

EXECUTIVE SUMMARY

PROJECT OVERVIEW

The Elimatta Project (the Project) is located in southern Queensland, approximately 45 kilometres (km) southwest of the township of Taroom and approximately 380 km northwest of Brisbane. The Project will involve open-cut mining using truck and excavator methods to develop an estimated 259 million-tonne (Mt) thermal coal resource of the Juandah formation in the Surat Basin. Mine production will be approximately 5 Mtpa of product coal. Full scale operations will run 24 hours a day, seven days a week.

The Project area for the Environmental Impact Statement (EIS) is approximately 4,460 hectares (ha), which includes the identified Mining Lease Applications (MLA) (MLA 50254, MLA 50270 and MLA 50271), and a 36 km long Rail and Services Corridor. Key infrastructure components include the Coal Handling and Processing Plant; rail load-out facility; West Surat Link, the rail component within the Rail and Services Corridor; tailings storage facilities; spoil dumps; a series of water storage dams; and, an accommodation village.

Construction and commissioning is proposed to commence in early 2017 and will be completed approximately 22 – 24 months later. The mine life of the Project is in excess of 32 years. The whole of Project life including construction through to decommissioning is approximately 40 years.

THE PROPONENT

The proponent for the Elimatta Project is Taroom Coal Proprietary Limited (Taroom Coal) which is a wholly owned subsidiary of Northern Energy Corporation Limited (NEC), which is in turn a wholly owned subsidiary of New Hope Corporation Limited (New Hope). New Hope is a publicly listed Australian company with a long history of coal mine development and operation in Queensland and overseas.

APPROVALS PROCESS

The Proponent submitted an application for an Environmental Authority (Mining Activities) for a Non-code Compliant Level 1 mining project in 2009. The Department of Environment and Heritage Protection (EHP) assessed the Project to constitute a Non-code Compliant Level 1 mining project requiring an EIS under the *Environmental Protection Act 1994*. The primary objective of an EIS is to assess and address the identified beneficial and adverse impacts of a proposed Project on its natural, social and economic environment.

During the EIS process the Project was referred to the Commonwealth Government for consideration of the Project's likelihood to cause significant impact on Matters of National Environmental Significance protected under the *Environmental Protection and Biodiversity Conservation Act 1999*. It was subsequently determined that the Project was not a controlled action and therefore would not require assessment by the Commonwealth.

PROJECT JUSTIFICATION

Queensland's coal industry is one of the world's largest producers of seaborne traded coal. The Surat Basin contains Queensland's largest measured and indicated open-cut coal thermal resource. The Department of Natural Resources and Mining recognises that, pending the establishment of new rail and port infrastructure, the largely undeveloped Surat Basin coal province is set to emerge as a major

source of export coal. The Elimatta Project proposes to be at the forefront of this development. With an estimated resource of approximately 259 Mt and production rate of 5 Mtpa of product coal over more than 32 years, the Project will assist in satisfying the international demand for thermal coal.

The Project will bring positive flow-on effects to the local and regional economy and community. The Project's labour force will be sourced from local and regional communities where available, contributing to increased employment and incomes within the area. Local industries associated with mining will be positively impacted through the required provision of services and equipment. Broader economic benefits will include income to the state of Queensland through royalties and payroll taxes, as well as income to the federal government through corporate, mineral resources rent, carbon and goods and services taxes. It is estimated that the State and Commonwealth Governments will receive in excess of \$2.4 billion and \$1.08 billion respectively.

GEOLOGY AND RESOURCE

The Project is based on the development of a thermal coal resource in the Surat Basin coal province in Queensland.

The deposit is situated over a very broad, north-south trending anticline which plunges to the south. Modelling of the coal seams indicate that they dip to the south over most of the deposit, generally at less than one and a half degrees. These seams are often interbanded with siltstone and mudstones but there are also thick sections of clean, low ash coal with very few stone bands. The seams split and coalesce, but are thicker and more consistent towards the centre of the deposit, while thinning and splitting towards the margins. The Project mine plan is designed to mine all of the economically viable resource to the limits of the tenure boundary to the east and southeast.

MINING METHODS

The Project will involve open-cut mining using truck and excavator methods. Topsoil stripped prior to mining will be stockpiled for later use in rehabilitation. Overburden and interburden will be disposed of both in-pit and in out-of-pit spoil dumps located on site and contiguous with the pit excavation. Run of Mine coal will be hauled from the pit area to the Coal Handling Processing Plant for processing via a dedicated haul road.

CREEK DIVERSION

Horse Creek, a tributary of the Dawson River, passes through the Project site and has been identified as a significant restraint to mining activities. A staged diversion is proposed, allowing for the recovery of coal from underneath the existing Horse Creek, and for the re-instated creek diversion to have time to stabilise and develop vegetation prior to being commissioned in order to minimise erosion and sediment runoff. The diversion of Horse Creek will occur in four distinct stages all of which are constructed in the first six years of mine operations. The diversion will be in operation in excess of 25 years prior to mine closure. As a result, ample opportunity is available to monitor the performance of the channel and to make improvements during life of mine, if required. At mine closure the diversion will not require post mining lease maintenance.

PROCESSING

The Coal Handling Processing Plant will be fed ROM coal by dump trucks. Processing will involve crushing, screening and washing to separate coal from waste materials. Tailings or fine waste rejects that have been discarded during processing will be partially dewatered, with water recycled to the processing plant, and tailings pumped to dedicated Tailing Storage Facilities (TSFs). Coarse rejects

from processing will be dried and disposed within spoil dumps.

The processing plant is designed to process up to 8.2 Mtpa of ROM coal. It will operate 7,000 run hours per annum for a targeted 5 Mtpa of product coal.

PRODUCT HANDLING AND TRANSPORTATION

Product coal will be stockpiled before being loaded onto a train load out conveyor that delivers the coal to a load out bin where the product is sampled and recorded. The product coal will be transported from the mine via the West Surat Link (WSL) and the Surat Basin Rail (SBR) and then on to the Wiggins Island Coal Export Terminal (WICET) in Gladstone.

WASTE MATERIAL

Excavated waste consists of overburden and interburden extracted as part of the mining operation. Two out-of-pit dumps are required for the Project, located in the south western corner and in the northern section of the southern mining lease area. Excavated waste will be disposed of in these out-of-pit dumps initially and then placed in the mining cavity left from pit excavations. In-pit dumping of excavated waste will occur after initial excavations in the pit become available for dumping. As waste is excavated from areas that are being actively mined, it is transported to and dumped into the previously mined pit for disposal. Excavated waste will not require special handling prior to disposal.

Deposition of tailings will initially be deposited in out-of-pit TSFs and subsequently within an in-pit TSF. Tailings are likely to be non-acid forming and likely to have significant excess acid buffering capacity.

EXISTING INFRASTRUCTURE

The development of the proposed mine will result in a number of temporary public road closures, new sections of road and road relocations within and adjacent to the MLA areas and along the Rail and Services Corridor. The most significant is the temporary relocation of Perretts Road between Bundi Road and Ryals Road to the east of the MLA area. All public road works will be undertaken during the initial construction phase for commissioning prior to the commencement of the operational phase of the Project.

WATER AND POWER SUPPLY

The Project's external water supply will be secured by a connection to the water distribution pipeline network owned by SunWater Limited (SunWater). It is proposed that supply to the Project site will be via a dedicated pipeline alignment within the Rail and Services Corridor.

Initially, the external water supply will be treated groundwater by-product resulting from dewatering operations associated with coal seam gas extraction. Once construction of the proposed Nathan Dam is complete, the external supply will instead be sourced from Nathan Dam. Details of sourcing the external water supply will be the responsibility of the third party commercial water suppliers engaged by Taroom Coal.

To manage the supply and storage of water onsite, a Site Water Management Strategy has been developed in sequence with the Project's mine staging. Onsite re-use and re-cycling of water will be standard operating procedure. The water stored in the water management system shall be used to satisfy on site water demands arising due to potable needs, coal washing during processing and for dust suppression needs. Water storage on site will consist of a series of dams. Use of the stored

onsite water will be prioritised such that the higher salinity water is used in the first instance. Due to the predicted high salinity of the water stored in these dams some of these will be Regulated Dams.

Diesel generators will be utilised during the early construction stage until such time that a grid connection can be established. Generators will be replaced with a permanent grid connection to either the Wandoan or Wandoan South substations as soon as possible within the construction stage. The Proponent is liaising with Ergon Energy Limited regarding a connection to infrastructure in the Wandoan area to meet the Project's operational demands.

WORKFORCE AND ACCOMMODATION

The Project is estimated to employ approximately 300 full time staff at full production with the potential for additional employees to be required during major operations and special tasks throughout the life of the mine. The employment strategy has been developed on a Fly-in Fly-out basis. An airport within the local Taroom area will be the transport hub from which Fly-in Fly-out operations are based.

The accommodation village both during construction and operation of the Project will be located on the Project site. The construction village is deemed to be in commission for only a short term of 24 months and will then be converted to accommodate the requirements of the operational village. The village will initially consist of approximately 300 beds, increasing during the Project life to accommodate workforce increases.

REHABILITATION

A progressive rehabilitation strategy will target areas as soon as they become available for rehabilitation, aiming to minimise the total disturbance existing at any point in time during the life of the mine. All final landforms will be designed to a state that is safe to humans and wildlife, non-polluting, stable and able to sustain the agreed post mining land use.

All Project related infrastructure will be removed unless formal written agreements are reached with the post-mining landowners/managers for its ongoing use, maintenance, and management. Final voids will be left in a safe condition by constructing a safety bund wall around each void, to limit human and animal access. The multi-user infrastructure proposed for development within the Rail and Services Corridor is expected to remain as a functioning asset to local and regional users.

Out-of-pit dumps will be progressively rehabilitated over the life of the mine, and rehabilitation will commence as soon as possible, within two years, of the land becoming available.

The surface TSFs will be covered with fill, contoured to drain gently to a spillway then covered with topsoil and seeded. The in-pit TSF will be overlain with sufficient fill to form a capillary break and a stable, trafficable surface before being further rehabilitated. Based on the anticipated rate of fill, the resultant landform will be below the natural ground level and will be considered as a residual void in terms of proposed post mine land use and will be managed accordingly.

Water management dams that contained potentially contaminated water during mining will be drained, or allowed to evaporate. Contaminated material will be either removed from site or covered with benign rock material. Stormwater dams will be re-contoured, original drainage paths restored where possible and revegetated.

Rehabilitation of the realigned Horse Creek will commence immediately as each stage of the diversion is completed. At mine closure the diversion will not require post mining lease maintenance.

Areas to be rehabilitated will be seeded with appropriate plant species, which are known to occur in the local area and that will encourage the return of native fauna and provide for visual amenity.

LAND

The dominant current land use within the Project area is low to medium intensity cattle grazing on native and improved pastures, along with the less common dryland forage cropping and local transport on unsealed and sealed roads. Other land uses common in the region surrounding the Project area include dryland cereal cropping and regional transport.

Soil and land suitability assessments were undertaken for the Project. Six Soil Management Units were identified within the Project MLA areas. The suitability of beef cattle grazing on the MLA areas is limited by nutrient deficiencies within the soil. Cropping is also limited by the erosion potential of these soils. Five of the six Soil Management Units are suitable for stripping of topsoil, to various depths, for use in rehabilitation activities. The most suitable topsoil is the Horse Creek Alluvium Soil Management Unit, which is expected to yield over half of the total topsoil available for rehabilitation.

Within the Rail and Services Corridor, six soil units were identified. No land within the corridor is suitable for rainfed cropping, although one soil unit was identified as marginal for this use. Grazing within the corridor is primarily limited by moisture availability and pH of the soil.

From the assessment it is considered unlikely that the development of the Project, including mining activities and development of the Rail and Services Corridor, will create significant land use conflict with current or future underlying or adjacent land uses. However, sections of the Rail and Services Corridor will traverse existing land titles, affecting stock movement and access to water. Control strategies will be implemented on site to manage such impacts and to mitigate any potential risk of erosion.

The Project's progressive rehabilitation strategy proposes to return disturbed land to a condition similar to the pre-existing condition. For a majority of the Project area, the proposed post-mining land use and condition will be consistent with the current primary land use of low intensity cattle grazing. As a result of mining operations it is expected that the final void areas, which constitute approximately 380 hectares, will be unsuitable for cattle grazing primarily due to the steepness of residual slopes.

TRANSPORT

The Project is located approximately 25 km west of the Leichhardt Highway and 33 km east of the Roma-Taroom Road. Access to the site is possible from either of these major transport corridors via a network of local roads.

The Traffic Impact Assessment has predicted that, with exception of certain sections of the State Controlled Road network, road impacts will be minimal. The Pavement Impact Assessment has predicted impacts for segments of the State Controlled Road network and local road network throughout the life of the Project.

Impacts during the construction period can be primarily attributed to the transport of sand, gravel and crushed rock from local quarries to the Project site. These movements, however, are limited to the 24 month construction period and cease once the Project is commissioned. Impacts during the production period can be primarily attributed to the transport of fuel supplies to the site from Brisbane.

Existing or proposed port, rail and air facilities are expected to adequately cater for Project demand. Demand resulting from the Project has been incorporated into future planning and upgrades for this

infrastructure. The exception to this is the availability of an aerodrome of suitable capacity in the vicinity of the Project from which to base Fly-in Fly-out operations. Other resource projects within the Wandoan area have identified this shortcoming and alternative development options are being explored.

A preliminary draft Road Use Management Plan has been developed to identify appropriate protection objectives and strategies to alleviate and manage adverse traffic management risks and road impacts, and will be finalised prior to the commencement of the Project. The plan will aim to minimise impacts on State Controlled Road and Local Government Road networks relating to traffic associated with the Project as well as mitigate the potential impacts of driver fatigue and the transport of hazardous materials.

WASTE

The main waste streams that will be generated at the Project include the following:

- Solid Waste – tailings/coarse rejects, excavated waste (mine overburden and interburden and partings), general domestic waste and recyclables, batteries, scrap steel and tyres;
- Liquid Waste – sewerage, grey water, waste water, waste oil, solvents and grease; and
- Atmospheric Waste – particulate matter, total suspended particulate matter and greenhouse gases.

Taroom Coal will develop and operate in accordance with a Waste Management Plan that will detail how each waste type will be reused, recycled, treated or disposed of. This will follow the five tiered waste management hierarchy according to practicalities and available markets, in preferential order:

- Waste avoidance;
- Waste re-use;
- Waste recycling;
- Waste treatment; and
- Waste disposal.

Taroom Coal will remain informed of best practice waste minimisation and cleaner technology options for all waste streams throughout the life of the Project. If feasible, measures will be implemented to ensure cleaner technologies and processes are used.

WATER RESOURCES

Surface Waterways

Horse Creek is the most prominent watercourse in proximity to the Elimatta Mining Lease areas. Horse Creek runs through the proposed mining footprint, flowing from south to north. Horse Creek is a tributary of Juandah Creek and the two creeks join approximately 20 km downstream of the Project site. The combined Juandah Creek watercourse then flows north towards the township of Taroom, which is located approximately 25 km north of the Horse Creek junction. At Taroom, Juandah Creek flows into the Dawson River and the Dawson then flows north east to join with the Fitzroy River. The

Fitzroy River ultimately discharges into the Pacific Ocean at Rockhampton. Four major watercourses are traversed by the Elimatta Rail and Services Corridor: Juandah Creek, Mud Creek, Spring Creek and Horse Creek. A number of minor catchments are also intersected by the corridor.

Due to the intermittent nature of streamflow in the area there is only limited use of surface water in the vicinity of the Project. Although limited in nature, the predominant downstream uses include stock watering, irrigation and aquatic habitat, with the nearest entitlement for these uses being 20 km downstream on Juandah Creek near the Horse Creek confluence.

Surface water quality was assessed at Horse Creek within the MLA areas and in watercourses intersected by the Rail and Services Corridor. Heavy metal concentrations elevated above the Australian and New Zealand Conservation Council (ANZECC) (2000) Aquatic Ecosystems Guidelines are likely to be a result of naturally elevated concentrations of heavy metals present in the solid strata over which surface water flows, rather than industrial or agricultural contamination.

A detailed Site Water Management Strategy has been developed for the Project to ensure best practice water management is undertaken. The strategy addresses water supply requirements, dam capacities, flood mitigation, discharge criteria, and environmental monitoring. Detailed control strategies are provided to ensure the existing surface water values are maintained.

Groundwater

There are potentially three aquifer systems in the Project area:

- Sedimentary aquifers of the GAB;
- Coal seam aquifers of the Juandah Coal Measures; and
- Unconsolidated alluvial sediments.

The aquifers that may be impacted by mining are those associated with the coal seams of the Juandah Coal Measure and the alluvial aquifers of Horse Creek. At the scale of mining, the GAB aquifers are considered to be of sufficient depth not to be impacted.

Groundwater quality in the vicinity of the Project is generally brackish to saline and is rarely suitable for human consumption. The groundwater is generally suitable for stock and this is the most common use of groundwater in the region surrounding the Project. There are no known users of groundwater for industrial or recreational purposes within the area.

Potential impacts of the Project on groundwater include drawdown of aquifers associated with mining and potential for seepage of contaminants to the aquifers from waste dumps, TSFs or accidental spills. Detailed management strategies are provided to mitigate groundwater impacts of the Project and protect the existing groundwater environmental values.

AIR

Existing air quality at the Project site is reasonably good and reflective of a typical rural environment; with acceptable levels of pollutants the majority of the time. Localised, short term degradation of the existing air quality is likely influenced by dust from sporadic traffic on unsealed roads, as well as smoke from bushfires and controlled burns.

The major air quality issues and impacts that are commonly associated with open cut coal mining and

transport of coal via rail which are relevant for the Elimatta Project include:

- General mining operations resulting in the emission of a number of classes of particulate matter namely total suspended particulate matter, particulate matter with equivalent aerodynamic diameters of 10 microns or less (PM₁₀), and particles with equivalent aerodynamic diameters of 2.5 microns and less (PM_{2.5}). These emissions would occur primarily as fugitive dust from open cut mining operations and associated activities;
- Exhaust emissions from diesel powered haul trucks and other open cut mining equipment. These emissions will include carbon monoxide, minor quantities of sulfur dioxide, nitrogen dioxide, Volatile Organic Carbons and PM₁₀;
- Dust emissions associated with rail transport of product coal; and
- Direct and indirect greenhouse gas emissions.

Air quality assessments for the Project were undertaken to model the impacts due to emissions of particulate matter. Impacts were modelled at 60 sensitive receivers identified within the vicinity of the Project Mining Lease areas and the proposed Rail and Services Corridor. The assessment modelled air quality over a range of meteorological conditions for production Years 2, 10, 20 and 27 of mining as the potential for impacts onto the surrounding sensitive receivers would be highest during the operations at these times.

The air pollutant impacts from the Project were assessed against typical EHP dust deposition guidelines and the Environmental Protection (Air) Policy 2008 goals. Results of the assessment have concluded that there will be exceedances of the air quality criteria at three of the sensitive receivers at various stages throughout the life of the Project. Due to the proximity of the Wandoan Project to Elimatta the cumulative impacts were also assessed and were found to be compliant with all air quality criteria at sensitive receivers in proximity to both projects.

Of the three receivers (Receiver 1, 6 and 7) predicted to exceed the nominated air quality criteria at various stages throughout the mine life, two are within the Project MLA boundary and will be controlled by Taroom Coal and unoccupied, and the third is currently unoccupied. If, at any stage the third property is occupied in the future, it will be considered in air pollutant mitigation planning.

Air quality resulting from West Surat Link was assessed at several sensitive receivers which were considered likely to be most sensitive to construction and operation of the rail. Modelling conducted determined that predicted pollutant concentrations (including background concentrations) remain below criteria at these and all other locations, assuming a 50 m buffer is maintained between residences and the rail alignment.

Greenhouse Gas Abatement

The main sources of greenhouse gas emissions at the Project include:

- Direct Emissions:
 - Consumption of diesel in mobile and back-up generators during the construction and operational phase of the Project (including the Rail and Services Corridor);
 - Consumption of diesel by vehicles, locomotives and mining equipment at the mine

site and Rail and Services Corridor;

- Combustion of Ammonium Nitrate Fuel Oil (ANFO) for blasting; and
- Coal seam gas emissions.
- Indirect Emissions:
 - Emissions from purchased electricity used by the Project during both construction and production phases. An application has been made with Ergon Energy to provide a grid supply to the Project.

Taroom Coal is committed to minimising their emissions and will operate in accordance with a Greenhouse Gas Management Plan, the *National Greenhouse and Energy Reporting Act 2007* (Cwth) and the *Energy Efficiency Opportunities Act 2006* (Cwth), which will ensure that all obligations and opportunities to reduce the Project's emissions are pursued.

NOISE AND VIBRATION

The existing noise environment at the Project site is typical of rural regions throughout Australia, exhibiting relatively low minimum background noise levels during daytime, evening and night periods and influenced seasonally by insects, birds and the weather.

The main noise and vibration impacts that have been identified for the Elimatta Project include:

- Light and heavy vehicles operating on the Project;
- Blasting activities for open cut mining;
- Open cut mining activities (excavation, hauling, drilling, etc.);
- Crushing coal;
- Conveying and stacking coal; and
- Loading of coal trains.

Noise and vibration modelling for the Project was undertaken to model the impacts due to noise emissions at the Project. Impacts were modelled at 60 sensitive receivers identified within the vicinity of the Mining Lease areas and the Rail and Services Corridor. The significant outcomes of the assessment included:

- From the analysis conducted for the Elimatta mine site, it is apparent that the predicted noise levels at a number of sensitive receivers exceed the proposed noise criteria under certain meteorological conditions and at various stages throughout the mine life:
 - Using standard equipment, 12 receivers are expected to be impacted; and,
 - Using attenuated equipment, eight receivers are expected to be affected, five of which are predicted to only experience a relatively minor exceedance of 1 dB(A). The remaining three receivers (1, 6 and 7) are predicted to experience exceedances of

greater than 1 dB(A).

- In addition to the predicted exceedances described above, Receiver 9 may experience noise level exceedances due to the more significant contribution of the Wandoan Coal Mine.
- Based on the blasting calculations, the ground vibration levels are predicted to be acceptable at the nearest receptors. The 5 mm/s peak particle velocity criterion would be achieved at distances greater than 800 m from the blast. The nearest sensitive receiver to the proposed pits is approximately 1.0 km from the pit. However, calculations indicate that the acceptable airblast pressure levels may be exceeded at some sensitive receivers. Blast parameters will be monitored and adjusted as required to ensure compliance.
- Modelling indicates that the predicted noise levels for the WSL are compliant with proposed noise criteria at all receivers during WSL operations.
- Construction noise is predicted to comply with the proposed noise objectives for the majority of the construction period based on the rate of movement of the construction fronts and a minimum buffer distance of 600 m. Based on the current alignment, there are five sensitive receivers within this buffer distance, i.e. receivers 9, 12, 13, 14 and 15.

Detailed control strategies are provided to ensure the existing noise environmental values are maintained at sensitive receivers surrounding the Project.

NATURE CONSERVATION

Mining Lease Areas

A total of eight vegetation communities comprise the Mining Lease areas, with a total of 187 flora species identified. No flora species identified are listed as being of conservation significance and 34 species are introduced.

One vegetation community on the Mining Lease areas, known as Brigalow and/or Belah Open Forest, is listed as 'Endangered' under the EHP Biodiversity Status and the *Vegetation Management Act 1999*, and is also included within the 'Brigalow (*Acacia harpophylla* dominant and co-dominant) woodlands' Threatened Ecological Community listed under the *Environment Protection and Biodiversity Conservation Act 1999*. Three communities, Blue Gum Riparian Woodland with interspersed Poplar Box, Brigalow Open Forest with associated Poplar Box, Blue Gum Palustrine Wetland / Poplar Box Wetland in Drainage Depressions, are listed as 'Of Concern' under the *Vegetation Management Act 1999*. Assuming mitigation strategies are implemented, and disturbance is minimised, it is unlikely these communities will be significantly impacted at a regional scale as a result of the proposed Project.

A combined total of 120 vertebrate fauna species were identified on the MLA areas during the dry and wet season surveys, comprising nine amphibians (including one exotic species), 13 reptiles, 26 mammals (including 10 exotic species), and 72 birds.

A species of cultural significance, the Echidna (*Tachyglossus aculeatus*) was observed on and around the Project site during surveys. One micro-bat species of conservation significance was also recorded on the site, the Little Pied Bat (*Chalinolobus picatus*), which is listed as Near Threatened under the NCWR.

Two bird species listed as Marine under the EPBC Act were observed on the Mining Lease areas: the

Whistling Kite (*Haliastur sphenurus*) and the Sacred Kingfisher (*Todiramphus sanctus*). The Sacred Kingfisher (*Todiramphus sanctus*) is common throughout mainland Australia, as well as Indonesia and New Zealand. The distribution of the Whistling Kite (*Haliastur sphenurus*) includes most of Australia, as well as New Guinea, the Solomons and New Caledonia.

Rail and Services Corridor

A total of eight vegetation communities were identified within the proposed Rail and Services Corridor, with a total of 125 flora species. One flora species identified is listed as being of conservation significance. Yarran (*Acacia melvillei*) is listed as a regionally significant. No threatened flora species were found on the Project site during the survey period. A total of 27 exotic plants were identified.

Communities of conservation significance identified within the Rail and Services Corridor include:

- RE 11.9.10 within Poplar Box Open Woodland with Brigalow/Belah Elements on Undulating Hillslopes is listed as 'Endangered' under the EHP Biodiversity Status and 'Of Concern' under the VM Act;
- Brigalow and/or Belah Dominant Woodland corresponds with RE 11.9.5, listed as 'Endangered' under the VM Act and the EHP Biodiversity status;
- Within Community 5, dominant RE 11.3.2 is listed as 'Of Concern' under both the EHP Biodiversity Status and VM Act, and sub-dominant RE 11.3.17 is listed as 'Endangered' under the EHP Biodiversity Status; and,
- Myall Dominant Woodland (RE 11.9.6) corresponds with the EPBC listed Endangered Ecological Community 'Brigalow (*Acacia harpophylla*) dominant and co-dominant'.

Assuming mitigation strategies are implemented, and disturbance is minimised, it is unlikely the communities will be significantly impacted at a regional scale, as a result of the proposed Rail and Services Corridor.

A total of 136 vertebrate terrestrial fauna species were observed on along the Proposed Rail and Services Corridor site, including: 10 amphibian species, 11 reptiles, 24 mammal species, and 91 bird species.

One species of conservation significance was recorded on the Rail and Services Corridor, the Little Pied Bat (*Chalinolobus picatus*), which is listed as 'Near Threatened' under the NC Act.

Two bird species of conservation significance were found immediately outside of the Rail and Services Corridor: the Black-necked Stork (*Ephippiorhynchys asiaticus*) and Cotton Pygmy-goose (*Nettapus coromondaliensis*), which are both listed as 'Near Threatened' under the NC Act. The presence of these two waterbird species in close proximity to the Rail and Services Corridor indicates that it is likely that they utilise habitat within the Corridor.

One listed Migratory species and one listed Marine species were identified within the Rail and Services Corridor: the Eastern Great Egret (*Ardea modesta*) (Migratory) and the Whistling Kite (*Haliastur sphenurus*) (Marine).

Detailed management strategies have been provided to ensure impacts of the Elimatta Project on nature conservation values are minimised. Such control strategies focus on minimising land disturbance in sensitive areas, preventing potential off site impacts such as erosion and spills, and

achieving successful rehabilitation at the end of the mine life.

CULTURAL HERITAGE

Non-Indigenous Cultural Heritage

An independent Non-Indigenous Cultural Heritage Assessment was undertaken to identify and assess the nature and significance of cultural heritage within the Project area.

From a heritage perspective, the Elimatta Project site contains low levels of local European cultural heritage significance. As a whole, the sites surveyed form a regional cultural landscape representing the cattle industry, transport and communication, closer settlement patterns dating from the 1950s and the mixed cultivation industry. A Non-Indigenous Cultural Heritage Management Plan has been developed and recommendations have been provided for education and awareness of values potentially impacted by the Project. Strategies for handling of heritage sites are also provided where impact on the site is a requirement of the Project.

Indigenous Cultural Heritage

There is currently an active Native Title application over an area of land inclusive of the Elimatta Project site and proposed Rail and Services Corridor by the Iman #2 People.

In accordance with the Queensland *Aboriginal Cultural Heritage Act 2003*, consultation with Traditional Owners over the Project site has occurred in order to put in place a Cultural Heritage Management Plan (CHMP). CHMPs are State approved agreements between the sponsor of the plan (Taroom Coal) and the Aboriginal parties (Iman #2 People). The CHMP clearly defines how the Project will be managed to avoid or minimise harm to Aboriginal cultural heritage.

Taroom Coal has an approved CHMP as described in the *Aboriginal Cultural Heritage Act 2003* (Qld). A CHMP for the Project was approved by the Department of Aboriginal and Torres Strait Islander and Multicultural Affairs (DATSIMA) under Part 7 of the *Aboriginal Cultural Heritage Act 2003* in February 2014. Details of the plan are included on the Cultural Heritage Register maintained by the Cultural Heritage Unit of DATSIMA.

The Proponent has a duty of care to take all reasonable and practicable measures to ensure that its activities do not harm Aboriginal cultural heritage. Consultation remains ongoing with the Iman #2 People. Taroom Coal intends to engage this party to conduct cultural heritage surveys over the Project site and infrastructure areas. The surveys will be conducted in accordance with the CHMP ahead of any disturbance in the Project area. Any potential impact to indigenous cultural heritage will be managed in accordance with the CHMP.

SOCIAL ENVIRONMENT

A Social Impact Assessment was conducted to collect and analyse information about key social and cultural issues, population change and communities and social relationships that are likely to occur as a direct or indirect result of the Project. The assessment consisted of organised community consultation including mailing information and inviting feedback from stakeholders, arranged meetings and surveys with stakeholders, presentations to stakeholders and providing responses from the Proponent. Stakeholders largely consisted of local community members.

The study area surrounding the Project is experiencing significant change as a result of the growing Surat Basin resources industry. In addition, the expanding needs of industry in the region are placing

strains on existing infrastructure and community services. It is anticipated that pressure on social infrastructure will be alleviated as businesses diversify from traditional markets in the agricultural and forestry sectors, and expand into professional services, transport, manufacturing and construction industries. This will support growth across the region as the expansion of electricity, gas, water supply, communications and waste services sectors improve.

The overriding community feedback regarding the Project development has been around the impact on land quality. Many of the area's landholders and community members are concerned that mining and gas extraction will affect their cattle growing reputation. Opportunities for the region to become more economically diverse are countered by concerns that mining will become the most dominant economic activity, to the detriment of the agricultural and other industries.

Taroom Coal has developed a draft Social Impact Management Plan to minimise adverse and enhance positive impacts of the Project on its community.

HEALTH, SAFETY AND RISK

A cornerstone objective of New Hope Corporation, Taroom Coal's parent company, is to provide a safe and healthy working environment for its employees and contractors, and to the extent that it can, also for the public. This Corporate Policy Objective applies in its entirety to the Elimatta Project.

The Project is located in a rural environment with scattered residences and communities. Health and safety risks associated with the Project will apply to mine employees and, to a much lesser extent, the permanent community in surrounding areas.

Safety and health management requirements within a mining tenure are governed by the *Coal Mining Safety and Health Act 1999* (Qld). As holder of the exploration tenures that underpin the project, Taroom Coal already has in place a Safety and Health Management System (SHMP) that complies with the Act. This SHMP will be upgraded and expanded as site activities progress with development and mining operations.

To ensure the alignment of the Project's SHMS with the principles of natural hazard management detailed in the former *State Planning Policy 1/03: Mitigating the Adverse Impacts of Flood, Bushfire and Landslide*, provision of adequate road access for fire-fighting and other emergency vehicles and safe evacuation will be maintained. Emergency response strategies will be developed with participation from the Queensland Fire and Rescue Service and will include measures to provide water supply on site for fire-fighting purposes.

The Project will be managed in a way that minimises the potential impacts to workers and the existing community. Taroom Coal has in place a Health and Safety Policy, management plan and procedures.

ECONOMY

The economic base of the Surat Basin region is primarily agriculture and mining. In 2004-2005, agriculture accounted for 13.3% of the Surat Basin's Gross Regional Product, which equated to 18.2% of the total value of agriculture in Queensland. In 2004-2005 mining accounted for 9.9% of the Surat Basin's GRP.

Within the Surat Basin the Project is located in a long-established agricultural area, however, oil gas and coal exploration and exploitation are expected to be key drivers of economic growth in this region in the future.

The construction and operation of the Project will result in a positive input into the local, Queensland and Australian economy. During construction of the mine facilities and West Surat Link railway, the Project will contribute \$725 million to Gross State Product (GSP). During the life of the mine the average annual impact on GSP will be \$564 million of which 42% will be generated in the region.

ENVIRONMENTAL MANAGEMENT

In accordance with Section 203 of the former EP Act, an Environmental Management Plan (EM Plan) has been developed for the Project. The EM Plan describes the environmental values that are likely to be affected by the Project. For each environmental value identified an assessment of the beneficial and adverse impacts from the Project to that value has been described. Environmental objectives and control strategies have been proposed for the protection of each environmental value and Environmental Authority conditions containing measurable and indicator standards have been developed. Environmental Authority conditions are a mandatory requirement for all Level 1 mining Environmental Authorities as dictated by the administering authority.

The Project will develop and implement systems for continuous improvement including:

- An Environmental Management System to document procedures for environmental management and continual improvement on the Project;
- An Environmental Monitoring Manual to document procedures for environmental monitoring as described in this EM Plan and the Environmental Authority conditions to ensure that they are conducted in line with relevant Australian Standards and guidelines;
- An Internal Annual Monitoring Report to summarise and interpret the results of environmental monitoring programs on the Project and check compliance against Environmental Authority standards;
- An Annual Audit (independent auditor) of compliance; and
- An Annual Improvement Plan to action any non-compliance items from the annual audit and develop programs for improving environmental performance beyond compliance.

The Project will have an Induction Program and ongoing training that will address Occupational Health and Safety, environmental and cultural heritage issues, weed and pest management, fauna management and clearly define the responsibility of staff and contractors working on the Project.