

Appendix D Commitments Register



	STAGE 3 PROJECT COMMITMENTS REGISTER	
CHAPTER	TITLE	Commitment
CHAPTER 1	Introduction	
Existing Commi	tments - draft EIS	
1		NAC will work closely with the TRC to ensure that benefits to the region are maximised and potentially adverse impacts are prevented or mitigated.
2		A comprehensive list of the relevant legislation and regulatory approvals plan for the revised Project is provided in Appendix C.
Additional Com	mitmnets - AEIS	
2		The development of the rail spur and balloon loop may proceed by way of application for development approvals under the SPA (including for a Material Change of Use) or an application for an Infrast
3	4 Project Approvals	out either option.
4	4 Project Approvals	If the development of the rail spur and balloon loop proceeds by way of an Infrastructure ML under the MRA, NAC will seek a complete list of draft EA conditions to be stated within the CG's Evaluation
5	4 Project Approvals	If the development of the rail spur and balloon loop is to be authorised under SPA, rather than under an Infrastructure ML, NAC will seek development approval conditions to be stated within the CG's
	Design time tilles till som den statiste billte	
CHAPTER 2	Project justification and sustainability	
Existing Commi	tments - draft EIS	
		NA
Additional Com	mitmnets - AEIS	
		NA
CHAPTER 3	Project description	
Existing Commi	tments - draft EIS	
		NAC will conduct the revised Project within MLA 50232 by only seeking 'surface rights' for mining over the proposed new operational footprint. NAC will not possess the legal right to conduct mining ac
6		approval under the MR Act.
7		All mining and construction activities will be conducted in compliance with the Coal Mining Safety and Health Act 1999 (CMSH Act).
		The increase of capacity to 7.5 Mtpa will not occur until:
		- all approvals are acquired, including:
		<ul> <li>the successful completion of this EIS process, including a comprehensive community and stakeholder engagement program;</li> </ul>
		<ul> <li>the issuance of an approval for EPBC 2007/3423 from the Commonwealth government;</li> </ul>
		<ul> <li>the issuance of an amended EA to address the additional requirements of the revised Project by the DEHP;</li> </ul>
		- the granting of MLA 50232 (for the proposed extent of 'surface rights' to conduct mining activities); and
		<ul> <li>receipt of ancillary approvals, for example road closures.</li> </ul>
8		- construction of associated infrastructure required to produce and transport coal off-site at a production rate up to 7.5 Mtpa.
9		Mining activities will be conducted at the Manning Vale West and Willeroo mine pits either on a six day, 24 hr basis or a seven day, 24 hr basis depending on the mining schedule and the type of mining
		NAC will ensure the necessary approvals under the Explosives Act 1999 are obtained from the NRM for the proposed changes in explosive management for the revised Project. The safety aspects of black
10		Act. NAC will also ensure that its current blast notification protocol for near neighbours, blast monitoring regime and fume management procedures are updated at a rate commensurate with the properties of the p
11		NAC will consult with the relevant agencies to ensure the regulatory requirements for the road closures are completed to coincide with the grant of MLA 50232.
		Appropriate signage and infrastructure will be in place when these closures are implemented to warn public of the restricted access. NAC will also ensure that the public are appropriately advised via i
12		region.
13		Directional signage to Acland will be provided at key locations to ensure the surrounding community are aware of the changes. The Acland-Sabine Road will be upgraded to an appropriate standard to
14		Licensed waste contractors will be utilised for general and regulated waste removal. NAC will ensure all construction sites are left in an appropriate manner.
15		NAC will continue to consult with Telstra in relation to these matters to determine a suitable strategy to prevent and minimise any disruptions.
16		All current and future fuel strorage sites will be listed on the Environmental Management Register (EMR) under the EP Act.
17		NAC will continue to recycle water from its ITSFs to supplement the CHPP Precinct's water requirements and will implement improvements in tailings processing to reduce water use by the CHPP Precinc
		As a minimum, the surface water management philosophy for the revised Project will involve the:
		- diversion of clean water away from disturbed areas;
		- capture and adequate treatment of water that may be potentially discharged off site to ensure it complies with the current Mine's water discharge limits;
		- protection of infrastructure and mining areas from flooding using flood bunding;
		- design and construction of all water management structures using practical hydraulic parameters based on an appropriate risk based rainfall event, catchment size, slopes, discharge design and soil to
		- preferential use of water stored in on site storages as a supplemental water source for coal washing and other activities to minimise the likelihood of offsite water discharges;
		- beneficial recycling of water for activities, such as dust suppression;
		- recycling of water from the ITSFs to reduce water consumption for coal washing purposes;
		- temporary or permanent bunding of all significant quantities of hydrocarbon and chemical products stored on site;
		- use of spill capture and retention devices for refuelling and similar areas;
		- treatment of oily water areas using an oil-water separator;
		- minimisation of disturbance to an operational minimum for safe operation;
		- revegetation of disturbed areas no longer required for operational use to promote progressive rehabilitation; and
18		- sealing of high use areas to reduce degradation.
19		NAC has prepared a Water Resource Management Plan (WRMP) to include the management of the mining activities and infrastructure within MLA 50232. The WRMP will be implemented as part of th
20		Specialised water management systems will be implemented in all areas storing significant quantities of hydrocarbons and chemicals to minimise the potential for downstream impacts.
21		A flood levee will be constructed to protect the new infrastructure and all active mine areas on MLA 50232 from Lagoon Creek flood events and will be designed and constructed to manage a Probable
22		NAC will decomission the JRLF in accordance with the JRLF Decommission Management Strategy, presented in Table 3–27. The corresponding JRLF Item Number is depicted in Figure 3–29.
		into the accomposition are shell in accordance with the shell becommosioning interlagement strategy, presented in ratio 5–27. The corresponding shell neith number is depicted III Figure 5–27.

structure ML under the MRA. At this stage, a decision has not been made to rule

on Report for the EA associated with the Infrastructure ML. 's Evaluation Report.

activities within all other areas of MLA 50232 without obtaining further statutory

ing equipment utilised. blasting activities will continue to be conducted in compliance with the CMSH oposed mining activities.

a its various public communication tools (e.g. newsletter) in use throughout the

to support its role as the main access to Acland.

cinct.

types;

the revised Project's future Plan of Operations and is presented in Appendix J.4.

le Maximum Flood (PMF) rainfall event.

			To ensure the decommissioning of the site's infrastructure is rehabilitated to a safe and acceptable standard the following will be completed.
			1) Removal of infrastructure and unused or unwanted equipment. This removal phase will include all structural steel from the CHPP area, conveyor belts and frames, CHPP processing equipment, electr
			buildings, mobile equipment, workshops and storage facilities. Any permanent buildings that cannot be removed intact will be demolished and removed or used for backfilling.
			2) Collection and removal of all residual hazardous substances by a licensed regulated waste transporter. This collection phase will include contaminated packaging and containers, oils, tyres, paints and isolated and removed by the appropriate licensed approximately a
			isolated and removed by the appropriate licensed contractors. 3) Removal of all service infrastructure inclusive of power, water, and sewerage. Special attention will be given to the removal of fuelling facilities, workshops and vehicle service/parking areas.
			4) Protective or supporting bunds and pads for pipelines and vehicle service/parking areas will be removed. The material will be tested for contamination before being used as general fill material.
			5) Remove, recycle or bury of all concrete slabs, footings, associated with the CHPP processing equipment, administration buildings and workshops. This material will be used in backfilling operations w
			Concrete that has been removed from areas where there have been fuels, greases, chemicals, and other hazardous substances stored, used and handled will be treated as contaminated material.
			6) Preventing public access by removal or closure of access roads and tracks. Access tracks no longer required by the landowner or occupier will be rehabilitated to a beneficial end use.
			7) Tailings storage facilities will have appropriate fencing, bunding or other protection measures provided. Warning signs will be provided as required for public safety purposes. It is envisaged these fa
			and nature) will remain on the DEHP's EMR. NAC will ensure that it addresses its statutory obligations under the EP Act for all sites that remain on the EMR.
			8) The stability of the dams will be enhanced (where necessary) by buttressing with inert rock material to create safe final slopes that are resistant to erosion and which may then be rehabilitated in according to the dams will be enhanced (where necessary) by buttressing with inert rock material to create safe final slopes that are resistant to erosion and which may then be rehabilitated in according to the dams will be enhanced (where necessary) by buttressing with inert rock material to create safe final slopes that are resistant to erosion and which may then be rehabilitated in according to the dams will be enhanced (where necessary) by buttressing with inert rock material to create safe final slopes that are resistant to erosion and which may then be rehabilitated in according to the dams will be enhanced (where necessary) by buttressing with inert rock material to create safe final slopes that are resistant to erosion and which may then be rehabilitated in according to the dams will be enhanced (where necessary) by buttressing with inert rock material to create safe final slopes that are resistant to erosion and which may then be rehabilitated in according to the dams will be enhanced (where necessary) by buttressing with inert rock material to create safe final slopes that are resistant to erosion and which may then be rehabilitated in according to the dams with the dams will be enhanced (where necessary) by buttressing to the dams with the dams with the dams will be enhanced (where necessary) by buttressing to the dams with the dams with the dams will be enhanced (where necessary) by buttressing to the dams with the dams with the dams with the dams will be enhanced (where necessary) by buttressing to the dams with
			9) A self-sustaining vegetation cover will be grown to provide long term stabilisation. Appropriate measures to assist vegetation growth may include topsoil covering, correction of pH, incorporation of of
			protection of the vegetation area by utilising wind-breaks and other suitable means.
23			
			Rehabilitated land will be monitored until monitoring data confirms successful achievement of the agreed rehabilitation performance criteria. NAC will continue this monitoring regime until the total dis
			MLs can be completed. Over the revised Project's life, NAC may also seek progressive 'sign-off' on successfully rehabilitated parcels of land from the DEHP. NAC's rehabilitation activities will be designe Project's MLs are achieved. NAC will transfer the overall management of the revised Project site to the APC.
			During the decommissioning phase, NAC will ensure all 'notifiable activities' conducted within the revised Project site will be investigated for in-situ soil contamination and as required under the EP Act,
			- be released from the DEHP's EMR;
			- be remediated, confirmed by follow-up investigation(s), and released from the DEHP's EMR; or
24			- remain on the DEHP's 'EMR' with an agreed 'site management plan'.
			At the appropriate time, NAC will prepare a comprehensive mine closure plan. The mine closure will take into account the baseline environmental data that has been capture throughout the life of the re-
25			criteria and costs and will document a closure action planning process.
			A summary of proposed management plans for each of the property types and structures in Acland currently owned by the NHG is provided in Table 3–28. The corresponding Acland Item Number is dep
26			is located in Appendix J.12.
	Additional Commitm	nets - AEIS	The internal have read from the Materials Landling Cosility (MUC) to the new TIC will remain in place for the dynation of the revised Dreiset. Other internal have ready used for the transportation and rev
27		3 Revised Project Ammendments	The internal haul road from the Materials Handling Facility (MHF) to the new TLF will remain in place for the duration of the revised Project. Other internal haul roads used for the transportation and rav be periodically constructed in front of the mine path to allow for access and transportation of raw coal. These minor changes will not result in an increase in environmental nuisance or harm.
21		S Revised Froject Ammendments	The original main access to the revised Project was along Cherry's Road to the north of the revised Project site. NAC revised this access and propose to construct a new road off the Peachey-Maclagan Ro
28		3 Revised Project Ammendments	will be designed to the appropriate standards to transport light vehicles into the revised Project site.
20			NAC has given notice in writing to the Chief Executive under Section 307 of the Mineral Resources Act 1989 (MR Act) to partially abandon Mining Lease (ML) 50232 to include only the area depicted in Fig.
29	5.1.2	Land	of the MR Act where an ML can only be granted in respect of contiguous land, the partial abandonment covers an area shown in Figure 5.1.2 A of the AEIS.
30	5.1.4.1	Jondaryan Rail Loadout Facility	NAC commits not to increase throughput at the existing rail-load out facility at Jondaryan above 5.2 Mtpa.
31	5.1.4.2	Jondaryan Rail Loadout Facility	The JRLF will be closed within 24 months from obtaining grant of the Mining Lease and all other relevant approvals for the revised Project, including the Company's final investment decision.
22	F 1 4 0	landaruan Dail Landaut Facilitu	The IDE Decommissioning Management Strategy is presented below in Table 5.1 of the AFIC MAC will develop a dedicated management plan for the decommissioning and rehabilitation of the UDE site
	5.1.4.2 5.1.4.3	Jondaryan Rail Loadout Facility Jondaryan Rail Loadout Facility	The JRLF Decommissioning Management Strategy is presented below in Table 5-1 of the AEIS. NAC will develop a dedicated management plan for the decommissioning and rehabilitation of the JLRF site NAC intends to rehabilitate the JRLF site to the post mine land use of grazing.
	5.1.4.3 5.1.4.3	Jondaryan Rail Loadout Facility	NAC intends to reliabilitate the JRLF site to the post mine faild use of grazing. NAC will undertake further consultation with the Jondaryan community to ensure information is available regarding activities specific to the Jondaryan community e.g. JRLF decommissioning, rail constru
	5.1.4.4	Jondaryan Rail Loadout Facility	Table 5.1.4 – B of the AEIS provides an outline of planned community consultation and engagement in the Jondaryan area, including consultation around environment and relocation of the JRLF.
00	0.1.1.1		The management of Acland is documented in the Acland Management Plan (AMP) located in Appendix I of the AEIS and is guided by the unique historical context of Acland, and the safety, security and
36	5.1.7	Acland Township	consultation activities conducted by NAC over a number of years. In order to achieve the outcomes documented in the AMP, Acland has been excised from the area of Mining Lease (ML) Application 502
	5.1.7	Acland Township	A range of community consultation and engagement commitments are detailed in Section 5.1.10 of the AEIS. Consultation activities specific to Acland are also outlined in Table 5.1.7 A of the AEIS.
	5.2.2.2	Advisory Agency Responses	NAC will seek assessment and approval for any tall structures that is above 30m above ground level within 30km of the AAC Oakey, and any tall structures that is above 45m above ground level elsewhere
	5.2.9.3	Advisory Agency Responses	NAC will consult with the DNRM in relation to the realignment of the Jondaryan Muldu Road and proposed road closure/alterations and will ensure continuity and operability of the stock route.
40	5.3.15.5	Responses to Submissions	NAC commits to raising the Private Submitter's (Private Submitter 269) concern with Ergon Energy.
			The MHF possesses four operational stockpile areas and two emergency stockpile areas. Under normal operating conditions, the four stockpile areas will be used, but will never be completely full due to
/11	5.3.24.4	Responses to Submissions	emergency stockpile areas will only be operated in exceptional circumstances, for example, if the main railway line stops operation for an extended period. If used, the two emergency stockpile areas w
	5.3.24.6	Responses to Submissions	NAC will continue to ensure that product coal is not stored for extended periods at the site over the life of the revised Project, apart from during exceptional circumstances.
42	5.5.24.0		NAC will continue to ensure that product coarts not stored for extended periods at the site over the ne of the revised Project, apart from during exceptional circumstances.
43	5.3.44.7	Responses to Submissions	maintained to Acland.
		, , , , , , , , , , , , , , , , , , ,	
	CHAPTER 4	Land resources	
	Existing Commitment	ts - draft EIS	
44			NAC will consult with the relevant stakeholders, including DEHP, in relation to the realignment of the Jondaryan Muldu Road and will ensure continuity and operability of the stock route. NAC will liaise with the DEHP and other relevant government agencies to gain all relevant approvals in relation to the opening and closing of roads (including roads which are stock routes) and in land de
40			As the revised Project site is located within the TRC, development applications for assessable development off the mining lease (e.g. roads, powerlines) will be made where required to the TRC. Applicat
46			Toowoomba Regional Planning Scheme (the Planning Scheme) adopted on 20 March 2012 and enacted on 1 July 2012.
70			Furthermore, as discussed in Chapter 18, the following proposed controls will assist in minimising the risk of fire:
			- Relevant site staff will complete fire safety training during induction.
			<ul> <li>Approved fire alarm, detection, suppression and fighting system will be installed in consultation with fire control authorities.</li> <li>NAC will liaise with landowners and local authorities with respect to fire breaks and on-going maintenance programs.</li> </ul>
			- Approved fire alarm, detection, suppression and fighting system will be installed in consultation with fire control authorities.
			<ul> <li>Approved fire alarm, detection, suppression and fighting system will be installed in consultation with fire control authorities.</li> <li>NAC will liaise with landowners and local authorities with respect to fire breaks and on-going maintenance programs.</li> </ul>
			<ul> <li>Approved fire alarm, detection, suppression and fighting system will be installed in consultation with fire control authorities.</li> <li>NAC will liaise with landowners and local authorities with respect to fire breaks and on-going maintenance programs.</li> <li>Limit ignition sources around refuelling and fuel storage areas.</li> </ul>
			<ul> <li>Approved fire alarm, detection, suppression and fighting system will be installed in consultation with fire control authorities.</li> <li>NAC will liaise with landowners and local authorities with respect to fire breaks and on-going maintenance programs.</li> <li>Limit ignition sources around refuelling and fuel storage areas.</li> <li>Emergency response procedures.</li> <li>Coordination with external emergency services.</li> <li>Provision of adequate fire fighting equipment and water.</li> </ul>
			<ul> <li>Approved fire alarm, detection, suppression and fighting system will be installed in consultation with fire control authorities.</li> <li>NAC will liaise with landowners and local authorities with respect to fire breaks and on-going maintenance programs.</li> <li>Limit ignition sources around refuelling and fuel storage areas.</li> <li>Emergency response procedures.</li> <li>Coordination with external emergency services.</li> <li>Provision of adequate fire fighting equipment and water.</li> <li>The Mine currently sources potable water for the site from basalt aquifers and is sourced from licensed groundwater bores on-site and treated by a Reverse Osmosis Water Treatment Plant. In the event</li> </ul>
47			<ul> <li>Approved fire alarm, detection, suppression and fighting system will be installed in consultation with fire control authorities.</li> <li>NAC will liaise with landowners and local authorities with respect to fire breaks and on-going maintenance programs.</li> <li>Limit ignition sources around refuelling and fuel storage areas.</li> <li>Emergency response procedures.</li> <li>Coordination with external emergency services.</li> <li>Provision of adequate fire fighting equipment and water.</li> </ul>

ctrical cabling and associated instrumentation, portable administration

and resins, recyclables and general waste. Radiation density sources will be

s where it will be covered with inert material before topsoiling and rehabilitation.

e facilities as 'notifiable activities' and due to their physical characteristics (size

accordance with the post-mine land use agreement. of organic mulches and fertilisers to encourage plant growth, irrigation, and

I disturbed area is fully rehabilitated and relinquishment of the revised Project's gned to ensure the final agreed post mining land use and surrender of the revised

Act, will either:

ne revised Project, legal and cost implications, stakeholder involvement, closure

depicted in Figure 3–30. A comprehensive Acland No.2 Colliery Conservation Plan

raw coal from the mine pit to the Run-of-Mine Pad and light vehicle access will

Road which will enter into the new Mine Industrial Area (MIA). The new road

Figure 3-1 of the draft EIS. Due to the legislative requirement under Section 232

site (including a monitoring regime to determine rehabilitation success).

struction and ongoing monitoring activities.

nd environmental objectives which stakeholders have raised during community 50232.

here as depicted in Figure 5.2 A of the AEIS.

ue to the dynamic continuous nature of the coal handling process. The two is will require manual reclaiming by mobile equipment (e.g. front end loaders).

works, NAC will ensure an uninterrupted power supply through the 11 KV line is

d dealings relating to changes in land tenure. ications will be in accordance with the relevant provisions of the SP Act and the

event that this water supply becomes contaminated, the system can be isolated

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B         The applicitor installation scaces offer of the invested begict is deprecised and sheelds allows as defined in the Trait inclus and the abilitation. Management Page P1100000000000000000000000000000000000		extract	ive resource, and if viable, will consult with the local administering authority and initiate the required approval process under the SP Act.
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Se         Hospitcher           5         MAX           5         MAX           6         MAX           7         MAX           8         MAX           9         MAX           10         MAX	53	l he ve	getation rehabilitation success criteria for the revised Project's depressed and elevated landforms are defined in the Final Land Use and Rehabilitation Management Plan (FLURP).
Image: second			
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61       - Links will be designed in accordance with Na 1062-2006: 'Steel the forgend of minima be and combustible liquids' to minima the adaption.         62       Approximately 36 Muturn of mine water material will be deposed of minima the ping mine water damps.         63       Approximately 36 Muturn of mine water material will be deposed of minima to express the state adaption of stapping minima to the mine waster. This material will be evoluted of prove depose to a state state adaption of stapping minima to the mine waster. This material will be evoluted for in-pil (before pil control) concretes of add generation of stapping minima to the mine waster. This material will be evoluted regularly during minima to the mine waster. This material will be evoluted for pil (befort) concretes of add generation of the state add the mine mine waster. This material will be evoluted regularly during minima to the mine waster. This material will be evoluted regularly during minima to the state will be evoluted to the mine growthere with the designed of minima to the will be bedoed to the minima to the state will be evoluted to the mine growthere with the designed of minima to the state will be evoluted to the minima to the state will be evoluted to the minima to the state will be evoluted to the state will be evoluted to the minima to the state will be evoluted to the minima to the state will be evoluted to the minima to the state will be evoluted to the minima to the state will be evoluted to the state will be evoluted to the minima to the state will be evoluted to the state will be evolu			
62       Islings with be disposed of in in pit tailings disposal facilities. Cases rejects will be disposed of within the inp time waste durings.         63       Approximately 39% Mice mine waste matching will be disposed of my title disposed and pit tails multiple inclusion. Will be pieced external to the mine solar, this multiple inclusion will be pieced external to the mine solar. The treviced Project's out-of pit during mine solar disposed and pit tails. The control of project's out-of pit during mine solar disposed of mine waste matching will be disposed of and pit continue to be used to help disposit y during mine solar. The solar disposed of a disposed disposed of a disposed of a disposed of a	61		
63         Approximately 36 Mucm of mine wate make make in will be inposed of in pail (below pill cred) and approximately 30 Mucm will be proceed on angle of ropos soles to a slope age of 25 degress to 14 degress.           64         Although the overall indication is that tills to no acid generation will be created and will be make cantained wills the mine wase, this makerial will be evaluated regularly during mine starts.           64         The following measures will be implemented to manage mine wase. Low capacity PAP (PAF LC) and PAP mine waste, this makerial will be evaluated regularly during mine starts.           65	-		v · · · · · · · · · · · · · · · · · · ·
63         working dump in th hight of 3m. The landform will be recented in clinication is hull the line carbon of supplice minases contained within termine waste, this material will be evaluated regularly during mining surface water monitoring program will continue to be used to hepe jubently occurrences of acid generation.           64         The following measures: we can contain the provide the contact of the cont			
64         surface water monitoring program will confine to be justed to hep/identify occurrences of acid generation.           66         The following measures will be implemented to manage mine wats: Low capacity PAP (PA + C) and PAP rine wats will be: - progressively backfilled into jit voids and placed below the pre-mining groundwater level: and - conting during the mainter site of the pre-mining groundwater level: and - conting during the mainter site of the pre-mining groundwater level: and - conting during the mainter site of the pre-mining groundwater level: and - conting during the mainter site of the pre-mining groundwater level: and - supplication of fertilisers and other sill restments as requiring maintenance. During the initial phases of operation, and continuing routinely throughout the life of the revised Project, It is proposed to carry out analysis of overburden and tailings material to confirm its geochemic - anonizing the rehabilisation to demonstrate success and liserity areas requiring maintenance. During the initial phases of operating, and continuing routinely throughout the life of the revised Project, It is proposed to carry out analysis of overburden and tailings material to confirm its geochemic - declarate restment prior to revegatation to minimise any effects from sodie spoil. Additionally and serequired, consideration may be given to incorporating calcium into the reduction and as used as surface treatment prior to revegatation to minimice any effects from sodie spoil. Additionally and serequired to a surgave and as the revised Project will be pre-mining and use a term ceruiterments are consistent with the post mining hand use reduction and as used as a surface treatment prior to revegatation community using appropriate pastrug paster and tailors ore the darked	63	workin	g dump lift height of 30 m. The landform will be recontoured from angle of repose slopes to a slope angle of 8.5 degrees to 17 degrees.
65			
66       - progressively backfilled into pit voids and placed below the pre-mining groundwater level; and         66       - comingled with mo-add forming (MAP) materials in out of pit durneys during construction.         66       - spipiation of fortilizers and others oil treatments are required and         66       - moniforing the related of mining operations and directly placing logs oil on rehating logs oil on rehating logs oil on rehating logs.         67       Bound places are required and         68       - project with a solution of boxe.         69       During the initial phases of operation, and continuing routinely throughout the life of the revised Project, it is proposed to carry out analysis of overburden and tailings material to confirm its geochemic as outlined above.         68       - Topsol will abo be used as a surface treatment prior to revegetation to minimise any effects from sociic spoil. Additionally and as required, consideration may be given to incorporating calcium into the oddity.         69       - Expendent main post-mine land use at the revised Project will be appropriate native plant species.         70       - Expendent main post-mine land use at the revised Project will be appropriate native plant species.         71       - Stable fandforms will be extablished following mining, using space requirements are consistent with the post mining land use.         72       - Contrac backs will be constructed at the revised Project will be related for onversate landform to prove the main fract and adding the the load andorsthe subject at ithe revised Project will be	64		
65       - co-mingled with non-add forming (MAP) materials in our of pit dungs during construction.         66       + Hiphy sode soits have a tenderty to lose sagregation and to obse aggregation and to obse aggregation method where possible, otherwise the topoil will be stockpiled for later use: <ul> <li>+ stripping topoil ahead of mining operations and to obse aggregation and to obverive day dispersions.</li> <li>- monitoring the rehabilitation to demonstrate success and identity areas requiring maintenance.</li> <li>During the initial phases of operation, and continuing routinely through the life of the revised Project, it is proposed to carry out analysis of overburden and tailings material to confirm its geochemic as outlined above.</li> </ul> 66     - monitoring the rehabilitation to demonstrate success and identity areas requiring maintenance.           67         as outlined above.           68         - forpoid will also be used as a surface treatment prior to revegetation to minimise any effects from socie spoil. Additionally and as required, consideration may be given to incorporating acidum into the society.           68         - forpoid will also be used as a unface treatment prior to revegetation to minimise any effects from socie spoil. Additionally and as required, consideration may be given to incorporating calcum into the society.           69         - deficated for conversition purposes and will involve enhancing Lagoon Creek's iparian zone using the agpropriate native possible, or possible, or possible, adprove method will be adviewed hand the strup and use.           71         - rehabilitation to acontiton that is strup stasustaing or a coal will how			
-stripping topsoil ahead of mining operations and directly placing topsoil on rehabilitation where possible, otherwise the topsoil will be stockpiled for later use:         66       -monitoring the rehabilitation to demonstrate success and identify areas requiring maintenance.         67       During the hill phases of operation, and continuing routinely throughout the life of the revised Project, it is proposed to carry out analysis of overburden and tailings material to confirm its geochemic as outlined above.         66       Topsoil will also be used as a surface treatment prior to revegetation to minimise any effects from socie spoil. Additionally and as required, consideration may be given to incorporating calcium into the society.         66       Topsoil will also be used as a surface treatment prior to revegetation to minimise any effects from socie spoil. Additionally and as required, consideration may be given to incorporating calcium into the society.         66       docitacto for conversation purposes and will involve enhancing Lagoon Creck's riparian zone using the appropriate native plant spocies.         70       Stable landforms will be established following mining using solis capable of supporting vegetation communities adapted to the local environment. The stability of the post-mine landform will be achier revised Project will be rehabilitated to depressed landforms by battering down the high walls and low walls to a lesser slope of 8.5 to 17 degrees. The degree angles are especied to support systemable grazing parcetas.         71       angles are expecied to support systemable grazing parcetas.         72       Contour banks will be constructed after profing of the final landform to r	65		
66       - application of fertilizers and other soll treast required; and         66       - monitoring the rehabilitation to demonstrate success and identify areas requiring maintenance.         67       During the initial phases of operation, and continuing routinely throughout the life of the revised Project, it is proposed to carry out analysis of overburden and tailings material to confirm its geochemic as outlined above.         68       Consider and the solution of the progression progression of the progression of the pr		Highly	sodic soils have a tendency to lose aggregation and to develop clay dispersion, impermeable layers, surface crusting, and poor aeration (Baker and Eldershaw, 1993). To minimise these effects, e
66       - monitoring the rehabilitation to demonstrate success and identify areas requiring maintenance.         67       During the initial phases of operation, and continuing routinely throughout the life of the revised Project, It is proposed to carry out analysis of overburden and tailings material to confirm its geochemic as outlined above.         67       Topooli Will also be used as a surface treatment prior to revegatation to minimise any effects from socie spoil. Additionally and as required, consideration may be given to incorporating calcium into the society.         68       Society         69       It is proposed the main post-mine land use at the revised Project Will be grazing based on a self-sustaining propriate native plants pecies.         69       dedicated for conversation puny proposes and will involve enhancing Lagoon Creck's right and one use using the apportant ealer plant species.         70       Stable landforms will be established following mining, using solis capable of supporting vegetation community using abard to the local environment. The stability of the post-mine landform will be achier enhabilitated to a condition where the maintenance requirements are consistent with the post mining land use.         71       Contour banks will be constructed during the revised Project will be enhabilitated to depressed landforms by battering down the high walls and low walls to a lesser slope of 8.5 to 17 degrees. The depression and the served project will be enhabilitated to depressed landform to proven the ingress of surface water from time enverted flow walls to a lesser slope of 8.5 to 17 degrees. The depression and the served project will be constructed at a profiling of the acondel during the revised Pr			
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67       as outlined above.         68       Topsolf will also be used as a surface treatment prior to revegetation to minimise any effects from socic spoil. Additionally and as required, consideration may be given to incorporating calcium into the socicity.         68       It is proposed the main post-mine land use at the revised Project will be grazing based on a self-sustaining vegetation community using appropriate pasture grasses and scattered plantings of native tree dedicated for conversation purposes and will involve enhancing Lagoon Creek's riparian zone using the appropriate native plant species.         69       Stable landforms will be established following mining, using solis capable of supporting vegetation communities adapted to the local environment. The stability of the post-mine landform will be achie rebabilited to a condition that is self-sustaining or to a condition where the maintenance requirements are consistent with the post mining land use.         70       The remaining final voids created during the revised Project will be rehabilitated to depressed landforms by battering down the high walls and low walls to a lesser slope of 8.5 to 17 degrees. The depre angles are expected to support sustainable grazing practices.         71       angles are expected to support sustainable grazing practices.         72       Contour banks will be constructed arear profiling of the final landform to control run off. The contour banks will be calcinet the revised Project stell.         73       Diversion bunds will be strategically constructed arear of Dinahrithing screeum grassland community within several practes of 1 and adjacent the revised Project ste.         75       based grassl	00		
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71       angles are expected to support sustainable grazing practices.         72       Contour banks will be constructed after profiling of the final landform to control run off. The contour banks will be designed and constructed to control the run off from a 1:20 year ARI time of concent 73         73       Diversion bunds will be stategically constructed area of bichanthium sericeum grassland community within several parcels of land adjacent the revised Project site.         74       NAC will establish a suitable legal mechanism connected to the underlying land title to protect the Dichanthium sericeum based grassland offset in perpetuity. This legal agreement will also include a lobased grassland offset.         75       based grassland offset.         76       - construction of waste dumps in 10 m lifts on external dump faces, with a maximum working dump lift height of 30 m. Angle of repose slopes will be recontoured to a slope angle of 8.5 degrees to 17 d use of suitable topsoil, which will either be stockpiled until suitable recontoured areas are available, or respread immediately across available recontoured areas; - construction of waste dumps in 10 m lifts on external dump faces, with a maximum working dump lift height of 30 m. Angle of repose slopes will be recontoured areas; - contour ripping as an erosion control measure; - seeding with an appropriate seed mix (grass, shrub and tree species) prior to the commencement of the wet season to maximise the benefits of subsequent rainfall; and - application of appropriate fertiliser for plant establishment if required.         77       The timetable for criteria for achieving a self-sustaining vegetation community will be developed during the operation based on current practices and the monitoring of progressi	/0		
72         Contour banks will be constructed after profiling of the final landform to control run off. The contour banks will be designed and constructed to control the run off from a 1:20 year ARI 'time of concent 73           73         Diversion bunks will be strategically constructed around each depressed landform to prevent the ingress of surface water from either overland flow during significant rainfall events or flooding within t 74           74         NAC's proposed biodiversity offset will involve establishing a new area of <i>Dichanthium sericeum</i> grassland community within several parcels of land adjacent the revised Project site.           75         NAC will establish a suitable legal mechanism connected to the underlying land title to protect the Dichanthium sericeum based grassland offset in perpetuity. This legal agreement will also include a lo based grassland offset.           75         The main features of the progressive rehabilitation process are: - construction of waste dumps in 10 m lifts on external dump faces, with a maximum working dump lift height of 30 m. Angle of repose slopes will be recontoured to a slope angle of 8.5 degrees to 17 d - use of suitable topsoil, which will either be stockpiled until suitable recontoured areas are available, or respread immediately across available recontoured areas; - contour ripping as an erosion control measure; - seeding with an appropriate seed mix (grass, shrub and tree species) prior to the commencement of the wet season to maximise the benefits of subsequent rainfall; and - application of appropriate fertiliser for plant establishment if required.           77         The timetable for rehabilitation activities will be outlined in the Plan of Operations. Changes and updates to the mine plan and rehabilitation schedule will be made to the	71		
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79 This grazing trial program will be a continuous process with new areas progressively added to the original trial area each year. The grazing trial program will be expanded to include the revised Project's		below)	and trends tracked to demonstrate establishment.
	79	This gr	azing trial program will be a continuous process with new areas progressively added to the original trial area each year. The grazing trial program will be expanded to include the revised Project's

r). NAC's intention is for this CHMP to be the sole instrument governing the

ore, will ensure that the same process is undertaken for the revised Project.

will undertake further investigations into the feasibility of developing this

management and to collect the necessary data to demonstrate:

on, NAC will consult with government and community on a regular basis over the

sist and enhance rehabilitation management.

d Project progresses. arbons. All hydrocarbons will be stored and handled in accordance with the postructed to minimise the potential for leaks to occur. All chemicals will be

nps will be constructed using 10 m lifts on external dump faces, with a maximum

mining operations to assess its acid generating capacity. The revised Project's

, ex-pit mine waste dumps will be managed by:

mical characteristics, and if necessary, implement a series of mitigation measures

the surface horizon of the final spoil dump to reduce issues related to high

tree and shrub species. A discrete area of the revised Project site will be

nieved by applying sound rehabilitation practices. The disturbed land will be

pressed landforms will be geotechnically stable and due to the rehabilitated slope

entration' flow from the catchment. n the Lagoon Creek floodplain.

a long term management plan for preservation of the Dichanthium sericeum

7 degrees with drainage contours being constructed as required;

ppropriate times.

abilitated areas will be monitored using the selected parameters (as described

ect's rehabilitation areas designated for grazing.

			The conservation zone for the revised Project will comprise the riparian zone of Lagoon Creek, Bottle Tree Hill and proposed offset areas. The conservation zone is to be expanded to include the full length and the conservation zone is to be expanded to include the full length.
80			side of the channel.
			Mine infrastructure areas will generally not require spoil placement or capping but will receive topsoil and seeding treatments similar to the solid waste disposal and capped tailings dams. Waste removassociated with the decommissioning of Mine infrastructure areas. As a result, drainage within these rehabilitated areas will be re-established with a level of design that ensures long term stability. As o
81			will be managed by the mine closure planning process and will encompass contaminated land management matters.
01			At the commencement of rehabilitation works in a new area, permanent photograph points will be established and delineated with a star picket or similar. The geographic location and bearing of the p
82			permanent monitoring site.
83			Revegetation monitoring, conducted by a competent person, will occur every year after initial seeding activities dependent on rainfall, seedling establishment and seasonal factors.
84			The rehabilitation areas will be monitored every year until success has been achieved. During this monitoring the revegetation will be compared against the specific success criteria.
85			Suitable topsoil will be stripped for use in the rehabilitation program. The topsoil will either be stockpiled until suitable re-contoured areas are available, or directly returned immediately across the are
			Stockpiles will be managed so that:
			-storage time is minimised;
			- soil types with significantly different properties will be stockpiled separately;
			- locations are recorded using GPS and data recorded relating to the soil type and volume;
			- storage sites are clearly identified and away from heavy vehicle routes; and
86			-stockpile surfaces are ripped and seeded (if natural revegetation does not provide adequate cover).
			Progressive rehabilitation will be undertaken to stabilise disturbed areas as quickly as practical and to limit erosion. Erosion and sediment control measures will be employed, which are consistent with
87			Technical Guidelines for the Environmental Management of Exploration and Mining in Queensland, (DME, 1995).
88			The erosion control measures to be employed throughout the life of the revised Project are summarised in Table 4-46.
89 90			In the event of a significant fossil find, NAC will liaise with the Queensland Museum about strategies to protect the find. Over the life of the revised Project, this LoM Plan will be continuously revised based on economic, geological and engineering factors. In addition, this LoM Plan will be used to guide the day-to-day ope
90 91			The Mine Closure Plan will be submitted to the DEHP at least five years prior to the surrender of the EA. The decommissioning and final rehabilitation of the Project will occur on a staged basis over seve
71			On the completion of mining, infrastructure will be treated as follows:
			- mine roads will be left behind for use as farm roads or rehabilitated if not required;
			- water dams will remain if required by the relevant landowner and approved by regulators; otherwise they will be rehabilitated;
			- buildings, plant and equipment will be removed and the surface rehabilitated, including the CHPP, workshop, offices, storage tanks and coal handling facilities;
			- concrete pads will be covered with benign waste rock, topsoiled and revegetated or removed and disposed to the nearest landfill;
			- installation of a final cover system to the all TSFs; and
92			- the final voids remaining at the end of the mine life will be battered down to form depressed landforms.
93			Once completed, road diversions will remain permanently in place as a public asset.
			Decommissioning and rehabilitation of disturbance associated with the Rail Corridor will initially involve a decision on the value of retaining the asset for the future benefit of the community. Should it
94			the overall rehabilitation objective will be the return of the rail corridor to a land use which supports grazing where practicable.
95			The revised Projects mitigations measures and commitments for land resources are presented in Table 4-34.
	Additional Commit	mnets - AEIS	
04	5.1.2	Land	Except to the extent exemptions apply to the revised Project, a regional interests development approval (RIDA) will be required under the RPI Act and will be applied for in accordance with the RPI Act a NAC has engaged a consultant to assess the impacts of the revised Project in the context of the RPI Act and PRI Regulations requirements.
90	0.1.Z	Land	NAC has engaged a consultant to assess the impacts of the revised Project in the context of the RPI Act and PRI Regulations requirements.
07	F 1 0	Land	
97	5.1.2	Land	NAC will continue to make the results of its grazing trials project at the Mine publically available in the future (i.e. as each new stage is completed and verified). This information will be provided on wri
			NAC is committed to undertaking further call surveys to undeto the Tancel Management Dian (TMD) and the Final Land Lies and Dehabilitation Dian (FLUDD). Jacoted in Annandiy 1.2 and 1.2 of the draft
			NAC is committed to undertaking further soil surveys to update the Topsoil Management Plan (TMP) and the Final Land Use and Rehabilitation Plan (FLURP), located in Appendix J.3 and J.2 of the draft requirements of the RP Act and with consideration to the Guidelines for Agricultural Land Evaluation in Queensland (DNRM, 1994), the Australian Soil and Survey Field Handbook (NCST, 2009), and the
90	5.2.9.11	Advisory Agency Responses	Further soil surveys to update the TMP will be undertaken prior to the commencement of topsoil stripping, and may be undertaken in stages commensurate with the staging of the revised Project.
70	J.Z. 7. TT	Advisory Agency Responses	r di thei son su veys to apuate the rivir will be dideitaken profito the commencement of topson surpping, and may be dideitaken in stages commensurate with the staging of the revised rivject.
99			Following completion of further the further soil surveys proposed in Section 5.2.9.11 of the AEIS, the TMP and FLURP will be updated to include specific management strategies for return of backfilled n
	5.2.9.11	Advisory Agency Responses	Following completion of further the further soil surveys proposed in Section 5.2.9.11 of the AEIS, the TMP and FLURP will be updated to include specific management strategies for return of backfilled most-mine land use suitability is rarely achieved immediately following landform construction and revegetation. Rehabilitation will be monitored over time, and there will be opportunity for improvements and the section 5.2.9.11 of the AEIS, the TMP and FLURP will be updated to include specific management strategies for return of backfilled most support to the section 5.2.9.11 of the AEIS, the TMP and FLURP will be updated to include specific management strategies for return of backfilled most support to the section 5.2.9.11 of the AEIS, the TMP and FLURP will be updated to include specific management strategies for return of backfilled most support to the section 5.2.9.11 of the AEIS, the TMP and FLURP will be updated to include specific management strategies for return of backfilled most support to the section 5.2.9.11 of the AEIS, the TMP and FLURP will be updated to include specific management strategies for return of backfilled most support to the section 5.2.9.11 of the AEIS, the TMP and FLURP will be updated to include specific management strategies for return of backfilled most support to the section 5.2.9.11 of the AEIS, the TMP and FLURP will be updated to include specific management strategies for return of backfilled most support to the section 5.2.9.11 of the AEIS, the TMP and FLURP will be updated to include specific management strategies for return of backfilled most support to the section 5.2.9.11 of the AEIS, the TMP and FLURP will be updated to include specific management strategies for return of backfilled most support to the section 5.2.9.11 of the AEIS, the two section 5.2.9.11 of the AEIS, the two section 5.2.9.11 of the two sect
100	5.2.9.11 5.2.9.13	Advisory Agency Responses Advisory Agency Responses	Following completion of further the further soil surveys proposed in Section 5.2.9.11 of the AEIS, the TMP and FLURP will be updated to include specific management strategies for return of backfilled n post-mine land use suitability is rarely achieved immediately following landform construction and revegetation. Rehabilitation will be monitored over time, and there will be opportunity for improveme Future revisions to the water guality modelling in depressed landforms model will be undertaken if required once further characterisation of soil materials and mine wastes (overburden) has been com
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101	5.2.9.13	Advisory Agency Responses	post-mine land use suitability is rarely achieved immediately following landform construction and revegetation. Rehabilitation will be monitored over time, and there will be opportunity for improveme Future revisions to the water quality modelling in depressed landforms model will be undertaken if required once further characterisation of soil materials and mine wastes (overburden) has been com NAC will comply with the RPI Act with regard to the revised Project's impacts on cropping land.
101	5.2.9.13 5.3.22.29	Advisory Agency Responses Responses to Submissions	<ul> <li>post-mine land use suitability is rarely achieved immediately following landform construction and revegetation. Rehabilitation will be monitored over time, and there will be opportunity for improvement Future revisions to the water quality modelling in depressed landforms model will be undertaken if required once further characterisation of soil materials and mine wastes (overburden) has been com NAC will comply with the RPI Act with regard to the revised Project's impacts on cropping land.</li> <li>The grazing trials project will continue over the life of the revised Project and will involve the ongoing incorporation of new grazing trial sites as rehabilitated land becomes available. The grazing trials project will continue over the life of the revised Project and will involve the ongoing incorporation of new grazing trial sites as rehabilitated land becomes available.</li> </ul>
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101 102 103 103 104 105	5.2.9.13 5.3.22.29 5.3.24.36 CHAPTER 5	Advisory Agency Responses Responses to Submissions Responses to Submissions Surface water resources	post-mine land use suitability is rarely achieved immediately following landform construction and revegetation. Rehabilitation will be monitored over time, and there will be opportunity for improvement Future revisions to the water quality modelling in depressed landforms model will be undertaken if required once further characterisation of soil materials and mine wastes (overburden) has been com NAC will comply with the RPI Act with regard to the revised Project's impacts on cropping land. The grazing trials project will continue over the life of the revised Project and will involve the ongoing incorporation of new grazing trial sites as rehabilitated land becomes available. The grazing trials project will be diverted access tracks under the revised Project's environmental authority. These minor works will be The revised Project includes an operational separation distance of approximately 150 m from the banks of Lagoon Creek to the edge of the mining pits, which includes a 50 m buffer adjacent the creek to requirements of the Vegetation Management Act 1999, which protects remnant vegetation growing within 50m of a watercourse. NAC have committed to design the revised Project's final landform so that any depressions and or hills are located outside the PMF flood extent. Further refinement of the depressed landform locations through detailed design and mine planning will ensure that the depressed landform locations are not affected by the predicted PMF. As a result The Mine's water management system is based on the following key principles: - where possible, stormwater runoff from undisturbed areas both on and surrounding the revised Project site will be diverted away from disturbed areas and released directly into adjacent waterways.
101 102 103 104 105	5.2.9.13 5.3.22.29 5.3.24.36 CHAPTER 5	Advisory Agency Responses Responses to Submissions Responses to Submissions Surface water resources	post-mine land use suitability is rarely achieved immediately following landform construction and revegetation. Rehabilitation will be monitored over time, and there will be opportunity for improvement Future revisions to the water quality modelling in depressed landforms model will be undertaken if required once further characterisation of soil materials and mine wastes (overburden) has been com NAC will comply with the RPI Act with regard to the revised Project's impacts on cropping land. The grazing trials project will continue over the life of the revised Project and will involve the ongoing incorporation of new grazing trial sites as rehabilitated land becomes available. The grazing trials project will continue over the life of the revised Project and will involve the ongoing incorporation of new grazing trial sites as rehabilitated land becomes available. The grazing trials project will continue over the life of the revised Project and will involve the ongoing incorporation of new grazing trial sites as rehabilitated land becomes available. The grazing trials project will continue over the life of the revised Project and will involve the ongoing incorporation of new grazing trial sites as rehabilitated land becomes available. The grazing trials project will continue over the life of the revised Project and will involve the ongoing incorporation of new grazing trial sites as rehabilitated land becomes available. The grazing trials project will continue over the life of the revised Project and will be the grazing trials project will be the revised Project includes an operational separation distance of approximately 150 m from the banks of Lagoon Creek to the edge of the mining pits, which includes a 50 m buffer adjacent the creek for requirements of the Vegetation Management Act 1999, which protects remnant vegetation growing within 50m of a watercourse. NAC have committed to design the revised Project's final landform so that any depressions and or hills are located outside the PMF flood extent. Further re
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101 102 103 104 105	5.2.9.13 5.3.22.29 5.3.24.36 CHAPTER 5	Advisory Agency Responses Responses to Submissions Responses to Submissions Surface water resources	post-mine land use suitability is rarely achieved immediately following landform construction and revegetation. Rehabilitation will be monitored over time, and there will be opportunity for improveme Future revisions to the water quality modelling in depressed landforms model will be undertaken if required once further characterisation of soil materials and mine wastes (overburden) has been com NAC will comply with the RPI Act with regard to the revised Project simpacts on cropping land. The grazing trials project will continue over the life of the revised Project and will involve the ongoing incorporation of new grazing trial sites as rehabilitated land becomes available. The grazing trials project will continue over the life of the revised Project and will involve the ongoing incorporation of new grazing trial sites as rehabilitated land becomes available. The grazing trials project is guide future rehabilitation management strategies. Where relevant the NHG will seek permits for minor works within the Lagoon Creek watercourse, e.g. road access tracks under the revised Project's environmental authority. These minor works will be The revised Project includes an operational separation distance of approximately 150 m from the banks of Lagoon Creek to the edge of the mining pits, which includes a 50 m buffer adjacent the creek I requirements of the Vegetation Management Act 1999, which protects remnant vegetation growing within 50m of a watercourse. NAC have committed to design the revised Project's final landform so that any depressions and or hills are located outside the PMF flood extent. Further refinement of the depressed landform locations through detailed design and mine planning will ensure that the depressed landform locations are not affected by the predicted PMF. As a result The Mine's water runoff from undisturbed areas both on and surrounding the revised Project is till be diverted away from disturbed areas and released directly into adjacent waterways. - disturbed area runoff will be captu
101 102 103 104 105	5.2.9.13 5.3.22.29 5.3.24.36 CHAPTER 5	Advisory Agency Responses Responses to Submissions Responses to Submissions Surface water resources	post-mine land use suitability is rarely achieved immediately following landform construction and revegetation. Rehabilitation will be monitored over time, and there will be opportunity for improveme         Future revisions to the water quality modelling in depressed landforms model will be undertaken if required once further characterisation of soil materials and mine wastes (overburden) has been com         NAC will comply with the RPI Act with regard to the revised Project's impacts on cropping land.         The grazing trials project will continue over the life of the revised Project and will involve the ongoing incorporation of new grazing trial sites as rehabilitated land becomes available. The grazing trials project is quirked to use the grazing trial site of the revised Project's environmental authority. These minor works will be the revised Project is environmental authority. These minor works will be the revised Project includes an operational separation distance of approximately 150 m from the banks of Lagoon Creek to the edge of the mining pits, which includes a 50 m buffer adjacent the creek to requirements of the Vegetation Management Act 1999, which protects remnant vegetation growing within 50m of a watercourse.         NAC have committed to design the revised Project's final landform so that any depressions and or hills are located outside the PMF flood extent.         Further refinement of the depressed landform locations through detailed design and mine planning will ensure that the depressed landform locations are not affected PMF. As a result         The Nine's water management system is based on the following key principles:         - where possible, storewater wang from undisturbed areas bot on and surrounding the revised Project site will be diverted away from disturbed areas a
101 102 103 104 105	5.2.9.13 5.3.22.29 5.3.24.36 CHAPTER 5	Advisory Agency Responses Responses to Submissions Responses to Submissions Surface water resources	post-mine land use suitability is rarely achieved immediately following landform construction and revegetation. Rehabilitation will be monitored over time, and there will be opportunity for improvems         Future revisions to the water quality modelling in depressed landforms model will be undertaken if required once further characterisation of soil materials and mine wastes (overburden) has been com         NAC will comply with the RPI Act with regard to the revised Project's impacts on cropping land.         The grazing trials project will continue over the life of the revised Project and will involve the ongoing incorporation of new grazing trial sites as rehabilitated land becomes available. The grazing trials project will continue over the life of the revised Project and will involve the ongoing incorporation of new grazing trial sites as rehabilitated land becomes available. The grazing trials project will continue over the life of the revised Project and will be undertaken if required materials and mine grazing trials project will continue over the life of the revised Project and will be undertaken if required materials and provide water course, e.g. road access tracks under the revised Project's environmental authority. These minor works will be the revised Project includes an operational separation distance of approximately 150 m from the banks of Lagoon Creek to the edge of the mining pits, which includes a 50 m buffer adjacent the creek to requirements of the Vegetation Management Act 1999, which protects remnant vegetation and or wills are located outside the PMF flood extent.         NAC have committed to design the revised Project's final landform so that any depressions and or hills are located outside the PMF flood extent.         Further refinement of the depressed landform locations through detailed design and mine planning will ensu
101 102 103 103 104 105	5.2.9.13 5.3.22.29 5.3.24.36 CHAPTER 5	Advisory Agency Responses Responses to Submissions Responses to Submissions Surface water resources	post-mine land use suitability is rarely achieved immediately following landform construction and revegetation. Rehabilitation will be monitored over time, and there will be opportunity for improveme Future revisions to the water quality modelling in depressed landforms model will be undertaken if required once further characterisation of soil materials and mine wastes (overburden) has been comp NAC will comply with the RPI Act with regard to the revised Project's impacts on cropping land. The grazing trials project will continue over the life of the revised Project and will involve the ongoing incorporation of new grazing trials ites as rehabilitated land becomes available. The grazing trials project will continue over the life of the revised Project and will involve the ongoing incorporation of new grazing trials ites as rehabilitated land becomes available. The grazing trials project is environmental authority. These minor works will be the grazing trials project includes an operational separation distance of approximately 150 m from the banks of Lagoon Creek to the edge of the mining pits, which includes a 50 m buffer adjacent the creek for equirements of the Vegetation Management Act 1999, which protects remnant vegetation growing within 50m of a watercourse. NAC have committed to design the revised Project's final landform so that any depressions and or hills are located outside the PMF flood extent. Further refinement of the depressed landform locations through detailed design and mine planning will ensure that the depressed landform locations are not affected PMF. As a result The Mine's water management system is based on the following key principles: -where possible, storwwater runoff from undistrubed areas and released directly into adjacent waterways. - disturbed area runoff will be captured in sediment dams and used preferentially for dust suppression or as process water in the CHPP. - water will be recycled from the IPTS's to supplement the water supply for coal washing. - mine-affected water from

length of Lagoon Creek within the Study area with a buffer distance of 50 m either

moval and recycling, dismantling of structures and other similar activities will be As discussed above, decommissioning and rehabilitation of infrastructure areas

he photograph will be recorded using GPS. This point will form the start of a

areas to be rehabilitated.

with the practices described in the then Department of Minerals and Energy's,

operational activities for the revised Project. several years.

d it be considered preferable for the rail line to be removed and rehabilitated then

Act and RPI Regulation.

written or verbal request to the APC or NAC.

aft EIS respectively. The further soil surveys will be undertaken based on the the Guidelines for Surveying Soil and Land Resources (McKenzie et al, 2008).

ed mine pit areas to Class 2 land suitability (grazing). It is important to note that ement as the rehabilitation program progresses. completed as the mine progresses.

als project will be modified as required to achieve the best possible scientific

I be established through detailed mine planning. eek for conservation purposes. This buffer distance is consistent with the

sult, there are no flood impacts predicted for the revised Project's final landform.

_		
		Where practical, the stormwater runoff from clean, undisturbed catchments will be diverted around disturbed areas using bunds and channels and released directly into adjacent gullies and waterways
		will be collected. Spoil area runoff will report to sediment and environmental water dams for treatment before potential release off site. Water that reports to a mine pit floor will be pumped to environmental water dams for treatment before potential release off site.
108		demands for activities, such as dust suppression.
		The Environment Dams will receive pit water, and therefore, are likely to contain contaminant concentrations (salinity) that will exceed the guidelines. As a result, it is anticipated that the three new En
109		designed and licensed accordingly. The proposed Lagoon Creek flood protection levee will also require licencing as a regulated structure.
110		During the development of the revised Project, should a referable dam be required, appropriate assessment and approvals will be sought.
111		A licensed release point will be required from the Environment Dams for controlled releases to Lagoon Creek. Conditions for these controlled releases will be incorporated into the Project's EA.
112 113		The revised Project will not require additional licensing for waterway diversions as there are no diversions planned.
115		The water quality values are presented in Table 5-20. Actual releases will be made based on sampling and monitoring of a number of water quality parameters. The revised Project proposes that controlled releases be made to Lagoon Creek on the Mine. Releases will be made in accordance with the principles outlined in the Final Model Water Conditions for C
114		developed to only allow discharges that are less than 1,000 µs/cm downstream of the point of discharge.
		The key activities that will require mitigation measures to prevent or minimise adverse water quality impacts during construction are:
		- hydrocarbon spills from the CHPP area, vehicles and other plant and equipment contaminating surrounding water with chemicals, hydrocarbons, oil and grease;
		- clearing of vegetation and stripping of top soils;
		- handling and storage of fuels during construction and operation and;
115		- any releases of water from the site and site sedimentation dams.
		Work methods will be developed and included in the Contractor Environmental Management Plans. These methods will detail appropriate control and mitigation measures for the revised Project. In ac
116		will be implemented to mitigate the impacts of the construction of the railway line crossing of Lagoon Creek.
		The following outlines the major mitigation measures that will be implemented where practicable during the construction phase. Importantly, current good practice erosion and sediment control meas
		Erosion and Sediment Control (2008) and the Institution of Engineers publication IECA Best Practice Erosion and Sediment Control Guidelines (2008) to comply with the EPP (Water). These measures inc
		- construction work in creeks will be undertaken in dry weather and conditions of minimal or no flow;
		- weather conditions will be monitored so that work in creek crossings and erosion prone areas will not take place if rain and/or extreme weather (e.g. storms) are forecast;
		- sedimentation fences and bunds will be used to contain fill or excavated material during construction;
		- fill and excavated material will be stockpiled away from gully heads, active creek banks, bank erosion or other unstable areas;
		- local runoff from disturbed areas will be routed clear of disturbed areas;
117		- assessment of the integrity and effectiveness of erosion control measures will be undertaken at regular periods and following significant rainfall events; and - if required the erection of temporary waterway barriers during construction will include the provision to transfer flows from upstream of the works to the downstream channel without passing though
117		- In equiled the election of temporary waterway barriers during construction with include the provision to transfer hows norm upstream of the works to the downsiteant charmer without passing though
		The following management strategies will be implemented by the revised Project to protect surface water quality and the downstream receiving environment.
		- An operational separation distance of approximately 150 m will be maintained from the edge of the mining pits to Lagoon Creek, which will include a 50 m conservation buffer where no mining activiti
		- The current conservation zone, 50 m either side of Lagoon Creek, from the Mine will be extended into the revised Project area to promote the re-establishment of the riparian zone. No mining activitie
		- Sediment dams, environmental dams, pit water storage and other water management structures (e.g. bunds and drains) will be used appropriately by the revised Project as per the Water Resource Ma
		- The revised Project's water management will be based on the separation and management of clean and dirty water catchments.
		- Water capture within the revised Project's clean areas will be diverted around operational areas and where practical, allowed to discharge off site as part of normal overland flow.
		- Water from disturbed areas within the revised Project site will be diverted to sediment dams for treatment and possible reuse as a supplementary supply for the revised Project's water requirement.
		- Surface runoff from the revised Project's potentially contaminated areas, such as infrastructure areas, will receive additional levels of treatment (e.g. oil-water separators and bunding). Water capture
		collected for recycling by a licensed contractor.
		- Progressive rehabilitation will be undertaken as the revised Project's operational areas become available to reduce the amount of disturbed areas.
		- Fuel, dangerous goods and hazardous chemicals will be managed as outlined by current standards, guidelines and in compliance with statutory requirements.
		- Refuelling locations and handling of fuels will be undertaken away from all waterways including creeks and drainage paths.
		- NAC's existing SOP for spills and emergency response procedures will be expanded to incorporate the revised Project. Spill recovery and containment equipment will be available when working adjace
		- NAC will continue to commit to investigating all legitimate surface water complaints, and if a genuine problem is identified, conduct immediate remediation measures and establish standard operating
		- NAC's current water quality monitoring program will be expanded to incorporate the operational and decommissioning phases of the revised Project. The program is designed to ensure the WRMP is and to ensure the downstream water quality (physico-chemical parameters, at a minimum) is not being adversely impacted. In general, the monitoring program will include the following actions.
		- Water quality will be measured upstream and downstream of the revised Project site. Basic water quality indicators (i.e. Salinity, pH, DO, EC, temperature) will continue to be monitored on a monthly
		cations monitored twice annually.
		- During any release event, the receiving water will be monitored upstream (50 m to 100 m upstream of the release point) and downstream (200 m downstream of the release point) locations. Water qu
		heavy metals, nutrients, anions and cations.
		- Progressive rehabilitation of areas impacted by operational activities will be undertaken as soon as practical in order to reduce the amount of exposed soil.
		- Fuel, dangerous goods, hazardous chemicals and work shop wastes will be managed to ensure compliance with current industry standards and guidelines for safety and environmental protection. The
118		emergency response, establishment of 'standard operating procedures' for key operational aspects, and development of a responsibility matrix for operational and reporting matters.
119		A WRMP will be developed for the revised Project to ensure the protection of surrounding waterways (downstream receiving environment). A draft of WRMP is provided in Appendix J.4.
		NAC is not proposing to divert or alter the Lagoon Creek channel and has offset the revised Project's resource areas from the creek bank by approximately 150 m. Importantly, the 150 m operational offset the revised Project's resource areas from the creek bank by approximately 150 m. Importantly, the 150 m operational offset the revised Project's resource areas from the creek bank by approximately 150 m. Importantly, the 150 m operational offset the revised Project's resource areas from the creek bank by approximately 150 m. Importantly, the 150 m operational offset the revised Project's resource areas from the creek bank by approximately 150 m.
120		the re-establishment of the creek's riparian zone. The buffer distance either side of Lagoon Creek within the revised Project area will be incorporated into the Mine's current conservation zone
121		NAC will expand the existing Lagoon Creek monitoring program as part of the WRMP for the revised Project. The WRMP is located in Appendix J.4.
100		Flood protection for the revised Project's resource areas will be provided through two flood levees designed to provide protection from a PMF flood event, which is well in excess of the current legislative provided through the provided thro
122		Project's final landform is outside the existing PMF flood extent, and as a result, there are no flooding impacts on the key aspects of the proposed final landform (i.e. the depressed and elevated landform
123		In line with current industry guidelines, NAC's water management system will include a controlled release system to manage rainfall events and minimise adverse impacts to the downstream receiving e
124		Engineering controls within the Mine water management system will provide mitigation to preclude adverse effects on terrestrial and aquatic freshwater flora and fauna. This will be achieved through a
124 Additional Co	ommitmnets - AEIS	to the rivers will not exceed the assimilative capacity of the receiving environment, as depicted in Table 5-20.
125 5.1.5.1	Water Resources	The design of the rail spur will be in accordance with Aurizon standards. The release of mine water will be undertaken in accordance with the requirements of the conditions of the environmental auth
120 0.1.0.1		. In consultation with affected landholders, NAC is committed to sampling of water quality sampling in rainwater tanks should air quality monitoring exceed the air quality objectives in the EPP (Air) or the
		rainwater tanks should an quanty monitoring exceed the an quanty objectives in the Err (Air) of the rainwater tanks should an quanty monitoring exceed the an quanty objectives in the Err (Air) of the rainwater tanks should an quanty monitoring exceed the an quanty objectives in the Err (Air) of the rainwater tanks should an quanty monitoring exceed the an quanty objectives in the Err (Air) of the rainwater tanks should an quanty monitoring exceed the an quanty objectives in the Err (Air) of the rainwater tanks should an quanty monitoring exceed the an quanty objectives in the Err (Air) of the rainwater tanks should an quanty monitoring exceed the an quanty objectives in the Err (Air) of the rainwater tanks should an quanty monitoring exceed the an quanty objectives in the Err (Air) of the rainwater tanks should an quanty monitoring exceed the an quanty objectives in the Err (Air) of the rainwater tanks should an quanty monitoring exceed the an quanty objectives in the Err (Air) of the rainwater tanks should an quanty monitoring exceed the an quanty objectives in the Err (Air) of the rainwater tanks should an quanty monitoring exceed the an quanty objectives in the Err (Air) of the rainwater tanks should an quanty monitoring exceed the an quanty objectives in the Err (Air) of the rainwater tanks should an quanty objectives and the rainwater tanks should be rainwater tanks and the rainwater tanks should be rainwater tanks and the rainwater tanks and tanks and the rainwater tanks and the rainwate
		- use drinking water grade PVC for fittings;
		- inlet and overflow of the tank should incorporate a mesh cover and a strainer to keep out materials;
		- such as leaves;
		- cover the tank to prevent light reaching the water;
		- discharge pipes from roof mounted appliances such as air conditioners should not be allowed to discharge onto the roof catchment;
		clean roof catchments and gutters of leaves and other debris every three or four months; and
174 5 1 5 7	Water Resources	- installation of first flush devices to prevent bird droppings and dust entering the rainwater tank after first rains.
126 5.1.5.2		

ays. Rainfall runoff from disturbed areas including un-rehabilitated spoil areas vironment dams and stored for use to supplement the revised Project's water

Environment Dams will be classified as regulated structures and will need to be

r Coal Mines in the Fitzroy Basin (EHP, 2013). The release conditions were

addition to these measures, the specific environmental management conditions

easures will be provided as outlined in the EPA Urban Stormwater Management include:

ugh the disturbed construction site.

ivities will be undertaken. rities will occur within the proposed conservation zone. Management Plan (WRMP).

ured by these devices will be preferentially reused on site, while captured oil will

jacent to sensitive drainage paths and within other areas, such as workshops. ting procedures to minimise the possibility of a reoccurrence of the original issue. P is effective, to demonstrate compliance with the Mine's strict discharge limits,

thly basis, or when water is present, and heavy metals, nutrients, anions and

r quality variables will include basic water quality indicators, suspended solids,

hese management actions will focus on handling, storage, spill containment,

offset includes a commitment by NAC to a 50 m 'no mining' buffer to promote

ative requirements. In addition, NAC has committed to ensuring the revised forms).

ring environment. ugh a controlled release strategy whereby the concentration of salt that is released

uthority from DEHP.

r the dust nuisance goals. NSW Health (2007) Options to protect water quality in

127	7 5.1.5.2	Water Resources	NAC will undertake immediate actions to resolve these issues in consultation with affected residents if any future testing demonstrates non-compliance with the above guidelines.
			Where Lagoon Creek is clearly braided into multiple waterways, the operational offset zone will be determined from the edge or banks of the network of channels, to avoid the boundary of the 'no dist indistinct, a line of best fit for the bank habitat will be determined by environmental staff, which defines the area of aquatic ecology habitat values. This approach of commencing the buffer zone at the
129	8 5.2.4.29	Advisory Agency Responses	creek itself.
120	5.2.4.27		
			The cross section in Figure 5.2 O depicts a 50 m offset buffer that extends from the high bank of Lagoon Creek and will not be disturbed or utilised for any mining activity. This undisturbed buffer extended of the cross section in Figure 5.2 O depicts a 50 m offset buffer that extends from the high bank of Lagoon Creek and will not be disturbed or utilised for any mining activity. This undisturbed buffer extended buffer extend
			mine lease. The area that extends from outside the 50 m buffer to the mine pit will be disturbed and utilised for various mine infrastructure and activities as follows (note that distances are metres from
			- 50 m up to 100 m – a 50 m corridor for a light vehicle access road and associated infrastructure;
			- 100 m up to 125 m – a 25 m allowance for a flood levee to protect the mine pit and associated infrastructure from potential flooding from Lagoon Creek;
			- 125 m up to 140 m – a 15 m corridor for additional mine roads and surface water drainage infrastructure; and
100		Advisory Agency Deepensor	- 140 m up to 150 m – a 10 m corridor is to be utilised for the construction of a pit crest safety bund to protect vehicles from accidentally driving into the mine pit.
125	9 5.2.4.30	Advisory Agency Responses	Each of the nominated corridor widths will be minimised where possible during detailed design. The NHG will commit to monthly monitoring of basic water quality parameters (EC, pH, Suspended Solids and Sulphate) within the proposed sedimentation and environment dams. In addition to this, a
			proposed release conditions, unless they are dry, to test for a broader range of water quality parameters, including metals and metalloids, nutrients and hydrocarbons. The objective of monitoring, loca
130	0 5.2.4.58	Advisory Agency Responses	which will be developed in consultation with DEHP.
			NHG will develop a detailed REMP for approval by DEHP after the EIS process. The REMP will include upstream control sites, sites within the mine site and sites located downstream of mining activities.
131	1 5.2.4.63	Advisory Agency Responses	sites for the purposes of assessing the environmental impacts of mining activities, as described in an REMP.
132	2 5.3.20.4	Responses to Submissions	NAC will expand its already extensive surface water monitoring regime as a critical tool for the purposes of impact identification, compliance assessment and complaints management.
	CHAPTER 6	Groundwater resources	
100	Existing Commitm	nents - draft EIS	The concentral hydrogeological model will continue to be undeted and refined based on the results of a targeted ground unter monitoring program and further investigations into least here information
133 134			The conceptual hydrogeological model will continue to be updated and refined based on the results of a targeted groundwater monitoring program and further investigations into local bore informatio The model will continue to be updated and refined based on the results of a targeted groundwater monitoring program and further investigations into local bore information (e.g. landholder bore surve
134	+		Potential sources of contamination to groundwater may include incidents involving significant fuel or oil spills. In the event of this type of incident occurring, potential effects would be contained on the
135	5		size and volume, smaller oil spills will be treated in-situ and larger spills will be excavated and treated under a temporary land farm arrangement, which will include an impermeable base.
136			Groundwater quality will continue to be monitored throughout the life of the revised Project to confirm that potential effects are not occurring.
			The groundwater monitoring program for the revised Project combines the current monitoring program for the existing Mine with an extended network of monitoring bores enclosing the revised Project
			- be operated in accordance with the revised Project's approved EA, including adoption of suitable guideline criteria and temporal investigation;
			- be used in the continued development and refinement of groundwater impact assessment criteria and investigation triggers;
107	7		- enable verification and refinement (where necessary) of the groundwater modelling predictions presented in this EIS; and
137	/		- be collated into a database that will be made available to the administering authority on request.
138	R		Table 6-18 summarises the bores that will be monitored, monitoring parameters, and frequency. The groundwater monitoring program combines the existing Mine monitoring bores together with the
150			Table of to summarises the bores that will be monitoring parameters, and nequency. The groundwater monitoring program combines the existing while monitoring bores together with the
			Installation of nested monitoring bores in these locations will allow early detection of impacts from mining in the Tertiary Basalt, Walloon Coal Measures and Marburg Sandstone aquifers, and also prov
139	9		progresses. In the southeast of the revised Project site, nested monitoring bores will be installed into the Oakey Creek Alluvium and the Walloon Coal Measures aquifer, to confirm model predictions of
			In addition, a single monitoring bore is proposed to be installed within the Mine's existing worked pit backfill area, given the apparent presence of a developing groundwater mound in this area. The fin
140	0		land access and proximity to local groundwater users. These bores will be individually identified in accordance with the bore naming convention at the revised Project site.
			The groundwater monitoring network will:
			- be installed and maintained by a person possessing appropriate qualifications and experience in the fields of hydrogeology and groundwater monitoring program design to be able to competently ma
			- be constructed in accordance with methods prescribed in the "Minimum Construction Requirements for Water Bores in Australia" (National Uniform Drillers Licensing Committee, 2012) by an appropri- - include a sufficient number of 'bores of compliance' that are located at an appropriate distance from potential sources of impact from mining activities and provide the following:
			- representative groundwater samples from the uppermost aquifer;
			- background water quality in hydraulically up-gradient or background bore(s) that have not been affected by any mining activities conducted by NAC; and
141	1		- the quality of groundwater down gradient of potential sources of contamination.
			Groundwater monitoring will be undertaken by appropriately qualified personnel. Groundwater level measurements, sample collection, storage and transportation will be undertaken in accordance wi
142	2		1998.
			The data gathered from the groundwater monitoring program will be collated into a database which will include:
			- a site plan showing sample locations;
			- tabulated results of the monitoring compared with applicable background/trigger levels;
			<ul> <li>- all data collected during each monitoring round;</li> <li>- a record of chain of custody of the samples from sampling through to analysis;</li> </ul>
			- a record of chain of custody of the samples from sampling through to analysis; - laboratory analysis certificates;
			- groundwater monitoring program reports, and
143	3		- a description of the procedures, methods and calculations used.
			Groundwater sample analysis will continue to be undertaken by a laboratory accredited by the National Association of Testing Authorities (NATA). Field measurement of water quality parameters will continue to be undertaken by a laboratory accredited by the National Association of Testing Authorities (NATA).
144	4		maintained and calibrated in accordance with the manufacturer's recommendations.
145			Data collected from landholder bores, wells, and waterholes will be used in conjunction with the groundwater impact investigation procedure to determine if contingency measures are required.
146	6		Groundwater levels will be monitored on a monthly basis and samples will be collected and submitted for the analytical suite set out in Table 6 18 every six months.
			The existing Mine EA reference bores (BMH1 and CSMH1) are located within the predicted zone of groundwater drawdown from operation of the revised Project. NAC will accordingly re-assess the loca
147	7		outside the revised Project's predicted zone of groundwater drawdown.
			The nearest alluvium with significant groundwater supplies is associated with Oakey Creek south of the revised Project site. A new monitoring bore installed at location 5A (Table 6 18 and shown on Fig
148			Alluvium within the Project's southern boundary.
149	9		Eight basalt bores will be monitored, including five new bores (Table 6 18 and shown on Figure 6 37).
			Due to the lack of predicted impacts on the Marburg Sandstone aquifer arising from the revised Project, a single additional monitoring bore is proposed for this aquifer to confirm those predictions. This
150	0		configuration adjacent proposed monitoring bores in the Tertiary basalt and Walloon Coal Measures aquifers (Table 6 18 and shown on Figure 6 37).
454	1		Due to the apparent presence of a developing groundwater mound in the existing Mine's backfilled pit area, a groundwater monitoring bore (Table 6 18 and shown on Figure 6 37) will be installed in the
151	1		over time. Groundwater monitoring will be undertaken at selected landholder bores surrounding the revised Project site, following consultation with relevant landholders. Primarily this will include monitoring of
			groundwater monitoring will be undertaken at selected landholder bores surrounding the revised Project site, following consultation with relevant landholders. Primarily this will include monitoring of groundwater abstraction rates at suitable bores in order to assess potential groundwater level impacts from mine dewatering in the context of any variations to bore pumping rates. Landholder bores t
152	2		within the predicted drawdown impact zone.

disturbance' buffer being located within the creek itself. Where the channel is the creek bank will avoid the boundary of the buffer zone being located within the

tending from 0 m to 50 m will extend along the length of Lagoon Creek within the from the high bank of Lagoon Creek):

is, annual pre wet season monitoring will be undertaken for storages with location of sampling sites and monitoring parameters will be described in a REMP,

ies. It is recognised that Sites LCD1 and LCD2 would not be appropriate control

ation (e.g. landholder bore surveys). urveys) as described in Section 6.3.4.

n the surface and unlikely to effect on groundwater resources. Depending on their

oject site. Data collected from the groundwater monitoring program will:

the seven additional bores already installed around the revised Project site.

provide information on the degree of interconnectivity of these aquifers as mining s of limited groundwater impact in those areas. e final location of the proposed additional bores may vary slightly depending on

make recommendations about these matters; ropriately qualified driller; and

e with procedures conforming to the current industry standard: AS/NZS 5667.1, .11

vill continue to be undertaken using appropriate field equipment that is

location of these reference bores and if necessary install new reference bores

Figure 6 37) will monitor groundwater levels and quality in the Oakey Creek

This bore is located west of the revised Project site and is located in a nested

n the mound area to directly test for its presence and monitor its development

g of groundwater levels and groundwater quality in conjunction with metering es targeted for monitoring will be selected based on a thorough review of bores

150		During the life of the revised Project, data collected through the groundwater monitoring program, will be used to update and refine the revised Project's groundwater model and it's predictions to refluence to the revised project of the revised Project's groundwater model and it's predictions to refluence to the revised project of the revised Project's groundwater model and it's predictions to refluence to the revised project of the revised Project's groundwater model and it's predictions to refluence to the revised project of the revised projec
153 154		locations). Table 6-19 presents the proposed schedule for groundwater impact prediction, validation and review.
155		The results of the groundwater model verification and refinement, or the justification that this action is not necessary, will be documented, and as required, presented to the DNRM (regulatory authorit
		NAC will undertake a program of works to characterise and assess predicted impacts on individual groundwater users within the predicted drawdown area. The work program will have the primary out
156		individual users should groundwater monitoring validate model predictions of groundwater effects on those users. Results of this characterisation work will also feed into the first revision of the ground
		If required in these circumstances, NAC will provide an alternative water supply arrangement to affected third parties. Due to the progressive nature of drawdown within aquifers, the provision of alter
		include: - the deepening and / or refurbishment of existing bores;
		- the installation of new pumps capable of extracting groundwater from greater depths within existing bores;
		- the installation of a new bores at other locations on the affected landholder's property; and
157		- the installation of a new high yielding 'community bore' and subsequent pipeline to multiple affected landholders.
		NAC will ensure its groundwater monitoring regime is adequate to identify possible effects to neighbouring groundwater users from the revised Project's operations (i.e., in relation to drawdown levels
150		regular basis in line with the progression of mining over the life of the revised Project. The revised Project's groundwater monitoring regime will be periodically updated in NAC's current Environmenta
158 159		Operations. NAC will investigate all groundwater complaints related to the revised Project both during the operational phase and following mine closure. NAC will ensure all legitimate groundwater complaints are
137		NAC will investigate all groundwater complaints related to the revised Project both during the operational phase and following mine closure. NAC will ensure all epitimate groundwater complaints are not ensure and to the revised Project's potential impacts on the surrounding groundwater environ and the surrounding groundwater envit environ and
		completed for the revised Project's EIS. The GMIMP will be regularly reviewed over the life of the revised Project, and as required, will be updated based on monitoring results, new outputs from revision and the revised Project and the revised Pr
160		management matters that relate to operation of the revised Project. The GMIMP will form a supporting document to NAC's Plan of Operations for the revised Project and is provided in Appendix J.5.
		The groundwater monitoring program currently being undertaken by the Mine will be extended to include additional locations within and outside the revised Project site, with new monitoring installat
		those impacts, are predicted to occur. Groundwater monitoring will be conducted on a regular basis and will provide information to detect any significant variations to the existing groundwater system
		groundwater monitoring on site is to ensure sufficient data is gathered for consideration of the following hydrogeological aspects:
		- temporal and spatial variations in groundwater levels; - temporal and spatial variation in groundwater quality; and
161		- groundwater level or guality effects including early detection of groundwater drawdown caused by dewatering of the mine pits.
162		The results of the groundwater monitoring program will be used to further inform and refine the groundwater impact assessment for the revised Project, with model refinement occurring on a regular l
		Mitigation measures can be put into place should the effects of dewatering require alternative water supplies for affected users, such as installation of new pumps, deepening of existing bores or instal
163		comprehensive bore characterisation program for third party groundwater users in the predicted impact area, to identify the exact requirements for 'Make Good' for those affected users.
		NAC will manage the potential groundwater impacts from the revised Project using a dedicated GMIMP. The GMIMP is based on the groundwater impact assessment work completed for the revised Project using a dedicated GMIMP.
164		Project, and as required, will be updated based on monitoring results, new outputs from revisions to the groundwater modelling and any other applicable groundwater management matters that relate document to NAC's Plan of Operations for the revised Project.
165		NAC will discuss and agree with the administering authority, the need for on-going groundwater management, including monitoring during the decommissioning phase of the revised Project.
Additional Com	nitmnets - AEIS	
166 5.1.5.3	Water Resources	NAC is committed to dedicated void lake studies as part of mine closure planning in the future, and the management strategies for the lakes will be developed in conjunction with the relevant regulator
1/7 5 1 5 2	Water Deservices	In all cases relating to the bores identified in Table 5.1.5-A and Table 5.1.5-B, NAC will seek to establish legally binding Landholder Agreements with the potentially affected landholders prior to operation of the potential of the second management of the second managem
167 5.1.5.3	Water Resources	any negotiated Make Good measures. NAC acknowledges that Table 5.1.5-A and Table 5.1.5-B do not identify bores within the predicted drawdown zone that do not have a source aquifer denoted in the DNRM database, as there is no way
168 5.1.5.3	Water Resources	characterise these bores and liaise with potentially affected landholders as part of ongoing baseline assessment works as outlined below.
		NAC remains committed to undertaking baseline groundwater bore assessments in its area of potential impact, including all bores identified in Table 5.1.5-A and Table 5.1.5-B. The baseline assessment
		- Consultation with the landholder regarding their bores, including their operational history
		- Review of any landholder supplied information related to the bores
		- Engagement of a groundwater specialist third party contractor to undertake on-ground assessment of the bore(s) in question to undertake:
		- Water quality testing.     - Groundwater level measurement.
169 5.1.5.3	Water Resources	- Assessment of the bore and infrastructure condition.
		Within the draft EIS, commitments were made to undertake groundwater monitoring at selected landholder bores surrounding the revised Project site, following consultation with relevant landholders
		bores targeted for monitoring were proposed to be selected based on a thorough review of bores within the predicted drawdown impact zone. Following the baseline assessment process, NAC remains
		with landholders for ongoing monitoring prior to any real or perceived impact occurring. Bores selected for ongoing monitoring on the basis of suitability will be added to NAC's routine groundwater mo
170 5.1.5.3	Water Resources	monitoring of water quality undertaken every 6 months. The data collected will be provided to the landholder following collection.
		NAC will undertake investigations and bore assessments if private bore complaints are received from landholders without Landholder Agreements with NAC, as outlined in the revised Project's revised 2000. These investigations and bore assessments will involve:
		- Consultation with the landholder regarding the details of the complaint
		- Review of any landholder supplied information related to the complaint
		- Engagement of a groundwater specialist third party contractor to undertake on-ground assessment of the bore(s) in question to undertake:
		- Water quality testing.
		- Groundwater level measurement.
171 5.1.5.3	Water Resources	- Assessment of the bore and infrastructure condition.
172 5.1.5.3	Water Resources	Following a thorough review of the available information, NAC will make an informed assessment of the information and provide the landholder with written correspondence detailing the testing resul groundwater model predictions will be made. Negotiation with the affected landholder will then be undertaken to determine the nature of any Make Good measures.
172 5.1.5.3	Water Resources	Community consultation and engagement activities addressing environmental concerns, including air quality, noise and vibration and groundwater are provided in Table 5.1.5 D of the AEIS.
1700.1.0.1		The groundwater monitoring program conforms to Conditions C21 to C33 of the current EA EMPL00335713 for New Acland Coal Mine. Table 3-1 summarises the bores that will be monitored, monitoring
		combines the existing monitoring bores together with an additional 15 bores that have been installed around the revised Project area. In addition, a further 15 bores will be added to the monitoring new project area.
		monitoring program to 45. Proposed additional monitoring bore locations have been chosen based on model drawdown predictions and presence of aquifers and receptors of interest. The monitoring
174 Appendix H	Revised GMIMP	revised Project's mining schedule to ensure there is sufficient baseline information on groundwater levels and quality for those bores.
175 App	Device d CN 411 4D	The locations of the monitoring bores in Table 3-1 are presented in Figure 3-1. The final location of the proposed additional bores may vary slightly depending on land access and
175 Appendix H	Revised GMIMP	proximity to local groundwater users. These bores will be individually identified in accordance with the bore naming convention at the revised Project site. The nearest alluvium with significant groundwater supplies is associated with Oakey Creek in the south-west of the revised Project site. A new monitoring bore installed at location 5A (Figure 3-1) will r
176 Appendix H	Revised GMIMP	Groundwater levels in the coal measures between the active mine pits and the Oakey Creek Alluvium will be monitored at bores 119PGC and 116P and directly beneath the alluvium at Location 5B.
		Eight basalt bores will be monitored, including five new bores strategically located in areas of predicted drawdown and/or sensitive receptors (Figure 3-1). Groundwater levels will be monitored on a management of a strategically located in areas of predicted drawdown and/or sensitive receptors (Figure 3-1).
177 Appendix H	Revised GMIMP	suite set out in Table 3-1 every six months.

eflect the actual activities undertaken on site (e.g. mine development and sump

ority).

utcome of determining the most appropriate means of 'Make Good' for undwater model where possible.

ternative supplies may be staged. Options for possible alternative supplies

els and water quality). NAC will review its groundwater monitoring regime on a tal Monitoring Plan, which forms a supporting document to the NAC Plan of

re addressed in an expedient manner. ronment. The GMIMP is based on the groundwater impact assessment work isions to the groundwater modelling and any other applicable groundwater

lations located in areas where drawdown impacts, and receptors sensitive to em over the life of the revised Project. The primary aim of undertaking

ar basis.

tallation of a new bore at another location on the property. NAC will undertake a

Project's EIS. The GMIMP will be regularly reviewed over the life of the revised ate to operation of the revised Project. The GMIMP will form a supporting

tors to ensure no long term water quality impacts on the groundwater system. ation of the revised Project. The Landholder Agreements will include reference to

ay to assign these bores to a predicted drawdown level. NAC will seek to further

ent will comprise:

ers and the development of legally binding Landholder Agreements. Landholder ins committed to selecting appropriate and suitable private bores in conjunction monitoring program, with monitoring of water levels undertaken monthly and

ed GMIMP (Appendix H of the draft EIS) and in accordance with the Water Act

sults and information review that has been undertaken. Comparison to NAC's

oring parameters, and frequency. The groundwater monitoring program network which brings the total number of bores included in the groundwater ng program for new bores will be established prior to the commencement of the

II monitor groundwater levels and quality in the Oakey Creek Alluvium.

a monthly basis and samples will be collected and submitted for the analytical

TDD.         Events (MMP         proclected and selection in the large requirements.           INSERT CONSTRUCTION         INSERT CONSTRUCTION INFORMATION CONSTRUCTION CONSTRUC	Γ		The groundwater monitoring program includes 22 coal measures bores of which seven are new, strategically located in areas of predicted drawdown and/or sensitive receptors (Table 3-1 and Figure 3
Image: Section of the sectio	178 Appendix H	Revised GMIMP	
1778 2.92       Antholy Appare Jacques			NAC will undertake investigations and bore assessments if private bore complaints are received, as outlined in the revised Project's updated GMIMP (Appendix H) and in accordance with the Water Ac committed to undertaking baseline groundwater bore assessments in its area of potential impact, and selecting appropriate and suitable private bores in conjunction with landholders for ongoing mo
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186         Despective the revised Project.           187         The adaptive management measures will include the suspension or modification of operations in response to the following triggers: - potential dos/ risk precisions from the dus for executing system: and - conventions; do significant data generation dum year and an equility monitoring dusters; and - conventions; do significant data generation dum year and an equility monitoring dusters; and - conventions; do significant data generation dum year and equility monitoring dusters; and - suspension or core burders/interburden backs; for exhoming year will model the suspension or modification of all or selected overturden and/or can handling activities (including textragers), for daring for the list in location of the suspension or modification of all or selected overturden and/or can handling activities (including textragers), for daring for the list of call on the list in location field and the suspension or modification of all or selected overturden and/or can handling activities (including textragers), for daring for the list overturden during is the register of all for the list in location field and the suspension or modification of the presence of all monitoring of the list overturden and/or can handling activities (including textragers), for daring for the list overture restored and the suspension or modification of the presence of all on the list in location field and the suspension or modification of the presence of all on the list in the list in location field and the suspension or modification of the presence of the construct of all on the list in location field and the suspension or modification of the presence of the construct of the construct of the suspension or modification of the presence of the construct of the suspension or modification of the presence of the construct of the suspension or modification of the presence of the construct of the construct of the suspension	185		
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188      suspension or modification of all or selected overturder and normal mat/or coal handling activities (including excavation, loading, durping and hauling).         189			
189         NAC will understave venering and profiling of the laced on to minime dust emission starting the transport of coal from the Train Lodout Facility.           190         Vegetation along Lagoor Creek will be relatived and continue to provide habitat connectivity. Lagoor Creek stor protect and enhance the condition of the rigarian vegetation.           191         Rements of vegetation and habitat will be relatived adjacent to the rail loop, along Acland-Sabine Road, in the north-western corner of the revised Project area and in the southern-eastern of and as a result, will not be further fragmented.           192         The BOMP found in Appendix 1.8           193         Control in Appendix 1.4           194         The CAVM is found in Appendix 1.4           195         For the Mine and revised Project. Nucl Nas committed to a conservation zone we Rottle Tree Hill and 50 metres either side of Lagoon Creek, to protect and enhance ecologically significant areas within the Mine and revised Project areas.           194         The CAVM is found in Appendix 1.6.           195         - a discussion of known ecology and reproductive biology of the target species: - a set of performance indicators to demonstrate successful relocation of the target species: - a review of propagation potential for the grapt species: - a review of propagation potential for the grapt species: - a review of propagation potential for the grapt species: - a review of propagation potential or the grapt species: - a review of propagation potential or the grapt species: - a review of propagation potential or the grapt species: - a review of propagation potential or the grapt species: - a review of propagation potential or the	188		
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202 Monitor the effectiveness of waterway crossing rehabilitation.	202		

e 3-1). Groundwater levels will be monitored on a monthly basis and samples will

Act 2000. Additionally, and separate from any complaints process, NAC remains nonitoring prior to any real or perceived impact occurring. In the time since the emains committed to reaching Make Good agreements with potentially affected

s' for those affected users. NAC commit to entering into landholder agreements hin the impacted bore, the lowering of the existing pump within the impacted

are addressed in an expedient manner. for neighbours if they feel aggrieved by the negotiation process for 'Make Good'

baseline landholder bore survey at all groundwater bores within the predicted

of a new bore at another location on the property, or provision of an alternative od Provisions' for those affected users. NAC will formalise these provisions in

ue to be available to the species along Lagoon Creek and the unhindered

avoid potential impacts. An adaptive air quality management plan has been

he creek channel. The conservation zone possesses a dedicated management

of revised Project area. These remnants will not be cleared by the revised Project

remnant vegetation not to be mined, and to promote the restoration of the

repared by the construction contractor, to be implemented during the

s will also be consistent with any pest management plans set by the Toowoomba

			Earthworks and construction within the channel and banks for watercourse crossing:
			- Minimise width of the rail and road crossing and locate workspace areas away from creek banks, so as to reduce the disturbance to riparian vegetation, bank and channel affected by construction.
			- Restrict construction within and around the creek channel to the dry periods and rehabilitate areas of disturbed channel bed and banks.
203			- Design and construct temporary barriers in waterways to minimise disturbance to environmental flows.
203			- Monitor the effectiveness of waterway crossing rehabilitation. Follow up reptile surveys
204			- Surveys of habitat suitable for small mammals, Brigalow reptiles, bats and birds will be conducted in October and November 2013.
201			Rail loop and spur
205			The location of the rail loop and spur will avoid areas of brigalow and poplar box woodland in the south-western corner of the mining lease.
			Lagoon Creek vegetation and habitat retention
			-Vegetation and habitat will be retained along the length of Lagoon Creek. Fauna movement will be able to continue unaffected by the revised Project. Areas of regional ecosystems and threatened eco
206			Willeroo and Manning Vale East pits.
			Biodiversity Offsets:
207			The Biodiversity Offset Strategy will be implemented, to secure offsets for Brigalow and Bluegrass Dominant Grassland TECs, Bothriochloa biloba, Digitaria porrecta, Homopholis belsonii and poplar box
200			Bluegrass offset management:
208			- The Bluegrass Offset Management Plan will be implemented to manage the areas of bluegrass offset to be established on land owned by NAC Lagoon Creek management:
209			The Conservation Zone Management Plan will be implemented to manage the Lagoon Creek riparian zone, to rehabilitate vegetation and habitat along the length of Lagoon Creek.
207			Threatened species translocation:
			- The Threatened Species Translocation Management Plan will be implemented to relocate threatened species affected by the revised Project. The Plan describes the sites where the species will be relo
210			implementation of the Plan.
			Vegetation clearance:
211			The Construction Phase Management Plan will be implemented to avoid impacts to areas of vegetation and habitat that are to be retained within the revised Project area. Vegetation that falls outside t
			Pest and weed management:
212			The Pest and Weed Management Plan and the Pest and Domestic Animal Management Plan will be implemented to oversee the management of weeds and pest animals at the revised Project site.
	Additional Commitm	nnets - AEIS	
010	<b>F</b> 4 4		An independent consultancy specialised in fauna protection has been engaged to prepare a Koala Species Management Plan (KSMP). This plan is located in Appendix B of the AEIS. The KSMP is to be imp
213	5.1.1	Nature Conservation	Management Plan (CZMP) which is presented in Appendix J.6 of the draft EIS.
			NAC will prepare an Offset Area Management Plan (OAMP) that is consistent with the Commonwealth and Queensland governments' Biodiversity Offset policy requirements and describes how the revise describes the location of the offsets, provides details on the ecological characteristics of the offset and sets out how the offsets will be managed to achieve the objectives of the OAMP.
			Specifically, the OAMP will include:
			- a detailed description of the vegetation and habitat that will be affected by the project and the extent of the impact including:
			o the type of threatened species or ecosystem,
			o the quality of habitat, population attributes such as recruitment or mortality, and landscape attributes such as habitat connectivity, and
			o and likely duration of the impact;
			- a map (preferably digital) that clearly identifies the proposed offset area with Global Positioning System (GPS) points, including any areas subject to specific management actions;
			- the regional ecosystems and essential habitat within the proposed offset area;
			- the ecological equivalence assessment of the offset area and the date it was undertaken;
			- the offset area management objectives and outcomes;
			- the activities that will be undertaken to achieve the offset management objectives and outcomes;
			- restrictions imposed on the use of the offset area to achieve the offset management objectives and outcomes;
			- an analysis of the risks to achieving the management objectives and outcomes, actions to minimise the risks and remedial action that will be undertaken if any of the risks occur;
			- a yearly schedule of management actions, to ensure achievement of the management objectives and outcomes;
			- a monitoring and reporting program; and
	5.2.4.16	Advisory Agency Responses	- the estimated time until the offset management objectives and outcomes will be achieved.
215	5.2.4.16	Advisory Agency Responses	NAC will consult regularly with DotE and DEHP during the development and implementation of the OAMP.
			In relation to a delivery line, NAC provides the following information that is based on gaining the necessary approvals during mid-2015. This timeline can be adjusted as required around the grant of the
216	5.2.4.16	Advisory Agency Responses	shown in Table 5.2-G.
			NAC will prepare a monitoring and evaluation program for the Bluegrass offset area, that will form a part of the OAMP.
			The monitoring and evaluation program for the bluegrass offset areas will include a biocondition reference site, to be used as a standard site to compare the progress of the bluegrass offset site. NAC we by NAC or in close proximity to the revised Project.
			The monitoring and evaluation program will include an annual program of monitoring activities, objectives and targets that will be monitored and actions to be implemented following the review of the
217	5.2.4.17	Advisory Agency Responses	reporting schedule to provide reports to both DotE and DEHP on the status of the offset and its progress to the achievement of objective of the offset.
217	5.2.4.17	Advisory Agency Responses	
218	5.2.4.18	Advisory Agency Responses	NAC will provide spatial data to DEHP of the offset locations once the offset sites have been confirmed. The spatial data will include lot on plan details and GPS coordinates of the offset site of both the
210			
			With the translocation program for the revised Project, NAC will water the translocated plants twice a day during the first week following the translocation, then once a day for the second week. The pla
			As part of the monitoring program, presented in Section 6 of the Threatened Species Translocation Plan (TSTP), the translocated plants will be inspected each week until the plants are successfully estab
219	5.2.4.19	Advisory Agency Responses	each weekly inspection. The need for watering will be assessed by inspecting soil and ground conditions at each translocation site, plant health (presence of leaf wilt) and incidence of rain.
			NAC currently collect bluegrass seed and uses the species in the rehabilitation of disturbed areas within the New Acland mine. NAC will continue to collect bluegrass seed and make use of the species in
220	5.2.4.21	Advisory Agency Responses	bluegrass community and use this seed in rehabilitation.
			NAC will investigate the potential for the translocation of the identified threatened species to suitable habitat located in the conservation management zone along Lagoon Creek within the revised Projection of the identified threatened species to suitable habitat located in the conservation management zone along Lagoon Creek within the revised Projection of the identified threatened species to suitable habitat located in the conservation management zone along Lagoon Creek within the revised Projection of the identified threatened species to suitable habitat located in the conservation management zone along Lagoon Creek within the revised Projection of the identified threatened species to suitable habitat located in the conservation management zone along Lagoon Creek within the revised Projection of the identified threatened species to suitable habitat located in the conservation management zone along Lagoon Creek within the revised Projection of the identified threatened species to suitable habitat located in the conservation management zone along Lagoon Creek within the revised Projection of the identified threatened species to suitable habitat located in the conservation management zone along Lagoon Creek within the revised Projection of the identified threatened species to suitable habitat located in the conservation management zone along Lagoon Creek within the revised Projection of the identified threatened species to suitable habitat located in the conservation management zone along Lagoon Creek within the revised Projection of the identified threatened species to suitable habitat located in the conservation management zone along Lagoon Creek within the revised Projection of the identified threatened species to suitable habitat located in the conservation management zone along Lagoon Creek within the revised Projection of the identified threatened species to suitable habitat located in the conservation management zone along Lagoon Creek within the revised Projection of the identified threatened species to
			as the Lagoon Creek area will already be subject to suitable management protocol to protect and enhance the quality of vegetation and will be protected from direct disturbance by mining operations a
			suitable mechanism to protect the translocation sites in perpetuity. NAC will modify its Conservation Zone Management Plan and Threatened Species Translocation Management Plan to incorporate the
221	5.2.4.22	Advisory Agency Responses	Lagoon Creek within the revised Project area. DEHP and DotE will be regularly consulted in relation to this matter and will receive new copies of any updated management plans.
			NAC will place a covenant over the offset sites, to provide long term protection of the offset area. NAC will select one of three options for protecting the offsets, these will be either:
			- as a gazettal as a protected area (e.g. a nature refuge) under the Queensland Nature Conservation Act 1992;
			- as a voluntary declaration of an area of high nature conservation value under the Queensland Vegetation Management Act 1999; or
222	5.2.8.2	Advisory Agency Responses	- a covenant under the Queensland Land Title Act 1994 or Queensland Land Act 1994.

ecological communities will be retained along Lagoon Cree, between the

box woodland, mountain coolabah forest and gum-topped box woodland.

relocated to, how the translocation will be completed and monitoring of the

de the revised Project disturbance footprint will not be cleared or impacted.

implemented by NAC together with the Lagoon Creek Conservation Zone

evised Project's offsets will be managed. The OAMP will be a document that

the necessary approvals. The offset delivery timetable proposed by NAC is

C will endeavour to locate the biocondition reference site will be on land owned

the monitoring results. The monitoring and evaluation will also provide a

he areas to be cleared for the revised Project and the offset sites.

plants will then been watered as required, based on local weather conditions. tablished. The need for watering of the translocated plants will be determined at

s in mine rehabilitation. NAC will also collect the seed of other species from the

roject area. NAC believes there is merit in this suggestion from DEHP, particularly as and other associated activities. As part of this approach, NAC will identify a the translocation activities involving the conservation management zone along

	1		
222	5.2.8.3	Advisory Agency Responses	NAC is committed to the translocation of the three grass species that were listed as threatened species under the EPBC Act during the environmental assessment of impacts from the revised Project. Ho were delisted on 14 December 2013. Despite the delisting of these two species, NAC will offset the impact of the revised Project on the delisted species, as well as <i>Homopholis belsonii</i> .
	5.2.10.78	Advisory Agency Responses	NAC will fence and signpost the revised Project's conservation management zone to increase the level of protection and minimise the risk of accidental disturbance.
225	5.2.10.90	Advisory Agency Responses	NAC will consider the harvesting of timber from the vegetation to be cleared. However, the form and size of most of the trees from the areas to be cleared will present handling and logistic difficulties for No clearance of native vegetation will occur within the revised Project area without an appropriate wildlife inspection prior to clearance. NAC is currently in the process of developing a Standard Operat
226	5.3.19.13	Responses to Submissions	part of NAC's Environmental Management System.
	5.3.19.14	Responses to Submissions	NAC is committed to the maintenance of a safe, all weather access to Acland for the local inhabitants and general public.
	CHAPTER 8 Existing Commitment	Aquatic ecology s - draft FIS	
	Existing communent		Flood levees will be constructed between the Manning Vale East and Willaroo resource areas, that will contain up to the PMF rainfall event. Erosion management will be undertaken in the areas with in
228			plain indundation.
229			Erosion management will be undertaken in the areas with infrastructure development that is potentially affected by run-off and flood plain indundation. The water managent principles of the revised Project that relate to potential impacts on aquatic vlaues due to waterway crossings include the following:
			- diversion of clean water away from disturbed areas;
			- revegetation of disturbed areas no longer required for operational use to promote progressive rehabilitation; and
230			- Appropriately designed crossings that consider the hydrualic behaviour of Lagoon Creek.
			The principles of water management relating to vehicle and machinery and movement include the following: - temporary or permanent bunding of all significant quantities of hydrocarbon and chemical products stored on-site;
			- use of spill capture and retention devices for refuelling and similar areas; and
231			- revegetation of disturbed areas no longer required for operational use to promote progressive rehabilitation.
			Management of Cleared Vegetetation Zones - Construction of flood levees to prevent floodwaters entering resource operation areas and to prevent run-off from resource operations entering Lagoon Creek. Flood levees to be constructed adjacent
			average of 100 m from the top of the banks area and designed to control flood water up to a PMF rainfall event.
			- The flood levee will be a fully engineered structure and will be constructed using compacted clay lifts, and top soiled and grass covered to minimise the potential for erosion. The flood levee will be constructed using compacted clay lifts, and top soiled and grass covered to minimise the potential for erosion.
			Hazard Categories and Hydraulic Performance of Dams, 2012. Flood Levee sections that may be prone to erosion during flood events will be reinforced using appropriate stabilisation methods and mate
			- Riparian buffer zones maintained to a minimum of 50 m on either side of Lagoon Creek (which has a stream order of two). Buffer zones adopted are based on the Regional Vegetation Management Co widths based on stream order.
			- Preparing and implementing an Erosion and Sediment Management Plan including installing and maintaining sediment control devices to be installed around exposed areas and earthworks adjacent to
			development of all access roads and buildings where run-off could enter watercourses.
232			- Implementing the management measures described in the FLURP for areas no longer required for operational use to promote stabilisation and progressive rehabilitation. The FLURP for the revised Pro
			Water Management and Infrastructure: - Development and operation of the integrated water management system to manage clean and dirty water transfer and storage, water reuse, and the controlled releases of water within approved water
			Conditions for Coal Mines in the Fitzroy Basin). The revised Project's WRMP is located in Appendix J.4.
			- Release water from Environmental Dams during natural flow events in accordance with approved release strategies (e.g. Environmental Authorities and Final Model Water Conditions for Coal Mines in
			disruption to aquatic values from increased flow magnitudes and extended tail flow following flow events Management of potential for uncontrolled releases through the development and operation of the water management infrastructure which incorporates the design and construction of all water mana
			appropriate risk based rainfall event, catchment size, slopes, discharge design and soil types.
			- Monitoring and assessment of aquatic values in Lagoon Creek at sites upstream and downstream of the Mine and downstream of the revised Project site. Monitoring locations are required to evaluate
			fauna to account for seasonal variation and for assessing potential cumulative impacts. This can be incorporated into a Receiving Environment Management Plan (REMP) for the revised Project, as speci
233			- Culverts to be constructed for the rail spur in the area of the Lagoon creek flood plain to allow for overland flow of run-off. Construction of Waterway Crossings:
			The following proposed mitigation measures will assist in protecting and where possible enhancing the aquatic ecology values potentially impacted by the rail and road crossings at Lagoon Creek.
			- Construct the road and rail spur watercourse crossings in accordance with the Queensland code of environmental compliance for exploration and mineral development projects.
			- Locate creek crossings at established road crossing sites where possible.
			- Minimise the width of the rail and road crossings, associated infrastructure, and workspace areas, so as to reduce the length of bank and channel at the crossing of Lagoon Creek affected by the constru- - Restrict construction within and around the creek channel to the dry season where possible and complete stream bed and bank restoration before the onset of flow.
			- Provide passage for aquatic fauna under the rail line and haul road where it crosses Lagoon Creek. The permanent structures will be in accordance with the minor waterway barrier works self-assessab
			conditions across a range of low to high flow events, and appropriate levels of natural light. Temporary barriers will be in accordance with temporary waterway barrier works (DEEDI 2010b).
			<ul> <li>Monitoring and maintaining water quality in accordance with Queensland Water Quality Guidelines (DERM 2009b) during and after construction.</li> <li>Monitoring of aquatic flora and fauna before, during and after construction to provide assessment of impacts on community structure.</li> </ul>
			- The Conservation Zone Management Plan located in Appendix J.6 describes the appropriate rehabilitation and bank stabilisation measures that will be implemented for the revised Project. Revegetati
234			identification and marking of exclusion areas to protect adjacent riparian communities where applicable.
			Movement and Operation of Vehicles and Machinery:
235			- A Pest and Weed Management Plan is located in Appendix J.9 for the revised Project. The Plan outlines monitoring procedures for pests and weeds, and describes the application of appropriate contro - Bunded fuel and chemical storage procedures will be applied to minimise risk of accidental chemical release or spillage.
200			Decommissioning:
			- The stability of the dams will be enhanced (where necessary) by buttressing with inert rock material to create safe final slopes that are resistant to erosion and will be rehabilitated in accordance with t
			- A self-sustaining vegetation cover will be grown to provide long term stabilisation. Appropriate measures to assist vegetation growth will include, amongst other things, topsoil covering and appropriate measures to assist vegetation growth will end will be monitored on a bi appropriate mention data confirms successful achievement of the agreed rebabilitation performance criteria. NAC will continue this monitoring re-
236			- Rehabilitated land will be monitored on a bi-annual basis until monitoring data confirms successful achievement of the agreed rehabilitation performance criteria. NAC will continue this monitoring re the revised Project's MLs can be completed. A final landform assessment is presented in Chapter 4. The Final Landform Technical Report is located in Appendix G.1.10.
	Additional Commitmr	nets - AEIS	
			NHG commits to conducting more detailed characterisation of baseline water quality conditions prior to the revised Project construction, as these additional data will be required for the purposes of mo
227	5.2.4.23	Advisory Agency Responses	with advisory agencies on 16 April 2014, additional baseline data are not required at this time for the purpose of impact assessment. The ephemeral flow conditions of waterways within the revised Proj order to comprehensively describe water quality conditions.
237	J.Z.H.ZJ	Auvisol y Agency Responses	NHG commits to develop and implement a Receiving Environment Monitoring Program (REMP) in consultation with the Department of Environment and Heritage Protection (DEHP), to achieve a more d
			describe the objectives of water quality monitoring, show the location of all monitoring sites, and describe the methods that will be implemented to determine water quality in upstream reference sites
238	5.2.4.23	Advisory Agency Responses	developed in accordance with the ANZECC/ARMCANZ (2000) water quality guidelines.
			NHG commits to conducting more detailed sampling of aquatic environmental values, including water quality prior to construction works commencing. The purpose of the monitoring will be to establish Project's activities. A Receiving Environment Monitoring Program (REMP) will be developed in consultation with DEHP, and will describe the objectives and methods of monitoring. NHG will give conside
239	5.2.4.33	Advisory Agency Responses	as part of the process of developing the REMP.
207	1		

However, two of the listed species, Digitaria porrecta and Bothriochloa biloba,

es for the effective and efficient use of any timber that able to be harvested. erating Procedure (SOP) for this requirement. This SOP will be administered as

n infrastructure development that is potentially affected by run-off and flood

cent to the Manning Vale and Willaroo resource areas. Flood levees will be an

constructed in accordance with the (formerly) DERM's Manual for Assessing naterials (e.g. rip-rap).

t Code for Brigalow Belt and New England Tablelands, which designate buffer

t to aquatic habitats and watercourses. This will be required for the

Project is presented in Appendix J.2

vater quality targets (e.g. Environmental Authorities and Final Model Water

es in the Fitzroy Basin) to maintain seasonal flow regime and minimise potential

anagement structures using practical hydraulic parameters based on an

uate condition of aquatic and riparian habitat, water quality, aquatic flora and becified by DEHP (2012).

struction and operation activities.

sable code (DEEDI, 2010a) including the provision of appropriate hydraulic

tation of riparian zones will use locally endemic species and include the

ntrol measures.

th the post-mine land use.

priate erosion protection and drainage.

regime until the total disturbed area is fully rehabilitated and relinquishment of

monitoring compliance with EA conditions. However, as agreed at the meeting Project site requires regular monitoring involving rapid responses to rain events in

re detailed characterisation of baseline water quality conditions. The REMP will ites, within mine storages and downstream of mining activities. The REMP will be

lish baseline environmental conditions, prior to any influence of the revised sideration to including seasonal macro-invertebrate assessments at relevant sites

	5.2.4.39	Advisory Agency Responses	Further manganese data will be collected following development of a REMP.
241	5.2.4.40	Advisory Agency Responses	The need for inclusion of pesticides in future monitoring activities will be further considered during development of the REMP.
			NAC will carry out all relevant activities such as haul roads, conveyer belts, outlet works or anything else that may result in activities such as excavating or placing fill that would interfere with the flow in the flow i
242	5.2.9.27	Advisory Agency Responses	Exemption Requirements.
	CHAPTER 9	Air quality	
	Existing Commitme	ents - draft EIS	· ·
243			Dust control measures for operation of the revised Project
			Material extraction and handling:
			-Loading/dumping overburden
			-The drop height of material from excavators will be minimised when loading trucks.
			-Modification of operations will occur during adverse weather conditions (e.g. dust storms, gale force winds and storm conditions).
			-Water carts will be employed to keep mine roads and work areas in a moist condition.
244			-Dozer operations on overburden dumps will be modified or suspended if dust generation is excessive.
211			Drilling and Blasting :
			-Dust curtains will be installed on drill rigs (i.e. under the drill deck with fabric filters to collect dust).
			-Water injector will be used on drill rigs to minimise dust emission.
			-Local residents (neighbours) will be advised of blasting events (date and time).
			-Blasting operations will be modified during adverse weather conditions (e.g. dust storms, gale force winds and storm conditions).
			-Blasts will occur during daytime hours only and not on weekends or public holidays.
245			
245			-Gravel/basalt stemming will be used in blast holes.
			Haul roads:
			-Water carts will maintain moisture conditions on haul roads.
			-Road grading and maintenance will be undertaken on a regular basis. Key actions include:
			- Application of coarse rejects on haul roads to reduce dust generation.
			- Grading procedures to achieve constant spread of fines and coarser material.
			-Speed on haul roads will be limited to 60km/h (20 km/h on selected corners).
			-Where feasible, the volumes of trays on haul trucks will be maximised to increase carrying capacity and to reduce vehicle kilometres travelled on haul roads.
			-Visual monitoring of haul roads and major work areas will be undertaken to identify noticeable dust generation for corrective actioning.
			-Certain site roads will be sealed (near administration area – site access and employee car park).
			-Efficient watering will be conducted during peak periods of activity and within areas of concentrated activity.
			-Well defined and planned haul routes and internal roads will be developed to maximise efficiency of travel.
			-Obsolete mine roads will be rehabilitated.
246			-The private haulage route from the Materials Handling Facility to Train Loading Facility will be a sealed road.
			Exposed areas:
			-The pre-strip areas will be planned to minimise the time of exposure following clearing in advance of mine development.
			-Exposed areas/active areas will be watered if dust generation is observed.
			-Where possible, topsoil will be stripped when its moisture content is elevated but not sodden.
			-A vegetative cover will be established as soon as feasible on areas prepared for rehabilitation.
			-Progressive rehabilitation will be conducted behind the active pit areas to minimise exposed areas.
247			-Unauthorised clearing of non-mine areas will be prevented using a 'permit to disturb' system.
217			ROM Pad:
			-Water will be applied on a regular basis by a water cart on trafficked areas within the ROM Pad's operational area.
			-Visual monitoring of ROM coal stockpiles will be undertaken to identify noticeable dust generation for corrective action.
240			-Water will be applied on the ROM coal stockpiles if significant dust levels are being generated.
248			CHPP and ROM Bin
			-ROM Bin
			-Automatic water sprays will be installed at the ROM hopper bin to produce a fine mist to suppress dust generated when sensors are triggered.
			-Surge Bin
			-Dust curtains will be installed.
			-Waters sprays will be used.
			-Crushing
			-Wet crushing will be employed.
			-This activity will be fully enclosed.
			-Conveyors
249			-Water sprays will be used on transfer points.
			MHF:
			-An automatic sprinkler system will be employed to moisten product coal stockpiles.
			-Water sprays will operate at transfer points on conveyors.
			-Coal spills will be removed regularly to minimise the potential for dust generation.
			-A vacuum sweeper will operate on roads near the MHF.
250			-The washed coal will normally retain a moisture level of approximately 10%.
			TLF:
			-No coal will be stored in open/exposed stockpiles.
			-An enclosed overhead bin will deliver the coal to each rail wagon as part of the train loadout system.
			-Coal will be loaded by side tipper into a hopper as part of the train loadout system.
251			-Veneering and profiling of the loaded coal will be conducted to minimise dust emissions during transport.
251			Dust control measures for construction of the revised Project
2.52			Mine and Mine Infrastructure:
			-The size of cleared areas will be kept to an operational minimum to limit exposed areas available for dust emissions by wind erosion.
			-The speed of light vehicles on-site will be limited to reduce wheel-generated dust.
253			-A watering truck will be employed to control dust in dry and/or windy conditions.
252		1 I	-Cease works if excessive dust generation from construction activities occurs.

Lagoon Creek in accordance with DNRM's Riverine Protection Permit	
	Lagoon Creek in accordance with DNRM's Riverine Protection Permit

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20       and equitable manner and to the satisfaction of both parties.         271       NRC may track affected local inholder/heighbours residences if potential air quality impacts cannot be adequately managed by dust minimisation activities and adaptive air quality manage equitable manner (e.g. air conditioning).         272       The predicted PMI concentrations for the revised Project including adaptive air quality management measures comply with the air quality objectives in the EPP (Air).         273       S. 1.3.4       Air Quality. Noise and Vibration       NAC propose to publicly issue an environmental monitoring report on a monthly basis. The environmental monitoring report will present a summary of air quality, noise and vibration monite frough the FOP (Air).         274       S. 1.3.5       Air Quality. Noise and Vibration       NAC propose to publicly issue an environmental monitoring report on a monthly basis. The environmental monitoring report will present a summary of air quality, noise and vibration monite frough the FOP (Air).         275       S. 1.3.5       Air Quality. Noise and Vibration       NAC propose to publicly issue an environmental monitoring report on a monthly basis. The processes for recording and investigating noise and vibration concerns are provided in the Air Quality. Noise and Vibration         276       S. 1.3.7       Air Quality. Noise and Vibration       Community consultation will be investigated promptly and appropriate action will be taken to reduce legitimate nuisance impacts. A register of dust, noise and vibration concerns are provided in the Nic Quality and agapement activities addressing environmental concerns, including air quality, noise and vi	269		
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273       5.1.3.4       Air Quality, Noise and Vibration       through the Proponent's website.         274       5.1.3.5       Air Quality, Noise and Vibration       NAC will undertake consultation with local stakeholders where dispersion modelling predicts there is a potential for dust nuisance from the revised Project. The processes for communicating (Appendix J 18 of the draft EIS).         275       5.1.3.5       Air Quality, Noise and Vibration       All concerns about air quality, noise and vibration will be investigated promptly and appropriate action will be taken to reduce legitimate nuisance impacts. A register of dust, noise and vibration concerns are provided in the Air Quality Management Plan (Appendix J 10 of the draft EIS). The processes for recording and investigating noise and vibration concerns are provided in the Nac Quality on the Air Quality, noise and Vibration are provided in the Nac Quality consultation and engagement activities addressing environmental concerns, including air quality, noise and vibration are provided in table 5.1.3 - A of the AEIS.         276       5.1.3.7       Air Quality, Noise and Vibration       Community consultation and engagement activities addressing environmental concerns, including air quality, noise and vibration are provided in table 5.1.3 - A of the AEIS.         1       In consultation with affected landholders, NAC is committed to sampling of water quality sampling in rainwater tanks should air quality monitoring exceed the air quality objectives in the EPP rainwater tanks include:         277       5.1.5.2       Water Resources       Quality and sudge in the tank.         278       5.1.8.2       Health Impact		inets - AEIS	
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219[5.1.8.2] Health Impacts [INAU is therefore committed to the ongoing provision of information and engagement with communities on this important issue.	279 5.1.8.2	Health Impacts	NAC is therefore committed to the ongoing provision of information and engagement with communities on this important issue.

vised Project. A proposed hierarchy of adaptive management measures for key

cal stakeholders are provided in the Local Stakeholder Management Plan (refer to recording and investigating dust concerns are provided in the Air Quality

delling results). Depending on individual circumstances, NAC will seek to

. NAC will ensure all acquisition and relocation processes are managed in a fair

NAC will ensure all proposed treatment options are negotiated in a fair and

ta. The environmental monitoring report will be made available to the public

cal stakeholders are provided in the Local Stakeholder Management Plan

ncerns will be maintained. The processes for recording and investigating dust Vibration Management Plan (Appendix J.11 of the draft EIS).

the dust nuisance goals. NSW Health (2007) Options to protect water quality in

ce NHG will investigate the matter, which generally includes sampling for water inch for air quality and noise. For additional information on these matters, please ation trends relating to the Mine, NAC recognises that it is important to ensure

280	5.1.8.2		
		Health Impacts	Table 5.1.8 -A of the AEIS outlines a range of community consultation and engagement activities that have been strengthened as part of the AEIS, to assist in alleviating community concern regarding h The following dust mitigation measures are implemented at the JRLF to reduce the potential risk of air quality impacts:
			- High volume roadways, which convey 75% of site traffic, have been sealed
			- All trucks leaving the facility are covered and must exit over a 'rattle grid';
			- Speed restrictions apply to vehicle movements on site;
			- A larger water truck has been commissioned for use on site to improve the watering regime;
			- Unsealed road surfaces are graded regularly to reduce silt content of the surface;
			<ul> <li>Side tipper trucks are used because they possess lower emissions than other types of trucks;</li> <li>Sealed roads are swept as required to reduce soiling due to track-out; and</li> </ul>
	5.2.10.42	Advisory Agency Responses	- Additional dust management measures (e.g. water truck to spray site roads, dust sweeper on sealed roads) are implemented when air quality monitoring records exceed the dust trigger level.
ſ			NAC undertakes air quality monitoring to determine if the IDLE is generating notential air quality impacts on consitive recenters. The air quality monitoring locations for the IDLE are presented in Figure
			NAC undertakes air quality monitoring to determine if the JRLF is generating potential air quality impacts on sensitive receptors. The air quality monitoring locations for the JRLF are presented in Figure - Two real-time TSP monitoring stations – one at the JRLF and one within Jondaryan;
			- Quarterly PM10 monitoring at the corner of Lagoon and Earl Streets in Jondaryan; and
2	5.2.10.42	Advisory Agency Responses	- Dust deposition gauges at 5 locations in Jondaryan and near the JRLF.
			NAC propose to decommission the JRLF with the revised Project. Subject to all statutory approvals being received in 2015, the new rail spur and balloon loop, TLF and MHF will be constructed over an e
3	5.2.10.42	Advisory Agency Responses	decommissioning of the JRLF will commence in 2018 and is expected to be completed in 2019. Based on the current schedule of works it is not expected that the TLF and the JRLF will be in joint opera
			NAC will continue to periodically review the effectiveness of the JRLF's impact mitigation measures, further investigate practical mitigation measures and seek expert air quality advice as required. NA
	5.3.5.3	Responses to Submissions	as legitimate complaints.
	5.3.7.1 5.3.8.1	Responses to Submissions Responses to Submissions	NAC will advise the DEHP in a timely manner of all non-compliances identified in relation to the revised Project's future EA (e.g. 'exception reporting'). NAC is committed to delivering a comprehensive air quality management strategy that will comply with the ambient air quality objectives in the EPP (Air) and prevent adverse air quality impacts at its
	5.3.8.1 5.3.8.1	Responses to Submissions	All concerns about air quality will be investigated promptly and appropriate action will be taken to reduce legitimate dust nuisance. A register of dust concerns will be maintained.
	5.3.17.1	Responses to Submissions	NAC will also continue to report the results of this monitoring on a regular basis to the Jondaryan residents, the wider public and the DEHP (main regulatory authority).
ł			NAC propose to undertake water quality sampling at selected number of rainwater tanks in Jondaryan following the decommissioning of the JRLF in 2018 for the revised Project. If this water quality te
	5.3.40.2	Responses to Submissions	engaging with the local community with the objective of identifying key strategies that can be implemented to improve water quality in rainwater tanks.
)	5.3.41.2	Responses to Submissions	The submission (Private submitter 487.1) recommended the expansion of the air quality monitoring network to include a dust deposition gauge. NAC have accepted the recommendation and will construct the recommendation and wi
	5.3.41.2 5.3.43.1	Responses to Submissions	NAC will liaise with the Private Submitter (Private Submitter 487.3) in relation to meeting their dairy certification requirements.
1	CHAPTER 10	Greenhouse gases	
4	Existing Commitme	ents - draft EIS	Reduce fuel usage from operations
			NAC is continuously evaluating methods to reduce fuel usage. NAC are committed to undertaking the following actions to reduce fuel usage from mining operations for the revised Project:
			- mine planning to reduce haulage distances
			- improving efficiency of payload management (e.g. run-of-mine coal haulage);
			- considering fuel efficiency of mining equipment and haul trucks during procurement;
			- maintaining mining equipment and haul trucks in good working order so fuel efficiency of equipment is maximised;
2			<ul> <li>modifying operational procedures to improve the fuel use of selected machines (for example, minimising unnecessary idling of mobile equipment); and</li> <li>implementing an operator education program to promote more fuel efficient operation of machines.</li> </ul>
			Reduce electricity usage from operations
			Reduce electricity usage from operations NAC are committed to undertaking the following actions to reduce electricity usage from mining operations for the revised Project: -using power factor correction equipment at the CHPP to improve electricity consumption efficiency; and - using LED lighting where practical for general access and safety lighting, e.g. around personnel access walkways and doors and conveyor walkways, which can result in a reduction of electricity consumptions
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95			Reduce electricity usage from operations         NAC are committed to undertaking the following actions to reduce electricity usage from mining operations for the revised Project:         using LED lighting where practical for general access and safety lighting, e.g. around personnel access walkways and doors and conveyor walkways, which can result in a reduction of electricity consumption efficiency: and         use of Alternate Fuels         NAC will continue to periodically explore the potential use of alternative fuel options, and expects that major advances will be made in this area in the future, particularly when the economic drivers for         Reporting and Analysis         Based on the revised Project's estimated annual greenhouse gas emissions the following actions will be undertaken to fulfil legislative requirements:         - report annual greenhouse gas emissions under the National Greenhouse and Energy Reporting System under the NCER Act (facility threshold is 25,000 t CO2-e / year); and         - identify, evaluate and publicly report cost effective energy savings opportunities under the EEO Act (facility threshold is 0.5 PJ energy consumed / year).         Under the EEO Act, NAC are committed to investigating energy efficiency and other opportunities with a view to reducing its carbon footprint. Initiatives such as a solar power and tree screening and         Carbon Trading       The transition to an emissions trading scheme will provide opportunities to offset emissions through carbon trading. NHG will investigate opportunities to offset greenhouse gas emissions from the refore free frue frue frue frue frue frue fr
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293 294 295 296 297			Reduce electricity usage from operations         NAC are committed to undertaking the following actions to reduce electricity usage from mining operations for the revised Project:         -using LED lighting where practical for general access and safety lighting, e.g. around personnel access walkways and doors and conveyor walkways, which can result in a reduction of electricity consumption efficiency: and         -using LED lighting where practical for general access and safety lighting, e.g. around personnel access walkways and doors and conveyor walkways, which can result in a reduction of electricity consumused for the revised Project's estimated annual greenhouse gas emissions the following actions will be undertaken to fulfil legislative requirements:         - report annual greenhouse gas emissions under the National Greenhouse and Energy Reporting System under the NGER Act (facility threshold is 25,000 t CO2- <i>c</i> year); and         - identify, evaluate and publicly report cost effective energy savings opportunities under the EEO Act (facility threshold is 26,000 t CO2- <i>c</i> year); and         - identify, evaluate and publicly report cost effective energy savings opportunities under the EEO Act (facility threshold is 26,000 t CO2- <i>c</i> year); and         - identify, evaluate and publicly report cost effective energy savings opportunities with a view to reducing its carbon footprint. Initiatives such as a solar power and tree screening and f         Carbon Trading       The transition to an emissions trading scheme will provide opportunities to offset emissions through carbon trading. NHG will investigate opportunities to offset greenhouse gas emissions from the re         Orsider fuel efficiency of mining equipment and haul trucks during

g health and the revised Project.

gure 5.2 X. The air quality monitoring program for the JRLF includes:

an estimated two year period with completion in approximately 2017. The eration. The existing JRLF site will be returned to its original land use of grazing. NAC continue to regularly consult with the local Jondaryan community to resolve

ts neighbours' properties.

testing does not meet the water quality objectives in the ADWG, NAC commit to

onsult with the landowner to determine the most appropriate monitoring location.

sumption.

s for change improve.

nd planting are examples of options currently being considered.

revised Project through the trading scheme under the Clean Energy Act 2011.

	I	I	
			NA
	CHAPTER 11	Noise and vibration	
	Existing Commitments		
299			Mining activities will typically be conducted either on a six day, 24 hour basis or a seven day, 24 hour basis depending on the mining schedule and the type of mining equipment used. The CHPP activities such as blasting will only be undertaken during daylight hours and will not generally be carried out on Sundays or public holidays. Conducting mining operations on a 24 hour basis is standard operation. The TLF will operate on a seven day, 24 hr basis. Train operations will also occur on a seven day, 24 hr basis.
300			By implementing noise management and mitigation measures including reduced night time operation (only two pits operating at night in adverse weather or atmospheric conditions) and using attenua trucks), the predicted noise levels from the mining operation will achieve noise level consistent with the EPP (Noise) LAeq, adj, 1 hr criteria of 42 dB(A) in daytime and evening hours, and 37 dB(A) in night
			The following mitigation measures are proposed by NAC as commitments to reduce the revised Project's potential noise impact. - NAC will establish a real-time noise monitoring network, which will be used in conjunction with a weather forecasting system and an adaptive management process, to proactively relocate, reduce or - NAC has developed a Noise and Vibration Management Plan (NVMP) for the revised Project. The NVMP will be administered as an accompanying document to the revised Project's Plan of Operations - Based on ambient conditions (climate and the current mine plan)and feedback from the real-time noise monitoring (warning and alarm protocols), NAC may be required to limit or stop mining operat requirement is based on the noise assessment work completed for the revised Project's ELS. - NAC will ensure noisier mining equipment, including excavators, track dozers, loaders and rear dump trucks, is fully attenuated. This requirement is based on the noise assessment work completed for - Where possible, NAC will schedule noisier operations in pit at night or during daylight hours only. For example, dumping of overburden and dozer activity on overburden dumps at or above ground su - If no suitable or acceptable noise amellioration solutions are available for a particular noise issue. NAC will negotiate in good faith with all affected property owners for property purchase or by agreen treatment of the dwelling, relocation or replacement of the dwelling at another suitable location, relocation of the landowner to another living arrangement for the period of the issue or any other suit associated with any agreed solution to a noise issue. In the event agreement cannot be reached, NAC will enter into mediation with the affected party and employ the services of a third party to facilitz - NAC will implement its Noise and Vibration Management Plan as presented in Appendix J.11 to minimise the risk of noise complaints from nearby sensitive receptors to the revised Project. All complaint is neceived and/viara
301			<ul> <li>agreement. NAC has purchased a specialist noise logger that can be placed at a complainant's residence for a length of time to record the problem periods. This equipment will be maintained and the</li> <li>Where practicable, NAC using the mine planning process will utilise topsoil and other dumps as noise barriers between active mine operations and nearby noise receptor locations.</li> <li>NAC will continue to utilise broad band alarms instead of reverse beepers on all mobile equipment.</li> <li>NAC will continue to limit the speed of heavy vehicle traffic on haul roads.</li> <li>NAC will continue its current proactive monthly noise monitoring program and will expand its coverage around the revised Project site.</li> <li>NAC will continue its proactive assessment of possible noise attenuation options for both mobile or stationery noise emitting equipment. Noise emissions with tonal, impulsive and/or intermittent charter of the problem is to active assessment of possible noise attenuation options for both mobile or stationery noise emitting equipment.</li> </ul>
			<ul> <li>For the management of airblast overpressure and vibration, the following measures will be adopted for the revised Project.</li> <li>Field data will be used to best determine blast conditions and the type of stemming required for the area.</li> <li>In the event of a blast issue, the maximum instantaneous charge of subsequent blasts will be reduced using delays, reduction of hole diameter, etc. (i.e. until the blast issue is resolved).</li> <li>In the event of a blast issue, the burden and spacing of subsequent blasts will be changed by altering the drilling pattern and/or delay layout, or altering the hole inclination (i.e. until the blast issue is resolved).</li> <li>The stemming depth and type will be adequate for each blast event.</li> <li>Blast events will only be conducted during favourable weather conditions.</li> <li>The monitoring of blasts will continue at the nearest sensitive receptors based on the interpretation of pre-blast weather data.</li> <li>The practice of advising near neighbours will continue in advance of each blast. All new near neighbours surrounding the Project site will be proactively invited to join the blast notification contact list - A qualified professional with suitable experience will be responsible for the Project's blast management.</li> </ul>
302			- A qualified professional with suitable experience will be responsible for the project's blast management. - All blast complaints will be investigated in a timely manner to determine the extent of the issue. Where appropriate, blast monitoring will be conducted at the affected residence, and as required, blast
	Additional Commitmn	ets - AEIS	- Air blast complaints win be investigated in a timery manner to determine the extent of the issue. Where appropriate, blast monitoring win be conducted at the anceted residence, and as required, bla
			NAC propose to publicly issue an environmental monitoring report on a monthly basis. The environmental monitoring report will present a summary of air quality, noise and vibration monitoring data.
303	5.1.3.4	Air Quality, Noise and Vibration	through the Proponent's website.
304	5.1.3.5	Air Quality, Noise and Vibration	All concerns about air quality, noise and vibration will be investigated promptly and appropriate action will be taken to reduce legitimate nuisance impacts. A register of dust, noise and vibration concerns are provided in the Air Quality Management Plan (Appendix J.10 of the draft EIS). The processes for recording and investigating noise and vibration concerns are provided in the Noise and Vil
	5.2.4.8	Advisory Agency Responses	NAC commits to provide in the Air Quality Management Plan (Appendix 5.10 or the draft Els). The processes for recording and investigating holise and vibration concerns are provided in the Noise
	5.2.4.14	Advisory Agency Responses	Nac will comply with the operational mining noise (all noise sources).
500			
	5.3.1.3	Responses to Submissions	NAC will establish a real-time noise monitoring network, which will be used in conjunction with a weather forecasting system and an adaptive management process, to proactively relocate, reduce or s
	5.3.1.3	Responses to Submissions	If a legitimate complaint is received and/or a noise issue is identified by investigation, where possible NAC will modify mining operations until a satisfactory solution for the noise issue is developed and
			NAC will undertake a specific consultation approach for local landholders/neighbours that may be potentially affected by air quality, noise or groundwater impacts from the revised Project. Depending
	5.3.1.5	Responses to Submissions	agreement with potentially affected local landholders/neighbours for either property acquisition, relocation of their living arrangements or physical treatment of their residence.
	5.3.6.1	Responses to Submissions	The Private Submitter's suggestion (Private Submitter 55) to plant a tree screen along the western edge of Lot 3445 will be implemented in consultation with the landholder. Noise issues in relation to the Western Railway line are under Aurizon's jurisdiction and management. Therefore, it is suggested that all noise concerns about rail transport be raised directly with Aurizo compliance status and to develop new and modify existing mitigation strategies to minimise potential adverse noise impacts from the JRLF's operations affecting Jondaryan. NAC is committed to operative provide the facility.
311	5.3.23.1	Responses to Submissions	authority up until closure of the facility.
	CHAPTER 12	Cultural heritage	
	Existing Commitments	•	
	Existing communents	- urant LIJ	

ivities will be conducted on a seven day, 24 hour basis. Certain mining related ard practice in Queensland, with various measures in place to ensure a safe

nuated equipment (including excavators, track dozers, loaders and rear dump night time hours at all noise sensitive receptors.

e or stop noisier mining operations.

ons. A copy of the NVMP is provided in Appendix J.11.

erations in the Manning Vale East pit during the night time period. This

for the revised Project's EIS.

d surface may be restricted during night periods (10pm to 7am).

eement implement some other form of amicable arrangement (e.g. acoustic suitable innovative solution). NAC would be responsible for all reasonable costs

cilitate this process

on mine equipment.

nplaints received in relation to the revised Project's operation will be managed as d impartiality, and confidentiality. NAC is committed to open communication with

d, noise amelioration solutions will be investigated and implemented by the results will be interpreted by a qualified professional.

t characteristics will be targeted for noise attenuation.

e is resolved).;

t list.

blast mitigation solutions will be investigated and implemented by agreement.

ata. The environmental monitoring report will be made available to the public

ncerns will be maintained. The processes for recording and investigating dust I Vibration Management Plan (Appendix J.11 of the draft EIS).

or stop noisier mining operations and other noise sources. and implemented.

ling on individual circumstances, NAC will seek to negotiate a landholder

urizon. Longer term, NAC will use its monitoring results to continuously review its berating the JLRF in compliance with the noise conditions of its environmental

	Acland Management Strategy
	In developing the Acland Management Strategy, the following guiding principles were adopted: - remove dysfunctional buildings and infrastructure in a state of disrepair;
	- remove dysrunctional buildings and infrastructure in a state of disrepair; - tidy up and maintain land;
	- retain items of local historical or heritage significance;
	- enhance amenity of Tom Doherty Park and the Acland Community Hall; and
	- meet legal obligations.
	The Acland Management Strategy outlining the property types and structures in Acland currently owned by the NHG is provided in Chapter 3, Section 3.12.
	Acland Colliery Conservation Management Plan
	To satisfy its obligations as an owner of a Queensland Heritage listed site, the NHG has developed the ACCMP for the Acland No.2 Colliery, and is provided in Appendix J.12. The purpose of the ACCMP is maintenance of the listed structures within the former Acland No.2 Colliery site.
	As a Queensland Heritage listed site, the significance of the former Acland No.2 Colliery requires that the following general commitments are undertaken.
	- The historical mine site, including all built, moveable and landscape features should be maintained and conserved within their original setting, particularly where possible elements of moderate and h
	- Significant elements should be maintained;
	- Intrusive elements should be removed;
	- Development on or immediately adjoining the site should be avoided or if necessary only undertaken with full consideration of the cultural heritage significance of the site; and - The scale, form and setting of the place should be respected and any proposed management or use options should be sympathetic to its historic use.
	Cultural Heritage Management Plan
	Two major clearance/collection activities involving the Western Wakka Wakka People have occurred on ML 50170 under permits administrated by the previous CR Act.
	All future clearance/collection activities on MLA 50232 will be dealt with under the ACH Act. Minor clearance/collection activities involving the Western Wakka Wakka People will occur on a periodic ba
	subsequent workings) will undergo a cultural heritage awareness program.
	Abariainal authural baritaga
	Aboriginal cultural heritage - NAC and the Western Wakka Wakka People will continue to progressively implement the requirements of the Co-operation Agreement and CHMP to ensure the proper management and the protectio
	- All future clearance/collection activities on MLA 50232 will be dealt with under the ACH Act.
	-All personnel and contractors (construction and subsequent workings) will undergo a cultural heritage awareness program.
	Acland No.2 Colliery
	- As a Queensland Heritage listed site, the significance of the former Acland No.2 Colliery requires that the following general commitments are undertaken.
	- The historical mine site, including all built, moveable and landscape features will be maintained and conserved within their original setting, particularly where possible elements of moderate and high - Significant elements should be maintained.
	- Intrusive elements should be removed.
	- Development on or immediately adjoining the site will be avoided or if necessary only undertaken with full consideration of the cultural heritage significance of the site.
	- The scale, form and setting of the place should be respected and any proposed management or use options should be sympathetic to its historic use.
	A total of twenty-one management commitments have been included in the ACCMP to ensure the former Acland No.2 Colliery receives a high standard of management and is protected for future gener
	Acland NAC has developed an Acland Management Strategy for each of the property types and structures in Acland currently owned by the NHG. This is provided in Chapter 3, Section 3.12.
tmnets - AFIS	
	The management of Acland is documented in the Acland Management Plan (AMP) located in Appendix I of the AEIS and is guided by the unique historical context of Acland, and the safety, security and
Acland Township	consultation activities conducted by NAC over a number of years. In order to achieve the outcomes documented in the AMP, Acland has been excised from the area of Mining Lease (ML) Application 502
Asland Taumahin	A program of asbestos removal and the demolition of derelict buildings has been undertaken. A number of contaminated sites as listed on the EMR Register will be managed according to site environments the super state of the
Aciand Township	throughout Acland is tabulated in detail in the AMP. have the opportunity to comment on Acland. A detailed overview of community consultation and engagement can be found in the Section 5.1.10 of the AEIS. Specific commitments relating to Acland in
	- A community information session with the opportunity to comment on the Acland township plan;
Acland Township	- Acland township plans on display at the Oakey Community Information Centre, including community staff available to answer questions and provide information;
	NAC is committed to continuing its established relationship with Aboriginal and Torres Strait Islander people in the local area, including engagement through the Oakey Reconciliation Committee. A repr
	Community Reference Group and contributes to conversations regarding NAC's operations. NAC's commitment also encompasses an internal Equal Employment Opportunity Policy and Guidelines which
Advisory Agency Responses	members of the organisation and that they are treated fairly.
	Contact has been made with representatives from the Queensland Department of Aboriginal and Torres Strait Islander and Multicultural Affairs in relation to the revised Project. Discussions will take pla
	and business development opportunities for Aboriginal and Torres Strait Islander people.
Responses to Submissions	NAC has developed an AMP, which outlines the proposed management actions to achieve these goals and objectives. NAC will fund these management actions and seek further input from the local pul
	NAC has developed an ANP, which outlines the proposed management actions to achieve these goals and objectives. NAC will full these management actions and seek full the input if on the local put NAC is committed to the protection, maintenance and potential enhancement of Tom Doherty Park. In addition, NAC acknowledges the Private Submitter's information in relation to the Acland War Me
Responses to Submissions	consultation with the community and the Private Submitter (Private Submitter 503) in relation to this matter.
Traffic and Transport	
ents - draft EIS	
	NAC will continue to advance discussions with the regulatory agencies in relation to the re-aligned Jondaryan-Muldu Road. NAC will also consult with local landowners potentially impacted by the Jonda
	NAC will initiate discussions on the preferred acquisition process with QR Limited at the appropriate time. Since the rail loop encroaches on MLA 50232, approval to subdivide and construct the rail infra
	NAC will initiate discussions on the preferred acquisition process with QR Limited at the appropriate time. Since the rail loop encroaches on MLA 50232, approval to subdivide and construct the rail infra to QR Limited or operated privately by NAC.
	NAC will initiate discussions on the preferred acquisition process with QR Limited at the appropriate time. Since the rail loop encroaches on MLA 50232, approval to subdivide and construct the rail infra to QR Limited or operated privately by NAC. The management of the rail spur and balloon loop will be carried out under the provisions of the <i>Transportation Infrastructure Act 1994</i> . QR Limited's standard workplace health and safety and industri
	NAC will initiate discussions on the preferred acquisition process with QR Limited at the appropriate time. Since the rail loop encroaches on MLA 50232, approval to subdivide and construct the rail infra to QR Limited or operated privately by NAC. The management of the rail spur and balloon loop will be carried out under the provisions of the <i>Transportation Infrastructure Act 1994</i> . QR Limited's standard workplace health and safety and industri NAC will continue to implement a Fatigue Management Plan within its Safety and Health Management Systems (Section 31.2.02) with the proposed construction workforce to ensure that all individuals
	NAC will initiate discussions on the preferred acquisition process with QR Limited at the appropriate time. Since the rail loop encroaches on MLA 50232, approval to subdivide and construct the rail infra to QR Limited or operated privately by NAC. The management of the rail spur and balloon loop will be carried out under the provisions of the <i>Transportation Infrastructure Act 1994</i> . QR Limited's standard workplace health and safety and industri NAC will continue to implement a Fatigue Management Plan within its Safety and Health Management Systems (Section 31.2.02) with the proposed construction workforce to ensure that all individuals workforce. The procedure should be in line with Section 42(2)(c),(d)of the <i>Coal Mining Safety and Health Regulation 2001</i> and is intended to reduce the risk of mine workers becoming fatigues whilst tra-
	NAC will initiate discussions on the preferred acquisition process with QR Limited at the appropriate time. Since the rail loop encroaches on MLA 50232, approval to subdivide and construct the rail infra to QR Limited or operated privately by NAC. The management of the rail spur and balloon loop will be carried out under the provisions of the <i>Transportation Infrastructure Act 1994</i> . QR Limited's standard workplace health and safety and industri NAC will continue to implement a Fatigue Management Plan within its Safety and Health Management Systems (Section 31.2.02) with the proposed construction workforce to ensure that all individuals
	Acland Township Acland Township Acland Township Advisory Agency Responses Responses to Submissions Responses to Submissions

P is to set out an agreed framework for the management, preservation and

d high rankings of significance;

basis within the Study area. All personnel and contractors (construction and

ction of Aboriginal cultural heritage within the Study area.

igh rankings of significance.

nerations. NAC has developed the ACCMP and is provided in Appendix J.12.

nd environmental objectives which stakeholders have raised during community 50232.

nmental management plans. The current management status of key sites

l include:

epresentative from the Oakey Reconciliation Committee currently sits on NAC's hich aim to foster a workplace where employees feel that they are valued

place between NAC and departmental officers regarding potential employment

public through additional planned consultation. Memorial described through the submission. NAC will conduct regular

ndaryan-Muldu Road diversion to ensure appropriate detours are available. nfrastructure needs to be obtained by NAC prior to the rail corridor being leased

strial rail management provisions will be adopted. als on site are fit for work, thereby not compromising safety within the t travelling to and from work and whilst on the job. NAC's Fatigue Management

		NAC will implement the following mitigation measures throughout the operational phase to minimise the impact of traffic movements:
		- Working hour arrangements will be modified and haulage tasks avoided during peak traffic periods and school drop-off and pick-up times.
		- Established haul routes and arterial roads will be used for coal transportation to minimise traffic on local roads.
		- Traffic conditions during the operational phase will be monitored in order to identify and address any negative impacts.
		- Local communities will be adequately notified about proposed changes to local traffic conditions during the operational phase, including the provision of advanced notice, clear signage of changed tra
		- Traffic control measures designed for the safe movement of vehicles, pedestrians and cyclists accessing the revised Project site will be provided.
		- Adequate on-site parking will be provided to accommodate employee vehicles.
		- Access to Acland will be maintained at all times via Oakey-Cooyar Road.
331		- Adequate consultation is undertaken with the appropriate regulatory authorities.
551		
		Detailed intersection assessment should be undertaken during the preliminary design phase of the revised Project when the traffic demand and other infrastructures are confirmed through the EIS pro
		are adequate to safely cater for the construction and operational traffic volumes. However, given that intersection as currently planned would operate outside DMR's standard DoS thresholds in 2027 i
332		active role in consultation with NAC in determining the appropriate intersection design. One school bus routes (S24) affected by the revised Project will need to be notified about the revised access to
333		NAC will ensure that appropriate discussions are undertaken with the relevant road and rail authorities to ensure an appropriate mitigation measures are implemented based on the proposed design c
Additional Comm	nitmnets - AEIS	
		These road closures are scheduled to be implemented concurrently once the realignment of Jondaryan-Muldu Road is completed and MLA 50232 is granted. Appropriate signage and infrastructure will
334 5.1.6	Transport Traffic and Roads	restricted access. NAC will also ensure that the public is appropriately advised via its various public communication tools as further discussed in Section 5.1.10 of the AEIS.
335 5.1.6	Transport Traffic and Roads	The proposed road closures for the revised Project are detailed in Table 5.1.6 A.
36 5.1.6	Transport Traffic and Roads	All emergency departments will be formally notified of the proposed road closures in advance of the closures as part of the road closure application to Toowoomba Regional Council.
37 5.1.6	Transport Traffic and Roads	Access to all nearby business will be maintained. Travel distances for customers accessing business located within the key townships are outlined within Table 5.1.6-D of the AEIS.
		Expected road impacts and safety issues related to the proposed closures will be addressed in detail within the Road Use Management Plan (RMP) and the Traffic Management Plans (TMP) reports that
338 5.1.6	Transport Traffic and Roads	have been awarded.
		The RMP document will outline all the relevant activities that will be undertaken by NHG and the proposed mitigations measure. The Commitments Table within the RMP documents will summarise all
339 5.1.6	Transport Traffic and Roads	easily. The TMP report will describe in details how any required roadworks and proposed road closures undertaken during the construction phase will be safely undertaken in accordance with the Man
340 5.1.6	Transport Traffic and Roads	All landholders will be formally notified of the proposed road closures in advance of the closures via newsletters.
		Detailed mitigation measures and strategies related to the impact of the proposed road closures and diversions will be outlined within the RMP and the TMP documents which will be undertaken when
341 5.1.6	Transport Traffic and Roads	submitted to DTMR and TRC for approval.
42 5.1.6	Transport Traffic and Roads	On site (the relevant roads), provisions of advance notice and clear signage of changes in traffic conditions will be in place to warn road users of the proposed road closures and diversions.
12 0.1.0		NAC recognises that landholders surrounding Acland and residents in the town have a particular interest in understanding changes to transport, traffic and roads as a result of the revised Project. Inform
		activities as outlined in Section 5.1.10 of the AEIS.
343 5.1.6	Transport Traffic and Roads	Further activities specific to road closures are outlined in Table 5.1.6 F of the AEIS, i.e Acland-Sabine Road will be Sealed.
344 5.2.3.1	Advisory Agency Responses	The design of the proposed intersection will be detailed within the Road Impact Assessment (RIA) report that will be undertaken during the detailed design stage.
J44 J.Z.J. I	Advisory Agency Responses	NHG will continue its current close consultation procedure with the relevant personnel within DTMR, TRC and QR to ensure an appropriate mitigation measure is implemented for this intersection. The
45 5.2.3.6	Advisory Agency Responses	undertaken during the detailed design stage.
40 0.2.0	Advisory Agency Responses	The accredited ALCAM report from QR will outline the findings of the level crossing assessment undertaken on the key level crossings located within proximity to the revised Project site. NAC will ensure
N/ F 2 2 0	Advisory Agency Deepensor	West Region and the relevant rail authority to ensure appropriate mitigation measures are implemented based on the design consideration outlined within the ALCAM report and subsequent discussio
46 5.2.3.8 47 5.2.3.12	Advisory Agency Responses	sought once an agreement has been reached with the relevant authorities during the detailed design stage. The RMP and TMP will be undertaken when the project execution contracts have been awarded. NHG will continue to consult DTMR to ensure all stakeholders are satisfied with the outcomes of the RN
47 0.2.0.12	Advisory Agency Responses	
40 5 2 2 15	Advisory Agency Deepensor	A detailed road safety assessment can only be undertaken upon confirmation of the transport routes for the revised Project. NAC will ensure appropriate road safety audits are undertaken during the
348 5.2.3.15	Advisory Agency Responses	are adequately dealt with. Detailed mitigation measures and strategies will be outlined within RMP and the TMP which will be undertaken when the project execution contracts have been awarded. The operation phase is unlikely to generate high volumes of domestic haulage within the road network, as no increase from current domestic tonnages are forecasted. However, NAC will ensure that the
349 5.2.3.16	Advisory Agency Responses	through covering loads and washing down vehicles prior to departure from the construction site is maintained during the operation phase also.
47 5.2.5.10	navisory ngency nesponses	
		NHG will ensure appropriate road safety audits are undertaken during the detailed design stage to ensure the confirmed transport route is road safety risks are adequately dealt.
350 5.2.10.49	Advisory Agency Responses	In the interim, further crash data has been sourced for key local roads within close proximity to the revised Project. This analysis will be undertaken upon receiving the entirety of the data from DTMR a
351 5 2 10 50		
	Advisory Agency Responses	NHG will continue its close consultation with the relevant personnel within TRC to ensure any future improvements works are captured within the RMP and TMP which will be undertaken during the de
52 5.2.10.51	Advisory Agency Responses Advisory Agency Responses	NHG will continue its close consultation with the relevant personnel within TRC to ensure any future improvements works are captured within the RMP and TMP which will be undertaken during the de Discussions between NHG, Queensland Rail and Aurizon will continue with regard to infrastructure and logistics associated with any required upgrades.
52 5.2.10.51	Advisory Agency Responses	NHG will continue its close consultation with the relevant personnel within TRC to ensure any future improvements works are captured within the RMP and TMP which will be undertaken during the de           Discussions between NHG, Queensland Rail and Aurizon will continue with regard to infrastructure and logistics associated with any required upgrades.           Revised performance criteria for the LoS assessment for the specified sections of Warrego Highway will be undertaken for the Road Impact Assessment report during the detailed design stage.
52 5.2.10.51	Advisory Agency Responses Advisory Agency Responses	NHG will continue its close consultation with the relevant personnel within TRC to ensure any future improvements works are captured within the RMP and TMP which will be undertaken during the defined biscussions between NHG, Queensland Rail and Aurizon will continue with regard to infrastructure and logistics associated with any required upgrades.           Revised performance criteria for the LoS assessment for the specified sections of Warrego Highway will be undertaken for the Road Impact Assessment report during the detailed design stage.           Detailed design of the proposed realignment will be outlined within the detailed design stage.
52 5.2.10.51	Advisory Agency Responses Advisory Agency Responses	NHG will continue its close consultation with the relevant personnel within TRC to ensure any future improvements works are captured within the RMP and TMP which will be undertaken during the defined biscussions between NHG, Queensland Rail and Aurizon will continue with regard to infrastructure and logistics associated with any required upgrades.           Revised performance criteria for the LoS assessment for the specified sections of Warrego Highway will be undertaken for the Road Impact Assessment report during the detailed design stage.           Detailed design of the proposed realignment will be outlined within the detailed design stage.           how the existing section of Jondaryan- Muldu Road (within the Manning Vale West resource area) will be controlled subsequent to the implementation of the revised Project;
352 5.2.10.51 353 5.2.10.53	Advisory Agency Responses Advisory Agency Responses Advisory Agency Responses	NHG will continue its close consultation with the relevant personnel within TRC to ensure any future improvements works are captured within the RMP and TMP which will be undertaken during the de         Discussions between NHG, Queensland Rail and Aurizon will continue with regard to infrastructure and logistics associated with any required upgrades.         Revised performance criteria for the LoS assessment for the specified sections of Warrego Highway will be undertaken for the Road Impact Assessment report during the detailed design stage.         Detailed design of the proposed realignment will be outlined within the detailed design stage.         - how the existing section of Jondaryan- Muldu Road (within the Manning Vale West resource area) will be controlled subsequent to the implementation of the revised Project;         - the management of existing public utilities within the existing road reserves when the proposed road closures are in place; and
52 5.2.10.51 53 5.2.10.53 54 5.2.10.56	Advisory Agency Responses Advisory Agency Responses Advisory Agency Responses Advisory Agency Responses	NHG will continue its close consultation with the relevant personnel within TRC to ensure any future improvements works are captured within the RMP and TMP which will be undertaken during the de         Discussions between NHG, Queensland Rail and Aurizon will continue with regard to infrastructure and logistics associated with any required upgrades.         Revised performance criteria for the LoS assessment for the specified sections of Warrego Highway will be undertaken for the Road Impact Assessment report during the detailed design stage.         Detailed design of the proposed realignment will be outlined within the detailed design stage. The RMP and TMP undertaken during the detailed design will outline the following issues:         - how the existing section of Jondaryan- Muldu Road (within the Manning Vale West resource area) will be controlled subsequent to the implementation of the revised Project;         - the management of existing public utilities within the existing road reserves when the proposed road closures are in place; and         - funding for the proposed new road and upgrades to the existing road (if required).
352 5.2.10.51 353 5.2.10.53 354 5.2.10.56	Advisory Agency Responses Advisory Agency Responses Advisory Agency Responses	NHG will continue its close consultation with the relevant personnel within TRC to ensure any future improvements works are captured within the RMP and TMP which will be undertaken during the defined biscussions between NHG, Queensland Rail and Aurizon will continue with regard to infrastructure and logistics associated with any required upgrades.         Revised performance criteria for the LoS assessment for the specified sections of Warrego Highway will be undertaken for the Road Impact Assessment report during the detailed design stage.         Detailed design of the proposed realignment will be outlined within the detailed design stage. The RMP and TMP undertaken during the detailed design will outline the following issues:         - how the existing section of Jondaryan- Muldu Road (within the Manning Vale West resource area) will be controlled subsequent to the implementation of the revised Project;         - the management of existing public utilities within the existing road reserves when the proposed road closures are in place; and         - funding for the proposed new road and upgrades to the existing road (if required).         The TMP and RMP reports will outline the impacts of the potential temporary closure of the Western Railway during emergency events on the surrounding road network and uses.
52 5.2.10.51 53 5.2.10.53 54 5.2.10.56 55 5.2.10.57	Advisory Agency Responses Advisory Agency Responses Advisory Agency Responses Advisory Agency Responses Advisory Agency Responses	NHG will continue its close consultation with the relevant personnel within TRC to ensure any future improvements works are captured within the RMP and TMP which will be undertaken during the defined biscussions between NHG, Queensland Rail and Aurizon will continue with regard to infrastructure and logistics associated with any required upgrades.         Revised performance criteria for the LoS assessment for the specified sections of Warrego Highway will be undertaken for the Road Impact Assessment report during the detailed design stage.         Detailed design of the proposed realignment will be outlined within the detailed design stage. The RMP and TMP undertaken during the detailed design will outline the following issues:         - how the existing section of Jondaryan- Muldu Road (within the Manning Vale West resource area) will be controlled subsequent to the implementation of the revised Project;         - the management of existing public utilities within the existing road reserves when the proposed road closures are in place; and         - funding for the proposed new road and upgrades to the existing road (if required).         The TMP and RMP reports will outline the impacts of the potential temporary closure of the Western Railway during emergency events on the surrounding road network and uses.         NAC commits to proactively consulting with the submitter (Private Submitter 16) on proposed plans for the realignment of Jondaryan – Muldu Road. NAC will ensure that access to Lot 20 and Lot 21 is not project and to projecot and Lot 21 is not project and to project an
52 5.2.10.51 53 5.2.10.53 54 5.2.10.56 55 5.2.10.57	Advisory Agency Responses Advisory Agency Responses Advisory Agency Responses Advisory Agency Responses	NHG will continue its close consultation with the relevant personnel within TRC to ensure any future improvements works are captured within the RMP and TMP which will be undertaken during the de           Discussions between NHG, Queensland Rail and Aurizon will continue with regard to infrastructure and logistics associated with any required upgrades.           Revised performance criteria for the LoS assessment for the specified sections of Warrego Highway will be undertaken for the Road Impact Assessment report during the detailed design stage.           Detailed design of the proposed realignment will be outlined within the detailed design stage. The RMP and TMP undertaken during the detailed design will outline the following issues:           - how the existing section of Jondaryan- Muldu Road (within the Manning Vale West resource area) will be controlled subsequent to the implementation of the revised Project;           - the management of existing public utilities within the existing road reserves when the proposed road closures are in place; and           - funding for the proposed new road and upgrades to the existing road (if required).           The TMP and RMP reports will outline the impacts of the potential temporary closure of the Western Railway during emergency events on the surrounding road network and uses.           NAC commits to proactively consulting with the submitter (Private Submitter 16) on proposed plans for the realignment of Jondaryan – Muldu Road.
352       5.2.10.51         353       5.2.10.53         354       5.2.10.56         355       5.2.10.57         356       5.3.2.1	Advisory Agency Responses Advisory Agency Responses Advisory Agency Responses Advisory Agency Responses Advisory Agency Responses Responses to Submissions	NHG will continue its close consultation with the relevant personnel within TRC to ensure any future improvements works are captured within the RMP and TMP which will be undertaken during the de           Discussions between NHG, Queensland Rail and Aurizon will continue with regard to infrastructure and logistics associated with any required upgrades.           Revised performance criteria for the LoS assessment for the specified sections of Warrego Highway will be undertaken for the Road Impact Assessment report during the detailed design stage.           Detailed design of the proposed realignment will be outlined within the detailed design stage. The RMP and TMP undertaken during the detailed design will outline the following issues:           - how the existing section of Jondaryan- Muldu Road (within the Manning Vale West resource area) will be controlled subsequent to the implementation of the revised Project;           - the management of existing public utilities within the existing road reserves when the proposed road closures are in place; and           - funding for the proposed new road and upgrades to the existing road (if required).           The TMP and RMP reports will outline the impacts of the potential temporary closure of the Western Railway during emergency events on the surrounding road network and uses.           NAC commits to proactively consulting with the submitter (Private Submitter 16) on proposed plans for the realignment of Jondaryan – Muldu Road.           NAC commits to proactively consulting with the submitter (Private Submitter 16) on proposed plans for the realignment of Jondaryan – Muldu Road.           NAC commits to proactively consulting with the submitter (Private Submitter 16) on proposed pl
352 5.2.10.51 353 5.2.10.53 354 5.2.10.56 355 5.2.10.57 356 5.3.2.1	Advisory Agency Responses Advisory Agency Responses Advisory Agency Responses Advisory Agency Responses Advisory Agency Responses	NHG will continue its close consultation with the relevant personnel within TRC to ensure any future improvements works are captured within the RMP and TMP which will be undertaken during the defined biscussions between NHG, Queensland Rail and Aurizon will continue with regard to infrastructure and logistics associated with any required upgrades.         Revised performance criteria for the LoS assessment for the specified sections of Warrego Highway will be undertaken for the Road Impact Assessment report during the detailed design stage.         Detailed design of the proposed realignment will be outlined within the detailed design stage. The RMP and TMP undertaken during the detailed design will outline the following issues:         - how the existing section of Jondaryan- Muldu Road (within the Manning Vale West resource area) will be controlled subsequent to the implementation of the revised Project;         - the management of existing public utilities within the existing road reserves when the proposed road closures are in place; and         - funding for the proposed new road and upgrades to the existing road (if required).         The TMP and RMP reports will outline the impacts of the potential temporary closure of the Western Railway during emergency events on the surrounding road network and uses.         NAC commits to proactively consulting with the submitter (Private Submitter 16) on proposed plans for the realignment of Jondaryan – Muldu Road.         NAC commits to Private Submitter's request to keep the realignment as closet to the junction of Cookes Road and Jondaryan – Muldu Road.
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52 5.2.10.51 53 5.2.10.53 54 5.2.10.56 55 5.2.10.57 56 5.3.2.1 57 5.3.2.2 58 5.3.2.3 59 5.3.2.4 60 5.3.3.3	Advisory Agency Responses         Responses to Submissions	NHG will continue its close consultation with the relevant personnel within TRC to ensure any future improvements works are captured within the RMP and TMP which will be undertaken during the detailed Discussions between NHG, Queensland Rail and Aurizon will continue with regard to infrastructure and logistics associated with any required upgrades.         Revised performance criteria for the LoS assessment for the specified sections of Warrego Highway will be undertaken for the Road Impact Assessment report during the detailed design stage.         Detailed design of the proposed realignment will be outlined within the detailed design stage. The RMP and TMP undertaken during the detailed design will outline the following issues:         - how the existing section of Jondaryan- Muldu Road (within the Manning Vale West resource area) will be controlled subsequent to the implementation of the revised Project;         - the management of existing public utilities within the existing road reserves when the proposed road closures are in place; and         - funding for the proposed new road and upgrades to the existing road (if required).         The TMP and RMP reports will outline the impacts of the potential temporary closure of the Western Railway during emergency events on the surrounding road network and uses.         NAC commits to proactively consulting with the submitter (Private Submitter 16) on proposed plans for the rail gnment of Cookes Road and Jondaryan – Muldu Road.         NAC commits to proactively consulting with the submitter (Private Submitter 16) on proposed plans for the rail spur that passes through land owned by the submitter, including Lots 13 and 14 on RP346 submitter.         NAC commits to proactively consulting with the submit
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52 5.2.10.51 53 5.2.10.53 54 5.2.10.56 55 5.2.10.57 56 5.3.2.1 57 5.3.2.2 58 5.3.2.3 59 5.3.2.4 60 5.3.3.3 61 5.3.19.10 62 5.3.19.14	Advisory Agency Responses         Responses to Submissions	NHG will continue its close consultation with the relevant personnel within TRC to ensure any future improvements works are captured within the RMP and TMP which will be undertaken during the deel         Discussions between NHG, Queensland Rail and Aurizon will continue with regard to infrastructure and logistics associated with any required upgrades.         Revised performance criteria for the LoS assessment for the specified sections of Warrego Highway will be undertaken for the Road Impact Assessment report during the detailed design stage.         Detailed design of the proposed realignment will be outlined within the detailed design stage. The RMP and TMP undertaken during the detailed design will outline the following issues:         - how the existing section of Jondaryan - Muldu Road (within the Manning Vale West resource area) will be controlled subsequent to the implementation of the revised Project;         - the management of existing public utilities within the existing road (frequired).         The TMP and RMP reports will outline the impacts of the potential temporary closure of the Western Railway during emergency events on the surrounding road network and uses.         NAC commits to proactively consulting with the submitter (Private Submitter 16) on proposed plans for the realignment of Jondaryan – Muldu Road.         NAC commits to proactively consulting with the submitter (Private Submitter 16) on proposed plans for the realignment of Jondaryan – Muldu Road.         NAC commits to proactively consulting with the submitter (Private Submitter 16) on proposed plans for the realignment of Jondaryan – Muldu Road.         NAC commits to proactively consulting with the submitter (Private Submitter 16) on propos
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351       5.2.10.50         352       5.2.10.51         353       5.2.10.53         354       5.2.10.56         355       5.2.10.57         356       5.3.2.1         357       5.3.2.2         358       5.3.2.3         359       5.3.2.4         360       5.3.79.10         362       5.3.19.10         363       5.3.20.5         364       5.3.24.22         365       5.3.2.4.22         366       5.3.32.6         366       5.3.3.3	Advisory Agency Responses         Responses to Submissions         Responses to Submissions	NHG will continue its close consultation with the relevant personnel within TRC to ensure any future improvements works are captured within the RMP and TMP which will be undertaken during the de          Discussions between NHG, Queensland Rail and Aurizon will continue with regard to infrastructure and logistics associated with any required upgrades.         Revised performance criteria for the LoS assessment for the specified sections of Warrego Highway will be undertaken for the Road Impact Assessment report during the detailed design stage.         - how the existing section of Jondaryan- Muldu Road (within the detailed design stage. The RMP and TMP undertaken during the detailed design will outline the following issues: <ul> <li>- how the existing section of Jondaryan- Muldu Road (within the detailed design stage.</li> <li>- how the existing section of Jondaryan- Muldu Road (within the existing road frequired).</li> <li>The TMP and RMP reports will outline the impacts of the potential temporary closure of the Western Railway during emergency events on the surrounding road network and uses.</li> <li>NAC commits to proactively consulting with the submitter (Private Submitter 16) on proposed plans for the realignment of Jondaryan – Muldu Road.</li> <li>NAC commits to proactively consulting with the submitter (Private Submitter 16) on proposed plans for the realignment of Jondaryan – Muldu Road.</li> <li>NAC commits to proactively consulting with the submitter (Private Submitter 16) on proposed plans for the realignment of Jondaryan – Muldu Road.</li> <li>NAC commits to proactively consulting with the submitter (Private Submitter 16) on proposed plans for the realignment of Jondaryan – Muldu Road.</li> <li>NAC commits to proactively consulting with the submitter (Private Submitter 16) on proposed plans for the realignment of Jondaryan – Muldu R</li></ul>

d traffic conditions, and as required, traffic control personnel.

process. NAC will ensure that all road intersections required for the revised Project 27 irrespective of the additional development traffic, TMR and TRC should take an to Acland township and appropriate rerouting should be considered. In considerations outlined within the ALCAM Report.

will be in place when these closures are implemented to warn public of the

that will be submitted to DTMR and TRC when the project execution contracts

e all these activities to ensure that TMR and TRC can undertake a compliance audit Nanual of uniform traffic control devices (MUTCD).

hen the project execution contracts have been awarded. These documents will be

formation will be available and discussed through landholder engagement

The agreed mitigation measure will be outlined within the RIA report which will be

ssure that appropriate discussion are undertaken with the DTMR Downs-South ssion with the relevant authorities. Any necessary construction approvals will be

e RMP and TMP. ne detailed design stage to ensure the confirmed transport route road safety risks

t the current measures stay in place to reduce the likelihood of product spill

IR and will be prepared during the detailed design stage. e detailed design stage.

is maintained, or that impacts to access is minimised as per agreement with the

23467. An agreement will be developed and executed between NAC and the

nised, or that impacts are limited as per agreement with the submitter

3306 is maintained, or that impacts to access is minimised as per agreement with

cture as a result of the operation of the revised Project would be funded by NAC.

nin the ALCAM assessment that would be undertaken by QR.

		14/	
	CHAPTER 14	Waste management	
	Existing Commitment	is - draft EIS	
367			The WMP for the revised Project is provided in Appendix J.13. In addition, the EM Plan for the revised Project is located in Appendix J.19 and addresses waste management aspects for the revised Project
			All waste generated on-site during the construction, operational and decommissioning phases will be disposed of in accordance with the WMP, which includes:
			- waste stream characterisation and separation strategies;
			- assessment of waste reduction opportunities for identified wastes; and
368			- management of waste in accordance with the waste management hierarchy.
369			In accordance with Section 4.8 of the EM Plan, training will be provided to personnel and contractors in relation to waste management requirements for the revised Project.
			The waste management strategies proposed for the revised Project will consider waste management from the concept and planning stages through design, construction, operation and decommissionin
370			wastes. Waste segregation will apply to the management of all waste streams onsite at the point of generation and will cover the handling and removal of a variety of wastes in order to comply with cu
			Aspects of the revised Project that contribute to cleaner production outcomes include:
			- selection of the best available practicable technology for coal extraction for upgrades or equipment replacement to ensure appropriate energy intensity and production efficiency of product coal;
			- location of the mining and associated infrastructure areas to minimise the clearing of vegetation where practical;
			- use of best practice procurement and construction methods for the CHPP precinct, ensuring minimum wastes are produced (i.e. off-site pre-fabrication);
			- selection of the best available practicable technology for the CHPP precinct for new or replacement equipment to ensure optimum water use and energy efficiency, minimum dust emissions and wast
			- use of the most appropriate processes and equipment for operation and maintenance, such as the reuse of wastewater within the mine water management system and CHPP system; and
371			- recycling of glass, aluminium, steel and cardboards.
			Contracts with construction service suppliers will be negotiated to encourage all contractors to adopt waste minimisation procedures consistent with the WMP. This approach includes the purchase of
372			packaging, reuse of concrete formwork where practicable, and source separation and segregation of all recoverable materials. Separate skips will be provided to maintain segregation and maximise eco
072			The waste contractor will provide a monthly report which tracks waste generation at each location and includes data on general and recyclable waste generated and the level of contamination in waste
1			waste tracking certificate and detailed in a monthly report by the contractor. The EHP Waste Transport Certificates will be forwarded to NAC, with copies being retained by the waste contractor and by
373			the name of the waste producer and the nominated disposal/treatment/storage facility.
575			
			The spill response process in order of priority is to control, contain, absorb and finally to dispose of the spilt material. Procedures will include the provision of spill containment equipment and material
374			impacts of hydrocarbon/chemical spills that have the potential to enter waterways, undisturbed areas or rehabilitated areas. Training will be provided to personnel and contractors in the management
			Sites that become contaminated will be investigated, managed and remediated in accordance with the requirements of the contaminated land provisions of the EP Act.
375			
27/			All waste storage and containment areas will be located and constructed to ensure that all surface waters are excluded from these areas as far as reasonably practicable by the installation of appropriate waters are excluded from these areas as far as reasonably practicable by the installation of appropriate waters are excluded from these areas as far as reasonably practicable by the installation of appropriate waters are excluded from these areas as far as reasonably practicable by the installation of appropriate waters are excluded from these areas as far as reasonably practicable by the installation of appropriate waters are excluded from these areas as far as reasonably practicable by the installation of appropriate waters are excluded from these areas as far as reasonably practicable by the installation of appropriate waters are excluded from these areas as far as reasonably practicable by the installation of appropriate waters are excluded from these areas as far as reasonably practicable by the installation of appropriate waters are excluded from these areas as far as reasonably practicable by the installation of appropriate waters are excluded from these areas as far as reasonably practicable by the installation of appropriate waters are excluded from these areas as far as reasonably practicable by the installation of appropriate waters are excluded from these areas as far as reasonably practicable by the installation of appropriate waters are excluded from these areas as far as reasonably practicable by the installation of appropriate waters are excluded from these areas as far as reasonably practicable by the installation of appropriate waters are excluded from these areas as far as reasonably practicable by the installation of appropriate waters are excluded from the exclusion of appropriate waters are excluded from the exclusion of appropriate waters are excl
376			will continue to be used and augmented where appropriate for the revised Project.
377			State Planning Policy 1/03 Mitigating the Adverse Impacts of Flood, Bushfire and Landslide, and associated solution 4.1 & 4.2 will be used as a reference for the location of all new facilities with regard to
			Waste monitoring and auditing will be undertaken at the revised Project. The purpose of monitoring waste management activities and outcomes on-site include:
			- assessing actual waste results and comparing with predicted impacts and mitigation measures;
			- monitoring for potential environmental impacts; and
378			- providing baseline data to enable continuous improvement of waste avoidance, reduction and management measures.
379			NAC will implement a program to address any outstanding non-conformances as a result of the monitoring and auditing program. Corrective actions will be recorded and responsibility will be assigned
380			Adaptive management processes are an integral part of the WMP. The WMP will be reviewed regularly and if necessary, will be amended to suit the current activities being conducted throughout the
381			During the design phase of the revised Project, a comprehensive assessment of waste generation areas will be undertaken in line with the waste management hierarchy to identify the most appropriate
			During construction and operation, colour-coded, signed bins will be used to segregate and collect food wastes, paper and recyclables. These bins will be located throughout the offices and site infrastr
			be emptied into larger skips regularly. All bins and/or skips will have lids to reduce the potential for attracting insects and vermin. General wastes will be collected regularly and transported for disposa
382			transported to a local material recycling facility.
	Additional Commitm	nets - AEIS	
			NA
	CHAPTER 15	Visual amenity	
	Existing Commitment	ts - draft EIS	
383			The Aviation Hazard Management located in Appendix J.17 outlines the mitigation measures that will be implemented for the revised Project.
			NAC will address concerns from near neighbours regarding directional lighting issues from mobile lighting units. NAC has prepared a Local Stakeholder Management Plan (LSMP) which outlines procedu
384			Appendix J.18.
1			Retention of Existing Vegetation
			The retention where practical, of existing roadside and fence line vegetation will assist in partially screening elements of the revised Project and may assist in limiting expansive views of these activities.
			- Oakey-Cooyar Road (along the western side of the road);
			- Jondaryan-Muldu Road (along the eastern side of the road);
			- Acland-Silverleigh Road (along the northern and southern sides of the road; and
385			- Within and surrounding Acland.
			Completion of Tree Screening Activities NAC undertook tree planting activities during February 2005 and a total of 2,500 trees were planted at a rate of approximately one tree every 2 m. The tree spec
			poplunea (Poplar box) and Casuarina cristata (Belah).
1			New tree-screening activities will occur:
1			- along the western side of Oakey-Cooyar Road to minimise expansive views of the revised Project site to the east;
1			- along the western side of the re-aligned section of Jondaryan-Muldu Road to limit views of mining vehicle traffic;
1			- along both the eastern and western sides of Jondaryan-Muldu Road south-west of the revised Project site to limit views of the rail spur and mining vehicle traffic; and
1			
20/			- on the eastern and western edges of Acland to preserve the character of the town.
386			Other areas of tree-screening activities surrounding the revised Project site may be appropriate, such as around individual residential homesteads and within Acland. This would be identified through c
1			Night lighting
1			Lighting on the revised Project site will be oriented inwards and screened from the outside where possible.
			NAC will implement the Aviation Hazard Management Plan.
387			Night lighting with be located as required for safety and security, but focussed on the areas required, with shields around the globes to limit extraneous light where necessary. NAC will implement the l

oject.

ning. Waste planning allows for considerable flexibility in the management of all current regulations.

aste minimisation;

of materials cut to standard sizes, bulk purchasing of materials, reduction of economic reuse and recycling, in preference to disposal to landfill. ste receptacles. All forms of regulated waste will be tracked in accordance with a by the EHP. The certificates will outline the type and amount of regulated waste,

rials at workshops, warehouses and fuel/chemical storage areas to reduce the ent of chemicals, hydrocarbons and wastes.

riate levee/bunding structures. These structures are currently in place at NAC and

d to the revised Project

ed to the appropriate person for action and close out.

e construction and operational phases of the revised Project.

ate measures to manage all wastes for the revised Project. astructure areas to achieve maximum economic waste recovery. These bins will osal to the Oakey landfill by a licensed waste transporter. Recyclables will be

edures to address concerns from near neighbours. The LSMP is provided in

es. This action will be considered at the following locations:

becies used were Eucalyptus argophloia (Chinchilla white gum), Eucalyptus

h consultation with individual landholders impacted by the revised Project.

ne LSMP.

Image: Section of the sectio			
98         Interference of state and one           98         Antipage of state and one of s			Rehabilitation of the Project site
30         concentrative print card           31         Concentrative print card           32         Concentrative print card           33         Concentrative print card           34         Concentrative print card           35         Concentrative print card           36         Concentrative print card           37         Concentrative print card           38         Concentrative print card           39         Concentrative print card           30         Concentrative print card <t< th=""><th></th><th></th><th>Rehabilitation will be carried out progressively. The provision of vegetation to the disturbed areas of the revised Project, including the out-of-pit spoil dumps, backfilled areas and depressed landforms.</th></t<>			Rehabilitation will be carried out progressively. The provision of vegetation to the disturbed areas of the revised Project, including the out-of-pit spoil dumps, backfilled areas and depressed landforms.
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Image: source of the second			Further identification of impacts
Image: section of the sectio			As required, residences will be consulted with in order to determine if future perceived impacts require mitigation; and if so, discuss what form of mitigation is acceptable. For example, a tree screen at
Material Constraints         NA           GWTEE IP         Note environment         NA           GWTEE IP         Note environment         Note environment           GWTEE IP         Note environment         Note environment         Note environment           GWTEE IP         Note environment         Note environment         Note environment         Note environment           GWTEE IP         Note environment         Note environment         Note environment         Note environment         Note environment           GWTEE IP         Note environment         Note environment         Note environment         Note environment         Note environment           GWTEE IP         Note environment         Note environment         Note environment         Note environment         Note environment	390		
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MAC         Mac <td>395</td> <td></td> <td>NAC will ensure transparent advertising of employment opportunities to the local communities through online advertising, and using the Oakey Community Information Centre as a point of contact for e</td>	395		NAC will ensure transparent advertising of employment opportunities to the local communities through online advertising, and using the Oakey Community Information Centre as a point of contact for e
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ns, will ensure that the visual environment is returned, as much as possible, to its

mplemented for the Mine (refer to Photograph 15-3) will be incorporated along

ere limited views are currently provided or where mining activities are located

at the back of a house to completely screen the views of the mine expansion

rom culturally and linguistically diverse backgrounds, Indigenous peoples,

ion and the proposed timetable of construction.

or employment enquiries 'on the ground'. Ind skills development training. This will be achieved through up-skilling existing

rom culturally and linguistically diverse backgrounds, Indigenous peoples,

processes.

eensland Government to identify potential impacts on emergency services over

d Drug Management is located in Appendices A.3, A.4 and A.5 respectively and

ement of emergency situations in an appropriate manner. In addition, Emergency viders. NAC has developed emergency and evacuation planning and response cal State Emergency Services, local ambulance, local hospital services and local

-			
			Creation of direct and indirect employment opportunities.
			- Where practical, NAC will recruit local community members (i.e. based on skills and job specific recruitment requirements at the time of employment).
			-Where practical and if necessary, NAC will train previously unskilled local labour to meet recruitment requirements.
			- Continuation of existing partnerships with educational institutions, training groups and government agencies (such as Oakey State High School, University of South Queensland and Downs Group Train
			- Continued implementation of structured training programs such as apprenticeships and traineeships, and opportunities for vacation employment and graduate employment through NAC - Continued appointment of a dedicated Community Liaison Officer, to provide information around employment opportunities to local communities.
421			- Job advertisements placed online and in physical locations to allow local access
421			
			Creation of employment opportunities for vulnerable groups
			- Maintain relationships with government agencies, training groups and community groups to assess the opportunity to provide employment for long-term unemployed people or people with a disabili
			- Implement a targeted advertising campaign to attract a diverse workforce, including circulation of employment opportunities to local community groups and development of specific ads targeting fem
			targeting advertising, distributing employment advertisements to community groups and the Oakey Reconciliation Council.
			- Maintain preference clauses for employment of local Indigenous peoples in line with the Cultural Heritage Management Plan and Cooperation Agreement - Adopt flexible and fair work arrangements such as flexible shift times, working from home arrangements and school hour shifts which are designed to assist employees with maintaining work/life bala
			- Continued adoption of equal employment opportunities for recruitment and continue to support a diverse workforce that includes vulnerable population groups including people from culturally and I
			the unemployed and underemployed.
422			- Continue to build partnership with the Oakey Reconciliation Council to encourage Indigenous peoples to apply for employment opportunities.
			Education and training.
			- NAC will continue to liaise with Oakey State High School and other local education providers to identify training opportunities.
			- Wherever possible, NAC will continue to provide training and apprenticeships in various skill areas, including agriculture.
			- Continued practice of up-skilling and training staff to progress to new positions and training to Black Coal industry standards.
			- Continued implementation of Management and Leadership Development Training.
423			<ul> <li>Continued access to Employee Educational Assistance Program to encourage staff to continue their education or undertake further training and qualifications.</li> <li>Continued relationship with Downs Group Training to facilitate structure training programs.</li> </ul>
423		1	Procurement opportunities for local businesses.
			- NAC will continue its preferential use of local businesses and suppliers (i.e. based on an assumption of competitive pricing).
			- Where appropriate, NAC will advertise tender requirements locally and participate in information sessions regarding local procurement requirements.
			- NAC will liaise with local accommodation providers so that demand for short term accommodation can be met locally where possible.
			- NAC will adopt and promote the Queensland Resources and Energy Sector Code of Practice for Local Content.
			- NAC will establish a register for local contractors to register interest in the revised Project.
			- NAC will hold local briefings for businesses explaining what opportunities are available for local contractors and the anticipated timelines.
			- NAC will provide or facilitate the provision of pre-tender training and information to ensure interested parties are tender ready. NAC will hold bi-annual procurement information sessions during detai subcontractors to explain NAC requirements and expectations.
			- NAC will provide feedback if requested by suppliers that were unsuccessful in prequalification or tendering.
			- Present at the Toowoomba Regional Council 2014 Energy Summit to inform local business of NAC content requires and provide information to allow businesses to ready themselves for tender opport
			- NAC to sponsor a local workshop to educate businesses on preparing for tenders and becoming 'tender ready'.
			- Develop and distribute fact sheet on tender requirements.
			- Consult with the Oakey Reconciliation Council to identify Indigenous business opportunities.
424			- Develop and distribute fact sheet on procurement requirements and processes to New Hope Community Information Centre at Oakey, Oakey Reconciliation Council and Traditional Owner representation
425			Declining local employment opportunities in agriculture. - Where possible, NAC will continue to provide employment and training opportunities through APC.
420			Safety risks associated with travelling to site.
			- NAC will continue to communicate the company's corporate policies.
426			- NAC will continue to manage health and safety issues, such as fatigue, in an effort to reduce the potential for accidents on and off the revised Project site.
			Impacts on health and emergency services.
			NAC will liaise with state and regional health departments to provide information about the revised Project and the potential for associated service provision requirements.
			- NAC will continue to undertake appropriate site induction and health / safety training of consultants, contractors and employees to help minimise the number of health and safety related incidents.
			- NAC will continue to provide on-site first aid and fire fighting services. - NAC has prepared an Emergency Management Plan for the revised Project (Appendix J.15), which will include consultation with local emergency service centres, including fire, ambulance and police si
427			- NAC has prepared an Energency management plan of the revised Project (Appendix 3. 15), which will include consultation with local energency service centres, including me, ambulance and police si - NAC will continue to liaise directly and through the CRG with Oakey Hospital and other local health services.
727		1	Increased demand for education services
			- NAC will continue to liaise directly with Oakey State High School and other local schools through the Community Reference Group and other mechanisms.
428			- Partnerships and relationships with local educational institutions such as Oakey State High School, University of Queensland and University of Southern Queensland to understand concerns and opport
			Decreased connectivity on and around the Project site due to increased vehicle movement.
			- Access to individual properties surrounding the revised Project area will be maintained using the existing peripheral road network.
			- NAC will develop and implement a communication program to inform local residents and road users of planned changes to traffic and access conditions undertaken as a result of the revised Project.
429			<ul> <li>NAC will employ appropriate road safety signage and minimise delays to travel during the revised Project related construction and transport activities.</li> <li>Develop a Traffic Management Plan for the revised Project in consultation with relevant state and local government departments.</li> </ul>
427		1	Increased traffic congestion and travelling times for local people.
430			- NAC will undertake maintenance and upgrade activities on road surfaces that are significantly affected by the revised Project related traffic in a timely manner. This will be done in consultation and ag
			Improved amenity at site of JRLF.
			- Decommissioning of the JRLF.
			- Removal of buildings, coal stockpile and concrete floors at JRLF.
431			- Use of the JRLF site for grazing and agriculture following decommissioning of the JRLF.
			Dust, noise and visual impacts from mining operations.
			- NAC will continue to implement the environmental impact control strategies and measures described in Appendix J.19.
432			<ul> <li>Use of enclosed hoppers, veneering and dust suppression measures at the rail loading facility.</li> <li>NAC will implement visual screening measures, such as tree planting, along roads and neighbouring properties.</li> </ul>
	Additional Commitm	nets - AEIS	
	5.3.24.30	Responses to Submissions	NAC will evaluate the performance of the SIMP over the life of the revised Project and amend it as necessary to ensure that it is functioning efficiently and effectively.
	5.3.24.32	Responses to Submissions	NAC and the APC will continue to take the necessary actions in an attempt to reduce the potential for criminal activity within the area surrounding the revised Project. NAC is happy to work with its neighbor
		· · · · · · · · · · · · · · · · · · ·	

bility, and assessing skills gaps and training required. emales and Indigenous workers, dedicating 10% of NAC's recruitment budget to
alance and help disadvantaged groups transition to the workforce. d linguistically diverse backgrounds, Indigenous peoples, women, school leavers,
tail design and construction of the project with potential -contractors and
rtunities.
tatives.
e stations and the Jondaryan Rural Fire Brigade.
portunities.
agreement with the TRC.
eighbours to help address this issue.

	CHAPTER 17	Economic environment	
	Existing Commitments	s - draft EIS	NAC will and aways to source warkers from the local Study area depending on the specific skills required, the status of the labour market at the time, the trainability of the advertised position and the
434			NAC will endeavour to source workers from the local Study area depending on the specific skills required, the status of the labour market at the time, the trainability of the advertised position and the production of up to 7.5 Mtpa.
			NHG has committed 10 per cent of the NHG recruitment budget for targeted employment strategies. As part of the revised Project, NHG commits to the following strategies / actions to support employ- - Maintaining the local apprenticeships program.
			- Continuing to work with Downs Training Group to support apprenticeships and structured training.
			- Maintaining relationships with education providers (such as Oakey State High School) to assess the opportunity for employment and training (including apprenticeship opportunities) for school leave
			yearly meetings.
			- Continuing the vacation work program in place with the University of Queensland and University of Southern Queensland. NHG will also continue to work with the University of Southern Queensland
			- Maintaining relationships with recruitment agencies to assess the opportunity to provide employment for long-term unemployed people or people with a disability, and assessing skills gaps and train - Holding educational and industry tours of the mine site to interested groups.
			- Implementing the Educational Assistance Program to the revised Project workforce to support workers to undertake further study and training to progress their careers, which will contribute to susta
435	1		decommissioning.
436			NAC will hold bi-annual procurement information sessions during detail design and construction of the project with potential contractors and subcontractors to explain NAC requirements and expecta
			In addition, specific strategies / actions which NAC has committed to engage local content and businesses for the revised Project are outlined below:
			- Presenting at the 2014 Toowoomba Regional Council Energy Summit to outline opportunities for local businesses to work with NHG and information to become 'tender ready'.
			- Continuing their partnership with the Toowoomba Surat Enterprise and Oakey Chamber of Commerce to understand local business needs, capabilities and gaps.
			- Sponsoring a workshop to build local business capacity to become 'tender ready' Including a preference for local workforce in contractor service level agreements.
437			- Developing fact sheets for local businesses on how to tender / become 'tender ready'. Which will be distributed at the New Hope Community Information centre at Oakey, as well as to the Oakey Rec
			The Indigenous Employment Policy for Queensland Government Building and Civil Construction Projects (IEP 20% Policy) is a Queensland Government policy which "promotes, encourages and creates
			Torres Strait Islanders" for government funded building and civil construction projects. Although NAC are not required to adopt the policy as a privately funded project, they currently have in place two
			processes to provide employment opportunities for recognised traditional owners. Noting that the agreements are confidential, a broad outline of the commitments by NAC includes:
			- Establishing clear position descriptions and notifying the Coordination Committee of available positions to enable awareness by local indigenous communities of skills, qualifications, attitudes/behav Project
			- Establishment of an Employment and Positions Register containing the names of members of the recognised traditional owners who wish to obtain employment with the revised Project
			- Advising contractors and sub-contractors of commitments with the traditional owners
			- Providing feedback as requested if tenders are unsuccessful which indicates areas for improvement to increase the prospects of success in future tenders
438			- Providing cultural awareness training for existing NAC employees, contractors and sub-contractors. NAC will re-negotiate these provisions with recognised traditional owners for the revised Project.
430			
			NAC has also committed to working with the Oakey Reconciliation Council to invite local Indigenous businesses to tender for contracts for the revised Project, and will continue to sponsor NAIDOC week
439			contract opportunities for the revised Project. As noted previously, fact sheets for local businesses on how to tender / become 'tender ready' will be distributed to the Oakey Reconciliation Council and
440			Reduction in agricultural output from impacted land: - Household impacts from a reduction in agricultural output have been mitigated to some extent through compensation for landowners. Rehabilitation should ensure that land is returned to beneficial
110			Lower than expected benefits for the regional study area:
441			- Employ strategies outlined in Section 17.4 to increase local participation. Locally sources labour and materials should only be pursued where the net benefit of the project is not undermined.
			Displacement of employment following construction and commissioning phase
			- Maximise the transfer of appropriately skilled and experienced staff within the New Hope Group where possible - Undertake a skills and education audit with employees to determine existing levels of transferrable skills, and opportunities for further training in the skills development program;
442			- Identify local skills shortages through consultation with state and local government, industry, economic development boards and local training providers.
			Employment is transferred from other industries or businesses leading to reduced business viability and increasing labour costs Mitigating inflationary pressures are out of the scope of control for the
			through:
443			- Training for currently unemployed workers to encourage generated employment     - Advertising employment opportunities with welfare agencies in the Project study area
443			Significant migration to the local area causing upward pressure on property values
			- Source employment locally where appropriate to limit migration and pressure on property values
444			- Conduct surveys to ascertain the number of workers likely to relocate for the revised Project and whether construction of temporary or permanent accommodation may be required
			Impact on future development in the region. The revised Project is not expected to negatively impact on future development in the region except where significant competition for labour and material equivine labour and material labour and materials locally is to maximize economic benefities of equivine labour and materials locally is to maximize economic benefities and materials locally and materials
			sourcing labour and materials outside of the region. This approach should only be pursued where necessary, since the objective of sourcing labour and materials locally is to maximise economic benefit Positive impacts include potential new business investment from supporting industries and industries benefitting from increased consumption expenditure such as retail trade. This benefit can be enh
445	1		does not cause excessive pressure on availability of labour and materials.
	Additional Commitmn	ets - AEIS	
			NA
	CHAPTER 18	Health, safety and risk	
	Existing Commitments	s - draft EIS	Material Safety Data Sheate (MSDSc) for Anionia floorylante (convloride /convlote conclumer) and Cationia floorylant (polydimethyl dividimethyl ammonia chloride) (poly DADMAC) are located in Anno
446			Material Safety Data Sheets (MSDSs) for Anionic flocculants (acrylamide/acrylate copolymer) and Cationic flocculant (polydimethyl diyl dimethyl ammonia chloride) (poly DADMAC) are located in Apper personnel involved in the storage, handling, use and disposal of dangerous and hazardous substances and materials.
110			MSDS information will be obtained and communicated to all site personnel involved in the storage, handling use and disposal of dangerous goods, hazardous substances and materials. The storage, ha
447			current Australian Standards and industry codes of practice.
4.40			The greatest use of dangerous goods/hazardous substances will involve diesel fuel oil. The approved separation distances will be maintained during the storage of these materials/substances as definition
448			liquids.
449			It is important to note that additional risk assessment processes will be carried out throughout the revised Project's life cycle. In addition, comprehensive risk registers have been implemented for the
450			All site personnel will undergo comprehensive site inductions, regular 'tool box talks'. The risks identified in this Chapter will be communicated, audited and regularly reviewed to ensure applicability.
451			All identified risks to the community and surrounding environment will be assessed and mitigated as far as reasonably practicable. Mitigation measures will be developed in consultation with the relev
452			The Pest and Weed Management Plan for the revised Project site is provided in Appendix J.9. This plan will be implemented during construction, operation and decommissioning phases of the revised
452		I	Interestante vese management rian rei une revised registrate is provided in Appendix 3.7. This plan will be impremented during construction, operation and decommissioning phases of the revised

he proposed timetable of employment required to meet the scheduled ramp up in

oloyment locally:

vers which provide opportunities to enhance the local skills base, including twice

and to develop and implement university courses aimed at the mining industry. aining required.

stainable employment opportunities both as part of the revised Project and on

ctations

Reconciliation Council and through existing relationships with traditional owners. tes skills development, employment and business opportunities for Aboriginal and two headline internal (confidential) agreements which outline established

naviours and experience necessary for employment and promotion on the revised

veek in Oakey which will contribute to an awareness of potential employment / and through existing relationships with traditional owners.

cial post mine use as possible.

he proponent, however where possible local development should be supported

rials exists. Should supply constraints exist, this impact can be mitigated through hefits for the region.

enhanced through employing the strategies outlined in Section 17.4, where this

pendix G.10.2. Other MSDSs will be obtained and communicated to all site

, handling and transport of these goods/substances will be in accordance with the

fined in AS 1940-2004 The storage and handling of flammable and combustible

he existing operation and will be updated to include the revised Project.

levant stakeholders.

sed Project.

453			Mine water discharges to waterways will be restricted to emergency discharges during extreme rainfall/flood conditions, thus discharges (if required) would be significantly diluted with flood waters. Cf on-site at the STP and treated effluent drains to an on-site sediment dam. No sewage effluent will be discharged to waterways.
454			NAC will ensure that all road intersections required for the revised Project are adequate to safely cater for the construction and operational traffic volumes.
455			NAC will ensure that appropriate discussions are undertaken with the relevant road and rail authorities to ensure an appropriate mitigation measures are implemented based on the proposed design co Designated first aid and emergency rescue facilities and equipment will be available during the construction, operational and decommissioning phases, as is the case with the existing operation. Approp
456			Project to provide first aid and to respond to on-site emergencies. First aid response and provision will be included in the site induction training that will be provided to all staff members. All fire fighting facilities and equipment will be appropriately installed, serviced, maintained and inspected by a certified body. First aid and fire fighting equipment (hand held extinguishers and fire hose
457			equipment and exit locations will be suitably signed. All work areas will be within the required distance to reach emergency exits.
458			Induction training will include fire response techniques. The revised Project site will have a fire truck or suitably equipped water truck or trailer that can support fire response requirements. Site fire figh drills will continue to be undertaken on a regular basis. Permanent facilities, such as fuel storage areas, will have a dedicated fire alarm, suppression and fire fighting systems.
150			NAC will continue to liaise with QFRS, Queensland Ambulance Service (QAS), local State Emergency Services, local ambulance, local hospital services (agencies including Darling Downs Hospital and Heal will continue to conduct periodic emergency simulation drills with its regional emergency service providers over the life of the revised Project. In addition, NAC will liaise with Queensland Health at the a
459	Additional Commitmr	nets - AEIS	revised Project. The industrial paramedic will provide initial on-site care in an emergency and is also involved in health promotion and safety training for NAC personnel.
460	5.2.5.6	Advisory Agency Responses	NAC will commit to attaining all relevant licenses and will comply with food safety requirements outlined within the Food Act 2006 for the revised Project.
	CHAPTER 19	Community consultation	
	Existing Commitment	s - draft EIS	
			As detailed in the revised Project's Stakeholder Engagement Plan available in Appendix K.1, NAC's stakeholder engagement program has been developed around a core set of objectives to include: - balancing the current debate regarding the NHG and the Mine with factual information and promoting the revised Project's benefits and opportunities; - engaging with the local community to generate a greater level of support for current and future operations; - providing open, honest and timely communication with stakeholders;
			- engaging stakeholders and the community to capture their concerns or views and ensure they are understood by the team and considered in decision-making where possible; - ensuring early identification of potential stakeholder issues and implementation of appropriate mitigation strategies; and
461			- maintaining a positive reputation for the revised Project and the NHG in the community. NAC will continue to consult with relevant stakeholders using a variety of communication mechanisms to ensure that the local community is continually engaged about the revised Project. NAC will also
462			Project.
	Additional Commitmr	nets - AEIS	Wherever possible, the NAC will seek resolution to concerns through dialogue and joint problem solving with affected stakeholders. The way in which complaints are resolved will vary according to the
463	5.1.9	Complaints and Dispute Resolution	(with a full explanation provided to the complainant) to mitigation or change in practices.
464	5.1.9	Complaints and Dispute Resolution	Upon receipt of a complaint, the responsible Manager will commence an investigation into the cause of the complaint and where mitigation is required, take any reasonable actions required to address
465	5.1.9	Complaints and Dispute Resolution	A verbal response on the facts identified and progress with the investigation will be provided to the Complainant within two business days (unless the complainant agrees otherwise). Upon closing out a complaint, the Complainant will be contacted by the relevant NAC representative to determine if they are satisfied with the resolution. If dissatisfied, the Complainant can appeal to l
466	5.1.9	Complaints and Dispute Resolution	Complainant rejects a proposed resolution, they will be invited to resubmit the complaint with an explanation or reconsideration and a response. Further dispute resolution processes are in place for set Agreement.
	5.1.9	Complaints and Dispute Resolution	Upon closing out a complaint, the Complainant will be contacted by the relevant NAC representative to determine if they are satisfied with the resolution. If dissatisfied, the Complainant can appeal to I Complainant rejects a proposed resolution, they will be invited to resubmit the complaint with an explanation for reconsideration.
			Technical Dispute If the dispute is in relation to a technical matter (Technical Dispute): a) within 10 Business Days of the receipt of a Notice of Dispute, a senior officer of NAC must meet with the Complainant to seek to resolve the Technical Dispute; and b) failing resolution of the Technical Dispute, within 20 Business Days of receipt of the Notice of Dispute, the Technical Dispute may be referred to determination by an Independent Expert by both partie c) If the parties are unable to agree upon the appointment of an independent expert within 10 Business Days, any party may refer the matter to the President for the time being of the Australasian Instit body that includes a similar group of professions, to nominate a suitably qualified and experienced person to act as the independent expert to determine the Technical Dispute. An independent expert appointed must; a) have reasonable qualifications and practical experience in the area of the Technical Dispute; b) have no interest or duty which conflicts or may conflict with his or her function as an expert, he or she being required to disclose fully any relevant interest or duty before his or her appointment; c) not be a current employee or officer of NAC or of the Complainant; or d) related to the Complainant. e) act as an expert and not as an arbitrator. Within 20 Business Days after the independent expert is appointed, each party must produce to the other party and the independent expert a written submission that sets out its opinion about the Tech Dispute and any materials or evidence which that party believes is relevant to the matter in question. Each party will make available to the independent expert and the other party all materials requested by the independent expert and all other materials which are relevant to the independent expert and the other party all materials requested by the independent expert and all other materials which are relevant to the independent expert and the other party all materials requested by the independent expert and all ot
468	5.1.9	Complaints and Dispute Resolution	Within 10 Business Days of the receipt of the last of the written submission, each party may make a further written submission or modify its previously provided written submission. A copy of any new si
469	5.1.9	Complaints and Dispute Resolution	Legal Dispute If the dispute is in relation to a legal matter (Legal Dispute): a) within 10 Business Days of the receipt of a Notice of Dispute, a senior officer of NAC must meet with the Landholder to seek to resolve the Legal Dispute; and b) failing resolution of the Legal Dispute, within 20 Business Days of receipt of the Notice of Dispute, either party may refer the Legal Dispute to a court of competent jurisdiction for determination. Determination Within 50 Business Days after the independent expert is appointed, the independent expert must make a determination to the Technical Dispute. The independent expert may, with the prior written consent of both parties (such consent not to be unreasonably withheld), engage such consultants or advisors as are reasonably necessary to assist the In the absence of fraud or manifest error, the determination of the independent expert will be final and binding upon the parties.
470	5.1.9	Complaints and Dispute Resolution	To ensure stakeholders are informed about the enquiry, concern and complaint procedures, proactive engagement will be undertaken. A particular focus will be on ensuring High Priority Landholders un occur. Table 5.1.9-A of the AEIS outlines NAC's community engagement activities regarding the complaints procedures.
			There are a range of key commitments NAC has made regarding interactions with neighbours: - NAC is committed to regular ongoing engagement and communication with neighbours; - Ongoing dust, noise and vibration, and ground water monitoring to ensure impacts are managed and mitigated; - Preference will be given to at least two positions on the New Acland CRG for landholders or landholder representative groups;
471	5.1.10	Consultation	<ul> <li>For urgent issues relating to the operating mine, near neighbours have access to senior site personnel via a 24hr phone number; and</li> <li>Neighbours will be kept informed of revised Project construction activities that may impact them e.g. road closures.</li> </ul>
1/1	0.1.10		reignoonis min os kopennonneu or reiseu reiseu erosa uenon aenvines maernay impaet nom e.g. road dosures.

. Chemical spills will be minimised as outlined above. All sewage will be treated

n considerations outlined within the ALCAM Report. propriately trained personnel will be on-site throughout the life of the revised

noses) will be installed at strategic points within each building. Fire fighting

fighting capabilities are also addressed in the Emergency Management Plan. Fire

ealth Service) and local Police throughout all stages of the revised Project. NAC ne appropriate time regarding emergency management procedures for the

Iso continue to ensure its neighbours are properly consulted in relation to revised

he particular issue, and may range from a reasonable rejection of the complaint

ess the complaint.

to NAC for further consultation and investigation. In the event that a r sensitive receptors and are communicated through the relevant Landholder

to NAC for further consultation and investigation. In the event that a

arties.

stitute of Mining and Metallurgy or, if no longer in existence, other professional

echnical Dispute and the party's proposed method for resolution of the Technical

's determination. w submission must be provided to the other party.

t the independent expert in making its determination.

s understand the processes for raising concerns and complaints should they

472       5.1.0       Consultation       Table 5.1.10-A of the AES contains an outline of consultation and engagement activities relating specifically to Key activities include, but are not limited to: <ul> <li>The development of the Actanovideges submitter concerns and has subsequently claimed and extended its consultation activities relating specifically to Key activities include, but are not limited to:             <ul> <li>The development of the Actan Management Plan (AMP) which provides information regarding IACs plans for Actand and Its Imme. A community information resource in the Actand area and options for access.</li> <li>The AMP displayed at the Oaky Community Information Centre, including community staff available to answer questions, provide - Gather freedback: and</li> <li>Table 5.1.10</li> <li>Consultation</li> <li>Table 5.1.10.10 for the AES.</li> <li>NAC accepts that residents of Jundaryan have concerns regarding the location of the JRL prote to its decommissioning. As such, NAG</li> <li>Soliton graphement activities:</li> <li>Soliton graphement activities:</li> <li>Consultation</li> <li>NAC accepts that residents of Jundaryan have concerns regarding the location of the JRL prote to its decommissioning. As such, NAG</li> <li>Commitment system (Continue to be considered and the available for readomist specification and engagement activities:</li> <li>Additional Community staff to regularly visit Indargan include:</li> <li>Additional Community staff to regularly visit Indargan residents with Inter specific Information to JDRA meeting; and a solitation</li> <li>Consultation</li> <li>Consultation</li> <li>Consultation and engagement regarding activities at Jundaryan Kouting resensatinton to DRA meeting; andition and engagement wi</li></ul></li></ul>	cland. diate surrounds. For additional information please refer to Section nformation; bad closures. Please note that consultation relating to environmen will strengthen engagement activities in the Jondaryan area in the prough decommissioning and rail construction and until such time d to concerns regarding the rail construction and JRLF decommissi ect timelines; 2 Jondaryan representatives for 2014 calendar year; y of the current NAC operations do not report any adverse populat a 5.1.10 – D outlines a range of community consultation and engage vay in which complaints are resolved will vary according to the par n. A particular focus will be on ensuring High Priority Landholders of the current state of the current state o
473         5.1.10         Consultation         Find exceptoment of the Aciand Management Plan (AMP) which provides information regarding NACs plans for Aciand and Its imme A community information session with the opportunity for further community staff available to answer questions, provide - Cather feedback: and - Information on road closures in the Aciand area and options for access The AMP displayed at the Oakey Community Information centre, including community staff available to answer questions, provide - Cather feedback: and - Information on road closures in the Aciand area and options for access Table 51.10. E provides a detailed overview of consultation and community engagement activities regarding Aciand , transport and i 51.10           475         51.10         Consultation         51.10.10 the ALES. - NAC community information sessions to the Mine's broader community or engagement activities. will continue to - Additional community information sessions to provide indormation, answer questions and respon - Additional community information sessions to provide indormation, answer questions and respon - Additional community information sessions to provide indormation acommunity personaltate. Note that the CRG include - Ongoing engagement with the Indormation and engagement visit to CRG is a Jondarayn in solutine in Table S1.10 Consultation - Diadrayan residentism will continue the CRG include - Ongoing engagement with taco and inning is unlikely to result in diverse health effects, and health professionals in the visit - Preference will be given to at lasse to position on the CRG for a Jondaray and health professionals in the visit - Ongoing engagement with communintal in	liate surrounds. For additional information please refer to Section nformation; bad closures. Please note that consultation relating to environmen will strengthen engagement activities in the Jondaryan area in the prough decommissioning and rail construction and until such time d to concerns regarding the rail construction and JRLF decommissi ect timelines; 2 Jondaryan representatives for 2014 calendar year; y of the current NAC operations do not report any adverse populat e 5.1.10 – D outlines a range of community consultation and engage vay in which complaints are resolved will vary according to the part n. A particular focus will be on ensuring High Priority Landholders of the current state of the c
+ The development of the Adamd Management Pan (AMP) which provides information regarding NACs plans for Adamd and its immer.           473 5.1.10         Consultation         - The AMP displayed at the Qakey Community Information consultation and community staff available to answer questions , provide Gather GedBack, and           474 5.1.10         Consultation         - Information consultation and consultation and community engagement activities regarding Adamd , transport and I Sinto 1 of the AELS           474 5.1.10         Consultation         5.1.10 - B provides a detailed overview of consultation and community engagement activities regarding Adamd , transport and I Sinto 1 of the AELS           475 5.1.10         Consultation         Sinto 1 of the AELS           476 5.1.10         Consultation         Sinto 1 of the AELS           477 5.1.10         Consultation         NAC accepts that residents 0 londaryan have concerns regarding the location of the JRE F prior to its decommissioning. As such, NAC accepts that residents of londaryan neice optor of the Mine's broader community for engagement activities.           476 5.1.10         Consultation         Consultation sections of the actement of the advaryan bistrict Resident and be available for residents to provide information answer questions and respontence will be given to at least one position on environmental monitoring and key milestones.           477 5.1.10         Consultation         Consultation and engagement regarding activities at londaryan bistrict Resident's Association (DRA), including presentative. Note that the CRE for include.           4	nformation; bad closures. Please note that consultation relating to environmen will strengthen engagement activities in the Jondaryan area in the prough decommissioning and rail construction and until such time d to concerns regarding the rail construction and JRLF decommissi ect timelines; 2 Jondaryan representatives for 2014 calendar year; 2 Jondaryan representatives for 2014 calendar year; 4 of the current NAC operations do not report any adverse populat e 5.1.10 – D outlines a range of community consultation and engag vay in which complaints are resolved will vary according to the par n. A particular focus will be on ensuring High Priority Landholders of
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481       5.1.10       Consultation       employment and business development opportunities for Aboriginal and Torres Strait Islander people.         CHAPTER 20       Cumulative impacts       Not applicable         CHAPTER 21       Draft EM Plan       Specific commitments are contained within the EM Plan.         CHAPTER 22       References       Not applicable         CHAPTER 22       References       Not applicable         Appendix G.1.8       Final Landform Technical Report       Existing Commitments - draft EIS	ral Affairs in relation to the revised Project. Further discussions wi
CHAPTER 20       Cumulative impacts       Not applicable         CHAPTER 21       Draft EM Plan       Specific commitments are contained within the EM Plan.         CHAPTER 22       References       Not applicable         Appendix G.1.8       Final Landform Technical Report         Existing Commitments - draft EIS	
CHAPTER 21     Draft EM Plan     Specific commitments are contained within the EM Plan.       CHAPTER 22     References     Not applicable       Appendix G.1.8     Final Landform Technical Report       Existing Commitments - draft EIS	
CHAPTER 21       Draft EM Plan       Specific commitments are contained within the EM Plan.         CHAPTER 22       References       Not applicable         Appendix G.1.8       Final Landform Technical Report         Existing Commitments - draft EIS	
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Appendix G.1.8     Final Landform Technical Report       Existing Commitments - draft EIS	
Appendix G.1.8     Final Landform Technical Report       Existing Commitments - draft EIS	
Existing Commitments - draft EIS	
NAC will progressively rehabilitate the active mine areas over the life of the revised Project to advance the mine closure process. Rei	
mining leases by about 2039. It should be noted that these dates are subject to variation and can be significantly influenced by facto	s that affect the rate of mining, fluctuations in the global economic
the NHCL's Board and Senior Management, and/or change of company ownership.	
NAC will continue to consult with the Department of Natural Resources and Mines (DNRM) in the future to ensure compliance with t	e SCL legislation. As a preliminary task, NAC will lodge a validation
83 that are not SCL, and therefore, will not require specific management to ensure statutory compliance.	
NAC will continue to investigate other possible innovative final land uses for the revised Project. NAC will ensure the applicable gove	
uses. NAC will also be required to seek regulatory approval, provide satisfactory scientific evidence and ensure community expectation	
84 revised Project is consistent with the Local Stakeholder Management Plan and the Stakeholder Engagement Plan located in Appendic	
The final phase of the revised Project's mine closure planning process will commence a minimum of five years from the end of the re	
workforce and the community are appropriately consulted during the development of the revised Project's Mine Closure Plan and the	t a risk based management approach is adopted to address all rele
185     the revised Project's life.	
NAC is committed to delivering 'leading practice' rehabilitation management practices for the revised Project where they are pruden	
487 NAC will continue to seek support from specialist consultancies and qualified professionals to address specific issues as they arise in	
488 NAC will employ a range of recognised water management structures to control rainfall run off to minimise the risk of significant eros	
In summary, NAC will apply the following erosion and sediment control principles to all areas as general practice for the revised Projection and sediment control principles to all areas as general practice for the revised Projection and sediment control principles to all areas as general practice for the revised Projection and sediment control principles to all areas as general practice for the revised Projection and sediment control principles to all areas as general practice for the revised Projection and sediment control principles to all areas as general practice for the revised Projection and sediment control principles to all areas as general practice for the revised Projection and sediment control principles to all areas as general practice for the revised Projection and sediment control principles to all areas as general practice for the revised Projection and sediment control principles to all areas as general practice for the revised Proje	
1) Erosion and sediment control planning will be incorporated into the mine planning process prior to commencing disturbance work	
mining process, to ensure statutory compliance with discharge limits, and to minimise the potential for environmental harm to the d	
2) Disturbance at the revised Project will be kept to an operational minimum. New disturbance areas will be carefully planned and co	ntrolled by the mine planning process. A 'permit to disturb' proce
contractors.	
<ol> <li>Clean water from undisturbed areas at the revised Project will be diverted around disturbed areas.</li> </ol>	
4) Where possible, top soil at the revised Project will be protected against erosion initiated by raindrops, wind, or concentrated flows	
5) Dirty water from disturbed areas at the revised Project will be captured preferentially for re-use on site or treated prior to discharge	
6) Sediment control measures will be implemented for the revised Project to prevent off-site impacts (e.g. contour banks, rock lined to be a set of the revised Project to prevent off-site impacts (e.g. contour banks, rock lined to be a set of the revised Project to prevent off-site impacts (e.g. contour banks, rock lined to be a set of the revised Project to prevent off-site impacts (e.g. contour banks, rock lined to be a set of the revised Project to prevent off-site impacts (e.g. contour banks, rock lined to be a set of the revised Project to be a set of the revised P	<b>y</b> • <b>y</b>
7) Disturbed areas at the revised Project will be progressively rehabilitated as soon as operationally possible to ensure a groundcover	
8) An inspection, monitoring, and corrective action maintenance regime will be applied to the revised Project to ensure erosion and s	
489 NAC will continue to explore innovative erosion and sediment control measures and use recognised industry standards for general p	
For the revised Project's depressed and elevated landforms, NAC will expand its current monitoring programs and grazing trials to inc	prporate the applicable rehabilitation success criteria to guide its r
collect the necessary data to demonstrate:	
<ul> <li>the geotechnical stability of the constructed landform;</li> </ul>	
the successful establishment of a suitable vegetative cover to support the final land use and minimise the potential for erosion; and	
490 • the productivity of the vegetative cover from a grazing (beef production) perspective.	

on 5.1.7 and Appendix I of the AEIS.

ental management and monitoring in the Acland area is covered in Section

e provision of updated information, results of air quality monitoring, and le as the facility is relocated from its current location. Following relocation,

sioning;

ation trends relating to the Mine, NAC recognises that it is important to ensure

agement activities that have been strengthened as part of the AEIS, to assist in

articular issue, and may range from a reasonable rejection of the complaint (with

s understand the processes for raising concerns and complaints should they

will take place between NAC and departmental officers regarding potential

otal to a standard for regulatory approval for surrender of the revised Project's nic environment, legislative and regulatory changes, future business decisions by

on application for the revised Project with the DNRM to delineate those areas

ed in relation to any proposed future changes for the revised Project's final land operation operation of the revised Project's final land uses. NAC will ensure all consultation undertaken for the

ed Mine Closure Plan. NAC will ensure the applicable government authorities, its elevant environmental, social, economic and safety issues/matters at the end of

## ining operations.

ng will be amended as required to keep pace with the dynamic nature of the

cess will be applied to non mining areas to prevent accidental disturbance by

pendix J.3.

trol measure. e functioning efficiently. for Queensland Construction Sites (IEA QId 1996)". s rehabilitation management (e.g. performance and maintenance regime) and to

-			
			While conservative slopes have been selected for the revised Project's final landform design criteria, NAC will ensure that the following additional monitoring parameters are established or expanded to a structure and mining lange surger descent and the second
			elevated landforms for future mine closure and mining lease surrender requirements. • NAC will select several typical profiles normal to the slope contours for each of the revised Project's depressed and elevated landform areas. Sufficient monitoring points will be established at each c
			NAC will establish permanent survey points along each profile;
			<ul> <li>NAC will undertake photographic monitoring and surveying at each of the profiles once or twice a year (e.g. at the start and finish of the wet season);</li> </ul>
			<ul> <li>NAC will progressively review and maintain its slope stability monitoring data as a long term performance measure for the geotechnical stability of the revised Project's depressed and elevated landformance</li> </ul>
491			• NAC will expand its general site inspection regime to include all constructed slope areas. This inspection regime will be conducted monthly during the wet season and possess a formal corrective acti
			This grazing trial includes slope areas and will involve a comparison process with an analogue site in the vicinity of the Mine. The grazing trial program is being managed by the APC and will involve a for
			and local university. This grazing trial program will be a continuous process with new areas progressively added to the original trial area each year. The grazing trial program will be expanded to includ
492			believes the grazing trial program will be a critical assessment tool for demonstrating long term success of its grazing based rehabilitation for the revised Project's future mine closure and mining lease
	Additional Commitmn	ets - AEIS	Тала
			NA
	Appendix H.1	MNES Report	
	Existing Commitments		
			The biodiversity offset will be located on land owned and controlled by the APC (another NHG subsidiary company).
493			The BOMP is provided in Appendix J.8.
			For the Mine and revised Project, NAC has committed to a conservation zone over Bottle Tree Hill and 50 metres either side of Lagoon Creek to protect and enhance ecologically significant areas of rem
			Creek riparian zone. NAC has produced a CZMP to manage these ecologically significant areas within the Mine and revised Project site. The main components of the CZMP includes the revegetation and
			selection, planting methods and rates, timing, etc.), rehabilitation acceptance criteria, a monitoring and reporting regime, a maintenance regime for weeds and poor establishment, and a comprehensi
494			The CZMP is provided in Appendix J.6.
			A TSTP has been developed for the threatened flora species impacted by the revised Project. The TSTP aims ensure no net loss of individuals from the local population and will include:
			<ul> <li>- a discussion of known ecology and reproductive biology of the target species;</li> <li>- a methodology for relocating the target species;</li> </ul>
			- a set of performance indicators to demonstrate successful relocation of the target species;
			- a review of propagation potential for the target species;
			- a methodology for the propagation of the target species;
			- identification of suitable receiving sites for the propagated and/or relocated individuals of the target species; and
			- a regime for long term monitoring and management of translocation sites.
495			The TSTP is provided in Appendix J.7.
			Areas to be cleared will have boundaries clearly marked by tape, pegs or other means. The demarcated boundaries will conform within the limits of design drawings and will comply with the Mine's ex
496			boundaries of clearing where endangered ecological communities or listed species (under the EPBC Act) are present.
			All vegetation clearance will be restricted to that necessary for the safe operation of mining activities. A plan for dealing with fauna during clearing and construction will be prepared to outline protoco
497			fauna.
498			All remnant vegetation that does not require clearing will be protected from further disturbance to enhance its potential for natural regeneration. NAC will continue to take reasonable steps to keep the revised Project site free of Class 1 and Class 2 declared animal pests, in accordance with the requirements of the LP Act. Management of animal
499			Toowoomba Regional Council. NAC undertakes periodic consultation with Toowoomba Regional Council and Agforce to keep up to date with pest management issues.
500			To protect native fauna within the revised Project site, Project employees, contractors or visitors will not be allowed to bring domestic animals, such as cats and dogs, onto the revised Project site.
	Additional Commitmn	ets - AEIS	
			NA
		IESC Submission	
	Existing Commitments	- draft EIS	
			The groundwater monitoring program for the revised Project combines the current monitoring program for the existing Mine with an extended network of monitoring bores enclosing the revised Project Pr
			- be operated in accordance with the revised Project's approved EA, including adoption of suitable guideline criteria and temporal investigation;
			- be used in the continued development and refinement of groundwater impact assessment criteria and investigation triggers;
			- enable verification and refinement (where necessary) of the groundwater modelling predictions presented in this EIS; and
501			- be collated into a database that will be made available to the administering authority on request.
			The groundwater monitoring network will:
			- be installed and maintained by a person possessing appropriate qualifications and experience in the fields of hydrogeology and groundwater monitoring program design to be able to competently maintained by a person possessing appropriate qualifications and experience in the fields of hydrogeology and groundwater monitoring program design to be able to competently maintained by a person possessing appropriate qualifications and experience in the fields of hydrogeology and groundwater monitoring program design to be able to competently maintained by a person possessing appropriate qualifications and experience in the fields of hydrogeology and groundwater monitoring program design to be able to competently maintained by a person possessing appropriate qualifications and experience in the fields of hydrogeology and groundwater monitoring program design to be able to competently maintained by a person possessing appropriate qualifications and experience in the fields of hydrogeology and groundwater monitoring program design to be able to competently maintained by a person possessing appropriate qualifications and experience in the fields of hydrogeology and groundwater monitoring program design to be able to competently maintained by a person possessing appropriate qualifications and experience in the fields of hydrogeology and groundwater monitoring program design to be able to competently maintained by a person possessing appropriate qualifications and experience in the fields of hydrogeology and groundwater monitoring program design to be able to competently maintained by a person possessing appropriate qualifications and experience in the fields of hydrogeology and groundwater monitoring program design to be able to competent design to
			- be constructed in accordance with methods prescribed in the "Minimum Construction Requirements for Water Bores in Australia" (National Uniform Drillers Licensing Committee, 2012) by an approp
			- include a sufficient number of 'bores of compliance' that are located at an appropriate distance from potential sources of impact from mining activities and provide the following:
			- representative groundwater samples from the uppermost aquifer;
505			- background water quality in hydraulically up-gradient or background bore(s) that have not been affected by any mining activities conducted by NAC; and
502			- the quality of groundwater down gradient of potential sources of contamination.
503			Groundwater monitoring will be undertaken by appropriately qualified personnel. Groundwater level measurements, sample collection, storage and transportation will be undertaken in accordance w 1998.
003			The data gathered from the groundwater monitoring program will be collated into a database which will include:
			- a site plan showing sample locations;
			- tabulated results of the monitoring compared with applicable background/trigger levels;
			- all data collected during each monitoring round;
			- a record of chain of custody of the samples from sampling through to analysis;
			- laboratory analysis certificates;
			- groundwater monitoring program reports, and
504			- a description of the procedures, methods and calculations used.
			Groundwater sample analysis will continue to be undertaken by a laboratory accredited by the National Association of Testing Authorities (NATA). Field measurement of water quality parameters will
505			maintained and calibrated in accordance with the manufacturer's recommendations.
506			Data collected from landholder bores, wells, and waterholes will be used in conjunction with the groundwater impact investigation procedure to determine if contingency measures are required.
507			Eight basalt bores will be monitored, including five new bores (Table 9 1 and shown on Figure 9 1).

ed to demonstrate the long term geotechnical stability of the depressed and

ch constructed landform to allow proper scientific evaluation;

ndforms; and action process.

a formal study and report by a professional third party agricultural consultancy dude the revised Project's rehabilitation areas designated for grazing. NAC ase surrender requirements.

remnant vegetation not to be mined and to promote the restoration of the Lagoon and management goals/objectives, planned revegetation techniques (e.g. species ensive long term management regime.

s existing clearance procedures. Particular attention will be paid to defining the

ocols for dealing with injured wildlife and other necessary actions relating to

hal pests will also be consistent with any pest management plans set by the

roject site. Data collected from the groundwater monitoring program will:

make recommendations about these matters; ropriately qualified driller; and

e with procedures conforming to the current industry standard: AS/NZS 5667.1, .11

vill continue to be undertaken using appropriate field equipment that is

508	3		The groundwater monitoring program includes 25 bores in the Walloon Coal Measures (Table 9 1 and shown on Figure 9 1), including seven new bores.
			Groundwater monitoring will be undertaken at selected landholder bores surrounding the revised Project site, following consultation with relevant landholders. Primarily this will include monitoring of
500			groundwater abstraction rates at suitable bores in order to assess potential groundwater level impacts from mine dewatering in the context of any variations to bore pumping rates. Landholder bores to
509	/		within the predicted drawdown impact zone. Section 9.4 details the approach for managing impacts on landholder bores in further detail. During the life of the revised Project, data collected through the groundwater monitoring program, will be used to update and refine the revised Project's groundwater model and it's predictions to refi
510	)		locations).
511			The results of the groundwater model verification and refinement, or the justification that this action is not necessary, will be documented, and as required, presented to the DNRM (regulatory authorit
512	,		NAC will undertake a program of works to characterise and assess predicted impacts on individual groundwater users within the predicted drawdown area. The work program will have the primary outor individual users should groundwater monitoring validate model predictions of groundwater effects on those users. Results of this characterisation work will also feed into the first revision of the groundwater effects on those users.
512			If required in these circumstances, NAC will provide an alternative water supply arrangement to affected third parties. Due to the progressive nature of drawdown within aquifers, the provision of alter
0.10			NAC will implement a groundwater monitoring regime aimed at identifying possible effects to neighbouring groundwater users from the revised Project's operations (i.e., in relation to drawdown levels
			regime on a regular basis in line with the progression of mining over the life of the revised Project. The revised Project's groundwater monitoring regime will be periodically updated in NAC's current En
514			Plan of Operations.
515			NAC will investigate all groundwater complaints related to the revised Project both during the operational phase and following mine closure. NAC will ensure all legitimate groundwater complaints are a The GMIMP will be regularly reviewed over the life of the revised Project, and as required, will be updated based on monitoring results, new outputs from revisions to the groundwater modelling and are
516			operation of the revised Project. The GMIMP will form a supporting document to NAC's Plan of Operations for the revised Project and is provided in Appendix F.
			Work methods will be developed and included in the Contractor Environmental Management Plans. These methods will detail appropriate control and mitigation measures for the revised Project. In ad
517	7		will be implemented to mitigate the impacts of the construction of the railway line crossing of Lagoon Creek. The following outlines the major mitigation measures that will be implemented where practices and the second
			Importantly, current good practice erosion and sediment control measures will be provided as outlined in the Institution of Engineers publication IECA Best Practice Erosion and Sediment Control Guide
			- construction work in creeks will be undertaken in dry weather and conditions of minimal or no flow;
			- weather conditions will be monitored so that work in creek crossings and erosion prone areas will not take place if rain and/or extreme weather (e.g. storms) are forecast;
			- sedimentation fences and bunds will be used to contain fill or excavated material during construction;
			- fill and excavated material will be stockpiled away from gully heads, active creek banks, bank erosion or other unstable areas;
			<ul> <li>- local runoff from disturbed areas will be routed clear of disturbed areas;</li> <li>- assessment of the integrity and effectiveness of erosion control measures will be undertaken at regular periods and following significant rainfall events; and</li> </ul>
518	3		- if required the erection of temporary waterway barriers during construction will include the provision to transfer flows from upstream of the works to the downstream channel without passing though
			The following management strategies will be implemented by the revised Project to protect surface water quality and the downstream receiving environment An operational separation distance of approximately 150 m will be maintained from the edge of the mining pits to Lagoon Creek, which will include a 50 m conservation buffer where no mining activitie Sediment dams, environmental dams, pit water storage and other water management structures (e.g. bunds and drains) will be used appropriately by the revised Project sa per the water management of clean and dirty water catchments where practical, allowed to discharge off site as part of normal overland flow. Water capture within the revised Project's potentially contaminated areas, such as infrastructure areas, will receive additional levels of treatment (e.g. oil-water separators and bunding). Water capture within the revised Project's potentially contaminated areas, such as infrastructure areas, will receive additional levels of treatment (e.g. oil-water separators and bunding). Water capture within the revised Project's potentially contaminated areas, such as infrastructure areas, will receive additional levels of treatment (e.g. oil-water separators and bunding). Water capture collected for recycling by a licensed contractor. Progressive rehabilitation will be undertaken as the revised Project's operational areas become available to reduce the amount of disturbed areas. Fuel, dangerous goods and hazardous chemicals will be expanded to incorporate the revised Project. Spill recovery and containment equipment will be available when working adjace NAC's existing SOP for spills and emergency response procedures will be expanded to incorporate the revised Project. Spill recovery and containment equipment will be available when working adjace NAC's current water quality monitoring program will be expanded to incorporate the revised Project. Spill recovery and containment equipment will be available when working adjace NAC's current water quality fonysio-chemical parame
519			emergency response, establishment of 'standard operating procedures' for key operational aspects, and development of a responsibility matrix for operational and reporting matters.
520	)		As per the management intent under the EPP Water, where possible NHG will seek to improve the environmental values of the Lagoon Creek catchment through the preservation of the main channel ar
	Additional Commit	tmnets - AEIS	
			The NHG is committed to undertaking baseline surveys at all groundwater bores within its predicted area of impact; it is envisaged that this program of works will identify the source aquifer of many of and therefore allow more accurate groundwater modelling related to these. The NHG is committed to incorporating these third-party groundwater entitlements in future iterations of the groundwater in the source accurate groundwater modelling related to these. The NHG is committed to incorporating these third-party groundwater entitlements in future iterations of the groundwater is a source accurate groundwater modelling related to these.
521	Appendix N	IESC Submission Response	allows it to occur), such as the first 3-yearly review as outlined in the revised Project's GMIMP.
	Appendix I	Offset Strategy	
	Existing Commitme	ents - draft EIS	
			Prior to construction, a Biodiversity Offset Package will be prepared that will: - identify and secure an offset package/s – following completion of ecological assessments of proposed offset sites;
			- secure a legally binding mechanism on Title; and
522	2		- develop an Offset Area Management Plan (OAMP) for each offset management area.
			There are several legally binding mechanisms available that may be applied to the final Biodiversity Offset Package including:
			- 'gazettal as a protected area (e.g. a nature refuge)' under the NCA; - 'voluntary declaration of an area of high nature conservation value' under the VMA; or
523	2		- 'voluntary declaration of an area of high nature conservation value' under the VIVIA; or - use of a 'covenant' under the Land Title Act 1994 or Land Act 1994.
525	1		

of groundwater levels and groundwater quality in conjunction with metering s targeted for monitoring will be selected based on a thorough review of bores

eflect the actual activities undertaken on site (e.g. mine development and sump

ority).

- utcome of determining the most appropriate means of 'Make Good' for undwater model where possible.
- ternative supplies may be staged.
- rels and water quality). NAC will review and update its groundwater monitoring Environmental Monitoring Plan, which forms a supporting document to the NAC

re addressed in an expedient manner. d any other applicable groundwater management matters that relate to

addition to these measures, the specific environmental management conditions practicable during the construction phase.

idelines (2008) to comply with the EPP (Water). These measures include:

ugh the disturbed construction site.

vities will be undertaken. ties will occur within the proposed conservation zone. ent plan (WMP).

ured by these devices will be preferentially reused on site, while captured oil will

acent to sensitive drainage paths and within other areas, such as workshops. ting procedures to minimise the possibility of a reoccurrence of the original issue. s effective, to demonstrate compliance with the Mine's strict discharge limits,

thly basis, or when water is present, and heavy metals, nutrients, anions and

r quality variables will include basic water quality indicators, suspended solids,

hese management actions will focus on handling, storage, spill containment,

and the riparian zone 50 m either side of the creek

of the currently 'unknown aquifer' bores as well as bores used in entitlements, er model where possible (i.e. if the planned program of baseline assessments

504		An OAMP will be prepared for each offset site to meet the requirements of the EPBC EOP and QBOP. The OAMPs will include information on the threats and the management actions required at each of
524		costs of management and will provide a monitoring program that will extend until the management outcomes are achieved. Management actions may include:
		- management of grazing;
		- weed management;
		- feral pest management;
		- management of fire; and
525		- if applicable, active revegetation.
		The length of active management will be influenced by the condition of vegetation, type of habitat, climatic conditions and vegetation on site, as well as existing management issues. The OAMPs will in
		Commonwealth departments, including regular monitoring and reporting such as those
526		conditions granted for the Stage Two Project in 2006.
Additional Comm	hitmnets - AEIS	
		NA
	In pit Tailings Storage Facility	
Appendix J.1	Management Plan	
Existing Commitr		
		The surface water from all receiving and holding dams on ML50170 and ML 50216 will be monitored regularly to ensure their operation is not causing unauthorised environmental harm either on or off
F 2 7		into the ITSFs is minimised through the use of water diversion bunds and drainage channels. A detailed Water Resource Management Plan for the revised Project is provided in Appendix J.4. Water level from the ITSFs to the CUPP. The surface area of a pine transporting real-pine diversion bunds and drainage channels.
527		from the ITSFs to the CHPP. The rupture of a pipe transporting reclaimed tailings water to the CHPPs will be dealt with under current spill procedures.
		The location of the ITSFs below surface level reduces the impacts of dust generated by exposed tailings to the environment. In the event that exposed tailings do become a source of excessive dust, the
		<ul> <li>If operationally possible, additional water is applied to exposed tailings surface via spraying or flooding.</li> </ul>
		Disturbance of the exposed tailings surface is kept to a minimum.
		<ul> <li>If operationally possible, the exposed tailings surface will be armoured with moist coarse rejects.</li> </ul>
		Rehabilitation activities will be commenced as early as operationally possible.
528		If necessary, the use of suitable alternate dust mitigation measures (e.g. chemical surfactants and foggers) will be investigated.
520		Table 6-1, Table 6-2 and Table 6-3 present the statutory, operational and environmental monitoring and reporting requirements for the operation and management of the ITSFs. Rehabilitation monitor
529		becomes an applicable issue for the ITSFs.
		The main statutory reporting requirement for the ITSFs is an annual regulated dam inspection of the ITSFs which includes the assessment of the general condition and integrity of the embankment walls
		(MRL). The inspection will be undertaken by a suitable qualified Registered Professional Engineer on or about 1 October but prior to the 1 November. The inspection will be reported to the Department
530		inspection. NAC's Technical Services Superintendent is responsible for ensuring compliance with this requirement.
531		Monitoring and reporting records will be kept for general DEHP inspections and requests for information as required under the revised Projects EA. NAC's Environmental Officer is responsible for the m Management Plan outlines the In-Pit Tailings Monthly Inspection Field Sheet.
551		
532		A separate plan will be developed that will outline the decommissioning and rehabilitation works to be undertaken for ITSFs. Timing for the completion of all decommissioning works will be influenced
		Rehabilitation of the disturbance area of ITSFs will be appropriately costed and incorporated into the financial assurance and Schedule of Rehabilitation of NAC's Plan of Operations. The rehabilitation
		external contractors.
		In summary, future rehabilitation activities will include:
		<ul> <li>a suitable period for desiccation for the deposited tailings;</li> <li>capping of the tailings area with a minimum one meter thick layer of course rejects to provide an impermeable cap above the tailings. The rejects will be dumped and pushed with low ground pressuitable period.</li> </ul>
		consistent cap;
		<ul> <li>placement of a layer of inert spoil above the rejects layer to provide a further seal above the tailings and allow integration into the surrounding topography.</li> </ul>
		• final contouring of the covering spoil into the surrounding topography to improve drainage and visual amenity and meet slope stability requirements;
		<ul> <li>establishment of drainage structures to ensure free drainage off the capped ITSFs;</li> </ul>
		topsoiling and seeding with appropriate native and exotic pasture species; and
EDD		<ul> <li>ongoing monitoring of rehabilitation to determine success in terms of erosion, stability, groundcover, sustainability and crust penetration.</li> </ul>
533 534		NAC will continue to investigate alternative rehabilitation strategies for the ITSFs and consult with the DEHP if any new methods are proposed. Other beneficial uses for the tailings will be explored in c
		NAC will maintain responsibility for the ITSFs and will be unable to surrender the EA, Mining Leases, or recover the deposited financial assurance until the ITSFs have been appropriately rehabilitated and
535		Environmental Audit Statement (EAS). The FRR and EAS will include a summary of how NAC has met the conditions of its EA over the life of the mine, the relevant environmental monitoring activities, a
Additional Comm	hitmnets - AEIS	
		NA
	FINAL LAND USE AND REHABILITATION	
Appendix J.2	PLAN	
Existing Commitm	nents - draft EIS	
		Rehabilitation strategies for the Mine and revised Project will include all areas of disturbance and will be reviewed on a regular basis in order to take into account any changes to mine operations, chan
536		and/or through the introduction of future innovations in rehabilitation techniques.
		The overriding principle for the rehabilitation program at the Mine and revised Project is that the land should be returned to a post-mine land use that will be stable, self-sustaining and will only require land use for areas disturbed by mining at the Mine and revised Project will be a self-sustaining vegetation community using appropriate pasture (evotic) and pative grasses and scattered plantings of patients of patients of the self-sustaining and will be a self-sustaining vegetation community using appropriate pasture (evotic) and pative grasses and scattered plantings of patients of the self-sustaining and will be a self-sustaining vegetation community using appropriate pasture (evotic) and pative grasses and scattered plantings of patients of the self-sustaining and will be a self-sustaining vegetation community using appropriate pasture (evotic) and pative grasses and scattered plantings of patients of the self-sustaining of the self-sustaining self-sustaining and will be a self-sustaining vegetation community using appropriate pasture (evotic) and pative grasses and scattered plantings of patients of the self-sustaining self-sustaining vegetation community using appropriate pasture (evotic) and pative grasses and scattered plantings of patients of the self-sustaining vegetation community using appropriate pasture (evotic) and pative grasses and scattered plantings of patients of the self-sustaining vegetation community using appropriate pasture (evotic) and pative grasses and scattered plantings of patients of the self-sustaining vegetation community using appropriate pasture (evotic) and pative grasses and scattered plantings of patients of the self-sustaining vegetation community using appropriate pasture (evotic) and pative grasses and scattered plantings of patients of the self-sustaining vegetation community using appropriate pasture (evotic) and patients of the self-sustaining vegetation community using appropriate patients of the self-sustaining vegetating (evotic) appropriate patients of the self
537		land use for areas disturbed by mining at the Mine and revised Project will be a self-sustaining vegetation community using appropriate pasture (exotic) and native grasses and scattered plantings of na landform, protect the downstream water quality and ensure an economic level of pastoral production is achieved by the Acland Pastoral Company (APC) post mining.
JJ1		The rehabilitation strategies for each of the four main disturbance domains of solid waste disposal areas (spoil, waste dumps, reject dumps), tailings dams, mine infrastructure areas and linear infrastructure areas
		rehabilitation acceptance criteria proposed later in the report relates to all four domains as they are classified as "disturbed by mining" and will receive the same rehabilitation treatment. For example
		seeded. Once the tailings areas are capped with mine spoil they will receive a similar treatment to other areas of mine spoil/waste dumps etc Mine and linear infrastructure areas will generally not re
538		similar to the solid waste disposal and capped tailings dams.
		Stable landforms will continue to be progressively established as part of the mining process using integrated mine planning and proven earthmoving techniques. The final slopes will be engineered to e
		management structures to manage storm runoff. Established topsoil and revegetation techniques will be applied to create a self-sustaining vegetation community cable of supporting grazing. A regular
539		demonstrate rehabilitation success, guide maintenance activities and to develop a long term management regime.

n offset site to abate those threats. Each OAMP will contain an estimate of the

incorporate conditions of approval required by the State and

off-lease. Surface water will be managed upstream of the ITSFs to ensure runoff evels within the ITSFs will be managed via the maximisation of water recycling

he following strategies will be applied on an 'as required' basis:

toring will be incorporated into future updates of the ITSF Management Plan as it

alls, review of Design Storage Allowance (DSA) and Mandatory Reporting Level ent of Environment and Heritage Protection (DEHP) within 28 days of the

maintenance and upkeep if all monitoring records. Appendix A of this

ed by the rate of tailings dewatering and tailings placement objectives. on costs for the ITSFs will be a third party cost sourced from quotes provided by

sure dozers at a rate that prevents tailings bow waves and provides a smooth

consultation with the DEHP.

and the DEHP has accepted the Final Rehabilitation Report (FRR) and s, and evidence of demonstrated rehabilitation success.

anges in legislative requirements, results of on-going studies and monitoring

uire maintenance commensurate with the proposed final land use. The post-mine native tree and shrub species. The attainment of this land use will stabilise the

tructure for the Mine and revised Project sites are summarised in Table 4-1. The ole, tailings emplacements will be capped with mine spoil then, topsoiled and t require spoil placement or capping but receive topsoil and seeding treatments

o ensure geotechnical stability and designed to incorporate the required water Ilar monitoring regime and grazing trial program will be implemented to

_	
540	The Mine's proposed final voids will be backfilled by the existing mining operations or progression of the revised Project. The Central Pit's waste rock material will backfill the North Pit's final void. The South Pit's final void will be backfilled with waste rock material from the revised Project's Manning Vale East Pit and coarse rejects from the CHPP.
541	The revised Project's final voids will be reshaped to depressed landforms to ensure they can support the proposed final land use of grazing. NAC has produced a Final Landform Technical Report (SKM 2 landforms. The Final Landform Management Report (SKM 2013) is provided as an Appendix for the New Acland Coal Mine Stage 3 Project – Environmental Impact Statement (SKM 2013).
541	The revised Project's out-of-pit dumps (elevated landforms) will be rehabilitated using 10 m lifts on external dump faces, with a maximum working dump lift height of 30 m. Each new out-of-pit dumps
542	degrees (15% to 30%) depending on operational circumstances. The Final Landform Technical Report (SKM 2013) provides further details on the rehabilitation of out-of-pit dumps (elevated landforms)
	NAC manages the operation and rehabilitation of its in-pit and out-of-pit TSFs via specific management plans and is required to report annually on the performance of these structures to the Regulatory with a benign material, topsoiled and seeded with native pasture (exotic) grass species. As a contaminated land requirement, these structures are registered on the Environmental Management Registered on the Regulatory with a benign material, topsoiled and seeded with native pasture (exotic) grass species. As a contaminated land requirement, these structures are registered on the Environmental Management Registered on the Regulatory of the registered on the Environmental Management Registered on the Regulatory of the registered on the Registered on the Regulatory of the registered on the Registere
543	term site-based management plan at the time of mine closure.
	Contour banks are constructed after final profiling of the final landforms to control rainfall run off. The contour banks are designed and constructed to reduce slope length. Run off is conveyed along the final landforms to control rainfall run off.
544	a sediment dam. Surface run off from all disturbed areas will pass through sediment dams to reduce the levels of suspended solids. The sediment dams normally discharge to an environmental dam be to minimise the potential for off-site discharge.
544	NAC's rehabilitation strategy relies on the progressive rehabilitation of areas disturbed by mining using a range of proven techniques that include:
	• appropriate pre-disturbance preparation, such as a topsoil management plan and integrated mine planning to efficiently coordinate mining activities;
	<ul> <li>implementation of practical landform designs to prevent erosion and establish long term geotechnical stability;</li> </ul>
	<ul> <li>identification of an appropriate post-mine land use consistent with local environmental constraints;</li> <li>avoiding the placement of sodic/dispersive materials near the surface of the dumps or within the plant root zone;</li> </ul>
	<ul> <li>appropriate management of the final TSF waste, including capping with benign waste rock, revegetation to form a stable cover to resist erosion and establishment of a long term site based management</li> </ul>
	revegetation trials for selection of appropriate revegetation species and methodologies and development of a long term management regime;
	<ul> <li>progressive rehabilitation of disturbed areas using appropriate rehabilitation procedures;</li> <li>a rehabilitation monitoring program to access rehabilitation success against accepted performance indicators; and</li> </ul>
545	<ul> <li>a rehabilitation monitoring program to assess rehabilitation success against accepted performance indicators; and</li> <li>a corrective action program to address areas of substandard rehabilitation.</li> </ul>
	A progressive rehabilitation program will continue to be implemented for the Mine and revised Project and will be administered by each Plan of Operations. Progressive rehabilitation will commence a
	The main features of the progressive rehabilitation process are: • construction of waste dumps in 10 m lifts on external dump faces, with a maximum working dump lift height of 30 m;
	<ul> <li>development of a stable slope design that incorporates appropriate water management structures (e.g. contour banks, etc.);</li> </ul>
	• use of suitable topsoil, which will either be stockpiled until recontoured areas are available or respread immediately across available recontoured areas;
	<ul> <li>contour ripping to water promote infiltration and minimise run off;</li> <li>seeding with an appropriate seed mix (grass, shrub and tree species) prior to the commencement of the wet season to maximise the benefits of subsequent rainfall;</li> </ul>
	<ul> <li>application of appropriate fertiliser or other soil ameliorants for plant establishment if required; and</li> </ul>
546	the battering down of final void slopes to create depressed landforms that can safely support the proposed final land use.
F 47	NAC has developed a Topsoil Management Plan (SKM 2013) for the Mine's and revised Project's topsoil management to ensure leading practice in this critical aspect of rehabilitation. The Topsoil Mana
547	component of the FLURP, and is provided as an Appendix to the New Acland Coal Mine Stage 3 Project – Environmental Impact Statement (SKM 2013).
	In general, suitable topsoil will be stripped from each of the Mine's and revised Project's new disturbance areas for subsequent use in the rehabilitation program. The topsoil will be stripped as defined
548	areas are available for rehabilitation purposes or directly returned immediately across the areas to be rehabilitated. The topsoil resources present are more than adequate for the rehabilitation of the version of the
	<ul> <li>NAC's revegetation methods for all types of mine disturbed land normally consist of the following practices:</li> <li>respreading stockpiled or freshly stripped topsoil;</li> </ul>
	• contour ripping;
	application of appropriate fertiliser for plant establishment, after soil chemical analysis, if required;
549 550	seeding with an appropriate seed mix.      Rehabilitated areas will be monitored in order to identify any areas in need of maintenance. Rehabilitated areas that have not achieved the designated acceptance criteria will be repaired.
	Supplementary plantings or seeding may be used to increase species diversity and/or groundcover. Maintenance work will be performed to repair any areas exhibiting excessive soil erosion. If problem
551	substandard rehabilitation and to identify appropriate methods for repair.
	A Life of Mine (LoM) Plan has been developed for New Acland Coal Mine (including the revised Project). This LoM Plan helps to inform the mine closure planning process and establishes a basis for final based on economic, geological and engineering factors. In addition, this LoM Plan will be used to guide the day-to-day operational activities (i.e. to guide medium and short term mine planning). As a re
552	prepared towards the end of the revised Project's life. This approach is consistent with industry leading practice.
	A Mine Closure Plan will be submitted to the Regulatory Authority at least five years prior to the proposed surrender of New Acland Coal Mine's environmental authority and associated mining tenure.
553	Operations.
	On the completion of mining activities, infrastructure will be treated as follows: • mine roads will be left behind for use as farm roads or if not required, rehabilitated;
	<ul> <li>water dams will remain if required by the relevant landowner and approved by regulators, otherwise, they will be rehabilitated;</li> </ul>
	• buildings, plant and equipment will be removed and the surface rehabilitated, including the CHPP, workshop, offices, storage tanks and material handling facility and train loadout facility;
	<ul> <li>concrete pads will be covered with benign waste rock, topsoiled and revegetated or removed and disposed to the nearest landfill;</li> <li>contaminated land management will be completed as required under the Environmental Protection Act 1004;</li> </ul>
	<ul> <li>contaminated land management will be completed as required under the Environmental Protection Act 1994;</li> <li>all TSFs will possess a competent final cover system; and</li> </ul>
554	• the final voids remaining at the end of the mine life will be battered down to form depressed landforms to support the proposed final land use.
555	A Final Rehabilitation Report and Environmental Audit Statement will be produced as a statutory requirement of the surrender process for environmental authorities and their associated mining tenure
556	Cumulative indicative rehabilitation targets are given in Table 4-3. Scheduling and reporting of rehabilitation is outlined in each Plan of Operations. Changes and updates to the mine plan and rehabilit
330	Table 6-2 illustrate the proposed rehabilitation acceptance criteria for all areas disturbed by mining. The acceptance criteria does not apply to conservation zone areas within the Mine and
557	Management Plan (SKM 2013), which is provided as an Appendix of the New Acland Coal Mine Stage 3 Project – Environmental Impact Statement (SKM 2013).
550	At the commencement of rehabilitation works in a new area, permanent photograph points will be established and delineated with a star picket or similar. The geographic location and bearing of the planet monitoring of the
558	permanent monitoring site. This will be an on-going process over the life of the Mine and revised Project. An Annual Rehabilitation Report will be submitted to the Regulatory Authority with each Annual Return. This report will be qualitative and comprise a pictorial display of new rehabilitation areas and a
	areas. The Annual Rehabilitation Report will include the following:
	1) a summary description of visual monitoring for active rill/gully erosion within the first 12 months after seeding and after heavy rainfall events;
	<ul> <li>2) photographs of the new rehabilitation areas from permanent photographic points;</li> <li>3) a summary record of treatments used including seeding rates, soil treatment, tensoil source; and</li> </ul>
559	<ul> <li>3) a summary record of treatments used, including seeding rates, soil treatment, topsoil source; and</li> <li>4) a summary description of any failure of rehabilitation works and maintenance conducted or proposed to be conducted for these areas.</li> </ul>
I	

he Centre Pit's final void will be backfilled by tailings from the CHPP. While the

M 2013) that outlines the methodology behind the development of the depressed

np will be recontoured from angle of repose slopes to a range of 8.5 degrees to 17 ms).

tory Authority until they are rehabilitated. In general, these structures are capped gister (EMR) under the Environmental Protection Act 1994 and will require a long

ng the contour banks to a rock lined waterway or onto natural ground, and then to n before eventual discharge off site. Water in the environmental dams is recycled

ement plan;

e as soon as possible when areas become available within the operational land.

lanagement Plan (SKM 2013) is administered and implemented as a key

ned by the soil surveys and will either be stockpiled until suitable re-contoured he waste rock dumps and other disturbed areas.

lem areas occur, they will be investigated to determine the reason for

inal landform design and management. The LoM Plan will be continuously revised a result of this continuous planning process a competent Mine Closure Plan will be

re. The implementation of the Mine Closure Plan will be through the Plan of

ures.

pilitation schedule will be made through the Plan of Operations process. The and revised Project as these are covered separately in the Conservation Zone

e photograph should be recorded using GPS. This point will form the start of a

d any significant rehabilitation events over the 12 months in older rehabilitation

E40			Formal revegetation monitoring will be conducted by a competent person and will occur every two years. New rehabilitation areas will be added as necessary (i.e. dependant on establishment succe factors). This formal monitoring regime will apply to Mine areas and the revised Project from adoption of this FLURP (i.e. following replacement of the Mine's previous FLURP), and will continue until currender of the occessive mining to pure
560			surrender of the associate mining tenure. It is proposed that rehabilitation will be monitored every two years until success has been achieved. During this monitoring the revegetation will be compared against the success criteria proposed in areas). The following information will be collected for rehabilitation areas during the biennial monitoring visits:
			1) photographs of existing and new rehabilitation areas from permanent photographic points;
			2) record to treatments used for each new rehabilitation, including seeding rates, soil treatment, topsoil source;
			3) botanical description of the rehabilitation area, including percentage cover and species diversity;
			4) selective measurement of ESP, CEC and RZS; E) presence and abundance of used species:
			5) presence and abundance of weed species; 6) landform monitoring, including slope angle, contour bank spacing, waterways, presence/absence of active rill/gully erosion; and
			7) any failure of rehabilitation works and maintenance conducted or proposed to be conducted for these area.
561			, , ,
562			To enhance the ecological outcomes of the Mine and revised Project and to address Commonwealth and State statutory requirements, NAC has committed to the implementation and management of the former mined and surrounding lands. These matters are managed separate of the FLURP and are briefly summarised in Sections 8.2 to 8.5.
	Additional Commitmne	ets - AEIS	
			NA
	Appendix J.3	TOPSOIL MANAGEMENT PLAN	
	Existing Commitments		
	5		Topsoil material resource assessments will be carried out in advance of mining to confirm the accuracy of the pre-mine topsoil survey data. These assessments may include:
			topsoil depth confirmation;
			• possible additional chemical analysis to confirm suitability (pH, EC, CI-, CEC and Cations), particularly around soil type boundaries or where variation is suspected in relation to the original soil survey
E40			<ul> <li>dispersion characteristics for erosion potential; and</li> <li>review of existing soils data and experience gained in topsoil recovery of adjacent mining areas.</li> </ul>
563 564			NAC has prepared a Standard Work Procedure to define the topsoil stripping process for the revised Project. This is located in Appendix A.
001			
			A general protocol for soil handling during topsoil stripping is presented below and includes soil handling measures which optimise the retention of soil characteristics (in terms of nutrients and micro (e.g. seed banks).
			• Topsoil will be recovered using appropriate equipment. Depending on compaction and recovery rates, deep ripping may be required to maximise topsoil recovery with care taken not to mix topsoil
			• During the stripping process there may be some unexpected changes in the depth and the nature of the soil. Where practical the inclusion of obviously poorer quality material will be avoided such a
			Proposed pre-stripping assessments will help manage unexpected topsoil changes.
			<ul> <li>It is preferable for material to be stripped when it is in a lightly moist condition; soil is slightly moist when colour is darker than when it is dry and the soil cannot be rolled by hand into a bolus.</li> <li>Contractors bringing machinery onto the site will be required to present such machinery in a weed-free condition. Advice regarding local weed species should be obtained from the local governmer</li> </ul>
			<ul> <li>Contractors binging machinery onto the site will be required to present such machinery in a weed-nee condition. Advice regarding local weed species should be obtained from the local government</li> <li>Disturbance areas will be stripped progressively, as required, in order to reduce erosion and sediment generation, to reduce the extent of topsoil stockpiles and to utilise stripped topsoil as soon as</li> </ul>
565			embankments and batters, will be undertaken as soon as practicable after these structures are completed or as areas are no longer required for operational purposes.
			Stockpile locations will be subject to the following management actions.
			Grazing stock, machinery and vehicles will be excluded.
			<ul> <li>Overland water flow onto or across stockpile site will be kept to a practical minimum.</li> <li>Where possible, stockpile sites will be selected to maximise protection from `the prevailing winds, particularly if the material is friable in nature (e.g. sand or silt). Establishing stockpiles within a buf</li> </ul>
			<ul> <li>All long-term topsoil material stockpiles will be located outside the active mine path and away from drainage lines.</li> </ul>
			Drainage from higher areas will be diverted around stockpile areas to prevent erosion.
			As required, sediment controls will be installed downstream of stockpile areas to collect any run-off.
566			Topsoil stockpile locations will be strategically located to assist the sequence of future rehabilitation.
			Separate stockpiles for topsoil and subsoil will be formed in low mounds of minimum height (3 m maximum) and maximum flat surface area, consistent with the storage area available. Stockpiling using the storage area available in the storage area available.
567			type dumps, is preferable. Long term stockpiles will be revegetated to minimise loss of soil quality. Rrevegetating stockpiles will minimise weed infestation, maintain soil organic matter levels, mainta stockpile.
507			Stockpiles to be retained for a period greater than six months will be sown with a cover crop if a natural vegetative cover does not establish. Topsoil stockpiles will be clearly signposted for easy ident
568			plants on the stockpiles will also be monitored and control programs implemented as required.
			In general, topsoil stockpiles will be managed so that:
			storage time is minimised;
			<ul> <li>Sodosols will be stockpiled separately (if they are to be used in rehabilitation);</li> <li>locations are accurately surveyed and data is recorded relating to the soil type and volume;</li> </ul>
			<ul> <li>stockpiles are located outside proposed mine disturbance areas and outside of the Lagoon Creek floodplain;</li> </ul>
			<ul> <li>stockpiles are located outside proposed mine distributive areas and outside of the Lagoon creck hoodplain;</li> <li>stockpiles are located in areas away from drainage lines or windy areas in order to minimise the risk of soil and wind erosion;</li> </ul>
			<ul> <li>stockpile surfaces are seeded (if natural revegetation does not provide adequate cover);</li> </ul>
			• good vegetative cover will be maintained on stockpiles and on top-dressed areas until ground cover is well established by excluding stock and controlling weed growth;
			• appropriate weed control strategies are implemented particularly for any noxious weeds (Immediate revegetation will provide vegetative competition to assist with the control of undesirable plant
			where practical and applicable, stockpiles will have sediment control measures installed and be located within the catchment of sediment control dams;     stockpiles are delineated to avoid vehicle and pedestrian tooffic and assidental removal (disturbance) and
540			<ul> <li>stockpiles are delineated to avoid vehicle and pedestrian traffic and accidental removal/disturbance; and</li> <li>topsoil stockpiles possess a suitable embankment grade to limit the potential for erosion of the outer pile face.</li> </ul>
569 570			Progressive rehabilitation will be undertaken to stabilise disturbed areas as quickly as practical and to limit erosion. Erosion and sediment control measures will be employed, which are consistent will
0,0			The design parameters for the construction of erosion control work such as rock armoured or grass lined waterways will be in accordance with established principles for engineering and soil conserva
571			concentration, rainfall intensity, erosivity, gradient, scour velocities and flow estimations.
572			The erosion control options that may be employed throughout the life of the revised Project are summarised in Table 5-2.
			A progressive rehabilitation program will be implemented throughout the life of the revised Project and reported in each Plan of Operations, and will commence when areas become available within
			The main features of the progressive rehabilitation process are:
			<ul> <li>use of suitable topsoil, sourced either from stockpiles or respread immediately after stripping across available recontoured areas;</li> <li>contour ripping as an erosion control measure;</li> </ul>
			<ul> <li>seeding with an appropriate seed mix (grass, shrub and tree species) prior to the commencement of the wet season to maximise the benefits of subsequent rainfall;</li> </ul>
			<ul> <li>application of appropriate fertiliser for plant establishment if required; and</li> </ul>
573			• application of gypsum if required.

ess which may be affected by rainfall, seedling establishment and other seasonal I all rehabilitation works are deemed successful at New Acland Coal Mine for

n Table 6-1 (general grazing areas) and Table 6-2 (treed areas within grazing

of a number protected ecological areas that will form part of the final land use for

y;

o-organisms) favourable to plant growth and propagules for natural regeneration

I with sodic subsoil.

as subsoil clay with mottles, saline material and material dominated with stones.

nt or the Department of Agriculture, Fisheries and Forestry. s possible for rehabilitation. Rehabilitation of disturbed areas, such as roads,

ffer treed zone or in the lee of hills, may be appropriate for these circumstances.

ing a greater number of low (<2 m high) mounds, rather than a few high spoilain soil structure and microbial activity and maximise the vegetative cover of the

tification and to avoid any inadvertent losses. The establishment of declared

t species.);

th the practices described in DME (1995). ation earthworks. A number of variables must be considered, such as time of

the operational land.

574         design lapses, then if suitable, secondary model (suitable handles piled in passion, followed)           754         The inter rehabilitation and subgrass yicks the following passars which are skepted to insiste into a followed in terms of the second inter the interpret into a followed into a followed interpret into a followed into followed into a followed into a followed into a follo	n. followed by the primary media (topsoil).  pred to minimise the loss of topsoil material respread on rehabilitated areas and promote successful vegetation estal vertories and proposed stripping volumes.  lation of the soils. and land capability of the area to be rehabilitated.  ative tree species to establish revegetation cover as early as possible. to limit stope lengths and control run-off. suspended sediment. on control and revegetation success. subsurface materials to the surface (e.g. large rock). Ripping should only be sufficient to allow equipment to work e and corrid significant weed outbreaks using chemical or mechanical control methods.  sistent manner to ensure rehabilitation success. of supporting vegetation communities adapted to the local environment. The stability of the post-mine landform wi maintenance requirements are consistent with the proposed post mining land use.  d Project site to dryland cropping. Topsoil management, drainage and slope conditions will be ortical factors for the cess. sessed regularly in conjunction with overall rehabilitation assessments. management in consultation with the relevant government agencies. The review will reflect changes in environment i mining period.  Assessing Hazard Categories and Hydraulic Performance of Dams' (DERM, 2012). med person for their structural, geotechnical and hydraulic adequacy and the results of the assessment reported to hour interval time on all pump maintenance, stepped in complexity and thoroughness as the pump accumulates ho hour interval time on all any maintenance, stepped in complexity and thoroughness as the pump accumulates for hour interval time on all analysis of the data will allow inefficiencies in the system to be identified and targeted or response to an environmental emergency. The discharge of water from the water management incurs are indiv fields emergency. The discharge of water from the water management area tructures are indiv fields emergency response plana site individue indeficiencies in the system to be iden	574	
set         • Advance to regord regulations of the mybeliation access agains started starspherotismics and papered stepping values.           • Advance the operative to regulation access of the starspherotism of the provide starspherotism of the star	ventories and proposed stripping volumes. litation areas. lation of the soils. and land capability of the area to be rehabilitated. attive tree species to establish revegtation cover as early as possible. to limit signe lengths and control run-off. suspended sediment. on control and revegtation success. subsurface materials to the surface (e.g. large rock). Ripping should only be sufficient to allow equipment to work efficient of significant weed outbreaks using chemical or mechanical control methods. sistent manner to ensure rehabilitation success. of supporting vegatelian communities adapted to the local environment. The stability of the post-mine landform will maintenance requirements are consistent with the proposed post mining land use. d'roiget site to dryland cropping. Topsoil management, drainage and slope conditions will be critical factors for the sesses dregularly in conjunction with overall rehabilitation assessments management in consultation with overall rehabilitation assessments continually improve the success of the program. The performance outcomes for the TMP are: and and g of soils. Assessing Hazard Categories and Hydraulic Performance of Dams' (DERM, 2012). meed person for their structural, geotechnical and hydraulic adequay and the results of the assessment reported to thour interval time and laumin maintenance, stepped in complexity and thoroughnees as the pung accumulates ho & All flood defences will have annual inspections after each wet season and significant flow event. Levees will not be the risk of high to extreme rainfall events. g of existing water uses and analysis of the data will allow inefficiencies in the system to be identified and targeted 1 response to an environmental emergency. The discharge of water from the water management structures are inclu- tick signing water uses and analysis of the data will allow inefficiencies in the system to be identified and targeted 1 response to an environmental emergency. The discharge of water from the water ma		The volume of growth media material available will be reconciled with the estimated volume needed for successful rehabilitation. The application procedure is essentially the reverse of the stripping pr design slopes, then if suitable, secondary media (subsoil) should be placed in position, followed by the primary media (topsoil).
Image: Section of the section is repaired and the model is an and sequiption in the stability of the s	ventories and proposed stripping volumes. litation areas. lation of the soils: and land capability of the area to be rehabilitated. attive tree species to establish revegtation cover as early as possible. to limit specifients and control run-off. suspended sediment. on control and revegtation success. subsurface materials to the surface (e.g. large rock). Ripping should only be sufficient to allow equipment to work e and control significant weed outbreaks using chemical or mechanical control methods. sistent manner to ensure rehabilitation success. of supporting vegatelian communities adapted to the local environment. The stability of the post-mine landform will maintenance requirements are consistent with the proposed post mining land use. d'roiget site to dryland cropping. Topsoil management, drainage and slope conditions will be critical factors for the cess. sessed regularytin conjunction with overall rehabilitation assessments management in consultation with overall rehabilitation assessments. management in consultation with overall rehabilitation assessments management in consultation with overall rehabilitation assessments management in consultation with overall rehabilitation assessments management in consultation with overall rehabilitation and ing of soils. Assessing Hazard Categories and Hydraulic Performance of Dams' (DERM, 2012). meed person for their structural, geotechnical and hydraulic adequacy and the results of the assessment reported to theur interval time and jurup maintenance, stepped in complexity and thoroughness as the pung accumates ho k. All flood defences will have annual inspections after each wet season and significant flow event. Levees will not be the risk of high to extreme rainfall events. go f oxisting water uses and analysis of the data will allow inefficiencies in the system to be identified and targeted 11 response to an environmental emergency. The discharge of water from the water management structures are inclu- tick sitis margency respons pl		The mine rehabilitation strategy may include the following measures which are designed to minimise the loss of tonsoil material respread on rehabilitated areas and promote successful vegetation estr
Second	Itilation areas. Itation of the soils. and land capability of the area to be rehabilitated. ative tree species to establish revegetation cover as early as possible. to limit slope lengths and control run-off. suspended sediment. on control and revegetation success. aud control significant weed outbreaks using chemical or mechanical control methods. sistent manner to ensure rehabilitation success. of supporting vegetation communities adapted to the local environment. The stability of the post-mine landform with maintenance requirements are consistent with the proposed post mining land use. d Project site to dryland cropping. Topsoil management, drainage and slope conditions will be critical factors for the tess. sessess regularly in conjunction with overall rehabilitation assessments. maintenance requirements are consistent with the proposed post mining land use. d Project site to dryland cropping. Topsoil management, drainage and slope conditions will be critical factors for the tess. sessessed regularly in conjunction with overall rehabilitation assessments. management in consultation with the relevant government agencies. The review will reflect changes in environmered in mining pariod. continually improve the success of the program. The performance outcomes for the TMP are: and ing of soils. Assessing Hazard Categories and Hydraulic Performance of Dams: (DERM. 2012). meed person fut their structural, geotechnical and hydraulic adequacy and the results of the assessment reported to hour interval time on all pump maintenance reparts of normalicity and thoroughness as the pump accumulates hour hour interval factoryment and analysis of the data will allow inefficiencies in the system to be identified and targeted for response to an environment almestoryment. These plans will be updated to incorporate risks spir any event involving the uncontrolled release of water to the		
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	n of identified hazards and compliance with licence conditions, for all licensed water control facilities; and	588	The revised Project's EM Plan will outline monitoring locations, methods and frequency to ensure consistency across the revised Project's life of mine. The monitoring program will be designed to. <ul> <li>ensuring compliance with the EA and water licences;</li> <li>ensuring that no unacceptable impacts to surface and groundwater systems are occurring as a result of activities;</li> </ul>
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<ul> <li>forecast mine water storage volumes and evaluate quality of mine site water and water not affected by mining against water quality criteria;</li> </ul>			The revised Project's EM Plan will outline monitoring locations, methods and frequency to ensure consistency across the revised Project's life of mine. The monitoring program will be designed to. <ul> <li>ensuring compliance with the EA and water licences;</li> <li>ensuring that no unacceptable impacts to surface and groundwater systems are occurring as a result of activities;</li> <li>ensuring that any regulatory non-compliance is detected and managed in accordance with procedures and regulatory requirements;</li> <li>support operational control and update on-site water balances and off-site catchment models;</li> <li>assess current and cumulative impacts of on the environment;</li> <li>meet corporate and regulatory reporting requirements;</li> </ul>
<ul> <li>review the site water balance; and</li> </ul>		588	The revised Project's EM Plan will outline monitoring locations, methods and frequency to ensure consistency across the revised Project's life of mine. The monitoring program will be designed to. <ul> <li>ensuring compliance with the EA and water licences;</li> <li>ensuring that no unacceptable impacts to surface and groundwater systems are occurring as a result of activities;</li> <li>ensuring that any regulatory non-compliance is detected and managed in accordance with procedures and regulatory requirements;</li> <li>support operational control and update on-site water balances and off-site catchment models;</li> <li>assess current and cumulative impacts of on the environment;</li> <li>meet corporate and regulatory reporting requirements;</li> <li>maintain safety and environmental inspection procedures, including the verification of identified hazards and compliance with licence conditions, for all licensed water control facilities; and</li> <li>in addition to the monitoring program, a monthly report will be compiled to compare actual site water usage to target water usage and describe mine water storage levels and volumes. The report will</li> </ul>
<ul> <li>589</li> <li>identify any anomalies in data and recommended action items.</li> </ul>			The revised Project's EM Plan will outline monitoring locations, methods and frequency to ensure consistency across the revised Project's life of mine. The monitoring program will be designed to. <ul> <li>ensuring compliance with the EA and water licences;</li> <li>ensuring that no unacceptable impacts to surface and groundwater systems are occurring as a result of activities;</li> <li>ensuring that any regulatory non-compliance is detected and managed in accordance with procedures and regulatory requirements;</li> <li>support operational control and update on-site water balances and off-site catchment models;</li> <li>assess current and cumulative impacts of on the environment;</li> <li>meet corporate and regulatory reporting requirements;</li> <li>maintain safety and environmental inspection procedures, including the verification of identified hazards and compliance with licence conditions, for all licensed water control facilities; and</li> <li>in addition to the monitoring program, a monthly report will be compiled to compare actual site water usage to target water usage and describe mine water storage levels and volumes. The report wi</li> <li>forecast mine water storage volumes and evaluate quality of mine site water and water not affected by mining against water quality criteria;</li> <li>review the site water balance; and</li> </ul>

procedure. First, the overburden materials will be profiled or landformed to the

stablishment.

rk efficiently. Ripping along slopes should be along contour.

will be achieved by applying sound rehabilitation practices. The disturbed land

the promotion of a successful outcome. NAC will engage a suitable academic

nental requirements, technology and operational procedures. The review will

t to DNRM. Maintenance of pumps is the responsibility of the Maintenance hours.

t be to be altered or interfered with unless there has been thorough consultation

ed for reduction in forward planning.

cluded as an individual issue with specific requirements outlined in the specific to the revised Project.

s to the system, predictions from the water balance model and any changes to

will be used to:

Image: Second	_		
			Strategies for improvement in water use will form a mandatory part of the water balance review. Water usage targets will be established and progress against these targets will be monitored. The revi
<ul> <li>Instructing an element of the second s</li></ul>			Safe Operating Procedures (SOPs). The SOPs relating to the water management system are:
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Image: Control (Control)         Image: Control)         Image: Control)<	590		groundwater management and reporting.
Approximate Asis         Review (AMUD)           91         Environ (AMUD)           92         Environ (AMUD)           93         Environ (AMUD)           94         Environ (AMUD)           95         Environ (AMUD)           94         Environ (AMUD)           94         En		Additional Commitmnets - AEIS	
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bit         The providence mentalistic program for the relead Project continue, the current monitoring program for the existing Mile with an extended network of monitoring bases enclosing the envice           507         • Description of the enviced Project segment of the existing Mile with an extended network of monitoring bases enclosing the envice           507         • existing the enviced Project segment of the existing Mile with an extended network of monitoring bases enclosing and the enviced Project segment of the existing Mile with an extended network of monitoring bases enclosing and the enviced Project segment of the existing Mile with an extended network of monitoring bases enclosing and the enviced Project segment of the existing Mile with an extended network of monitoring bases enclosing and the enviced Project segment of the existing Mile with an extended network of monitoring bases enclosing and the enviced Project segment of the existing Mile with an existing Annual Project and Existing Annual Project Project Advingent and existing Annual Project Project Advingent Annual Project Project Advingent Annual Provide Annual Project Project Advingent Annual Provide Annual Project Project Advingent Annual Provide Annual Provide Annual Provide Annual Project Project Advingent Annual Provide Annual Project Project Advingent Annual Provide Annual	501		
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<ul> <li>be operated in accordance with the related hyder significant Ch.</li> <li>be colled bin in controls and an analysis of production in the significant Ch.</li> <li>be colled bin in controls and an analysis of production in the significant Ch.</li> <li>be colled bin in controls and an analysis of production in the significant Ch.</li> <li>be colled bin in controls and an analysis of production in the significant Ch.</li> <li>be colled bin in controls and an analysis of production in the significant Ch.</li> <li>be controls of the significant Ch.</li> <li>be cont</li></ul>			The groundwater monitoring program for the revised Project combines the current monitoring program for the existing Mine with an extended network of monitoring pores enclosing the revised Project
9/2       - excitated into a month y wal annual reviews of projective transitioning         9/2       - boold into consider decogramment of the granetabolise model singures (boold in the constant) of the granetabolise model singures (boold in the constant) of the granetabolise model singures (boold in the constant) of the granetabolise model singures (boold in the constant) of the granetabolise model singures (boold in the constant) of the granetabolise model (boold in the constant) of the granetabolise model (boold in the constant) of the constant of the granetabolise model (boold in the constant) of the constant of th			
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No         No           SN         No         No         No <td>592</td> <td></td> <td>be collated into a database that will be made available to the administering authority on request.</td>	592		be collated into a database that will be made available to the administering authority on request.
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553         Intelligibits         Intelligibits <thintelligibits< th="">         Intelligibits</thintelligibits<>			monitoring program to 45. Proposed additional monitoring bore locations have been chosen based on model drawdown predictions and presence of aquifers and receptors of interest. The monitoring
Sec         The location of the monitoring force in Table 3-1 are prevented in Figure 4.3. The final location of the proposed additional bases may any ulghtly depending on lond access and provide the locating manufacture and the mesh of the prevised Parity Englands. The base set will be individually identified in accordance with the base maning convention at the reset of Table 3-3.           998         Interaction of the constraint of the prevised Parity Englands. The prevised Parity Englands and maintained by a proton possibility and constraint of the prevised Parity Englands. The prevised Parity Englands and maintained by a proton possibility and constraint on the prevised Parity Englands. The prevised Parity Englands and the prevised Parity Englands. The prevised Parity Englands and the prevised Parity Englands. The prevised Parity Englands and the prevised Parity Englands. The prevised Parity Englands and Parity Parit	593		
SNA         provinting to local graundwater uses. These bores will be individually identified in accordance with the bore naming concention at the revised Project site.           SNA         The additional finance of an end providuater diversion of graundwater diversional properties again standard in the service of Project size of a graundwater diversional providuater diversional providuater diversional or the fields of hydrogeology and graundwater monitoring program design to be able to complete the trained for the service of the se			
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5%         Outside the revised Project's predicted zone of groundwater monitoring revisors will be under the provide the revisor of the provide the provide the provide the revisor of the	594		
The groundwater monitoring metwork will:         • Is installed and maintained by a porso possissing appropriate qualifications and experience in the fields of hydrogeology and groundwater monitoring program design to be able to compete • be constructed in accordance with methods prescribed in the lastel addition of "Mnimum Construction Requirements for Water Bors in Australia" (National Uniform Diffuse Learning Commit • includes aufficient number of Tores of compliance: That are located at an appropriate distance of mogen time mining activities conducted by NAC: and • the quality of groundwater down gradient of patentisis fuzzes of constinuation from potential sources of mains from mining activities conducted by NAC: and • the quality of groundwater down gradient of patentisis fuzzes of constinuation including groundwater passing the relevant bore(s) of compliance. Groundwater monitoring program adjust papprojristly qualific presence. Groundwaters, simple collection, storage and transportation will be undertaken in accord 1999.           990         The data gainered from the groundwater monitoring program will be collated into a database which will include: • a step lan showing sample locations: • labolatel results of the monitoring compared with applicable background/rigger levels: • a laboratory analysis critificato: • a docarption of the procedures, methods and calculation used. 590           598         • a docarption of the procedures, methods and calculation used. 601         • a docarption of the procedures, methods and calculation used. • a docarption of the procedures from sharing through to analysis: • laboratory analysis critificato: • a docarption of the procedures. Including the undertaken by laboratory accrodited by the National Association of Testing Authonities (NATA). Field measurement of water quality parameted in accroarbane will be monitored approgram resports and			
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be constructed in accordance with methods prescribed in the latest edition of "Minimum Construction Requirements for Water Bores in Australia" (National Uniform Differs Learning Commit expressnative groundwater samples from the uppend at an appropriate distance from productions and the following: expressnative groundwater samples from the uppend on the distance from productions across of impact from mining activities and provide the following: expressnative groundwater analysis of compliance. Groundwater monitoring will be undertaken by appropriately qualified personnel. Croundwater passing the relevant bore(s) of compliance. Groundwater monitoring will be undertaken by appropriately qualified personnel. Croundwater monitoring program will be constructed by NAC; and the quality of groundwater monitoring program will be collected into a database which will include: a site plan showing sample locations: alized as showing sample locations: alized as the data gathered from the groundwater monitoring program will be collected during exch monitoring round. a description of the monitoring roundwater supplies in associated with 0 have fore in the sociation of the structure of sociation of the monitoring program induced set and appropriate during during and based and appropriate during during and based and appropriate during durin			The groundwater monitoring network will:
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Propresentative groundwater samples from the upground bare(s) that have not been affected by any mining activities conducted by NAC: and     the quality of groundwater down gradient of potential sources of contamination including groundwater passing the relevant bore(s) of compliance.     Groundwater monitoring will be undertaken by appropriately qualified personnel. Condwater enough the relevant bore(s) of compliance.     For data gathered from the groundwater monitoring program will be collated into a database which will include:         a site plan showing sample locations:         a site plan showing location of the samples from sampling through 10 analysis:         liabratory analysis certificate:         purportivelet monitoring program reports, and         satescription of the procedures: methods and catabians used.         Groundwater reuses allowing will be continue to be undertaken by approvide plan showing monitoring to plan showing complexities to black of the samples of the revised Project site. A new monitoring borger and the procedures:         bacabing showing locations:         bacabing show			
996 <ul> <li>background vater quality in hydraulically up-gradient of potential sources of contamination including groundwater bersping the relevant bore(s) of compliance.</li> <li>Groundwater monitoring will be undertaken by appropriately qualified personnel. Groundwater level measurements, sample collection, storage and transportation will be undertaken in accord 1998.</li> </ul> <li>The data gathered from the groundwater monitoring program will be collated into a database which will include:         <ul> <li>a sile plan showing sample locations;</li> <li>tabulato for using sample inclution;</li> <li>tabulato for using of the many platable background/rigger levels:</li> <li>a record of chain of custody of the samples from sampling through to analysis:</li> <li>a groundwater monitoring program reports; and</li> <li>a record of chain of custody of the samples from sample sample sace and the procedure; membras and custolians used.</li> <li>Groundwater monitoring program reports; and</li> <li>a cardonace with the manufacturer: recommendations.</li> </ul> </li> <li> <ul> <li>The manas allukum with significant groundwater groundwater dwell with Oakey Creek I harium will be monitored.</li> <li>Groundwater level is the coal measures between the active minit be monitore diff.</li> <li>the call a sample samples is associated with Oakey Creek I harium wills environs?</li> <li>Fight basalt bores will be monitored.</li> <li>the fight and groundwater dwella sale sace of the monitoring program includes 22 coal measures b</li></ul></li>			
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NAC will undertake a landholder bore assessment program to characterise each and every private bore predicted to be impacted by operation of the revised Project. This will include those bores         604       Walloon Coal Measures with a 1 m cutoff) but that currently do not have a source aquifer assigned in the DNRM registered bore database, so that groundwater drawdown predictions can be ma         604       Table 3-2).         605       Groundwater monitoring will be undertaken for the revised Project in accordance with the groundwater monitoring program. Impact assessment criteria for groundwater levels and quality, who         605       data and the predicted effects presented in the revised Project's AEIS (Jacobs SKM 2014).         In the event that a formal groundwater investigation conclusively identifies that the revised Project's mining operations have adversely impacted a neighbouring groundwater user (affected groundwater user (affected groundwater user (affected groundwater user)			will range around 10 ML/year for maintenance purposes. 2 new groundwater monitoring bores will be installed in the southwest and southeast of the revised Project site, to monitor this aquifer and co
NAC will undertake a landholder bore assessment program to characterise each and every private bore predicted to be impacted by operation of the revised Project. This will include those bores           604         Walloon Coal Measures with a 1 m cutoff) but that currently do not have a source aquifer assigned in the DNRM registered bore database, so that groundwater drawdown predictions can be ma           604         Table 3-2).         Groundwater monitoring will be undertaken for the revised Project in accordance with the groundwater monitoring program. Impact assessment criteria for groundwater levels and quality, who           605         data and the predicted effects presented in the revised Project's AEIS (Jacobs SKM 2014).           In the event that a formal groundwater investigation conclusively identifies that the revised Project's mining operations have adversely impacted a neighbouring groundwater user (affected groundwater user (affected groundwater user (affected groundwater user)	603		strategically chosen in areas of predicted drawdown and/or sensitive receptors, and in conjunction with other shallower monitoring bores to allow assessment and confirmation of vertical gradients and
604       Walloon Coal Measures with a 1 m cutoff) but that currently do not have a source aquifer assigned in the DNRM registered bore database, so that groundwater drawdown predictions can be made to a fable 3-2).         604       Groundwater monitoring will be undertaken for the revised Project in accordance with the groundwater monitoring program. Impact assessment criteria for groundwater levels and quality, who data and the predicted effects presented in the revised Project's AEIS (Jacobs SKM 2014).         605       In the event that a formal groundwater investigation conclusively identifies that the revised Project's mining operations have adversely impacted a neighbouring groundwater user (affected groundwater user (affected groundwater user)			
604       Table 3-2).         605       Groundwater monitoring will be undertaken for the revised Project in accordance with the groundwater monitoring program. Impact assessment criteria for groundwater levels and quality, who data and the predicted effects presented in the revised Project's AEIS (Jacobs SKM 2014).         605       In the event that a formal groundwater investigation conclusively identifies that the revised Project's mining operations have adversely impacted a neighbouring groundwater user (affected groundwater user (affected groundwater user)			
605         Groundwater monitoring will be undertaken for the revised Project in accordance with the groundwater monitoring program. Impact assessment criteria for groundwater levels and quality, whe data and the predicted effects presented in the revised Project's AEIS (Jacobs SKM 2014).           In the event that a formal groundwater investigation conclusively identifies that the revised Project's mining operations have adversely impacted a neighbouring groundwater user (affected groundwater user (affected groundwater user)	604		
605       data and the predicted effects presented in the revised Project's AEIS (Jacobs SKM 2014).         In the event that a formal groundwater investigation conclusively identifies that the revised Project's mining operations have adversely impacted a neighbouring groundwater user (affected groundwater user)	004		,
In the event that a formal groundwater investigation conclusively identifies that the revised Project's mining operations have adversely impacted a neighbouring groundwater user (affected groundwater user) and the event that a formal groundwater investigation conclusively identifies that the revised Project's mining operations have adversely impacted a neighbouring groundwater user (affected groundwater) and the event that a formal groundwater investigation conclusively identifies that the revised Project's mining operations have adversely impacted a neighbouring groundwater user (affected groundwater) and the event that a format groundwater investigation conclusively identifies that the revised Project's mining operations have adversely impacted a neighbouring groundwater user (affected groundwater) and the event that a format groundwater investigation conclusively identifies that the revised Project's mining operations have adversely impacted a neighbouring groundwater user (affected groundwater) and the event density of	40F		
	005		
Impactros in a timoly manner to restitu the identitied anoundwater problem. MAC may involve an appropriately qualified environmental executivity development of the mitigation method.			
			measures in a timely manner to rectify the identified groundwater problem. NAC may involve an appropriately qualified environmental specialist to assist with development of the mitigation measures
606 outcomes of an appropriate scientific investigation.	606		Joutcomes of an appropriate scientific investigation.

evised Project will be operated according to a series of documented procedures -

anded groundwater monitoring program which covers the revised Project will be mpacts from mining across the revised Project area.

oject area. Data collected from the groundwater monitoring program will:

toring parameters, and frequency. The groundwater monitoring program g network which brings the total number of bores included in the groundwater ing program for new bores will be established prior to the commencement of the

location of these reference bores and if necessary install new reference bores

y make recommendations about these matters; 2012) by an appropriately qualified driller; and

with procedures conforming to the current industry standard: AS/NZS 5667.1, .11

undertaken using appropriate field equipment that is maintained and calibrated

will monitor groundwater levels and quality in the Oakey Creek Alluvium.

n a monthly basis and samples will be collected and submitted for the analytical

re 3 1). Groundwater levels will be monitored on a monthly basis and samples will

ed Project's future operation, abstraction from the Marburg Sandstone aquifer d confirm predictions of minimal impacts. The locations of these bores have been s and hydraulic separation between the overlying aquifers.

at are currently within the maximum extent of predicted drawdown (for the for these 'unknown aquifer' bores during the first groundwater model update (see

not already established, will be developed using statistical analysis of the baseline

vater user), NAC will attempt in 'good faith' to negotiate suitable mitigation ires. The development of suitable mitigation measures will be based on the

		Possible mitigation measures that may be applied by NAC include:
		the refurbishment of an existing groundwater bore;
		the installation of a new groundwater bore;
		the establishment of an alternative water supply arrangement; and/or
607		the use of another mutually agreed form of mitigation.
400		NAC will ensure as a minimum that the proposed mitigation measures are acceptable to the affected groundwater user, and if acceptable, will enter into a legal agreement for the installation of the proposed mitigation measures are commensurate with the identified groundwater loss.
608		NAC may be required to install interim mitigation measures until the permanent mitigation measures have been developed and installed. As required, NAC will seek agreement with the affected ground
609		measures.
610		If agreement cannot be reached with the affected groundwater user in relation to the proposed mitigation measures, NAC will facilitate some form of legal disputes resolution for the matter.
611		NAC will ensure the administering authority is fully advised about the details and progress of these types of groundwater matters.
011		NAC is committed to rectifying all groundwater problems that are legitimately attributed to the revised Project's mining operations through proper scientific evaluation, in an appropriate timeframe, us
612		affected groundwater user.
		NAC will record the details of the groundwater complaint in the Mine's complaint database (register) and review this information. As required, NAC will re-contact the complainant about the groundwa
		action. Depending on the severity of the groundwater complaint, NAC as a courtesy may also advise the Toowoomba Office of the DEHP about the matter. As required, the New Hope Group's Corporat
613		complaint.
		NAC's investigation of the groundwater complaint is designed to establish the legitimacy of the complaint, and if legitimate, whether the Mine is directly or indirectly responsible for the complaint. If cu
		responsible for the groundwater complaint, NAC will advise the complainant, the Toowoomba Office of the DEHP and follow the mitigation strategy outlined in Section 4.4 of this Plan. If current evidence of the DEHP and follow the mitigation strategy outlined in Section 4.4 of this Plan.
614		groundwater complaint, NAC will advise the complainant in a timely manner, and depending on circumstances, the Toowoomba Office of the DEHP.
		At the execution of the complete investigation process. NAC will record all the relevant details about the groundwater complete time. Mine/ecomplete details and will record all the relevant details about the groundwater complete time to the second
<b>41</b> ۲		At the cessation of the complaint investigation process, NAC will record all the relevant details about the groundwater complaint in the Mine's complaint database, including all management actions un details of any required follow up or on going management actions, and whether the complaint is 'closed off' to the satisfaction of the complainant. NAC maintains the Mine's complaint database for is
615 616		details of any required follow-up or on-going management actions, and whether the complaint is 'closed off' to the satisfaction of the complainant. NAC maintains the Mine's complaint database for is Importantly, NAC is committed to working with its near neighbours to resolve genuine issues as they arise in relation to the operation of the Mine.
010		NAC will conduct an annual review of the environmental performance of the revised Project. The annual review will address the performance of the GMIMP and will:
		<ul> <li>include a comprehensive review of the monitoring results and complaints records for the revised Project over the year, including a comparison of these results against the:</li> </ul>
		<ul> <li>relevant statutory requirements, limits or performance measures/criteria,</li> </ul>
		monitoring results of previous years, and
		relevance to the revised Project's EA;
		<ul> <li>identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;</li> </ul>
		• identify any trends in the monitoring data over the life of the revised Project;
		• identify any discrepancies between the predicted and actual impacts of the revised Project, and analyse the potential cause of any significant discrepancies (Validate validate model);
		describe mitigation measures that have or are being implemented to address breaches of any groundwater impact triggers; and
617		review the condition and extent of the groundwater monitoring network in the context of meeting its objectives.
		Over the lifespan of the revised Project (approximately 16 years of working) and the post closure monitoring period, it is inevitable that groundwater monitoring bores will become unserviceable and ne
618		network, replacing bores as necessary, and use the regular review of monitoring data to inform the location of additional monitoring bores, if required.
(10		
619		As required, NAC may update or revise the GMIMP based on the outcomes of the annual review process. The DEHP will be consulted in relation to any significant changes to the GMIMP and as necessa
	CONSERVATION ZONE MANAGEMI	NT
	Appendix J.6 PLAN	
	Existing Commitments - draft EIS	
620		NAC will concentrate conservation and rehabilitation efforts on selected sections of Lagoon Creek that are contained within the boundaries of the revised Project. NAC will also undertake additional contract of the revised Project.
		Survey plots to monitor basic indicators will be established and permanently marked in a revegetated site, prior to the commencement of any on-ground works. The same plots will then be surveyed ea
621		permanently mark the location of the 0 m points on each transect and the location of the start and finish points will be recorded using a GPS.
622		Natural regeneration areas will be inspected at approximately six monthly intervals, to determine the extent of weed invasion and natural recruitment, and to assess the requirement for further interve
		Revegetation (active seeding/planting) areas will be visually monitored monthly for the first six months (or until the plants are self-sufficient), then annually thereafter until rehabilitation targets are reading and the set of th
623		following: presence of active rill/gully erosion and weed species, general assessment of seedling establishment, and any general failure of rehabilitation works.
624		Reference sites and revegetation areas will be quantitatively assessed (including species composition), every 3 years after establishment of the reference sites.
		If monitoring demonstrates that natural regeneration or revegetation sites along Lagoon Creek or around Bottle Tree Hill are not achieving their designated rehabilitation criteria, NAC will investigate the
105		investigations, NAC will conduct specific maintenance rehabilitation activities to correct or improve the overall performance of the deficient sites, to ensure that the long term objectives of the CZMP ar
625		techniques to correct any identified technical or other failings.
626		General maintenance will involve a range of measures as required, including erosion and sedimentation maintenance, repair of any damaged infrastructure (e.g. fencing, signage, etc.), general weed co
020	Additional Commitmnets - AEIS	
		NA
	THREATENED SPECIES TRANSLOCA	TION
	Appendix J.7 PLAN	
	Existing Commitments - draft EIS	
		Translocation of the three threatened species will commence as soon as the SEWPaC approval of the revised Project is received, expected to be in 2014. Starting the planning and site preparation and a
		for the revised Project will increase the chance of success of translocation. The construction of the Manning Vale West pit and Willaroo pit is planned to commence in 2017-2018. As there are at least t
627	<u> </u>	planned intended date of construction of the pits, there is time to establish the threatened species in new locations prior to an impact being caused.
		NAC will provide SEWPaC with a schedule of plant translocations for the revised Project's areas of threatened species prior to the commencement of translocation activities and regularly update the pro-
628		translocation process will be progressive to stay well in advance of the revised Project's mine path and to ensure in situ plants for seed and propagule collection should there be in the event of an unexp
		Prior to removing tussocks, the translocation sites will be prepared. This will include removing existing groundcover and digging holes or trenches to depths that match the plants' original location. Exist
629		translocation site to reduce completion from weeds and other plants in proximity to the translocation site.
		The translocated plants will be watered prior to removal to reduce transplanting shock. The plants will be removed early in the morning to avoid heat stress and will not be moved during periods of hig
		of plants, including the root mass and sufficient soil to hold the root system together, will be carefully removed using a spade or a mattock. SKM (2009) reported that Belson's Panic which experienced
630		post translocation. Therefore, care will be taken to minimise root damage during the translocation process. All plants to be translocated will be pruned prior to removal to reduce their potential for loss

proposed mitigation measures at NAC's expense. NAC will also ensure the

undwater user and pay all reasonable cost for the use of any interim mitigation

using accepted and practical mitigation measures, and to the satisfaction of the

Iwater complaint to obtain all the necessary details to decide the next course of rate Environmental Team may assist with management of the groundwater

If current evidence or further scientific investigation establishes NAC is lence or further scientific investigation establishes NAC is not responsible for the

undertaken, the final outcomes of the complaint investigation process, the r issue analysis, regulatory and audit purposes.

I need to be replaced. NAC will proactively maintain the groundwater monitoring

ssary will be re-issued any new versions of the document.

conservation and rehabilitation measures around Bottle Tree Hill. I each time the site is monitored. A metal peg or star-picket will be used to

rvention or management. reached for the first 10 years. The qualitative visual monitoring will include the

e the cause of the negative variance or failure. Based upon the findings of these Pare achieved. If required, NAC may also adjust its standard revegetation

control, and control of fire fuel loads following good growing seasons.

nd actual translocation of the plants prior to the commencement of disturbance ast three years between the anticipated timing of the SEWPaC approval and the

progress of this schedule over the life of the revised Project. The plant nexpected failure.

xisting groundcover will be cleared a suitable distance from around each

high temperature or strong drying winds. Individual tussocks or small groupings ed disturbance to the root mass did not thrive as well in the first three months loss of moisture by transpiration.

		1	
			The excavated plants will be protected from wind and sun exposure to minimise stress factors during transport from their original location to their translocation site. All excavated plants will be transpo
631			hessian, or a similar cover. The excavated plants will also be lightly sprayed with water to maintain moisture on the leaves, roots and soil.
632			The excavated plants will be placed in the prepared holes or trenches, backfilled with topsoil, and firmed down (gently) in a manner that creates a slight depression to enhance water retention. Mulch
633			The translocated plants will be marked with two stakes and flagging tape for easy identification.
634			All translocated clusters of plants will be watered with approximately 30 litres of water at the time of translocation.
635			A photograph, relevant notes and GPS coordinates will be taken for each translocated cluster of plants. A unique site identification code will also be provided for each translocated cluster of plants.
			Translocated clusters of plants will be watered twice daily with approximately 10 litres of water per cluster for the first week and once a day with approximately 10 litres of water per cluster for the sec
			conditions and the progress of establishment success. Water will be applied at constant, low rates to allow for infiltration and absorption. Soil characteristics (i.e. dryness, cracking and water logging) v
636			For example, if the soil is showing signs of dryness (i.e. dry, crumbly, cracking) then watering volumes will be increased, and if the soil indicates soil moisture is too high (i.e. waterlogged) then watering
			As explained in Section 5.2.2, all groundcover vegetation (weeds and other grass species) within a suitable distance around each translocation site will be removed prior to translocation. The groundcover
637			have become established. Follow-up maintenance activities (weed control) will be conducted as required such as during each watering.
( 20			Fire beaks will be established around each translocation site and will be slashed prior to commencement of the high fire risk season in July-August, and maintained over the growing season. If required,
638			loads. Grazing will only be used if plant re-establishment is well advanced. Weekly inspections of the translocated plants will be conducted by the Mine's environmental staff until the translocated plants have become establishment. More regular inspections will be conducted
639			corrective and/or maintenance actions will be undertaken based on the findings of these inspections.
037			
			A qualified ecologist will conduct regular monitoring at each translocation site, which will include the following actions.
			• An assessment of soil moisture condition will be made prior to each watering by visual inspection to determine the level of watering needed.
			• Weekly monitoring of individual tussock ecological health will be undertaken until establishment success is confirmed (i.e. percentage alive or dead, height, evidence of new shots and reproductive st
			• A bi-monthly ecological condition assessment of the ground layer consistent with the biocondition method Version 2.1 will be undertaken, including assessment against benchmarks (DERM) 2011. The
			successful establishment of the translocated plants can be scientifically confirmed.
			• A bi-monthly presence and abundance assessment of exotic plants and declared weeds as listed under the Land Protection (Pest and Stock Route Management) Act 2002 (LP Act) will be undertaken.
640			successful establishment of the translocated plants can be scientifically confirmed. <ul> <li>A biannual report will be provided to SEWPaC summarising the monitoring completed and any corrective and/or maintenance actions undertaken for the previous six months until successful establish</li> </ul>
040			This risk can be significantly reduced if care is taken with the relocation procedures, adequate follow up watering is applied until new root growth advances, and weed and other grass species competition of the provides statistical destances and weed and other grass species competition of the provides statistical destances and weed and other grass species competition of the provides statistical destances and weed and other grass species competition of the provides statistical destances and weed and other grass species competition of the provides statistical destances and weed and other grass species competition of the provides statistical destances and the provides statist
			competition from weed and exotic species include:
			• slashing or brush cutting;
			mulching around the establishing plants;
			hand weeding; and/or
641			selective application of appropriate herbicides.
642			If the monitoring program identifies a greater than 20% loss of translocated plants, immediate action will be taken to source and collect seed or other plant propagules from the translocated plants for a translocated plants areas of the threatened coordinate ar
642 643			translocation effort over the revised Project's life should ensure that undisturbed areas of the threatened species are available within the revised Project area for seed and plant propagule collection up Should the translocated plants fail to become established at the translocation site, then practices will be reviewed and corrected as required (including possible updating of this plan).
	Additional Commitmn	ets - AEIS	
			The management of the offset for Homopholis belsonii will exclude agricultural activities, limit grazing to the extent that it is used to assist with the management of fire risk, remove weeds and be exclu
			New Hope Group.
			These threats are reflected in the priority actions for the species, as outlined in the conservation advice and these actions are to be undertaken by NAC, as part of the management of the revised Projection advice and these actions are to be undertaken by NAC.
			belsonii, as committed to by NAC are:
			removing habitat loss, disturbance and modification of habitat;     control of invasive weeds;
			management of trampling, browsing and grazing;
		THREATENED SPECIES TRANSLOCATION	
644	Appendix L	PLAN	• encouraging recovery of the species are additional sites.
	••	THREATENED SPECIES TRANSLOCATION	
645	Appendix L	PLAN	Once the plants are established, monitoring will be undertaken every six months, for a period of five years from the translocation of the plants.
Τ			
			The monitoring of translocated threatened species will be undertaken for a period of five years, during which it is expected that the plants will be successfully established. As the weather conditions in
		THREATENED SDECIES TRANSLOCATION	period of low rainfall. NAC will laise with both DotE and DEHP during the five year monitoring program to discuss the results and reach agreement on the representativeness of the weather conditions
616	Appendix L	PLAN	not experienced, NAC will agree with DotE and DEHP on the need to undertake monitoring during a low rainfall period. Once the translocated plants have been successfully established the frequency of monitoring is proposed to be undertaken annually for the life of the offset. Monitoring will record the progress of the
040			
		BLUEGRASS OFFSET MANAGEMENT	
	Appendix J.8	PLAN	
	Existing Commitments	- draft EIS	
			The New Hope Group (NHG) will provide direct offsets that include the on-ground protection for existing Bluegrass ecological communities via sustainable management objectives and restoration initia
647			significant biodiversity corridor which occurs adjacent to the revised Project site on land owned and managed by the Acland Pastoral Company (APC), a company established by the NHG.
			The direct offsets will be supported by site-specific management plans and managed by the APC with a locally-based pastoral manager. To protect the offset areas in perpetuity, a suitable legal protection of the support of the suppo
( 40			Queensland nature refuge or covenant). Management objectives for the offset areas aim to implement practices that improve the extent and ecological condition of the Bluegrass ecological community
648			management, ecological restoration and maintenance works, weed management, performance monitoring, and general management (e.g. administration).
			Translocation sites will be provided and will include protected and fenced off areas for the translocation of threatened species associated with the Bluegrass ecological community that will be impacted
649			(Bothriochloa biloba), Belson's Panic (Homopholis belsonii) and Finger Panic Grass (Digitaria porrecta). The management of the translocation of these species is described in the revised Project's Threat
			In addition, prior to the clearance of the identified areas of Bluegrass ecological community to be impacted by the revised Project, significant specimens of the herb and forb species associated with Blu
650			outlined in the revised Project's Threatened Species Translocation Plan.

sported from their excavation site to their replanting site under the cover of wet

ch will be placed on bare soil to reduce wind erosion and evaporation.

second week. Watering will then continue as required based on weather ig) will be assessed before each watering use to determine watering requirements. ing volumes will be reduced.

cover vegetation exclusion zone will be maintained until the translocated plants

ed, limited grazing may be carefully applied to these areas to reduce fire fuel

ted during the initial watering phase of the translocation process. As required,

e status).

This assessment regime will continue for a minimum of 12 months and until

h. This assessment regime will continue for a minimum of 12 months and until

lishment of the translocated plants can be scientifically confirmed. etition is prevented. Appropriate management strategies for managing

for artificial propagation and re-planting. The progressive nature of the n up until the last areas of each species are relocated.

cluded from mining activities. The translocation sites are on land owned by the

ject's impact on the species. Priority actions for the conservation of Homopholis

s in the Acland area can be variable, it is intended that monitoring would include a ons that were experienced at the site. In the event that a period of low rainfall is

he plants to reproduce, without management input.

tiatives for adjacent areas. The offset areas will provide connectivity to a State

ection mechanism will be established over the applicable land parcels (e.g. nity. This approach will be achieved through a combination of fencing, stock

ted by the revised Project. The species are identified as Lobed Blue-grass eatened Species Translocation Plan.

Bluegrass ecological community will be transplanted using the same methodology

<ul> <li>These areas will be monitored pre- and post-wet season i.e. October and March to ascertain the Once the assisted natural regeneration areas meet the performance criteria for the Bluegrass ecolor Site based action plans will be developed for each Bluegrass rehabilitation area including on-grour BOMP, the following measures will be implemented.</li> <li>Sites for replanting will be prepared for sowing after initial biomass reduction and weed manage</li> <li>Seed for replanting will be harvested from areas of known Bluegrass endangered ecological com benefits of local provenance seed.</li> <li>Replanting activities will occur after favourable rainfall, which is normally during spring/summer</li> <li>On-going weed control and post-seeding monitoring will be conducted to determine if further di Once these areas meet the performance criteria for the Bluegrass ecological community, they will</li> <li>Performance criteria for the offset areas will be assessed as per the condition thresholds for the had a monitoring and evaluation plan will be developed for all management areas and will be consisted methodology for treeless ecosystems (DERM, 2011). Monitoring results will be evaluated against a ecological communities, and methods for sustainable grazing, assisted natural regeneration and restored and restored</li></ul>	I impacts on existing native grasses. with seed collected from local Bluegrass ecological community areas or purchased local seed if available e ecological condition in association with the performance criteria. logical community they will be managed in accordance with the sustainable grazing areas. Ind biomass reduction of non-native perennials, seed collection, site preparation, planting, monitoring, ement. munity and/or purchased if available to make up any short falls in seed quantities for sowing activities r. lifect drilling enhancement planting is required. I be managed in accordance with the sustainable grazing areas. historical listing advice for the Bluegrass ecological community (section 3.3). ent with the Methodology for Survey and Mapping of Regional Ecosystems and Vegetation Communitie associated management objectives for each Bluegrass management area and reported to provide impr ehabilitation (re-establishment). ets will be required. The NHG may undertake a number of additional management actions, which are list
While being spelled and after favourable seasonal conditions, these areas will be direct-drilled w     These areas will be monitored pre- and post-wet season i.e. October and March to ascertain the     Once the assisted natural regeneration areas meet the performance criteria for the Bluegrass ecol     BOMP, the following measures will be developed for each Bluegrass rehabilitation area including on-grour     BOMP, the following measures will be implemented.     Sites for replanting will be prepared for sowing after initial biomass reduction and weed manage     Seed for replanting will be harvested from areas of known Bluegrass endangered ecological com     benefits of local provenance seed.     Replanting activities will occur after favourable rainfall, which is normally during spring/summer     On-going weed control and post-seeding monitoring will be conducted to determine if further di     Once these areas meet the performance criteria for the Bluegrass ecological community, they will     bernstein a devaluation plan will be developed for all management areas and will be consiste     methodology for treeless ecosystems (DERM, 2011). Monitoring results will be evaluated against a     ecological communities, and methods for sustainable grazing, assisted natural regeneration and res     the Bluegrass Recovery Plan (EPA, 2007, Appendix C). Broad descriptions of the proposed manage     ecological community management, and to encourage ecological restoration.     In the event scientific evidence demonstrates the NHG's offset package is failing over time, the NH     offset, the NHG will ensure the Bluegrass ecological community offsets are appropriately monitored to d     legal mechanism. If required, the NHG will enter into a suitable legal or other agreement to manage     to the other scientific evidence demonstrates the DHG's other agreement to manage     the Step of the Step other agreement to management, the NHG will ensure the Bluegrass ecological community offsets are appropriately monitored to d     l	with seed collected from local Bluegrass ecological community areas or purchased local seed if available ecological condition in association with the performance criteria. logical community they will be managed in accordance with the sustainable grazing areas. Ind biomass reduction of non-native perennials, seed collection, site preparation, planting, monitoring, ement. Inmunity and/or purchased if available to make up any short falls in seed quantities for sowing activities r. Lifect drilling enhancement planting is required. I be managed in accordance with the sustainable grazing areas. Listorical listing advice for the Bluegrass ecological community (section 3.3). ent with the Methodology for Survey and Mapping of Regional Ecosystems and Vegetation Communitie associated management objectives for each Bluegrass management area and reported to provide impr ehabilitation (re-establishment).
651       • These areas will be monitored pre- and post-wet season i.e. October and March to ascertain the Once the assisted natural regeneration areas meet the performance criteria for the Bluegrass ecol         651       Site based action plans will be developed for each Bluegrass rehabilitation area including on-grour BOMP, the following measures will be implemented.         651       Sites for replanting will be prepared for sowing after initial biomass reduction and weed manage         652       Sites for replanting will be harvested from areas of known Bluegrass endangered ecological com benefits of local provenance seed.         652       • Replanting activities will occur after favourable rainfall, which is normally during spring/summer         653       • Performance criteria for the Bluegrass ecological community, they will         654       • Performance criteria for the offset areas will be assessed as per the condition thresholds for the hi         654       • Cological communities, and methods for sustainable grazing, assisted natural regeneration and regress recological community, management, and to encourage ecological restoration.         655       • The NHG's offsets were calculated based on 100% direct contribution. As a result, no indirect offset the Bluegrass Recovery Plan (EPA, 2007, Appendix C). Broad descriptions of the proposed manage ecological community management, and to encourage ecological restoration.         656       • The NHG will ensure the Bluegrass ceological community offsets are appropriately monitored to d legal mechanism. If required, the NHG will enter into a suitable legal or other agreement to manage ecological communit	e ecological condition in association with the performance criteria. logical community they will be managed in accordance with the sustainable grazing areas. Ind biomass reduction of non-native perennials, seed collection, site preparation, planting, monitoring, ement. Inmunity and/or purchased if available to make up any short falls in seed quantities for sowing activities r. lifect drilling enhancement planting is required. I be managed in accordance with the sustainable grazing areas. listorical listing advice for the Bluegrass ecological community (section 3.3). ent with the Methodology for Survey and Mapping of Regional Ecosystems and Vegetation Communitie associated management objectives for each Bluegrass management area and reported to provide impr ehabilitation (re-establishment). ets will be required. The NHG may undertake a number of additional management actions, which are list
651       Once the assisted natural regeneration areas meet the performance criteria for the Bluegrass ecol         Site based action plans will be developed for each Bluegrass rehabilitation area including on-grour BOMP, the following measures will be implemented.         • Sites for replanting will be prepared for sowing after initial biomass reduction and weed manage         • Seed for replanting will be harvested from areas of known Bluegrass endangered ecological com benefits of local provenance seed.         • Replanting activities will occur after favourable rainfall, which is normally during spring/summer         • On-going weed control and post-seeding monitoring will be conducted to determine if further di Once these areas meet the performance criteria for the Bluegrass ecological community, they will         652       Once these areas meet the performance criteria for the Bluegrass and will be consiste methodology for treeless ecosystems (DERM, 2011). Monitoring results will be evaluated against a ecological communities, and methods for sustainable grazing, assisted natural regeneration and reference         654       Ecological community management, and to encourage ecological restoration.         655       Ecological community management, and to encourage ecological restoration.         656       In the event scientific evidence demonstrates the NHG's offset package is failing over time, the NH offset, the NHG will ensure the Bluegrass ecological community offsets are appropriately monitored to de legal mechanism. If required, the NHG will enter into a suitable legal or other agreement to management to managemen	logical community they will be managed in accordance with the sustainable grazing areas. Ind biomass reduction of non-native perennials, seed collection, site preparation, planting, monitoring, ement. Inmunity and/or purchased if available to make up any short falls in seed quantities for sowing activities. In the managed in accordance with the sustainable grazing areas. Itistorical listing advice for the Bluegrass ecological community (section 3.3). Ent with the Methodology for Survey and Mapping of Regional Ecosystems and Vegetation Communitie associated management objectives for each Bluegrass management area and reported to provide impre ehabilitation (re-establishment). Ets will be required. The NHG may undertake a number of additional management actions, which are list
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657 legal mechanism. If required, the NHG will enter into a suitable legal or other agreement to management to manag	
Additional committines - Aeis	ge any risk associated with establishing its Bluegrass ecological community offsets.
NA	
Appendix J.9 PEST AND WEED MANAGEMENT PLAN	
Existing Commitments - draft EIS	
• NAC will continue to implement weed hygiene measures to reduce the spread of existing weeds,	, and reduce the risk of introducing new weeds to the Study area.
	d mobile plant equipment is washed down in the washdown bay when the following is applicable:
Before a machine is to commence work in areas that require interaction with topsoil used for sto	
Before a machine is due to work in an environmentally sensitive area	
After leaving areas outside the ML that are not designated roads	
658 Weeds that are cleared as part of clearing or topsoil stripping operations are disposed of within th	e mine spoil areas where the ability for them to reproduce is significantly reduced.
659 Prior to any controlled burns there is a requirement to obtain a Permit to Light from the Rural Fire	Brigade. If this method is to be adopted, and is likely to affect external parties, it would be undertaken
	stakeholders, and/or TRC as required by statutory commitments. This will allow for a co-ordinated app
	of pest and weed species and their abundance within the Study area. Any significant findings, such as n
	Needs and pest identification is also included in the scope of the annual Rehabilitation Monitoring prog
Additional Commitmnets - AEIS	
	there will be a number of itinerate workers visiting the site on a regular basis. In light of this, NAC will u
662 5.2.5.5 Advisory Agency Responses minimise mosquito and biting midge problems in new developing areas" and the Public Health Ac	1 2005 and Division 2 of the Public Health Regulation 2005.
Appendix J.10 AIR QUALITY MANAGEMENT PLAN	
Existing Commitments - draft EIS	
663 The air quality management actions to reduce emissions from mining operations are presented in	Table 3.1
Material extraction and handling	
Loading/dumping overburden	
The drop height of material from excavators will be minimised when loading trucks.	
Modification of operations will occur during adverse weather conditions (e.g. dust storms, gale for	force winds and storm conditions).
Water carts will be employed to keep mine roads and work areas in a moist condition.	
664     • Dozer operations on overburden dumps will be modified or suspended if dust generation is exce	essive.
Drilling and blasting	
Dust curtains will be installed on drill rigs (i.e. under the drill deck with fabric filters to collect dus	st).
Water injector will be used on drill rigs to minimise dust emission.	
	prce winds and storm conditions).
<ul> <li>Local residents (neighbours) will be advised of blasting events (date and time).</li> </ul>	····· ·· ·· ·· ··
<ul> <li>Local residents (neighbours) will be advised of blasting events (date and time).</li> <li>Blasting operations will be modified during adverse weather conditions (e.g. dust storms, gale for</li> </ul>	
<ul> <li>Local residents (neighbours) will be advised of blasting events (date and time).</li> <li>Blasting operations will be modified during adverse weather conditions (e.g. dust storms, gale fo</li> <li>Blasts will occur during daytime hours only and not on weekends or public holidays.</li> </ul>	
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<ul> <li>Local residents (neighbours) will be advised of blasting events (date and time).</li> <li>Blasting operations will be modified during adverse weather conditions (e.g. dust storms, gale for Blasts will occur during daytime hours only and not on weekends or public holidays.</li> <li>Gravel/basalt stemming will be used in blast holes.</li> <li>A pre-blast environmental checklist will be used. Key actions will include::</li> <li>Review of the current weather forecast.</li> <li>Establishment of 300 m and 500 m minimum machine and personnel exclusion zones, respectivel.</li> <li>Establishment of a Fume Management Zone based on expected meteorological conditions.</li> </ul>	
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<ul> <li>Local residents (neighbours) will be advised of blasting events (date and time).</li> <li>Blasting operations will be modified during adverse weather conditions (e.g. dust storms, gale for Blasts will occur during daytime hours only and not on weekends or public holidays.</li> <li>Gravel/basalt stemming will be used in blast holes.</li> <li>A pre-blast environmental checklist will be used. Key actions will include:: - Review of the current weather forecast.</li> <li>Establishment of 300 m and 500 m minimum machine and personnel exclusion zones, respectivel - Establishment of a Fume Management Zone based on expected meteorological conditions.</li> <li>Neighbours on blast contact list will be notified of whether their residence is in the fume manage</li> </ul>	

ble.

ng, replanting, weed control and on-going management. Upon acceptance of the

ties. Preference will be given to harvesting of local seed to promote the ecological

ities in Queensland (Neldner et al., 2012) in combination with the Biocondition mproved knowledge and understanding of maintaining existing Bluegrass

e listed in Table 4 1. These additional management actions are consistent with ctions is to create awareness, improve knowledge and understanding of Bluegrass

plement the replacement offset strategy in an expedient manner. If required to

luegrass ecological community offsets are protected in perpetuity by a suitable

ken in consultation with landowners and interested stakeholders.

approach to management of target species to ensure successful management. as new pest or weeds species, new outbreaks or any actions resulting from program.

ill update its existing PWMP in accordance with QH's document, "Guidelines to

		Haul roads
1		Water carts will maintain moisture conditions on haul roads.
i i		• Road grading and maintenance will be undertaken on a regular basis (refer to Standard Operation Procedure (SOP 05 12.02 Maintain and Water Mine Roads in Appendix A.2). Key actions include:
i i		- Application of coarse rejects on haul roads to reduce dust generation.
i i		- Grading procedures to achieve constant spread of fines and coarser material.
l l		Speed on haul roads will be limited to 60km/h (20 km/h on selected corners).
		Where feasible, the volumes of trays on haul trucks will be maximised to increase carrying capacity and to reduce vehicle kilometres travelled on haul roads.
		Visual monitoring of haul roads and major work areas will be undertaken to identify noticeable dust generation for corrective actioning.
		Certain site roads will be sealed (near administration area – site access and employee car park).
		Efficient watering will be conducted during peak periods of activity and within areas of concentrated activity.
		Well defined and planned haul routes and internal roads will be developed to maximise efficiency of travel.
661	4	Obsolete mine roads will be rehabilitated.     The private baulage route from the Materials Lightling Facility to Train Loading Facility will be a scaled road
666		The private haulage route from the Materials Handling Facility to Train Loading Facility will be a sealed road.  Exposed areas
		Exposed areas <ul> <li>The pre-strip areas will be planned to minimise the time of exposure following clearing in advance of mine development.</li> </ul>
		Exposed areas/active areas will be watered if dust generation is observed.
		Where possible, topsoil will be stripped when its moisture content is elevated but not sodden.
		A vegetative cover will be established as soon as feasible on areas prepared for rehabilitation.
		Progressive rehabilitation will be conducted behind the active pit areas to minimise exposed areas.
667	7	Unauthorised clearing of non-mine areas will be prevented using a 'permit to disturb' system.
		ROM Pad
		Water will be applied on a regular basis by a water cart on trafficked areas within the ROM Pad's operational area.
		Visual monitoring of ROM coal stockpiles will undertaken to identify noticeable dust generation for corrective actioning.
668	8	Water will be applied on the ROM coal stockpiles if significant dust levels are being generated.
		Coal Handling and Preparation Plant & ROM Bin
		ROM Bin
		Automatic water sprays will be installed at the ROM hopper bin to produce a fine mist to suppress dust generated when sensors are triggered.
		Surge Bin
		Dust curtains will be installed.
		Waters sprays will be used.
		Crushing
		Wet crushing will be employed.
		This activity will be fully enclosed.
		Conveyors
669	9	Water sprays will be used on transfer points.
		Material Handling Facility
		An automatic sprinkler system will be employed to moisten product coal stockpiles.
		Water sprays will operate at transfer points on conveyors.
		<ul> <li>Coal spills will be removed regularly to minimise the potential for dust generation.</li> <li>A vacuum sweeper will operate on roads near the Materials Handling Facility.</li> </ul>
670		• The washed coal will normally retain a moisture level of approximately 10%.
070		Train Loadout Facility
		No coal will be stored in open/exposed stockpiles.
		• An enclosed overhead bin will deliver the coal to each rail wagon as part of the train loadout system.
		• Coal will be loaded by side tipper into a hopper as part of the train loadout system.
671	1	Veneering and profiling of the loaded coal will be conducted to minimise dust emissions during transport.
672		NAC proposes to implement a dust forecasting system to provide daily predictions of upcoming meteorological conditions for use in the proactive assessment of potential risks from air quality impact
		The proposed air quality monitoring program for the revised Project consists of
		Tapered Element Oscillating Microbalances (TEOMs) for real time measurement of PM10 concentrations;
		Tapered Element Oscillating Microbalances (TEOMs) or Beta Attenuation Monitors (BAMs) for real time measurement of Total Suspended Particulates (TSP);
		High Volume Air Samplers for measurement of PM10 particulates;
		Dust Deposition Gauges for measurement of general dust fall out; and a
		Meteorological Station for the measurement of local weather conditions.
673	3	The locations of air quality monitoring equipment for the revised Project are presented in Figure 3-1.
		The locations of air quality monitoring equipment for the revised Project are presented in Figure 3-1. The proposed number of monitoring equipment, frequency of monitoring and relevant monitoring standards are summarised in Table 3.2. The siting and installation of air quality monitoring instrum
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674 675 676	4 5 6 7	The locations of air quality monitoring equipment for the revised Project are presented in Figure 3-1.         The proposed number of monitoring equipment, frequency of monitoring and relevant monitoring standards are summarised in Table 3 2. The siting and installation of air quality monitoring instrum         Methods for sampling and analysis of ambient air. Part 1.1: Guide to siting air monitoring equipment.         The Adaptive Air Quality Management framework for the revised Project is presented in Table 3 3. NAC will continue to expand its corrective actions list for air quality management over the life of the A legible record of all concerns will be kept by NAC's Environmental Team, who are responsible for the revised Project's environmental concerns management. Each concern received in relation to the information is maintained for legal and compliance purposes.         Standard actions taken by NAC's Environmental Team in relation to air quality (dust) concerns will include reviewing in relation to the time of the concern:         • meteorological data;         • relevant available air quality monitoring data; and         • mine operations.         Follow up actions taken by NAC's Environmental Team in relation to air quality (dust) concerns may include depending on circumstances:         • a site inspection of the complainant's residence;         • targeted sampling at the complainant's residence of:         - general surface dust and/or rainwater tank sludge for compositional analysis, and/or         - collected rainwater for water quality analysis;

cts from the revised Project's mining operations.

ments will be in accordance with the requirements of AS/NZS 3580.1.1:2007

he revised Project. the revised Project will be formally documented and record of the following

); and

ed and practical mitigation measures, and if reasonably possible, to the

680			NAC will advise the DEHP in a timely manner of all non-compliances identified in relation to the revised Project's future EA (e.g. 'exception reporting').
(01			If a definite case where material or serious environmental harm or the potential for material or serious environmental harm is clearly established by an air quality investigation into an unforeseen impa
681			Environmental Protection Act 1994 are fully addressed.
682			As required, NAC will prepare and submit to the DEHP any requested information about environmental management and other related matters in relation to the revised Project's operations, including a
			Over the life of the revised Project, NAC will regularly audit the performance of the AQMP using both internal and third party auditing processes. Internal and third party audits will be conducted on an
683			generally be designed to examine the status of the key components of the AQMP, review air quality concerns management, and evaluate the overall performance of NAC's air quality management for t compliance and promote continuous improvement as part of the revised Project's air quality management regime.
684			In addition, NAC's AQMP will be subject to potential audit by the DEHP during Compliance Inspections and other site inspections, and as a possible component of a formal air quality concerns investiga
004			NAC will continue to review the dispersion modelling over the life of the revised Project, and in particular, will compare collected monitoring data and the modelled results at specific locations (e.g. sen
685			the mine path.
005	Additional Commitmn	ets - AFIS	
			NA
		NOISE AND VIBRATION MANAGEMENT	
	Appendix J.11	PLAN	
	Existing Commitments	- draft EIS	
			The following mitigation measures are proposed by NAC as management commitments to reduce the revised Project's potential noise impact.
			• NAC will establish a real-time noise monitoring network, which will be used in conjunction with a weather forecasting system and an adaptive management process, to proactively relocate, reduce or
			• Based on ambient conditions (climate and the current mine plan) and feedback from the real-time noise monitoring (warning and alarm protocols), NAC may be required to modify (limit) or stop mini
			requirement is based on the noise assessment work completed for the revised Project's EIS.
			• NAC will ensure noisier mining equipment such as excavators, track dozers, loaders and rear dump trucks are fully attenuated. This requirement is based on the noise assessment work completed for
			<ul> <li>If a legitimate complaint is received and/or a noise issue is identified by investigation, where possible NAC will modify mining operations until a satisfactory solution for the noise issue is developed ar</li> <li>Where possible, NAC will schedule noisier operations in-pit at night or during daylight hours only. For example, dumping of overburden and dozer activity on overburden dumps at or above ground su</li> </ul>
			<ul> <li>If no suitable or acceptable noise amelioration solutions are available for a particular noise issue, NAC will negotiate in good faith with all affected property owners for property purchase or by agreer</li> </ul>
			treatment of the dwelling, relocation or replacement of the dwelling at another suitable location, relocation of the landowner to another living arrangement for the period of the issue or any other suit
			associated with any agreed solution to a noise issue.
			<ul> <li>NAC will ensure proper maintenance and operational procedures will be undertaken to minimise noise emissions from equipment, including appropriate servicing and maintenance of exhaust system</li> </ul>
			<ul> <li>NAC will ensure all complaints are investigated in a timely manner to determine the source of the nuisance noise. Where appropriate, noise monitoring will be conducted at the affected residence, all</li> </ul>
			implemented by agreement. NAC has purchased a specialist noise logger that can be placed at a complainant's residence for a length of time to record the problem periods. This equipment will be ma
			<ul> <li>Where practicable, NAC using the mine planning process will utilise topsoil and other dumps as noise barriers between active mine operations and nearby noise receptor locations.</li> </ul>
			• NAC will continue to utilise broadband alarms instead of reverse beepers on all mobile equipment.
			• NAC will continue to limit the speed of heavy vehicle traffic on haul roads.
			NAC will continue its current proactive monthly noise monitoring program and will expand its coverage around the revised Project area.
686			• NAC will continue its proactive assessment of possible noise attenuation options for both mobile or stationery noise emitting equipment. Noise emissions with tonal, impulsive and/or intermittent ch
			For the management of airblast overpressure and vibration, the following measures will be adopted for the revised Project:
			Field data will be used to best determine blast conditions and the type of stemming required for the area.
			• In the event of a blast issue, the maximum instantaneous charge of subsequent blasts will be reduced using delays, reduction of hole diameter, etc. (i.e. until the blast issue is resolved).
			• In the event of a blast issue, the burden and spacing of subsequent blasts will be changed by altering the drilling pattern and/or delay layout, or altering the hole inclination (i.e. until the blast issue is
			The stemming depth and type will be adequate for each blast event.
			Blast events will only be conducted during favourable weather conditions.
			The monitoring of blasts will continue at the nearest sensitive receivers based on the interpretation of pre-blast weather data.
			• The practice of advising near neighbours will continue in advance of each blast. All new near neighbours surrounding the Project area will be proactively invited to join the blast notification contact list
			<ul> <li>A qualified professional with suitable experience will be responsible for the Project's blast management.</li> </ul>
687			All blast complaints will be investigated in a timely manner to determine the extent of the issue. Where appropriate, blast monitoring will be conducted at the affected residence, and as required, blast
688			NAC proposes to implement a weather forecasting system to provide daily predictions of upcoming meteorological conditions and potential risk of noise and vibration impacts from mining operations f
(00			The weather forecasting system predicts notential rick of poice and vibration impacts using dispersion modelling tools for up to two down in advance. The weather forecasts will be a state of the second system of the
689			The weather forecasting system predicts potential risk of noise and vibration impacts using dispersion modelling tools for up to two days in advance. The weather forecasts will be updated on a daily be predictions from the weather forecasting system will allow Mine management to identify locations and times of notantially increased risk, and to facilitate appropriate planning to minimize or avoid po
690			Predictions from the weather forecasting system will allow Mine management to identify locations and times of potentially increased risk, and to facilitate appropriate planning to minimise or avoid po Significant noise and vibration issues will be highlighted at shift changes between the Production Supervisors or are and will be conveyed to the general workforce on a regular basis through 'Tool Box T
691			significant noise and vibration issues will be nignighted at shift changes between the Production Supervisors of are and will be conveyed to the general workforce on a regular basis through 1001 Box 1 work practices to help reduce the potential for noise and vibration impacts from the revised Project.
091			ואיטיג ארמטוניסי נט חפוף דפעעטפ נחפ אטנפחנומרוטר חטוצפ מחע אוטרמנוטרו וחואמט דו טוח נחפ דפאוצפע צוטןפטנ.
			NAC will establish a permanent real-time noise monitor in Acland and a mobile real-time noise monitor to be placed depending on ambient conditions (climate and the current mine plan). This monitor
			and will operate on a risk based approach. Warning and exceedance alarms will be used to inform the Mine of the status of the noise limits at the monitoring locations. In the event of an alarm, the Mine of the status of the noise limits at the monitoring locations.
			Mine is the source of the high noise levels. This unattended monitoring system will not always be practical during the warmer months due to other intrusive noise sources (e.g. insect noise). However,
692			lower and temperature inversions are common. NAC will ensure use of the real-time monitoring equipment is appropriate and practical for the circumstances.
072			In the event monitoring positively identifies that noise from the Mine is approaching or exceeding the specified noise limits, immediate management actions will be applied at the site that may involve in the second s
693			Project's mine pits.
073			Based on noise assessment work completed for the revised Project's EIS, the Manning Vale East Pit will most likely require specific management actions under these circumstances. Modification of min
			particular noisie assistant work completed for the revised Project site. The actions taken will depend on the mine noise sources identified by the appropriate Mine staff following alert t
			(e.q. warning or alarm)NAC will ensure that the scheduling of the Mine's activities at night proactively considers potential noise issues from the various areas of operational activities. The weather forei
694			conditions and temperature inversion conditions).
074			
695			NAC will continue its proactive assessment of possible noise attenuation options for both mobile or stationery noise emitting equipment. Noise emissions with tonal, impulsive and/or intermittent chai
696			The current proactive monthly noise monitoring program will continue in an expanded form to cover the broader revised Project area. As explained, a permanent noise monitor will be located in Aclan
			All complaints will be investigated to determine the source of the nuisance noise. Where appropriate, noise monitoring will be conducted at the affected residence, and as required, noise amelioration
697			specialist noise logger that can be placed at a complainant's residence for a length of time to record the problem periods. This equipment will be maintained and the results will be interpreted by a qua
698			Monitoring of blasts will continue at the nearest sensitive receivers around the revised Project based on climatic conditions (e.g. wind conditions).
		•	

npact, NAC will ensure the notification requirements of Section 320 of the

ing air quality monitoring data. n annual and three yearly timeframes, respectively. The audit process will for the revised Project. The strategy for NAC's audit processes is to ensure

gation process.

sensitive receptors) to help guide future air quality mitigation strategies ahead of

e or stop noisier mining operations and other noise sources. nining operations in the Manning Vale East pit during the night time period. This

for the revised Project's EIS.

d and implemented.

d surface may be restricted during night periods (10pm to 7am).

reement implement some other form of amicable arrangement (e.g. acoustic suitable innovative solution). NAC would be responsible for all reasonable costs

tems on mine equipment.

e, and as required, noise amelioration solutions will be investigated and

maintained and the results will be interpreted by a qualified professional.

t characteristics will be targeted for noise attenuation.

e is resolved).;

ct list.

blast mitigation solutions will be investigated and implemented by agreement. ns from the revised Project.

ly basis, generating a daily automated email of forecast meteorological conditions. I potential impacts.

ox Talks'. This approach ensures that the day-to-day business focuses on good

hitoring system will be used in conjunction with the weather forecasting system e Mine will attend the monitoring location as soon as possible to establish if the ver, it will be ideal during the cooler months when background noise levels are

lve modification or cessation of mining activities at one or more of the revised

mining activities may mean reducing the intensity of noisier operations or moving ert by the real-time monitoring system and the level of exceedance at the time orecasting system will help guide these mine planning decisions (e.g. wind

characteristics will be targeted for noise attenuation. cland to continuously monitor the noise levels.

tion solutions will be investigated and implemented. NAC has purchased a qualified professional.

699		Concerns and other issues raised will be managed in accordance with the revised Project's Local Stakeholder Management Plan, which is provided in Appendix J.18. A register will record details of the management actions taken, and the status of the concern.
700		A twenty four hour telephone number is made available to near neighbours for receiving concerns. This 'fast response' approach is designed to ensure access to the NAC employee on site at the time Environmental Team will be available for contact during business hours by email (with the email address available through a web-site), and by telephone through the Mine's reception.
/00		A legible record of all concerns will be kept by NAC's Environmental Team, who are responsible for the revised Project's environmental concerns management. Each concern received in relation to the
		information is maintained for legal and compliance purposes.
		1) The date and time of concern. 2) The nature of concern (e.g. noise).
		3) The method by which the concern was received (e.g. telephone).
		4) The name and title of the person who receives the concern.
		<ol> <li>5) The personal details of the complainant, if made available, or if no details were provided, a note to that effect.</li> <li>6) The action taken in relation to the concern, including any follow-up contact, the outcome of investigations and any required on-going actions.</li> </ol>
		7) If no action was taken, then the reason why no action was taken.
701		8) The final status of the concern (e.g. resolved, continuing or unresolved).
		Standard actions taken by NAC's Environmental Team in relation to noise concerns will include reviewing the following:
		meteorological data;     relevant available noise monitoring data; and
702		mine operations.
		Follow up actions taken by NAC's Environmental Team in relation to noise concerns may include depending on circumstances:
		a site inspection of the complainant's residence;     targeted sampling at the complainant's residence;
		<ul> <li>an investigation of other potential noise generating sources in the vicinity of the complainant's residence; and</li> </ul>
703		engagement of an noise and vibration specialist to assist the concerns investigation process.
704		NAC is committed to rectifying all noise issues that are legitimately attributed to the revised Project's operations through proper scientific evaluation, in an appropriate timeframe, using accepted and the affected party.
704		Non-compliant Monitoring Results
705		NAC will advise the DEHP in a timely manner of all non compliances identified in relation to the revised Project's future EA (e.g. 'exception reporting').
706		Environmental Incidents
700		NAC will be bound to report all environmental incidents as a requirement of its future EA for the revised Project (i.e. based on the same requirement for the current Mine). General
707		As required, NAC will prepare and submit to the DEHP any requested information about environmental management and other related matters in relation to the revised Project's operations, including
		Auditing
		Over the life of the Project, NAC will regularly audit the performance of its noise management using both internal and third party auditing processes. Internal and third party audits will be conducted or into NAC's EMS. The audit process will generally be designed to review noise complaints management and evaluate the overall performance of NAC's noise management for the Project. The strategy for the strategy of the strategy o
		improvement as part of the revised Project's noise management regime.
708		In addition, NAC's noise management regime will be subject to potential audit by the DEHP during Compliance Inspections and other site inspections, and as a possible component of a formal noise comp
709		Review The NVMP will be formally reviewed on an annual basis and updated as required. The NVMP may also be updated based on the findings of internal and third party audit processes, based on the outco corrective actions). The DEHP will be advised of all significant revisions of the NVMP.
	Additional Commitmnets - AEIS	
		NA
	ACLAND COLLIERY CONSERVATION J.12 MANAGEMENT PLAN	
	Existing Commitments - draft EIS	
		As a State heritage place, the significance of the Former Acland No.2 Colliery requires that the following general commitments are undertaken as follows:
		<ul> <li>The historic mine site, including all built, moveable and landscape features should be maintained and conserved within their original setting, particularly elements of moderate and high rankings of significant elements should be maintained;</li> </ul>
		Intrusive elements should be removed;
		• Development on or immediately adjoining the site should be avoided or if necessary only undertaken with full consideration of the cultural heritage significance of the site; and
710		The scale, form and setting of the place should be respected and any proposed management or use options should be sympathetic to its historic use. The preparation of this CMP has been undertaken with the view to guide the immediate and future conservation of the site. Change of circumstance is inevitable and this document should be consider
		retain a contemporary stance on the management of the site.
711		Best practice guidelines state that a CMP should be reviewed, and if necessary, updated at least every five years.
712		Throughout all phases of works at the site, including conservation and maintenance, project works should respect the heritage significance of Former Acland No. 2 Colliery. Conservation and/or stabilis possible.
/12		The Asset Maintenance Schedule (Table 6.1 over), identifies a base program for regular inspection as well as general works and activities at the site – and includes associated work method statements
		It also provides details with regards to the activities requiring approval from DEHP or TRC. This schedule template should be used and updated to record the level or inspection, maintenance and repair
713	Additional Commitments AFIC	Refer also to Section 9.1 of Appendix D for details about conservation of structural elements, including a priority of works for significant elements.
	Additional Commitmnets - AEIS	NA
	J.13 WASTE MANAGEMENT PLAN	
	Existing Commitments - draft EIS	The WMP will be reviewed and updated (as new processes, waste streams, waste classifications, or major inconsistencies are identified) on a bi-annual basis to:
		• ensure the aims and objectives of the WMP plan remain satisfied;
		assess the performance of waste management at the revised Project; and
714		investigate opportunities for improvement of waste management practices.     Waste grease will be collected in bulk containers (as currently occurs) and removed by a licenced regulated waste transporter, to a licenced regulated waste receiver, for recycling or treatment and dis
715		generated by mobile and fixed plant and will be collected from service trucks, the workshop, and the CHPP. Bulk and supplementary grease containers will be disposed of as necessary based on type.
		Waste tyres generated by NAC for the revised Project will be stored near the workshop until a volume of tyres is present that necessitates dumping. A suitable area of pit floor as deep as possible but n
74/		dumped, and surveyed as appropriate.
716		Alternatively, tyres will be stored and transported off-site by a licenced regulated waste transporter to a licensed regulated waste receiver.

he concern, the complainant(s), a summary of the investigations completed, any

ne with the necessary responsibility to take immediate actions if required. NAC's

the revised Project will be formally documented and record of the following

nd practical mitigation measures, and if reasonably possible, to the satisfaction of

ng applicable noise monitoring data.

d on annual and three yearly timeframes, respectively, and will be incorporated gy for NAC's audit processes is to ensure compliance and promote continuous

complaint investigation process.

tcomes of a complaint investigation or following a regulatory inspection (i.e. as

f significance, wherever possible;

dered as an adaptable guide that is reassessed and modified at regular intervals to

bilisation of significant elements across the site should be undertaken where

nts where applicable. pairs to the site as required.

disposal under appropriate documentation. Waste grease will be predominately

t not in the region of an expressing aquifer will be prepared; the tyres will be then

	Medical waste generated by NAC includes collection of hygiene products, sharps bins, and drug testing equipment, which will be removed by suitably accredited contractors under appropriate docume
717	incineration. Removal of the sharps/medical/sanitary bins will occur as per contractual arrangements. Contractors will also be contacted for the removal of any additional build-up of this type of waste Waste oil is generally produced by the mobile plant fleet and transferred at the CHPP precinct and workshops. Waste oil will be transferred from the workshop and service vehicles and stored on-site in
718	for recycling with engine coolant.
719	Waste oil containers will be drained on-site and drums will be transported off-site by a waste contractor for off-site reuse, recycling or disposal. Oil will be collected, then transported off-site by a licens recycling.
720	Waste oil filters are generated by mobile and fixed plant. Waste oil filters will be temporarily stored at the workshop in skip bins. Bins have been designed specifically for oil filters and incorporate a dra the bin. A licensed contractor will remove and replace the filter bin on an as required basis. Oil will be recovered from the filters at an approved facility, and filters will be recycled.
721	Waste oil absorbent sources generally occur from accidental spills. Waste oil absorbent will be placed in bags and then in a skip bin (with oily rags), or depending on the nature of the clean-up and conte
	The spill response process in order of priority will be to control, contain, absorb and dispose of the spilt material. Procedures will include the provision of spill containment equipment and materials at v
722	of hydrocarbon/chemical spills that have the potential to enter waterways, undisturbed areas or rehabilitated areas. Training will be provided to personnel and contractors in the management of chemi Waste oily rags are predominantly generated by the workshop and washplant. Waste oily rags will be placed into dedicated bins in working areas, and then transferred to a skip bin which will be emptie
723	documentation.
724	The resulting oil will be collected and transported off-site by a licensed regulated waste transporter to a licensed regulated waste receiver for recycling. The separated water will be directed to a sedime
	The revised Project is not expected to generate significant volumes of waste paint/solvent. Paints and Resins used for the construction and operation of the infrastructure area (MHF, TLF workshops and necessary.
725	Waste will be collected on-site, stored in a segregated area, transported off-site by licensed regulated waste transporter under appropriate documentation, and disposed off-site by a regulated waste regulated waste transporter under appropriate documentation, and disposed off-site by a regulated waste regulated waste transporter under appropriate documentation, and disposed off-site by a regulated waste regulated waste transporter under appropriate documentation, and disposed off-site by a regulated waste regulated waste transporter under appropriate documentation, and disposed off-site by a regulated waste regulated waste transporter under appropriate documentation, and disposed off-site by a regulated waste regulated waste transporter under appropriate documentation.
726	Mobile and fixed plant will be the main generators of waste coolant at the revised Project. Waste coolant will be collected by the workshop and service vehicles and will be transferred to the waste oil co
	Sewage will be generated at mobile crib hut locations, and at fixed structure locations. Sewage collected at mobile crib hut locations will be managed by accredited contractors and disposed of off-site. Structure locations are the supply storages.
	Sewage from the construction areas and administration offices will be pumped to the STP for treatment and disposal in accordance with the revised Projects EA. Sewage sludge will be treated on-site at contractor.
727	STP effluent will be discharged to a sediment dam for possible reuse on-site for dust suppression and/or evaporation, or discharged to the process water system in accordance with the revised Projects
728	Waste batteries will be stored near the workshop and will be collected and disposed of/recycled by an accredited contractor when a sufficient quantity is collected. An oil water separator will be used to remove hydrocarbons from the wash-down water. Any sludge removed from the Wash-down Bay will be taken to NAC's current dedicated contaminated land area
729 730	Environmental Dam. Contractors will be engaged to remove wash-down bay sludge on an as required basis. Chemicals will be disposed of as required depending on chemical type, in consultation with an accredited waste removal contractor. Bulk material containers will be used where possible to reduce the v
	Serviceable air filters will be collected by a contractor for cleaning, testing, and reuse. Non-serviceable air filters will be disposed of by the contractor engaged to test them. Any air filter deemed un-ser
731 732	removed by a nominated accredited waste removal contractor. Aluminium cans including aerosol cans will be collected in co-mingled recycling containers and transferred to a recycling facility by an accredited waste removal contractor for separation and recycling.
733	Cardboard and paper will be collected in co-mingled recycling containers and transferred to a recycling facility by an accredited waste removal contractor for separation and recycling.
734	Used printer cartridges generated by NAC's Administration area will be disposed of in general waste bins and removed by an accredited waste removal contractor. NAC will investigate the option of retu
735	Recyclables generated will include glass jars and bottles, cardboard cartons, and plastic bottles/containers. All nominated recyclables will be collected in receptacles and then transferred to dedicated sh for separation and recycling.
736	Green waste will generally be re-used, however circumstances will occasionally arise when green waste is required to be buried in-pit, or removed from site for use elsewhere. Burning of green waste m
737	General waste will be collected at receptacles across the revised Project site, and transferred to dedicated skip bins where it will be collected by an accredited waste removal contractor for disposal to la
738	Scrap metal/steel produced during the revised Project's construction and operational phases will be placed in dedicated scrap metal skip bins located at the workshop and at the CHPP Precinct. Dedicate for recycling. Scrap metal will be minimised by producing/procuring only the amount necessary. During the decommissioning phase of the revised Project, all re-usable steel and functioning equipment
739	All wooden pallets used on-site will be exchanged with pallet providers. As an exception, pallets that are deemed unusable will be disposed of in-pit or in general waste skips that will be removed from
740	Rubber waste generated will be collected and segregated on-site and removed from site by accredited waste removal contractor.
741	Excavated waste generated during construction of site infrastructure (rail spur line and balloon loop, MHF and TLF) for the revised Project will be used as fill on-site. Waste materials will be reused as mu be disposed of in waste dumps.
742	Wastage of concrete will be generated for the construction and decommissioning of the site Infrastructure area such as the CHPP precinct, workshops and buildings. Pre fabrication will be used if possib
743 744	Electrical waste will be collected and segregated on-site and transported by a waste contractor for off-site recycling. Waste that has the potential to hold residues of explosive material will be buried in pit.
745	Mining wastes and their management are discussed in Chapter 3 and in the In-pit Tailings Storage Facility Management Plan provided in Appendix J.1.
746	Coarse reject material generated by the CHPP includes material separated from the coal washing process that is approximately >2mm aggregate. Coarse reject will be contained by the CHPP and then eit revised Project site.
	Fine tailings generated by the CHPP includes materials approximately < 2mm that are separated from coal during the coal washing process. Fine tailings will be transferred from the CHPP to in-pit tailings
747 748	assist in dewatering, and beaching. NAC will ensure that all new strategies and actions for waste management consider the 'waste management hierarchy' described by Section 10 of the EPP Waste.
	Where possible and economically viable, waste management at the revised Project will focus on improving the key areas of waste minimisation, re-use and recycling. In light of this, NAC will make the fo
749	Contracts with construction companies will be negotiated to place responsibility on all contractors to adopt best practice waste minimisation procedures.     Training will be provided to personnel and contractors in relation to waste management requirements and practices.
	Contracts with construction service suppliers will be negotiated to encourage all contractors to adopt waste minimisation procedures consistent with NAC's WMP. This approach will include the purchase
750	packaging, reuse of concrete formwork where practicable, and source separation and segregation of all recoverable materials. Separate skips will be provided to maintain segregation and maximise eco
	The waste contractor will provide a monthly report which tracks waste generation at each location and includes data on general and recyclable waste generated and the level of contamination in waste waste tracking certificate and detailed in a monthly report by the contractor. The Department of Environment and Heritage Protection (EHP) Waste Transport Certificates will be forwarded to NAC, with
751	certificates will outline the type and amount of regulated waste, the name of the waste producer and the nominated disposal/treatment/storage facility.
752	NAC will implement a program to address any outstanding non-conformances as a result of the monitoring and auditing program. Corrective actions will be recorded and responsibility will be assigned to the second s
753	The planned review process for the WMP, outlined in Section 1.6, will also generate the opportunity to examine possible areas for continuous improvement in waste management on a bi-annual basis.

nentation. This waste will be transported to a suitable waste facility for ste (i.e. outside the standard arrangement).

e in a bunded facility (compound, temporary or pallet) prior to removal from site

ensed regulated waste transporter to a licensed regulated waste receiver, for

drainage tray where excess oil can be drained from the filters and pumped from

ontent of soil, be placed in the dedicated contaminated land area.

at workshops, warehouses and fuel/chemical storage areas to reduce the impacts micals, hydrocarbons and wastes.

otied routinely and as required by an accredited contractor under appropriate

iment dam for evaporation or possible reuse on-site. and buildings) will be minimised by producing/procuring only the amount

e receiver.

il compound and disposed of as described in Section 2.1.4. te. Sewage collected by fixed structure locations will be transferred to the Sewage

e at the STP. The thickened sludge will be removed from site by a licensed

cts EA.

area. All treated water from the Wash-down Bay will be diverted to NAC's

e volume of waste generated.

serviceable by NAC will be dispensed to the general waste bins, which will be

eturning the used printer cartridges to the supplier for refilling and reuse. d skip bins where it will be collected by an accredited waste removal contractor

e may be conducted where necessary, with appropriate permits in place. o landfill.

cated scrap metal bins will be emptied as required by an accredited contractor ent will be sold and removed appropriately from site.

m site by an accredited waste removal contractor.

much as practicable to construct haul roads and pads. Unsuitable material will

sible, and waste will be minimised by procuring only the amount necessary.

either disposed of over the active dump, or used to sheet haul roads within

ings cells for immobilisation. Flocculating agents may be added to the tailings to

e following commitments.

chase of materials cut to standard sizes, bulk purchasing of materials, reduction of economic reuse and recycling, in preference to disposal to landfill. ste receptacles. All forms of regulated waste will be tracked in accordance with a vith copies being retained by the waste contractor and by the EHP. The

d to the appropriate person for action and close out. s.

	Additional Commitmne	ets - AEIS	lata
			NA
	Appendix E		
	AEIS	Revised SIMP	
			The Community and Stakeholder Engagement Action Plan is a framework to provide effective community engagement and communications mechanisms to stakeholders and community members. Key <ul> <li>continued operation of the New Acland Community Reference Group (CRG);</li> </ul>
			continued operation of the New Actand Community Reference Group (CRG);     ortinued commitment to provide the staffed New Hope Community Information Centre at Oakey;
			<ul> <li>ongoing proactive stakeholder and landholder engagement;</li> </ul>
			• implementation of the Local Stakeholder Management Plan (Refer to Appendix J.18);
			implementation of further consultation plans in Section 5.1.10 of the AEIS;
			continued communications through the project phone line and email address;
754			• participation in local community groups such as the Oakey Community Care Committee, Toowoomba Surat Basin Enterprise, Oakey Chamber of Commerce, Toowoomba Chamber of Commerce and o
754			Partnerships and relationships with local educational institutions such as Oakey State High School, University of Queensland and University of Southern Queensland.
			NAC's Workforce Management Action Plan provides a framework for the management of potential impacts and commitments to the community. In addition, the Workforce Management Action Plan in
			Indigenous people, women and unemployed people. The key initiatives to be continued or implemented as a part of this plan include:
			• continuation of existing partnerships with educational institutions, training groups and government agencies (such as Oakey State High School, University of South Queensland and Downs Group Trai
			• continued implementation of structured training programs such as apprenticeships and traineeships, and opportunities for vacation employment and graduate employment through NAC;
			local recruitment strategies, such as local advertising and using the New Hope Community Information Centre in Oakey to advertise positions and accept employment applications;
			• continued adoption of equal employment opportunities for recruitment and continue to support a diverse workforce that includes vulnerable population groups including people from culturally and the unemployed and underemployed. Continued practice of up-skilling and training staff to progress to new positions;
			adopting flexible and fair work arrangements which are designed to assist employees with maintaining work/life balance and help disadvantaged groups transition to the workforce; and
755			<ul> <li>maintaining relationships with government agencies, training groups and community groups to assess the opportunity to provide employment for long-term unemployed people or people with a disa</li> </ul>
			The NAC Housing and Accommodation Action Plan has been developed in consultation with community members and stakeholders, including the CRG, local real estate agents, community groups, Too
			workforce population is not expected to place undue demand on the housing and accommodation in the Study Area. This Action Plan has been developed to monitor and manage potential impacts on
			the following outcomes:
			<ul> <li>neutral impact on housing affordability and availability for locals;</li> <li>additional business opportunities for local accommodation providers; and</li> </ul>
756			benefits for temporary accommodation providers.
700			NAC will adopt the Queensland Resources and Energy Sector Code of Practice for Local Content (the Code). The Code outlines specific tools to assist resources and energy companies to buy local and bu
			that local industry receives a full, fair and reasonable opportunity include:
			openly promoting the adoption of the Code;
			• establishing a register for local contractors to register interest in the project. Registered contractors could be provided with information on the typical services that the constructor is looking to source
			hold local briefings explaining what opportunities are available for local contractors and the anticipated timelines;
			• provide or facilitate the provision of pre-tender training and information to ensure interested parties are tender ready. NAC will hold bi-annual procurement information sessions during detail design to explain NAC requirements and expectations;
			developing and publicising a forward procurement plan;
			• inviting pre-qualified suppliers to tender in addition to advertising tender opportunities via public avenues;
757			provide feedback if requested by suppliers that were unsuccessful in prequalification or tendering; and
			This Action Plan has been developed following consultation with the Oakey Hospital and local health services. Key strategies to be implemented under this Action Plan include:
			<ul> <li>NAC will continue their relationship with the Oakey Hospital and meet regularly with key management staff to understand potential concerns or opportunities;</li> <li>health facilities and services will be provided on-site at the Mine in line with the requirements of the Health (Drugs and Poisons) Regulations 1996;</li> </ul>
			<ul> <li>NAC will provide first aid services and fire fighting services at the revised Project site;</li> </ul>
			• implement a program of noise and dust management, including coal veneering, enclosed hoppers and noise management;
			• ongoing support for agricultural activities in the region through the Acland Pastoral Company and community investment; and
758			• NAC will support community groups and social services with donations through the Community Donations and Sponsorship Program and larger grants through the Community Investment Fund.
			In order to successfully implement the management plans outlined in this SIMP, NAC will commit to a number of key mechanisms or tools, including:
			<ul> <li>community investment programs, in particular the New Acland Community Investment Fund and the Community Sponsorship and Donation Program, to channel financial resources into the community</li> <li>key partnerships with government agencies and non-government organisations in the local community; and</li> </ul>
759			<ul> <li>Key partnerships with government agencies and non-government organisations in the local community; and</li> <li>on-going provision of a Community staff to provide information to the public and deal with stakeholder issues and grievances.</li> </ul>
760			The action plans will be reviewed on an annual basis. The key monitoring mechanisms proposed in these action plans are summarised in Table 6-1.
761			The SIMP will be reviewed prior to commencement of operations, and any revisions required will be discussed with the Office of the Coordinator General.
			Communicating the findings of the monitoring process is important for providing key stakeholders with information on how social management activities are progressing. Internally, for NAC, it shows h
762			generate knowledge of what works, what does not work and why; helping the project team to appropriately manage impacts.
7/0			Internal reporting on this SIMP will be undertaken regularly throughout construction and operation, through the existing General Management meetings. Where appropriate, summary reports will also listed in the internal employee powerlatter. "Retureen the Seame"
763 764			issued in the internal employee newsletter, "Between the Seams". External reporting during construction and operation will be reported as part of regular community newsletters, and in an annual report to the Coordinator General.
704			
765			NAC will seek to involve the community during the planning, construction, operation and decommissioning of the revised Project, in accordance with the Australian Government's Handbook on Comm
			In particular, NAC will seek to understand and address community concerns about the environmental and social impacts of project activities. NAC will also seek to actively and effectively deal with com
766			development opportunities, whilst engaging near neighbours to manage amenity and access issues.
767			NAC will use a range of engagement mechanisms throughout the revised Project as detailed in Table 7-1.
768			The stakeholder engagement strategy will be reviewed and revised internally on an annual basis. Further details of consultation activites activities can be found in Section 5.1.10 of the AEIS.
			A number of methods will be used to evaluate the effectiveness of the engagement program with local stakeholders. These methods include: • Database records: Database records with an analysis of feedback forms submitted, website hits, telephone calls, incoming emails, tone of enquiries and key issues raised.
			<ul> <li>Benchmarking activities: Benchmarking activities will be undertaken using questions on any feedback forms and activities to determine changes in local community attitude, knowledge and behaviou</li> </ul>
			<ul> <li>Informal feedback: All significant informal feedback received from local stakeholders regarding consultation activities will be recorded in the revised Project database and reported and analysed.</li> </ul>
			Observations: Team members will record their observations during local stakeholder engagement activities. These observations will detail what happened during the activity, who was involved and h
			quotes.
769			Media analysis: Analysis of negative versus positive media coverage.

Key strategies that will support the implementation of this Action Plan include:

nd other local groups; and

in includes a number of approaches to support employment locally including for,

nd linguistically diverse backgrounds, Indigenous peoples, women, school leavers,

disability, and assessing skills gaps and training required. Foowoomba Regional Council and State Agencies. The slight increase in the on housing. The implementation of this Action Plan will work towards achieving

d build supply chain value. Strategies which are outlined in the Code for ensuring

urce and any pre-tender requirements;

sign and construction of the project with potential contractors and subcontractors

nunity;

vs how funds are being used to achieve key objectives. Additionally, the findings

also be discussed at the weekly Senior Management Team meetings and may be

nmunity Engagement and Development for the mining industry. ommunity expectations around employment, economic and community

iours.

d how they reacted. Team members will also record 'stand out moments' and

	Appendix J.15	EMERGENCY MANAGEMENT PLAN	
	Existing Commitment	ts - draft EIS	
l			. NAC will continue to liaise with QFRS, Queensland Ambulance Service (QAS), local State Emergency Services, local ambulance, local hospital services and local Police throughout all stages of the revised
770			with its regional emergency service providers over the life of the revised Project. In addition, NAC will liaise with Queensland Health at the appropriate time regarding emergency management procedur
771			NAC will continue to provide and maintain resources and procedures to ensure NAC has an adequate emergency response capability throughout all stages of the revised Project.
770			
772			NAC will establish and maintain contingencies to deal with emergency situations. An emergency response capability and appropriate facilities will be provided, and maintained, to enable the management NAC will engage the Local Stakeholder Management Plan (LSMP) as the primary mechanism for this process. The LSMP is presented in Appendix J.18. In the event of an emergency which requires immed
773			stakeholders about the nature of the emergency, that status and actions to be undertaken to minimise risks to human health and safety.
			First aid and fire fighting equipment (hand held extinguishers and fire hoses) will be installed at strategic points within each building. Fire fighting equipment and exit locations will be suitably signed. Per
774			extinguishers, are depicted in Figure 1–1. All work areas will be within the required distance to reach emergency exits.
775 776			Emergency response procedures will be reviewed within four weeks of any emergency incident, in consultation with relevant state and regional emergency service providers. NAC will continue to liaise with Queensland Fire and Rescue Service (QFRS) and local Police throughout all stages of the revised Project.
777			Emergency Management Procedures will be reviewed annually in consultation with relevant stakeholders, to ensure maintenance of adequacy and effectiveness.
	Additional Commitmi	nets - AEIS	
			NA
		AVIATION HAZARD MANAGEMENT	
	Appendix J.17	PLAN	
	Existing Commitment	ts - draft EIS	
778			The Action Strategy will be periodically reviewed as part of the New Acland Mine hazard and risk management framework. As a result of this review the Action Strategy may evolve based on any change implemented.
770			
			Effective hazard management is dependent on clear communication and consultation with key external and internal stakeholders to promote the flow of information from decision makers to the relevant of the re
770			a) Hazard/risk management expectations, objectives and emerging trends from the SET and MRMIA; and
779			b) Key risks, sources of risk, potential consequences and the progress mitigation strategies top-down and bottom-up through the organisation. In addition to implementing clear paths of risk communication, New Hope Coal will consult with key stakeholders regularly to drive accountability and ownership, and facilitate the exchange of accurate
780			although formalised through quarterly reporting requirements, should be frequent and dynamic in response to changing risk profiles and emerging trends both internally and externally.
			On-going liaison with RAAF (44WG) and DMO (GTESPO) will be maintained throughout the life of the Project with respect to the ATR at Turkey Hill. As detailed, the expanded air quality and vibration an
781			Project should have a negligible effect on the operation and serviceability of the ATR. However, in addition to providing this data to 44WG and GTESPO for review, on-going communication with New Homonitoring results as necessary, allowing comparative analysis/validation against the predictive modelling results to be performed if required.
	Additional Commitm	nets - AEIS	Informating results as necessary, anowing comparative analysis/validation against the predictive modeling results to be performed in required.
			NA
	Appendix J.18	LOCAL STAKEHOLDER MANAGEMENT PLAN	
	Existing Commitment		
			The NHG is focussed on ensuring a two-way conversation with stakeholders and the wider community and will actively seek feedback on the revised Project's impacts and benefits. Where possible, the
782			directly involved in engagement activities and conversations with stakeholders to encourage a responsive approach to feedback. This method also assists in ground truthing study findings and understand are advised and integration of this feedback into the EIS if relevant. Feedback will be provided to those submitting feedback at the most appropriate time.
702			
			Community feedback will be used to monitor the effectiveness of the revised Project's mitigation strategies and action plans. If feedback indicates a need to adjust the mitigation strategies and action plans.
			• community feedback on the mitigation measure will be reviewed further to better understand the issue;
783			<ul> <li>the feedback will be investigated further through discussions with stakeholders, community members, government agencies and other groups, field investigations, further technical monitoring or data</li> <li>following the investigation, recommendations will be made to the New Hope Operations Manager regarding the appropriate course of action. If necessary, Action Plans will be updated as needed and</li> </ul>
,00			Stakeholder input will be sought and considered during the development of the EIS and will be documented, reviewed and provided to the relevant technical study teams. Where possible, the revised P
			involved in engagement activities and conversations with stakeholders to encourage a responsive approach to feedback. This method also assists in ground truthing study findings and understanding statement activities and conversations with stakeholders to encourage a responsive approach to feedback.
784			advised and integration of this feedback into the EIS if relevant. Feedback will be provided to those submitting feedback at the most appropriate time.
785			Management of local landowner relationships will be managed by the NHG staff. Field staff will be provided with Record of Contact forms for times when informal contact is made. Discussions with lan
			A number of methods will be used to evaluate the effectiveness of the engagement program with local stakeholders. These methods include:
			Database records: Database records with an analysis of feedback forms submitted, website hits, telephone calls, incoming emails, tone of enquiries and key issues raised.
			Benchmarking activities: Benchmarking activities will be undertaken using questions on any feedback forms and activities to determine changes in local community attitude, knowledge and behaviour     Informal feedback: All significant informal feedback received from local stakeholders regarding consultation activities will be recorded in the revised Project database and reported and analysed.
			Observations: Team members will record their observations during local stakeholder engagement activities. These observations will detail what happened during the activity, who was involved and here
			quotes.
786 787			
/0/			Media analysis: Analysis of negative versus positive media coverage.
			<ul> <li>Media analysis: Analysis of negative versus positive media coverage.</li> <li>The rationale for each component of the air quality monitoring program is:</li> <li>Meteorological Station – analysis of data to will provide supporting data Real time PM10 – determine compliance with EPP (Air) objective of 50 µg/m3 and facilitate adaptive air quality management;</li> </ul>
			The rationale for each component of the air quality monitoring program is: • Meteorological Station – analysis of data to will provide supporting data Real time PM10 – determine compliance with EPP (Air) objective of 50 µg/m3 and facilitate adaptive air quality management; • Real time TSP – determine potential nuisance impacts to west of Manning Vale West Pit and determine compliance with EPP (Air) objective of 90 µg/m3;
			The rationale for each component of the air quality monitoring program is: • Meteorological Station – analysis of data to will provide supporting data Real time PM10 – determine compliance with EPP (Air) objective of 50 µg/m3 and facilitate adaptive air quality management; • Real time TSP – determine potential nuisance impacts to west of Manning Vale West Pit and determine compliance with EPP (Air) objective of 90 µg/m3; • Quarterly PM10 monitoring - continue historical monitoring and determine compliance with EPP (Air) objective of 50 µg/m3;
788			The rationale for each component of the air quality monitoring program is: • Meteorological Station – analysis of data to will provide supporting data Real time PM10 – determine compliance with EPP (Air) objective of 50 µg/m3 and facilitate adaptive air quality management; • Real time TSP – determine potential nuisance impacts to west of Manning Vale West Pit and determine compliance with EPP (Air) objective of 90 µg/m3; • Quarterly PM10 monitoring - continue historical monitoring and determine compliance with EPP (Air) objective of 50 µg/m3; • Dust deposition gauges – determine potential nuisance impacts and to continue historical monitoring; and
788			The rationale for each component of the air quality monitoring program is: • Meteorological Station – analysis of data to will provide supporting data Real time PM10 – determine compliance with EPP (Air) objective of 50 µg/m3 and facilitate adaptive air quality management; • Real time TSP – determine potential nuisance impacts to west of Manning Vale West Pit and determine compliance with EPP (Air) objective of 90 µg/m3; • Quarterly PM10 monitoring - continue historical monitoring and determine compliance with EPP (Air) objective of 50 µg/m3;
788			The rationale for each component of the air quality monitoring program is: • Meteorological Station – analysis of data to will provide supporting data Real time PM10 – determine compliance with EPP (Air) objective of 50 µg/m3 and facilitate adaptive air quality management; • Real time TSP – determine potential nuisance impacts to west of Manning Vale West Pit and determine compliance with EPP (Air) objective of 90 µg/m3; • Quarterly PM10 monitoring - continue historical monitoring and determine compliance with EPP (Air) objective of 90 µg/m3; • Dust deposition gauges – determine potential nuisance impacts and to continue historical monitoring; and • to assess potential for air quality impacts following any investigations of dust concerns raised. • The Proponent will implement the AQMP for the site prior to the commencement of any vegetation clearing or construction activities. • The Proponent will achieve and maintain the level of dust control outlined in the EA.
788			The rationale for each component of the air quality monitoring program is: • Meteorological Station – analysis of data to will provide supporting data Real time PM10 – determine compliance with EPP (Air) objective of 50 µg/m3 and facilitate adaptive air quality management; • Real time TSP – determine potential nuisance impacts to west of Manning Vale West Pit and determine compliance with EPP (Air) objective of 90 µg/m3; • Quarterly PM10 monitoring - continue historical monitoring and determine compliance with EPP (Air) objective of 90 µg/m3; • Dust deposition gauges – determine potential nuisance impacts and to continue historical monitoring; and • to assess potential for air quality impacts following any investigations of dust concerns raised. • The Proponent will implement the AQMP for the site prior to the commencement of any vegetation clearing or construction activities. • The Proponent will achieve and maintain the level of dust control outlined in the EA. • The Proponent will investigate all substantiated dust related complaints and implement corrective actions resulting from substantiated complaint investigations as required.
788			<ul> <li>The rationale for each component of the air quality monitoring program is:</li> <li>Meteorological Station – analysis of data to will provide supporting data Real time PM10 – determine compliance with EPP (Air) objective of 50 µg/m3 and facilitate adaptive air quality management;</li> <li>Real time TSP – determine potential nuisance impacts to west of Manning Vale West Pit and determine compliance with EPP (Air) objective of 90 µg/m3;</li> <li>Quarterly PM10 monitoring - continue historical monitoring and determine compliance with EPP (Air) objective of 50 µg/m3;</li> <li>Dust deposition gauges – determine potential nuisance impacts and to continue historical monitoring; and</li> <li>to assess potential for air quality impacts following any investigations of dust concerns raised.</li> <li>The Proponent will implement the AQMP for the site prior to the commencement of any vegetation clearing or construction activities.</li> <li>The Proponent will achieve and maintain the level of dust control outlined in the EA.</li> <li>The Proponent will investigate all substantiated dust related complaints and implement corrective actions resulting from substantiated complaint investigations as required.</li> <li>All monitoring and sampling techniques will be consistent with the Queensland Government's Air Quality Sampling Manual and applicable Australian Standards as outlined in Section 3.3.7.</li> </ul>
788			The rationale for each component of the air quality monitoring program is: • Meteorological Station – analysis of data to will provide supporting data Real time PM10 – determine compliance with EPP (Air) objective of 50 µg/m3 and facilitate adaptive air quality management; • Real time TSP – determine potential nuisance impacts to west of Manning Vale West Pit and determine compliance with EPP (Air) objective of 90 µg/m3; • Quarterly PM10 monitoring - continue historical monitoring and determine compliance with EPP (Air) objective of 90 µg/m3; • Dust deposition gauges – determine potential nuisance impacts and to continue historical monitoring; and • to assess potential for air quality impacts following any investigations of dust concerns raised. • The Proponent will implement the AQMP for the site prior to the commencement of any vegetation clearing or construction activities. • The Proponent will achieve and maintain the level of dust control outlined in the EA. • The Proponent will investigate all substantiated dust related complaints and implement corrective actions resulting from substantiated complaint investigations as required.

sed Project. NAC will continue to conduct periodic emergency simulation drills dures for the revised Project.

ement of emergency situations in an appropriate manner. mediate attention, NAC will engage an appropriate media campaign to inform all

I. Potential hazardous materials stores and incident control points, containing fire

nges to assumptions made and/or the effectiveness of the Mitigation Actions

evant groups. For New Hope Coal, this will involve the ongoing communication of:

ate and relevant risk related information. Risk communication and consultation,

analysis and modelling indicates that the mining operations associated with the Hope Coal will be maintained to facilitate periodic feedback of operational

the revised Project team and those responsible for the technical studies will be standing stakeholder's preferred mitigation and management strategies as they

on plans the following process will be followed:

lata collection as required; and

and communicated to the relevant NAC staff for implementation.

d Project team and those responsible for the technical studies will be directly stakeholder's preferred mitigation and management strategies as they are

land owners will be recorded in Consultation Manager.

ours.

how they reacted. Team members will also record 'stand out moments' and

790		Solid and liquid wastes will be managed by NAC's EMS based on the Waste Management Plan (WMP) in the EIS, Appendix J13. Liquid wastes are addressed in Section 3.7. Surface Water and Mining and • Waste management mitigation measures and commitments for the revised Project are provided in Table 3 9.
		All hazardous materials used on-site will be recorded in the Hazardous Materials Register (HMR). This register includes details on storage location, storage requirements, handling information and disp for all materials and chemicals maintained within the HMR.
		In addition: • the storage and handling of flammable and combustible liquids will be implemented in accordance with the applicable provisions of AS 1940-2004;
		contractors will provide a list of hazardous chemicals and MSDS prior to bringing chemicals on-site;
		<ul> <li>no chemical will be allowed on site without an MSDS;</li> <li>a chemical register will be continued on-site;</li> </ul>
		<ul> <li>corrosive materials will be stored and handled in accordance with AS 3780.8 (Class 8 substances – corrosives);</li> </ul>
		<ul> <li>fuels, oils and chemicals in containers of 200 L or more will be stored in a bunded area with capacity of at least 110% of the largest container;</li> <li>fuels, oils and chemicals in containers less than 200 L capacity will be stored as above or in a fenced, bunded and roofed compound;</li> </ul>
		<ul> <li>all fuels, oils and chemicals will be clearly labelled;</li> </ul>
		<ul> <li>transfer of bulk fuel and handling of hazardous chemicals will be undertaken only by trained personnel and in accordance with a Standard Operating Procedure;</li> <li>spill cleanup kits including absorbent materials will be kept at each fuel and chemical storage facility; and</li> </ul>
		<ul> <li>an area will be designated for the temporary storage or bioremediation of hydrocarbon contaminated soils.</li> </ul>
791		• The revised Project will continue to generate wastes similar to those presently generated at NAC, which presently have limited market demand. There are likely to be opportunities to reuse and recycled. Some general wastes will be recycled or reused on site, such as pallets, or disposed of by licensed waste management contractors. The revised Project will review the marketability of all wastes f
		Based on the low level of risk, NAC will continue to use surface water monitoring, on-going geological assessments and rehabilitation performance to monitor for ARD. If required, waste rock dump dest
		physical characterisation of available non-acid forming (NAF) materials for burying potentially-acid forming (PAF) materials;
792	,	<ul> <li>physical characterisation of the PAF rock to be covered; and</li> <li>development of selective placement options.</li> </ul>
		General Waste
		<ul> <li>A WMP will be regularly reviewed and revised as required.</li> <li>Recycling of glass, aluminium, steel and cardboards will be undertaken, if feasible.</li> </ul>
		Regular monitoring and auditing will be undertaken, with a program to address any outstanding non-conformances.
		<ul> <li>Waste Rock Management</li> <li>NAC will evaluate the acid generation potential appropriately regularly during mining operations to assess its acid generating capacity.</li> </ul>
		The following measures will be implemented to manage mine waste. Low capacity PAF (PAF-LC) and PAF mine waste:
793		o progressively backfilled into pit voids and placed below the pre-mining groundwater level; and o co-mingled with non-acid forming (NAF) materials in out of pit dumps during construction.
		The following mitigation measures are proposed by NAC as commitments to reduce the revised Project's potential noise impact.
		<ul> <li>NAC will establish a real-time noise monitoring network, which will be used in conjunction with a weather forecasting system and an adaptive management process, to proactively relocate, reduce or</li> <li>NAC has developed a NVMP for the revised Project, and is presented in Appendix J.11. The NVMP will be administered as an accompanying document to the revised Project's Plan of Operations.</li> </ul>
		• Based on ambient conditions (climate and the current mine plan) and feedback from the real-time noise monitoring (warning and alarm protocols), NAC may be required to limit or stop mining operations
		<ul> <li>requirement is based on the noise assessment work completed for the revised Project's EIS.</li> <li>NAC will ensure noisier mining equipment, including excavators, track dozers, loaders and rear dump trucks, is fully attenuated. This requirement is based on the noise assessment work completed for</li> </ul>
		• Where possible, NAC will schedule noisier operations in-pit at night or during daylight hours only. For example, dumping of overburden and dozer activity on overburden dumps at or above ground su
		• If no suitable or acceptable noise amelioration solutions are available for a particular noise issue, NAC will negotiate in good faith with all affected property owners for property purchase or by agreer treatment of the dwelling, relocation or replacement of the dwelling at another suitable location, relocation of the landowner to another living arrangement for the period of the issue or any other suitable location.
		associated with any agreed solution to a noise issue. In the event agreement cannot be reached, NAC will enter into mediation with the affected party and employ the services of a third party to facilitation
		<ul> <li>NAC will ensure proper maintenance and operational procedures will be undertaken to minimise noise emissions from equipment, including proper servicing and maintenance of exhaust systems on</li> <li>NAC will implement its Noise and Vibration Management Plan, as presented in Appendix J.11 to minimise the risk of noise complaints from nearby sensitive receptors to the revised Project. All complement is Noise and Vibration Management Plan, as presented in Appendix J.11 to minimise the risk of noise complaints from nearby sensitive receptors to the revised Project.</li> </ul>
		outlined in NAC's Local Stakeholder Engagement Plan as presented in Appendix J. 18. NAC's approach to complaints management is based on the key principles of timeliness, sensitivity, fairness and im
		its local stakeholders and active complaint resolution when issues or concerns are raised about its mining operations. Where practicable, NAC using the mine planning process will utilise topsoil and ot receptor locations.
		NAC will continue to utilise broad band alarms instead of reverse beepers on all mobile equipment.
		<ul> <li>NAC will continue to limit the speed of heavy vehicle traffic on haul roads.</li> <li>NAC will continue its current proactive monthly noise monitoring program and will expand its coverage around the revised Project site.</li> </ul>
794	L	 • NAC will continue its proactive assessment of possible noise attenuation options for both mobile or stationery noise emitting equipment. Noise emissions with tonal, impulsive and/or intermittent ch
		For the management of airblast overpressure and vibration, the following measures will be adopted for the revised Project. • Field data will be used to best design blasts with an adequate buffer in place to meet noise/ vibration limits and the type of stemming required for the area.
		<ul> <li>In the event of a blast issue, the maximum instantaneous charge of subsequent blasts will be reduced using delays, reduction of hole diameter, etc. (i.e. until the blast issue is resolved).</li> </ul>
		• In the event of a blast issue, the burden and spacing of subsequent blasts will be changed by altering the drilling pattern and/or delay layout, or altering the hole inclination (i.e. until the blast issue is • The stemping depth and type will be adequate for each blast event
		<ul> <li>The stemming depth and type will be adequate for each blast event.</li> <li>Blast events will only be conducted during favourable weather conditions.</li> </ul>
		The monitoring of blasts will continue at the nearest sensitive receptors based on the interpretation of pre-blast weather data.
795	5	The practice of advising near neighbours will continue in advance of each blast. All new near neighbours surrounding the revised Project site will be proactively invited to join the blast notification co     A qualified professional with suitable experience will be responsible for the revised Project's blast management.
		A monitoring program will be implemented as per a NVMP and will include the following activities:
		<ul> <li>NAC will continue its current proactive monthly noise monitoring program and will expand its coverage around the revised Project site.</li> </ul>
		who will containe its current productive monitoring program and will expand its coverage around the revised in operation.
		• NAC will ensure all complaints will be investigated in a timely manner to determine the source of the nuisance noise. Where appropriate, noise monitoring will be conducted at the affected residence

and tailings wastes are addressed in Section 3.8 Land Management.

isposal procedures. This information is also available in MSDS's which are kept

cycle aluminium cans, some containers such as glass bottles, paper, and scrap es for recycling and reuse on a regular basis and will update the WMP accordingly.

design investigations will be undertaken to facilitate:

or stop noisier mining operations.

erations in the Manning Vale East pit during the night time period. This

d for the revised Project's EIS.

d surface may be restricted during night periods (10pm to 7am).

eement implement some other form of amicable arrangement (e.g. acoustic

suitable innovative solution). NAC would be responsible for all reasonable costs ilitate this process

on mine equipment.

mplaints received in relation to the revised Project's operation will be managed as I impartiality, and confidentiality. NAC is committed to open communication with d other dumps as noise barriers between active mine operations and nearby noise

characteristics will be targeted for noise attenuation.

e is resolved).

contact list.

nce, and as required, noise amelioration solutions will be investigated and

plast mitigation solutions will be investigated and implemented by agreement.

1			
			Noise and vibration monitoring will be undertaken as per the EA.     The Drangent will implement the NUAD
797	7		<ul> <li>The Proponent will implement the NVMP.</li> <li>All substantiated noise and vibration complaints will be investigated and corrective action will be implemented as required.</li> </ul>
798			Groundwater will be managed and monitored by NAC's EMS based on the updated Groundwater Monitoring and Impact Management Plan (GMIMP) in the AEIS, Appendix H.
	-		NAC will expand its existing groundwater monitoring network to encompass the revised Project's new operational areas. NAC's groundwater monitoring regime will continue its regular assessment of w
799	9		site to help identify potential impacts from the revised Project and to confirm legitimate issues raised by surrounding groundwater users.
			If a legitimate groundwater issue is identified by monitoring or complaint investigation, NAC will attempt to reach a mutually agreeable arrangement with all affected neighbouring groundwater users in
			supplies throughout the revised Project's life and following mine closure. NAC would be responsible for all reasonable costs associated with the provision of any alternative water supply arrangements. • installation of new pumps capable of extracting groundwater from greater depths or more efficiently within existing bores;
			<ul> <li>refurbishment of existing bores to improve the efficiency of groundwater extraction;</li> </ul>
			deepening of existing bores to target new and/or more reliable aquifers; or
			installation of a new bore at another location on the property.
800	0		Construction and decommissioning activities are not expected to impact groundwaters.
			The groundwater monitoring program for the revised Project combines the current monitoring program for the existing Mine with an extended network of monitoring bores for the revised Project. Data
			<ul> <li>be operated in accordance with the revised Project's approved EA, including adoption of suitable guideline criteria and temporal investigation;</li> </ul>
			<ul> <li>be used in the continued development and refinement of groundwater impact assessment criteria and investigation triggers;</li> </ul>
			• enable verification and refinement (where necessary) of the groundwater modelling predictions presented in the AEIS; and
801	1		be collated into a database that will be made available to the administering authority on request.
802	2		Table 3-12 summarises the bores that will be monitored, monitoring parameters, and frequency. The groundwater monitoring program combines the existing Mine monitoring bores together with the s
001			In addition, a further 15 bores will be added to the monitoring network, which brings the total number of bores included in the groundwater monitoring program to 45 (Figure 3-3). The monitoring program
803	3		to ensure there is sufficient baseline information on groundwater levels and quality for those bores.
			Monitoring results are interpreted on receipt and action taken to address any adverse results. Substantiated complaints in relation to water issues are dealt with promptly using NAC's complaint handling the substantiated complaints in relation to water issues are dealt with promptly using NAC's complaint handling the substantiated complaints in relation to water issues are dealt with promptly using NAC's complaint handling the substantiated complaints in relation to water issues are dealt with promptly using NAC's complaint handling the substantiated complaints in relation to water issues are dealt with promptly using NAC's complaint handling the substantiated complaints in relation to water issues are dealt with promptly using NAC's complaint handling the substantiated complaints in relation to water issues are dealt with promptly using NAC's complaint handling the substantiated complaints in relation to water issues are dealt with promptly using NAC's complaint handling the substantiated complaints in relation to water issues are dealt with promptly using NAC's complaint handling the substantiated complaints in relation to water issues are dealt with promptly using NAC's complaint handling the substantiated complaints in relation to water issues are dealt with promptly using NAC's complaint handling the substantiated complaints in relation to water issues are dealt with promptly using NAC's complaint handling the substantiated complaints in relation to water issues are dealt with promptly using NAC's complaint handling the substantiated complaints in relation to water issues are dealt with promptly using NAC's complaint handling the substantiated complaints in relation to water issues are dealt with promptly using NAC's complaint handling the substantiated complaints in relation to water issues are dealt with promptly using NAC's complaint handling the substantiated complaints in relation to water issues are dealt with promptly using NAC's complaint handling the substantiated complaints in relation to water i
804	4		expanded to cover the revised Project's development. As is currently practised, the Mine's current Monitoring Plan will be updated to reflect changes to the monitoring regime.
			NAC's WRMP will be periodically updated to incorporate the progression in mining over the life of the revised Project. NAC's WRMP is an accompanying document to the Plan of Operations, and as a mi locations, a site plan, a schematic of the main water management structures and water discharge points, and a description of water use/recycling practices. A monthly evaluation and annual reporting c
805	5		the revised Project's water management.
000			After mining has ceased and decommissioning and rehabilitation works are complete, NAC will seek to relinquish the revised Project's mining leases. Prior to relinquishment, NAC will undertake the nec
806	6		the local groundwater regime as a result of the revised Project's previous mining activities.
			An apprectional congration distance of approximately 150 m will be maintained from the adde of the mining pite to Lagoon Graek, which will include a 50 m concentration buffer where no mining activity
			<ul> <li>An operational separation distance of approximately 150 m will be maintained from the edge of the mining pits to Lagoon Creek, which will include a 50 m conservation buffer where no mining activiti</li> <li>The current conservation zone, 50 m either side of Lagoon Creek, from the Mine will be extended for the revised Project to promote the re-establishment of the riparian zone. No mining activities will be extended for the revised Project to promote the re-establishment of the riparian zone. No mining activities will be extended for the revised Project to promote the revised Project to provide the revised Project to promote the revised Project to promote the revised Project to provide th</li></ul>
			<ul> <li>Sediment dams, environmental dams, pit water storage and other water management structures (e.g. bunds and drains) will be used appropriately by the revised Project as per the WRMP.</li> </ul>
			• The revised Project's water management will be based on the separation and management of clean and dirty water catchments.
			• Water capture within the revised Project's clean areas will be diverted around operational areas and where practical, allowed to discharge off site as part of normal overland flow.
			• Water from disturbed areas within the revised Project site will be diverted to sediment dams for treatment and possible reuse as a supplementary supply for the revised Project's water requirement.
			Surface runoff from the revised Project's potentially contaminated areas, such as infrastructure areas, will receive additional levels of treatment (e.g. oil-water separators and bunding). Water capture
			collected for recycling by a licensed contractor.
			<ul> <li>Progressive rehabilitation will be undertaken as the revised Project's operational areas become available to reduce the amount of disturbed areas.</li> <li>Fuel, dangerous goods and hazardous chemicals will be managed as outlined by current standards, guidelines and in compliance with statutory requirements.</li> </ul>
			<ul> <li>Refuelling locations and handling of fuels will be undertaken away from all waterways including creeks and drainage paths.</li> </ul>
			• NAC's existing SOP for spills and emergency response procedures will be expanded to incorporate the revised Project. Spill recovery and containment equipment will be available when working adjace
807	7		• NAC will continue to commit to investigating all legitimate surface water complaints, and if a genuine problem is identified, conduct immediate remediation measures and establish standard operating
			In general, the monitoring program will include the following actions.
			- Water quality will be measured upstream and downstream of the revised Project site. Basic water quality indicators (i.e. Salinity, pH, DO, EC, temperature) will continue to be monitored on a monthly
			cations monitored twice annually During any release event, the receiving water will be monitored upstream (50 m to 100 m upstream of the release point) and downstream (200 m downstream of the release point) locations. Water gu
			heavy metals, nutrients, anions and cations.
			- Fuel, dangerous goods, hazardous chemicals and work shop wastes will be managed to ensure compliance with current industry standards and guidelines for safety and environmental protection. Thes
808			emergency response, establishment of 'standard operating procedures' for key operational aspects, and development of a responsibility matrix for operational and reporting matters.
809	9		Nature conservation will be managed by NAC's EMS based on the CZMP, TSTP, PWMP, BOMP, and FLURP.
01/			All areas to be cleared will have their boundaries surveyed and clearly marked by tape, pegs or other means. All site clearance will conform to the limits of the current mine plan. Particular attention will concern regional ecosystems are present
810			concern regional ecosystems are present.
811	1		All vegetation clearance will be restricted to what is required for safe operations. A plan for dealing with fauna during clearing and construction will be prepared to outline protocols for dealing with inju
			The existing flora and fauna monitoring program will be continued and expanded as required to protect flora and fauna of 'conservation significance' within and surrounding the Study area. The monitor
812	2		continue until decommissioning and final rehabilitation.
	Appendix B		
		ala Species Management Plan	
			NAC will preference the use of Koala food tree species for direct seeding and planting within the conservation zone, for example, Eucalyptus populnea, Eucalyptus tereticornis and Mountain Coolibah Eu
813			hectare at initial planting to achieve a minimum final density goal of 100 stems of Koala food trees per hectare. This approach incorporates a conservative degree of mortality during the first 10 years of growth.
	2		
01	3		
814			To ensure full functionality as a safe movement corridor if infrastructure (e.g water treatment ponds, dams etc.) is to be located within the 50 metre buffer area, the extent of the buffer should be increated buffer of vegetation.
			To ensure full functionality as a safe movement corridor if infrastructure (e.g water treatment ponds, dams etc.) is to be located within the 50 metre buffer area, the extent of the buffer should be increa

f water levels and quality from strategic bores surrounding the revised Project

s in a timely manner, which may involve the provision of alternative water nts. Possible alternative water supply options may include:

Data collected from the groundwater monitoring program will:

he seven additional bores already installed around the revised Project site. rogram for new bores will be established prior to the commencement of mining

Indling procedure. The surface water and groundwater monitoring regime will be

a minimum, includes a summary of water management, current monitoring ng of water monitoring results will be undertaken to check the effectiveness of

necessary investigations to ensure there are no long-term or residual impacts on

ivities will be undertaken. vill occur within the proposed conservation zone.

tured by these devices will be preferentially reused on site, while captured oil will

jacent to sensitive drainage paths and within other areas, such as workshops. ting procedures to minimise the possibility of a reoccurrence of the original issue.

thly basis, or when water is present, and heavy metals, nutrients, anions and

r quality variables will include basic water quality indicators, suspended solids,

hese management actions will focus on handling, storage, spill containment,

will be paid to defining the boundaries of clearing where endangered and of

injured wildlife and other necessary actions relating to fauna. nitoring program will be broadened as required for the revised Project and will

n Eucalyptus orgadophila. NAC will aim for a stem density of 200-300 stems per

creased to accommodate the infrastructure whilst still providing a 50 meter

		The revised Project's vegetation clearing and mining in the vicinity of recognised Koala habitat will be conducted in accordance with the Nature Conservation (Koala) Conservation Plan 2006 and Manag
		involves:
		- the staging or limiting of vegetation clearance to what is required for safe and efficient mining operations;
		- the sequential clearance of trees under the guidance of a licenced and experienced Koala Spotter;
01/		- the exclusion of vegetation clearance between the hours of 6pm and 6am; and
816		- the use of exclusion fencing around dangerous or high risk operational mining area.
		As standard practice, NAC will ensure that all treed areas are assessed by a licenced and experienced Koala Spotter/Handler in advance of proposed vegetation clearance activities. In the event a Koala i
017		sequential manner to allow the Koalas present at the time to move out of the clearance site of their own accord in preference to being moved by a licenced and experienced Koala Spotter/Handler. All r
817		moved independently out of the danger zone or is relocated to a safe area by a licenced and experienced Koala Spotter/Handler.
010		The clearing of Koala habitat trees in a Koala habitat area (higher risk area) must be conducted in the presence of a licenced and experienced Koala Spotter/Handler whose primary role will be to locate
818		please refer to Appendix 2. All of the revised Project's operational mining areas will be progressively fenced to ensure the exclusion of Koalas during their migratory activities. NAC has identified the treed areas of Lagoon Creek wi
819		
019		area. NAC will develop a Standard Operating Procedure for the management of Koalas within this high risk area. While NAC's proposed conservation zone along Lagoon Creek will require specific fencing near operational mining area. There is no current plan to fence the whole length of the conservation zone with
		will be used to exclude stock from the conservation zone, particularly form newly planted or direct seeded areas. Importantly, the overuse of fencing along the conservation zone can detrimentally excl
820		NAC and the Acland Pastoral Company will actively manage the revised Project's fencing requirements for conservation purposes to ensure positive outcomes.
020		In the event a Koala breaches a fenced area and wanders into an operational mining area, all activities
		in the vicinity of the Koala will be suspended until the Koala has moved independently out of the danger zone or is relocated to a safe area by a licenced and experienced Koala Spotter/Handler. Where
821		However, under certain circumstances to prevent immediate or potential threats that may cause death or harm, it will be prudent to capture and relocate the threatened animal.
021		NAC will ensure that only suitably qualified persons should attempt to spot or capture and contain a Koala. The licenced and experienced Koala Spotter/Handler will be required to possess appropriate (
822		unless veterinary attention is required.
022		The licenced and experienced Koala Spotter/Handler will ensure there are no Koalas present within or immediately near any tree felling activities. NAC will ensure no Koalas are artificially relocated to e
823		Spotter/Handler will be required to operate in compliance with the requirements of the Nature Conservation (Koala) Conservation Plan 2006 and Management Program 2006-2016 (EPA 2006), which is
		The construction of the revised Project's rail infrastructure and re-alignment of the Jondryan-Muldu Road will follow the same principles for Koala management as NAC's mining operations. NAC will ensure that the same principles for Koala management as NAC's mining operations. NAC will ensure that the same principles for Koala management as NAC's mining operations.
824		comply with the KSMP, especially in areas where vegetation clearance is required.
		Once operational, the revised Project's rail infrastructure will be permanently fenced to exclude humans and stock. On the rare occasion, a Koala may traverse the rail infrastructure. Should this occur, t
825		KSMP's management principles will apply, that is, all rail activities in the vicinity of the Koala will be suspended until the Koala has moved independently out of the danger zone or is relocated to a safe a
826		The Action Plan to minimise the risk of death or injury to resident Koalas is provided in Table 4.2.
827		The KSMP will monitor the success of the prevention of Koala death and injury over the life of the revised Project together with the general population characteristics of the local Koala population in the
828		NAC is committed to ensuring that the KSMP achieves its objectives. As a result, NAC will, as required, source external professional assistance to develop suitable corrective actions for significant issues
829		To facilitate continuous improvement, NAC will review the KSMP's monitoring data on an annual basis to ensure management actions are effective and efficient. NAC may periodically amend the KSMP
830		The Action Plan for the KSMP's monitoring regime is outlined in Table 4.3.
831		An experienced licenced Koala Spotter/Handler will be engaged as required by NAC to conduct pre-clearance surveys of areas of vegetation proposed to be cleared.
832		The Koala Spotter/Handler will provide a brief report of all clearance or animal relocation works undertaken for NAC to assist monitoring and reporting, ecological evaluation and continuous improvement
833		NAC has provided the KSMP as Appendix B of the revised Project's AEIS to address the CoG's additional information requirements for the revised Project's. In the future, NAC will provide copies of the KSMP as Appendix B of the revised Project's AEIS to address the CoG's additional information requirements for the revised Project's. In the future, NAC will provide copies of the KSMP as Appendix B of the revised Project's AEIS to address the CoG's additional information requirements for the revised Project's. In the future, NAC will provide copies of the KSMP as Appendix B of the revised Project's AEIS to address the CoG's additional information requirements for the revised Project's.
		The Department of Environment and Heritage Protection and the Commonwealth Department of Environment will be advised of all significant matters arising out of operation of the KSMP and all amen
834		applied to the management of Koalas in the future.
		While not a matter of national environmental significance, for the purposes of the project's assessment, NAC will periodically audit the operation of the KSMP to assess the status of management comp
835		conducted internally on an annual basis and every three years by a qualified third party professional. The KSMP may be amended as part of this management compliance and improvement process.
		NAC will review the operation of the KSMP to ensure it is functioning effectively on-site and to identify opportunities for improvement. The first review will occur after one year of operation of the KSMP
836		then every year following the third party audit.
Appendix C	Revised EM Plan	Specific commitments are contained within the revised Project EM Plan (Appendix C of the AEIS)
Appendix I	Acland Management Plan	
837		Table 1 identifies the commitments for each item, the items for which the management plans have been implemented and the items that will be retained and maintained (highlighted in green).
838		NHG will undertake necessary maintenance and refurbishment activities as outlined in the Acland Colliery Conservation Management Plan, to ensure the appropriate preservation of this important hist
000		
839		In conjunction with management of Acland township through the Acland Management Plan, this heritage site will be managed according to the Acland Colliery Conservation Management Plan, as provi
0.40		Buildings owned by the NHG to be retained within Acland township (e.g.: Acland Town Hall), will be renovated and maintained as required, in order to keep them in a safe and tidy condition. It is intend
840		meetings and training purposes. Reasonable community requests for access and the use of these buildings, will also be given favourable consideration.
		All local heritage items and structures remaining within Acland, will be appropriately maintained and managed by NHG or Acland Pastoral Company (APC). Appropriate guidelines and management plan
841		items and structures. For example, work within the Acland No. 2 Colliery Conservation Area will be guided by the Acland Colliery Management Plan (Appendix J.12 of the draft EIS).
		The NHG endorses the long-term protection and maintenance of Tom Doherty Park, and will continue to support the involvement of local landholders and visitors who may have an interest in the park a
842		such as Anzac Day or Remembrance Day).
0.40		The NHG remains committed to on-going and best-practice stakeholder engagement relating to the New Acland Coal Mine Stage 3 Project. This consultation will largely involve residents located in near
843		targeted community engagement activities to ensure local stakeholders have the opportunity to comment on the Acland township.

## nagement Program 2006-2016 (EPA 2006), which is provided in Appendix 2 and

la is present, the proposed clearing of these trees will be undertaken in a All mining and other activity within this area will be suspended until the Koala has

ate Koalas in the trees to be cleared. For further guidance around this process,

within the vicinity of the Manning Vale East and Willeroo Pits as a major high risk

vithin the Mine and revised Project areas. Temporary fencing and other methods exclude migrating Koalas from potential habitat along Lagoon Creek. Therefore,

erever practical, the animal will be encouraged to move of its own volition.

ate equipment and cages and to immediately release all animals after capture,

to expedite tree felling activities. The licenced and experienced Koala n is provided in Appendix 2.

ensure all contractors working on these activities are contractually bound to

ır, the

fe area by a licenced and experienced Koala Spotter/Handler.

the vicinity of the revised Project. es identified by poor monitoring results.

MP based on the outcome of this continuous improvement process.

ement.

e KSMP or any associated reports to the general public on a formal request basis. nendments to the KSMP. NAC will also comply with all statutory obligations if

mpliance and to identify potential areas for improvement. These audits will be

SMP and

nistorical site.

ovided in the New Acland Coal Mine Stage 3 Project draft EIS (Appendix J.12). ended that these buildings will be utilised periodically by company personnel for

plans will be followed, in the repair, maintenance and management of heritage

rk and the associated war memorial (either regularly, or on special occasions

earby townships such as Acland and Jondaryan. The company is committed to