturbed by the Project's operations.
- Painted Honeyeater (*Grantiella picta*) which is listed as 'Rare' under the NCWR 1994. The species favours woodlands heavily infested with native mistletoe species. Such habitat appeared to be restricted to riparian vegetation along Lagoon Creek in the study area.
- Little Pied Bat (*Chalinolobus picatus*) which is listed as 'Rare' under the NCWR 1994. This species forages over a diversity of open and wooded habitats and roosts in tree, caves and abandoned mines and buildings. Potential habitat occurs over all forested portions of the Project site. No cave roost sites were located during the surveys.

One bird species is listed as a Migratory Species under the EPBC 1999 has been previously recorded on the Project site.

All species observed are considered common throughout Queensland. The proposed activities are unlikely to have a significant impact on the migratory bird species identified within the Project site.

3.6 Noise, Vibration, And Air

The principal sources of noise include heavy mining equipment, blasting, and the CHPP. A baseline noise survey of the mine site was undertaken in March 2007 and included the identification of noise sensitive receptors in the vicinity of the Project area.

Investigations, including predictive modelling if required, will be undertaken to assess potential noise and ground vibration impacts at sensitive receptors. The nearest neighbouring residence is approximately 2-3km from the edge of any pit.

The principal dust sources include heavy mining equipment movements, topsoil stripping, overburden removal, waste rock dumping, blasting activities and coal handling.

An investigation is currently being undertaken to assess existing dust levels and identify potential sensitive receptors.



During operations, dust generation will be managed by the use of water carts for haul road watering, sprays on crushers and conveyor transfer points, conducting progressive rehabilitation, limiting disturbance to what is required for safe operations and, if appropriate, changing work practices during adverse meteorological conditions.

3.7 Greenhouse Gases

The thermal coal from New Acland Coal Mine produces among the lowest Greenhouse gases of any coal in the world due to its higher hydrogen, lower nitrogen and average sulphur levels.

Previous burn tests of NAC's coal at the Tarong Power Station have indicated at least a 10% reduction in Greenhouse gas emissions over the current coal source. Over the life of the Project this reduction represents a significant benefit to the environment.

NAC acknowledges the risks of climate change associated with increasing Greenhouse gas concentrations in the atmosphere and believes an industry wide approach to the issue is the best policy for the Australian coal industry and economy (e.g. clean coal technology, etc.).

NAC is committed to reasonable and scientifically proven actions to stabilise Greenhouse gas concentrations, as long the implementation of these actions do not disadvantage individual companies or Australia's competitiveness on the World market.

3.8 Infrastructure Impacts

As mentioned in **Section 2.2.5**, the current product coal haul road passes directly over the Stage 3 coal deposit and will require relocation. New infrastructure, such as power supply lines and water pipelines will be required.

Some infrastructure relocations may be required, such as telecommunications and electricity, to accommodate mining of the Stage 3 coal reserves.

3.9 Visual Amenity

The physical features associated with the Project that may have aesthetic impacts include waste rock dumps (i.e. until rehabilitation is complete), dams, the CHPP, the TSF, and the Lagoon Creek diversion (i.e. until rehabilitation is complete).

Where practical, tree plantings will be established along roadsides to reduce the visual impact of the Project. This practice has been applied to Stage 1 and 2 of New Acland Coal Mine.



3.10 Cultural Heritage Values

NAC has signed legal agreements with the two Traditional Owner groups – the Western Wakka Wakka People and the Jarowair People. NAC has separate signed Cultural Heritage Management Plans with both the Jarowair and Western Wakka Wakka People. These documents apply to MDL 244, and therefore, cover existing and future operations at New Acland Coal Mine.

A preliminary assessment of the cultural heritage values of the mine site identified evidence of both European and Aboriginal settlement or activity. Further investigation of Aboriginal cultural heritage values is proposed to be undertaken in consultation with relevant traditional owners. Further work is also proposed to evaluate the remnants of European settlement.

Currently, negotiations are occurring between the Queensland Heritage Council and NAC over future management of the 'Former Acland No. 2 Colliery', which has been "provisionally listed" under the *Queensland Heritage Act 1992*.

3.11 Socio-Economic Conditions

The area surrounding the Project supports broad-acre agricultural activities. Oakey, the nearest township, provides services to the agricultural community. The town of Acland will be directly affected by the Stage 3 operations. NAC owns the majority of land that comprises the town of Acland. The majority of this acquisition occurred voluntarily during the Stage 2 EIS process.

The EIS will assess the social impacts of the Project on the local community. The local community has had previous exposure to the coal mining industry via the existing New Acland Coal Mine.

Currently, mine workers live in private accommodation in Toowoomba, Oakey and the surrounding district. This arrangement will continue for the expected expansion of the workforce. The priority use of local labour will continue for workforce recruitment.

Mining and coal washing activities are expected to operate on a 6 day, 24 hour per day roster, which is similar to the existing operational arrangement at New Acland Coal Mine.

NAC will expand on its existing community consultation regime, which has been running on a six monthly basis since late 2001 (i.e. prior to the commencement of mining operations at New Acland Coal Mine). NAC also employs a range of other community consultation strategies. NAC consults with the Rosalie Shire Council, applicable State and Commonwealth departments and relevant non-government organisations (e.g. Landcare groups, etc.) on a regular basis (i.e. to discuss matters related to New Acland Coal Mine).



3.12 Environmental Management

The EIS will describe the measures that will be taken to prevent or mitigate adverse environmental impacts on water resources (surface water and groundwater), land resources, air quality, noise and vibration, cultural heritage, and flora and fauna of conservation significance.

Environmental management requirements for operations will be stipulated in the regulatory documents that are prepared as part of the approvals process prior to mining (e.g. Environmental Management Plan (EM Plan), Environmental Authority, Plan of Operations). Regulation of environmental management of mining is the responsibility of the Environmental Protection Agency.



4. Local, State and Commonwealth Government Requirements

The Commonwealth, State, and local government requirements relevant to the New Acland Stage 3 Expansion Project are described below.

Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)

The EPBC Act requires assessment and Commonwealth approval for any activity that will have, or is likely to have, a significant impact on a matter of national environmental significance.

The Act identifies six matters of national environmental significance, of which “nationally threatened species and communities” and “migratory species protected under international agreements” have some relevance to the Project (refer to **Sections 3.4** and **3.5**). The Commonwealth Department of the Environment and Water Resources is responsible for management of the EPBC Act.

The potential impact on matters of national environmental significance mean that a referral will need to be made to the Commonwealth for a determination as to whether the proposed relevant action would be a “controlled action” under the EPBC Act.

If deemed a “controlled action”, the Commonwealth will request a specific level of environment impact assessment depending on the nature of the proposed activity.

If an EIS is required, the environmental impact assessment process is normally managed by the State under a bi-lateral agreement. Under this arrangement the Commonwealth has input at the required times in the environmental impact assessment process and is responsible at the end of the process for issuing a separate conditioned approval for the proposed activity.

The Commonwealth is also responsible for management of compliance matters relating to their approvals.

Queensland *Mineral Resources Act 1989* (MRA)

The *Mineral Resources Act 1989* (MRA) provides for the assessment, development and utilisation of mineral resources to the maximum extent practicable consistent with sound economic and land use management. Amongst the principal objectives of this Act are to encourage and facilitate mining of minerals and encourage environmental responsibility in mining. The Department of Mines and Energy is responsible for management of the MRA.



Amongst other things, the MRA provides that the Governor in Council may grant a mining lease for all or any of the following purposes:

- a) to mine the mineral or minerals specified in the lease and for all purposes necessary to effectually carry on that mining; and
- b) such purposes, other than mining, as are specified in the mining lease and that are associated with, arising from or promoting the activity of mining.

The MRA provides for the advertisement of an application for the grant of a mining lease, with a call for objections to the grant. At least 28 days is provided for the lodgment of objections. Valid objections may be heard in the Land and Resources Tribunal. The MRA also provides for the surrender of mining leases, and for the amendment of conditions of a mining lease.

NAC will apply for a new mining lease adjacent to ML50170 and MLA 50216, within MDL 244.

Queensland *State Development and Public Works Organisation Act 1971* (SDPWO Act)

The Coordinator-General may declare a project to be a “significant project” under Section 26 of the SDPWO Act. An EIS is required for a significant project. The matters considered by the Coordinator-General before making such a declaration are set out in Section 27 of the Act.

New Hope Coal Australia is seeking declaration of the New Acland Stage 3 Expansion as a “significant project” and has prepared this Initial Advice Statement in support of this application.

Queensland *Environmental Protection Act 1994* (EP Act)

It is proposed to apply for a new mining lease within the current MDL 244. The granting of a mining lease application under the *Mineral Resources Act 1989* is contingent upon the issuing of a non-standard environmental authority (mining activities) under the EP Act.

The granting of an application for a non-standard environmental authority (mining activities) typically cannot occur until (a) the relevant EIS process is complete (in this case the SDPWO Act EIS process), (b) an EM Plan has been submitted, (c) a Draft Environmental Authority prepared, (d) the notice of application is publicly advertised, and (e) any objections dealt with by the Land and Resources Tribunal.



The Environmental Protection Agency is responsible for management of the EP Act. NAC will prepare the necessary EP Act documentation for Stage 3 as part of the EIS process.

Queensland *Integrated Planning Act 1997 (IP Act)*

Activities authorized under the *Minerals Resources Act* and activities authorized under an environmental authority (mining activities) under the EP Act are deemed to be exempt development under the IP Act. However, the Project will involve certain assessable development, such as operational works for (a) any off site infrastructure related to the Project, (b) installation of bores, and (c) the construction of 'referable dams'.

Queensland *Water Act 2000*

The *Water Act 2000* requires that a licence to take water be obtained before (a) water is taken from watercourses or groundwater aquifers, and (b) flow in a watercourse is interfered with. A licence to take water will be required for the dewatering bores and for the potential Lagoon Creek diversion. Dams above certain specified heights and volumes require failure impact assessment under the *Water Act*. A dam that has a Category 1 or 2 failure impact rating would require licensing as a 'referable dam'. The Department of Natural Resources and Water (NRW) is responsible for management of the *Water Act 2000*. NAC consults with NRW in relation to groundwater and surface water related matters.

Queensland *Aboriginal Cultural Heritage Act 2003*

The Aboriginal Cultural Heritage Act 2003 (ACH Act) aims to provide recognition and protection of Aboriginal and Torres Strait Islander cultural heritage. Under the ACH Act, Aboriginal and Torres Strait Islander cultural heritage is protected through a duty of care for all persons to take reasonable and practical measures to avoid harming cultural heritage. NAC has signed separate legal agreements and Cultural Heritage Management Plans (CHMPs) with the two Traditional Owners groups – the Western Wakka Wakka and the Jarowair. These documents apply to MDL 244, and therefore, cover the existing and future operations at the New Acland Coal Mine.

Queensland *Heritage Act 1992*

The *Queensland Heritage Act 1992* provides for the conservation and protection of places and items of historical and/or non-indigenous cultural heritage, i.e., all places that derive from the post-settlement history of Queensland. Under this Act, places and items must be entered into a Queensland Heritage Register in order to be protected. Substantial penalties may apply for damage to a place or items that has been entered on the Register.



NAC is in consultation with the Queensland Heritage Council in relation to future management of the 'Former Acland No. 2 Colliery', which has been "provisionally listed" under the *Queensland Heritage Act 1992*.

Queensland *Nature Conservation Act 1992 (NC Act)* and the *Nature Conservation (Wildlife) Regulation 1994 (NCWR 1994)*

The NC Act 1992 prohibits the taking or destruction, without authorisation, of certain listed flora and fauna species. The impact assessment process for the Project will need to assess the extent of the impact on relevant species listed under the NCWR. The Environmental Protection Agency is responsible for management of the NC Act and NCWR 1994.

Queensland *Land Act 1994*

Opening new road reserves and closing of existing road reserves is regulated under the Land Act. All other land dealings in relation to changes in land tenure (e.g. subdivision of leasehold land, permit to occupy, easements) are regulated under the Act, which is administered by the Department of Natural Resources and Water.

A permit to clear vegetation on State-owned land is required under the Land Act.

Queensland *Transport Infrastructure Act 1994*

This Act provides a strategic framework for management of the national and State road network. A permit is required to work in, or interfere with, a State-controlled road. It is anticipated that this will not be required.

Queensland *Forestry Act 1959*

A permit to extract quarry material would be required under this Act if such material were used to construct road diversions off the Mining Leases (eg. such as the haul road). The *Forestry Act* is administered by the Department of Primary Industries.

Local Government Requirements

NAC will need to negotiate with the Rosalie Shire Council (RSC) and gain approvals for works in local road reserves. NAC will continue to work closely with the RSC throughout the Project to ensure that benefits to the Shire are maximised and potentially adverse impacts are prevented or mitigated. NAC has a good relationship with the RSC and has used their services in the past for road improvements (e.g. New Acland Stage 1 and 2 upgrades of the Jondaryan-Muldu Road).



5. References

New Hope Coal Australia (2006). Coal Supply Agreement Acland Stage 3 Life of Mine Plan and Schedule

Sinclair Knight Merz (2006a). New Acland Coal Mine Stage 2 Expansion Project - Environmental Impact Statement.

Sinclair Knight Merz (2006b). New Acland Coal Mine Stage 2 Expansion Project – Supplementary Report.

Sinclair Knight Merz (2006c). New Acland Coal Mine Stage 2 Expansion Project – Addendum to Supplementary Report.



6. Contact Details

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