



NEW HOPE
GROUP

Appendix D Commitments Register



NEW ACLAND COAL MINE STAGE 3 PROJECT COMMITMENTS REGISTER			
No.	CHAPTER	TITLE	Commitment
	CHAPTER 1	<i>Introduction</i>	
Existing Commitments - 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 Commitments - AEIS			
3	4	<i>Project Approvals</i>	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 Infrastructure ML under the MRA. At this stage, a decision has not been made to rule out either option.
4	4	<i>Project Approvals</i>	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 Report for the EA associated with the Infrastructure ML.
5	4	<i>Project Approvals</i>	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 Evaluation Report.
	CHAPTER 2	<i>Project justification and sustainability</i>	
Existing Commitments - draft EIS			
			NA
Additional Commitments - AEIS			
			NA
	CHAPTER 3	<i>Project description</i>	
Existing Commitments - draft EIS			
6			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 activities within all other areas of MLA 50232 without obtaining further statutory approval under the MR Act.
7			All mining and construction activities will be conducted in compliance with the <i>Coal Mining Safety and Health Act 1999</i> (CMSH Act).
			The increase of capacity to 7.5 Mtpa will not occur until:
			- all approvals are acquired, including:
			- the successful completion of this EIS process, including a comprehensive community and stakeholder engagement program;
			- the issuance of an approval for EPBC 2007/3423 from the Commonwealth government;
			- the issuance of an amended EA to address the additional requirements of the revised Project by the DEHP;
			- the granting of MLA 50232 (for the proposed extent of 'surface rights' to conduct mining activities); and
8			- receipt of ancillary approvals, for example road closures.
			- 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 equipment utilised.
10			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 blasting activities will continue to be conducted in compliance with the CMSH 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 proposed mining activities.
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.
12			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 its various public communication tools (e.g. newsletter) in use throughout the 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 support its role as the main access to Acland.
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 storage 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 Precinct.
			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 types;
			- 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 the revised Project's future Plan of Operations and is presented in Appendix J.4.
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 Maximum Flood (PMF) rainfall event.
22			NAC will decommission the JRLF in accordance with the JRLF Decommissioning Management Strategy, presented in Table 3-27. The corresponding JRLF Item Number is depicted in Figure 3-29.

23			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, electrical cabling and associated instrumentation, portable administration 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 resins, recyclables and general waste. Radiation density sources will be 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 where it will be covered with inert material before topsoiling and rehabilitation. 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 facilities as 'notifiable activities' and due to their physical characteristics (size 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 accordance with the post-mine land use agreement. 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 organic mulches and fertilisers to encourage plant growth, irrigation, and protection of the vegetation area by utilising wind-breaks and other suitable means.
24			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 disturbed area is fully rehabilitated and relinquishment of the revised Project's 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 designed to ensure the final agreed post mining land use and surrender of the revised 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, will either: - be released from the DEHP's EMR; - be remediated, confirmed by follow-up investigation(s), and released from the DEHP's EMR; or - remain on the DEHP's 'EMR' with an agreed 'site management plan'.
25			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 revised Project, legal and cost implications, stakeholder involvement, closure criteria and costs and will document a closure action planning process.
26			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 depicted in Figure 3–30. A comprehensive Acland No.2 Colliery Conservation Plan is located in Appendix J.12.
Additional Commitments - AEIS			
27	3	Revised Project Amendments	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 raw coal from the mine pit to the Run-of-Mine Pad and light vehicle access will 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.
28	3	Revised Project Amendments	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 Road which will enter into the new Mine Industrial Area (MIA). The new road will be designed to the appropriate standards to transport light vehicles into the revised Project site.
29	5.1.2	Land	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 Figure 3-1 of the draft EIS. Due to the legislative requirement under Section 232 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.
32	5.1.4.2	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 JRLF site (including a monitoring regime to determine rehabilitation success).
33	5.1.4.3	Jondaryan Rail Loadout Facility	NAC intends to rehabilitate the JRLF site to the post mine land use of grazing.
34	5.1.4.3	Jondaryan Rail Loadout Facility	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 construction and ongoing monitoring activities.
35	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.
36	5.1.7	Acland Township	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 environmental objectives which stakeholders have raised during community 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 50232.
37	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.
38	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 as depicted in Figure 5.2 A of the AEIS.
39	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.
41	5.3.24.4	Responses to Submissions	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 the dynamic continuous nature of the coal handling process. The two 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 will require manual reclaiming by mobile equipment (e.g. front end loaders).
42	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.
43	5.3.44.7	Responses to Submissions	NAC will continue to work closely with Ergon Energy to confirm the most suitable option to supply power to the revised Project and Acland and to finalise the overall design proposal. As part of these works, NAC will ensure an uninterrupted power supply through the 11 KV line is maintained to Acland.
	CHAPTER 4	Land resources	
Existing Commitments - 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.
45			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 dealings relating to changes in land tenure.
46			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. Applications will be in accordance with the relevant provisions of the SP Act and the Toowoomba Regional Planning Scheme (the Planning Scheme) adopted on 20 March 2012 and enacted on 1 July 2012.
47			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. - Approved fire alarm, detection, suppression and fighting system will be installed in consultation with fire control authorities. - NAC will liaise with landowners and local authorities with respect to fire breaks and on-going maintenance programs. - Limit ignition sources around refuelling and fuel storage areas. - Emergency response procedures. - Coordination with external emergency services. - Provision of adequate fire fighting equipment and water. - 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 that this water supply becomes contaminated, the system can be isolated and water will be sourced from Toowoomba or Dalby and trucked to site for consumption. - Implementation of the Emergency Management Plan located in Appendix J.15.

48		NAC proposes to develop with the Western Wakka Wakka People Aboriginal party, and have approved, a replacement CHMP under Part 7 of the ACH Act for the revised Project (including the rail spur). NAC's intention is for this CHMP to be the sole instrument governing the management of Aboriginal cultural heritage that may be affected by activities carried out both for the revised Project within the boundaries of MDL 244 and for the proposed rail spur.
49		NAC acknowledges the requirements of the SC Act. NAC has addressed the revocation of Approved Property Plans under the SC Act during the development of Stage 1 and 2 of the Mine, and therefore, will ensure that the same process is undertaken for the revised Project.
50		NAC will assess the potential impacts of the revised Project's water management on surrounding Approved Property Plans as part of the revocation process.
51		NAC is aware from exploration activities within the Study area that a potential extractive resource, comprising basalt, may be available on a suitable scale to facilitate commercial development. NAC will undertake further investigations into the feasibility of developing this extractive resource, and if viable, will consult with the local administering authority and initiate the required approval process under the SP Act.
52		The revised Project's elevated landforms will be rehabilitated to a safe, stable and non polluting landform that is able to support the proposed final land use of grazing in a sustainable manner.
53		The vegetation rehabilitation success criteria for the revised Project's depressed and elevated landforms are defined in the Final Land Use and Rehabilitation Management Plan (FLURP).
54		For the revised Project's elevated landforms, NAC will expand its current monitoring programs and grazing trials to incorporate the applicable rehabilitation success criteria to guide its rehabilitation management and to collect the necessary data to demonstrate: <ul style="list-style-type: none"> - the geotechnical stability of the constructed landform; - the successful establishment of a suitable vegetative cover to support the final land use and minimise the potential for erosion; and - the productivity of the vegetative cover for grazing (beef production).
55		NAC will be required to demonstrate compliance with the legislative requirements associated with the the Project's rehabilitation before the surrender of mining leases and associated EA. In addition, NAC will consult with government and community on a regular basis over the life of the revised Project to report on the progress of rehabilitation and other matters.
56		NAC is committed to maximising the revised Project's rehabilitation success to ensure the APC can function as a competitive agribusiness. NAC will also continue to draw on the APC's expertise to assist and enhance rehabilitation management.
57		The existing conservation zone along Lagoon Creek will be extended into the area of the revised Project site.
58		The investigated sites are in a secure state and are not considered to pose an unacceptable environmental or human health risk. NAC will undertake further management of these sites as the revised Project progresses.
59		Potential for land contamination from the spilling of hydrocarbons will be minimised through the use of the existing standard operating procedures for the transport, handling and storage of hydrocarbons. All hydrocarbons will be stored and handled in accordance with the bunding requirements (Section 5.8 Bunds and Compounds) of AS 1940:2004: 'The Storage and handling of combustible and flammable liquids'. Chemical storage areas will be suitably bunded and constructed to minimise the potential for leaks to occur. All chemicals will be stored, handled and used according to provisions in their Material Safety Data Sheet (MSDS).
60		To minimise the risk associated with fuel oil leaking during tanker unloading, the following measures will be implemented: <ul style="list-style-type: none"> - a program of regular equipment inspection and testing will be implemented to ensure reliable performance; - operators will be trained in the safe operation of the system and emergency procedures in the event of fuel oil leakage; - spill containment equipment will be available at the unloading pad for use in the event of spillage; - a sump will be provided to collect any spillage and allow recovery; - ignition sources will be strictly controlled and limited to avoid a fire; - appropriate fire fighting materials and equipment will be available to suppress fires; and - an approved fire protection system will be installed around hydrocarbon storage areas.
61		The following measures will be taken to minimise the potential for the leakage of fuel oil from storage tanks: <ul style="list-style-type: none"> - adequate bunding will be constructed to contain potential spills, in accordance with AS 1940:2004; - tank level indicators will be installed on fuel oil tanks for monitoring of fuel oil levels; - maintenance of fuel oil tanks will be undertaken, to ensure safe and effective operation of all components; and - tanks will be designed in accordance with AS 1692:2006: 'Steel tanks for flammable and combustible liquids' to minimise the potential for failure.
62		Tailings will be disposed of in in-pit tailings disposal facilities. Coarse rejects will be disposed of within the in-pit mine waste dumps.
63		Approximately 396 Mbcm of mine waste material will be disposed of in-pit (below pit crest) and approximately 50 Mbcm will be placed external to the mine pits. The revised Project's out-of-pit dumps will be constructed using 10 m lifts on external dump faces, with a maximum working 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.
64		Although the overall indication is that little to no acid generation will occur from the oxidation of sulphide minerals contained within the mine waste, this material will be evaluated regularly during mining operations to assess its acid generating capacity. The revised Project's surface water monitoring program will continue to be used to help identify occurrences of acid generation.
65		The following measures will be implemented to manage mine waste. Low capacity PAF (PAF-LC) and PAF mine waste will be: <ul style="list-style-type: none"> - progressively backfilled into pit voids and placed below the pre-mining groundwater level; and - co-mingled with non-acid forming (NAF) materials in out of pit dumps during construction.
66		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, ex-pit mine waste dumps will be managed by: <ul style="list-style-type: none"> - stripping topsoil ahead of mining operations and directly placing topsoil on rehabilitation where possible, otherwise the topsoil will be stockpiled for later use; - application of fertilisers and other soil treatments as required; and - 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 geochemical characteristics, and if necessary, implement a series of mitigation measures as outlined above.
68		Topsoil will also be used as a surface treatment prior to revegetation to minimise any effects from sodic spoil. Additionally and as required, consideration may be given to incorporating calcium into the surface horizon of the final spoil dump to reduce issues related to high sodicity.
69		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 and shrub species. A discrete area of the revised Project site will be dedicated for conversation purposes and will involve enhancing Lagoon Creek's riparian zone using the appropriate native plant species.
70		Stable landforms will be established following mining, using soils capable of supporting vegetation communities adapted to the local environment. The stability of the post-mine landform will be achieved by applying sound rehabilitation practices. The disturbed land will be rehabilitated to a condition that is self-sustaining or to a condition where the maintenance requirements are consistent with the post mining land use.
71		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 depressed landforms will be geotechnically stable and due to the rehabilitated slope 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 concentration' flow from the catchment.
73		Diversion bunds 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 the Lagoon Creek floodplain.
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 <i>Dichanthium sericeum</i> based grassland offset in perpetuity. This legal agreement will also include a long term management plan for preservation of the <i>Dichanthium sericeum</i> based grassland offset.
76		The main features of the progressive rehabilitation process are: <ul style="list-style-type: none"> - 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 degrees with drainage contours being constructed as required; - 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 Plan of Operations at the appropriate times.
78		The site-specific criteria for achieving a self-sustaining vegetation community will be developed during the operation based on current practices and the monitoring of progressive rehabilitation. Rehabilitated areas will be monitored using the selected parameters (as described below) and trends tracked to demonstrate establishment.
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 rehabilitation areas designated for grazing.

80			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 of Lagoon Creek within the Study area with a buffer distance of 50 m either side of the channel.
81			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 removal and recycling, dismantling of structures and other similar activities will be associated 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 discussed above, decommissioning and rehabilitation of infrastructure areas will be managed by the mine closure planning process and will encompass contaminated land management matters.
82			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 photograph will be recorded using GPS. This point will form the start of a 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 areas to be rehabilitated.
86			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 - stockpile surfaces are ripped and seeded (if natural revegetation does not provide adequate cover).
87			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 the practices described in the then Department of Minerals and Energy's, 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			In the event of a significant fossil find, NAC will liaise with the Queensland Museum about strategies to protect the find.
90			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 operational activities for the revised Project.
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 several years.
92			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 - 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.
94			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 be considered preferable for the rail line to be removed and rehabilitated then 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 Commitments - AEIS			
96	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 and RPI Regulation. NAC has engaged a consultant to assess the impacts of the revised Project in the context of the RPI Act and RPI Regulations requirements.
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 written or verbal request to the APC or NAC.
98	5.2.9.11	Advisory Agency Responses	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 EIS respectively. The further soil surveys will be undertaken based on the 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 Guidelines for Surveying Soil and Land Resources (McKenzie et al, 2008). 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.
99	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 mine pit areas to Class 2 land suitability (grazing). It is important to note that 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 as the rehabilitation program progresses.
100	5.2.9.13	Advisory Agency Responses	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 completed as the mine progresses.
101	5.3.22.29	Responses to Submissions	NAC will comply with the RPI Act with regard to the revised Project's impacts on cropping land.
102	5.3.24.36	Responses to Submissions	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 modified as required to achieve the best possible scientific outputs to guide future rehabilitation management strategies.
CHAPTER 5			
Surface water resources			
Existing Commitments - draft EIS			
103			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 established through detailed mine planning.
104			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 conservation purposes. This buffer distance is consistent with the requirements of the Vegetation Management Act 1999, which protects remnant vegetation growing within 50m of a watercourse.
105			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.
106			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, there are no flood impacts predicted for the revised Project's final landform.
107			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. - 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 IPTSFs to supplement the water supply for coal washing. - mine-affected water will be treated through settling in sedimentation basins and/or oil-water separators to allow as required discharges off-site that comply with the revised Project's EA. - recycled water from the TRC's WWRF is pumped to the site as the main operational water supply. - Shallow groundwater bores will be treated to supply potable water for human use. - infrastructure and mining areas will be protected from flooding using flood levees. - all significant quantities of hydrocarbon and chemical products stored on site will be stored in temporary or permanent bunding. - spill capture and retention devices will be used for refuelling and similar areas. - oily water areas will be captured and treated using an oil-water separator. - progressive rehabilitation will be employed to revegetate disturbed areas no longer required for operational use. .

108			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. Rainfall runoff from disturbed areas including un-rehabilitated spoil areas 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 environment dams and stored for use to supplement the revised Project's water demands for activities, such as dust suppression.
109			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 Environment Dams will be classified as regulated structures and will need to be 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			The revised Project will not require additional licensing for waterway diversions as there are no diversions planned.
113			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.
114			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 Coal Mines in the Fitzroy Basin (EHP, 2013). The release conditions were developed to only allow discharges that are less than 1,000 µs/cm downstream of the point of discharge.
115			The key activities that will require mitigation measures to prevent or minimise adverse water quality impacts during construction are: <ul style="list-style-type: none"> - 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; - any releases of water from the site and site sedimentation dams.
116			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 addition to these measures, the specific environmental management conditions will be implemented to mitigate the impacts of the construction of the railway line crossing of Lagoon Creek.
117			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 measures will be provided as outlined in the EPA Urban Stormwater Management 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 include: <ul style="list-style-type: none"> - 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; - 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 through the disturbed construction site.
118			The following management strategies will be implemented by the revised Project to protect surface water quality and the downstream receiving environment. <ul style="list-style-type: none"> - 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 activities will be undertaken. - 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 activities will occur within the proposed conservation zone. - 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 Management Plan (WRMP). - 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 captured by these devices will be preferentially reused on site, while captured oil will be 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 adjacent to sensitive drainage paths and within other areas, such as workshops. - 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 procedures to minimise the possibility of a reoccurrence of the original issue. - 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 effective, to demonstrate compliance with the Mine's strict discharge limits, 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 basis, or when water is present, and heavy metals, nutrients, anions and 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 quality variables will include basic water quality indicators, suspended solids, 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. These management actions will focus on handling, storage, spill containment, 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.
120			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 includes a commitment by NAC to a 50 m 'no mining' buffer to promote 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.
122			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 requirements. In addition, NAC has committed to ensuring the revised 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 landforms).
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 environment.
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 controlled release strategy whereby the concentration of salt that is released to the rivers will not exceed the assimilative capacity of the receiving environment, as depicted in Table 5-20.
Additional Commitments - AEIS			
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 authority from DEHP.
126	5.1.5.2	Water Resources	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 dust nuisance goals. NSW Health (2007) Options to protect water quality in rainwater tanks include: <ul style="list-style-type: none"> - 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 - installation of first flush devices to prevent bird droppings and dust entering the rainwater tank after first rains.

127	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.
128	5.2.4.29	Advisory Agency Responses	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 disturbance' buffer being located within the creek itself. Where the channel is 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 creek bank will avoid the boundary of the buffer zone being located within the creek itself.
129	5.2.4.30	Advisory Agency Responses	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 extending from 0 m to 50 m will extend along the length of Lagoon Creek within the 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 the high bank of Lagoon Creek): - 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 - 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. Each of the nominated corridor widths will be minimised where possible during detailed design.
130	5.2.4.58	Advisory Agency Responses	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, annual pre wet season monitoring will be undertaken for storages with 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, location of sampling sites and monitoring parameters will be described in a REMP, which will be developed in consultation with DEHP.
131	5.2.4.63	Advisory Agency Responses	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. It is recognised that Sites LCD1 and LCD2 would not be appropriate control sites for the purposes of assessing the environmental impacts of mining activities, as described in an REMP.
132	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	
Existing Commitments - draft EIS			
133			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 information (e.g. landholder bore surveys).
134			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 surveys) as described in Section 6.3.4.
135			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 surface and unlikely to effect on groundwater resources. Depending on their 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.
137			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 site. Data collected from the groundwater monitoring program will: - 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 - be collated into a database that will be made available to the administering authority on request.
138			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 seven additional bores already installed around the revised Project site.
139			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 provide information on the degree of interconnectivity of these aquifers as mining 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 limited groundwater impact in those areas.
140			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 final location of the proposed additional bores may vary slightly depending on 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.
141			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 make recommendations about these matters; - 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 appropriately qualified driller; and - 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 - the quality of groundwater down gradient of potential sources of contamination.
142			Groundwater monitoring will be undertaken by appropriately qualified personnel. Groundwater level measurements, sample collection, storage and transportation will be undertaken in accordance with procedures conforming to the current industry standard: AS/NZS 5667.1, .11 1998.
143			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 - a description of the procedures, methods and calculations used.
144			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 using appropriate field equipment that is 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			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.
147			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 location of these reference bores and if necessary install new reference bores outside the revised Project's predicted zone of groundwater drawdown.
148			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 Figure 6 37) will monitor groundwater levels and quality in the Oakey Creek Alluvium within the Project's southern boundary.
149			Eight basalt bores will be monitored, including five new bores (Table 6 18 and shown on Figure 6 37).
150			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 bore is located west of the revised Project site and is located in a nested configuration adjacent proposed monitoring bores in the Tertiary basalt and Walloon Coal Measures aquifers (Table 6 18 and shown on Figure 6 37).
151			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 mound area to directly test for its presence and monitor its development over time.
152			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 levels and groundwater quality in conjunction with metering 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 targeted for monitoring will be selected based on a thorough review of bores within the predicted drawdown impact zone.

153			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 its predictions to reflect the actual activities undertaken on site (e.g. mine development and sump locations).
154			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 authority).
156			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 outcome of determining the most appropriate means of 'Make Good' for 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 model where possible.
157			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 alternative supplies may be staged. Options for possible alternative supplies 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 - the installation of a new high yielding 'community bore' and subsequent pipeline to multiple affected landholders.
158			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 and water quality). NAC will review its groundwater monitoring 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 Environmental Monitoring Plan, which forms a supporting document to the NAC Plan of Operations.
159			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 addressed in an expedient manner.
160			NAC has developed a Groundwater Monitoring and Impact Management Plan (GMIMP) to formalise the management of the revised Project's potential impacts on the surrounding groundwater environment. The GMIMP is based on the groundwater impact assessment work 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 revisions to the groundwater modelling and any other applicable groundwater 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.
161			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 installations located in areas where drawdown impacts, and receptors sensitive to 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 over the life of the revised Project. The primary aim of undertaking 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 - groundwater level or quality 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 basis.
163			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 installation of a new bore at another location on the property. NAC will undertake a 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.
164			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'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 revisions to the groundwater modelling and any other applicable groundwater 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.
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 Commitments - 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 regulators to ensure no long term water quality impacts on the groundwater system.
167	5.1.5.3	Water Resources	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 revised Project. The Landholder Agreements will include reference to any negotiated Make Good measures.
168	5.1.5.3	Water Resources	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 to assign these bores to a predicted drawdown level. NAC will seek to further characterise these bores and liaise with potentially affected landholders as part of ongoing baseline assessment works as outlined below.
169	5.1.5.3	Water Resources	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 will comprise: - 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. - Assessment of the bore and infrastructure condition.
170	5.1.5.3	Water Resources	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 and the development of legally binding Landholder Agreements. Landholder 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 committed to selecting appropriate and suitable private bores in conjunction 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 monitoring program, with monitoring of water levels undertaken monthly and monitoring of water quality undertaken every 6 months. The data collected will be provided to the landholder following collection.
171	5.1.5.3	Water Resources	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 GMIMP (Appendix H of the draft EIS) and in accordance with the <i>Water Act 2000</i> . 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. - 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 results and information review that has been undertaken. Comparison to NAC's groundwater model predictions will be made. Negotiation with the affected landholder will then be undertaken to determine the nature of any Make Good measures.
173	5.1.5.4	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.
174	Appendix H	Revised GMIMP	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 parameters, and frequency. The groundwater monitoring program 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 network which brings the total number of bores included in the groundwater 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 program for new bores will be established prior to the commencement of the revised Project's mining schedule to ensure there is sufficient baseline information on groundwater levels and quality for those bores.
175	Appendix H	Revised GMIMP	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 proximity to local groundwater users. These bores will be individually identified in accordance with the bore naming convention at the revised Project site.
176	Appendix H	Revised GMIMP	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 monitor groundwater levels and quality in the Oakey Creek Alluvium. 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.
177	Appendix H	Revised GMIMP	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 monthly basis and samples will be collected and submitted for the analytical suite set out in Table 3-1 every six months.

178	Appendix H	Revised GMIMP	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 3-1). Groundwater levels will be monitored on a monthly basis and samples will be collected and submitted for the analytical suite set out in Table 3-1 every six months.
179	5.2.9.24	Advisory Agency Responses	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 Act 2000. Additionally, and separate from any complaints process, NAC remains 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 monitoring prior to any real or perceived impact occurring. In the time since the draft EIS release, NAC has undertaken additional landholder bore surveys in the area surrounding the revised Project site. The results of these additional surveys are presented in Appendix G. NAC remains committed to reaching Make Good agreements with potentially affected landholders (as shown by the AEIS groundwater modelling) prior to the operation of the revised Project.
180	5.3.1.1	Responses to Submissions	NAC will undertake further comprehensive bore characterisation surveys for third party groundwater users in the predicted impact area to identify the exact requirements for 'Make Good Provisions' for those affected users. NAC commit to entering into landholder agreements with potentially affected landholders. The options for groundwater mitigation will be detailed in the landholder agreements and may include, but not limited to, the installation of a new pump within the impacted bore, the lowering of the existing pump within the impacted bore, the deepening of the impacted bore or the construction of a new bore in the same aquifer at another location on the property.
181	5.3.22.5	Responses to Submissions	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 addressed in an expedient manner.
182	5.3.22.5	Responses to Submissions	NAC will negotiate all 'Make Good' measures with its neighbours and pay all costs associated with the agreed 'Make Good' measure(s). NAC will ensure a dispute resolution mechanism is available for neighbours if they feel aggrieved by the negotiation process for 'Make Good' measures. These components will be included in the proposed Landholder Agreements.
183	5.3.41.1	Responses to Submissions	NAC, through the landholder bore survey undertaken as part of the groundwater impact assessment, surveyed four bores on the submitter's property (Private Submitter 487.1). NAC will undertake baseline landholder bore survey at all groundwater bores within the predicted drawdown area, in accordance with the Water Act 2000.
184	5.3.41.1	Responses to Submissions	Mitigation measures will be put into place should the effects of dewatering affect existing users. Examples of mitigation include installation of new pumps, deepening of existing bores, installation of a new bore at another location on the property, or provision of an alternative supply of water. NAC will undertake a comprehensive bore characterisation program for third party groundwater users in the predicted impact area to identify the exact requirements for 'Make Good Provisions' for those affected users. NAC will formalise these provisions in specific landholder agreements.
	CHAPTER 7	Terrestrial Ecology	
	Existing Commitments - draft EIS		
185			Koala habitat along Lagoon Creek will be retained, although small areas of the poplar box communities outside of the conservation zone will fall within the disturbance footprint. Habitat will continue to be available to the species along Lagoon Creek and the unhindered movement of Koalas will continue once the revised Project is constructed and operated.
186			Predictions from the dust forecasting system will allow operators to identify locations and times of potentially increased risk of dust generation and to facilitate appropriate planning to minimise or avoid potential impacts. An adaptive air quality management plan has been prepared for the revised Project.
187			The adaptive management measures will include the suspension or modification of operations in response to the following triggers: - potential dust risk predictions from the dust forecasting system; - warning or exceedance alarms from the strategic real time air quality monitoring system; and - observation(s) of significant dust generation during visual monitoring of mining activities.
188			In summary, the adaptive management measures include: - increase watering rate applied to haul roads in the Manning Vale West Pit, Manning Vale East Pit and Willeroo Pit; - suspension of overburden/interburden blasting if meteorological conditions are unfavourable; - suspension or modification of dozer operations on overburden dumps; and - suspension or modification of all or selected overburden and/or coal handling activities (including excavation, loading, dumping and hauling).
189			NAC will undertake veneering and profiling of the loaded coal to minimise dust emissions during the transport of coal from the Train Loadout Facility.
190			Vegetation along Lagoon Creek will be retained and continue to provide habitat connectivity. Lagoon Creek's riparian vegetation will be protected by a conservation zone, 50 metres either side of the creek channel. The conservation zone possesses a dedicated management plan, the Conservation Zone Management Plan (Appendix J.6), which is designed to protect and enhance the condition of the riparian vegetation.
191			Remnants of vegetation and habitat will be retained adjacent to the rail loop, along Acland-Sabine Road, in the north-western corner of the revised Project area and in the southern-eastern corner of revised Project area. These remnants will not be cleared by the revised Project and as a result, will not be further fragmented.
192			The BOMP is found in Appendix J.8.
193			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 remnant vegetation not to be mined, and to promote the restoration of the Lagoon Creek riparian zone. NAC has produced a CZMP to manage these ecologically significant areas within the Mine and revised Project areas.
194			The CZMP is found in Appendix J.6.
195			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: - a discussion of known ecology and reproductive biology of the target species; - a methodology for relocating the target species; - 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.
196			A plan for dealing with fauna during clearing and construction will be prepared to outline protocols for dealing with injured wildlife and other necessary actions relating to fauna. This plan will be prepared by the construction contractor, to be implemented during the construction of the revised Project.
197			Contractors to construct telecommunications and electricity networks will also prepare construction management plans that will describe their commitments to managing fauna during construction.
198			All remnant vegetation that does not require clearing will be protected from further disturbance to enhance its potential for natural regeneration.
199			The PWMP is found in Appendix J.9.
200			NAC will continue to take reasonable steps to keep the Project site free of Class 1 and Class 2 declared animal pests, in accordance with the requirements of the LP Act. Management of animal pests will also be consistent with any pest management plans set by the Toowoomba Regional Council.
201			Removal of riparian vegetation at waterway crossings. - Minimise areas of vegetation to be cleared by selecting crossing locations which require minimal clearing of established vegetation. - Implementing the management measures described in the FLURP and the Conservation Zone Management Plan. - Monitor riparian vegetation on banks to review and refine riparian management and rehabilitation strategies.
202			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. Design and construct temporary barriers in waterways to minimise disturbance to environmental flows. Monitor the effectiveness of waterway crossing rehabilitation. 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. Design and construct temporary barriers in waterways to minimise disturbance to environmental flows. Monitor the effectiveness of waterway crossing rehabilitation.

203			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. - Design and construct temporary barriers in waterways to minimise disturbance to environmental flows. - Monitor the effectiveness of waterway crossing rehabilitation.
204			Follow up reptile surveys - Surveys of habitat suitable for small mammals, Brigalow reptiles, bats and birds will be conducted in October and November 2013.
205			Rail loop and spur 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.
206			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 ecological communities will be retained along Lagoon Cree, between the Willeroo and Manning Vale East pits.
207			Biodiversity Offsets: 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 woodland, mountain coolabah forest and gum-topped box woodland.
208			Bluegrass offset management: - The Bluegrass Offset Management Plan will be implemented to manage the areas of bluegrass offset to be established on land owned by NAC
209			Lagoon Creek management: 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.
210			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 relocated to, how the translocation will be completed and monitoring of the implementation of the Plan.
211			Vegetation clearance: 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 the revised Project disturbance footprint will not be cleared or impacted.
212			Pest and weed management: 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 Commitments - AEIS			
213	5.1.1	<i>Nature Conservation</i>	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 implemented by NAC together with the Lagoon Creek Conservation Zone Management Plan (CZMP) which is presented in Appendix J.6 of the draft EIS.
214	5.2.4.16	<i>Advisory Agency Responses</i>	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 revised Project's offsets will be managed. The OAMP will be a document that 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 - the estimated time until the offset management objectives and outcomes will be achieved.
215	5.2.4.16	<i>Advisory Agency Responses</i>	NAC will consult regularly with DoE and DEHP during the development and implementation of the OAMP.
216	5.2.4.16	<i>Advisory Agency Responses</i>	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 necessary approvals. The offset delivery timetable proposed by NAC is shown in Table 5.2-G.
217	5.2.4.17	<i>Advisory Agency Responses</i>	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 will endeavour to locate the biocondition reference site will be on land owned 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 monitoring results. The monitoring and evaluation will also provide a reporting schedule to provide reports to both DoE and DEHP on the status of the offset and its progress to the achievement of objective of the offset.
218	5.2.4.18	<i>Advisory Agency Responses</i>	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 areas to be cleared for the revised Project and the offset sites.
219	5.2.4.19	<i>Advisory Agency Responses</i>	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 plants will then been watered as required, based on local weather conditions. 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 established. The need for watering of the translocated plants will be determined at 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.
220	5.2.4.21	<i>Advisory Agency Responses</i>	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 mine rehabilitation. NAC will also collect the seed of other species from the bluegrass community and use this seed in rehabilitation.
221	5.2.4.22	<i>Advisory Agency Responses</i>	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 Project area. NAC believes there is merit in this suggestion from DEHP, particularly 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 and other associated activities. As part of this approach, NAC will identify 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 translocation activities involving the conservation management zone along Lagoon Creek within the revised Project area. DEHP and DoE will be regularly consulted in relation to this matter and will receive new copies of any updated management plans.
222	5.2.8.2	<i>Advisory Agency Responses</i>	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 gazetted as a protected area (e.g. a nature refuge) under the <i>Queensland Nature Conservation Act 1992</i> ; - as a voluntary declaration of an area of high nature conservation value under the <i>Queensland Vegetation Management Act 1999</i> ; or - a covenant under the <i>Queensland Land Title Act 1994</i> or <i>Queensland Land Act 1994</i> .

223	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. However, two of the listed species, <i>Digitaria porrecta</i> and <i>Bothriochloa biloba</i> , 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> .
224	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 the effective and efficient use of any timber that able to be harvested.
226	5.3.19.13	Responses to Submissions	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 Operating Procedure (SOP) for this requirement. This SOP will be administered as part of NAC's Environmental Management System.
227	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	Aquatic ecology	
	Existing Commitments - draft EIS		
228			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 infrastructure development that is potentially affected by run-off and flood plain inundation.
229			Erosion management will be undertaken in the areas with infrastructure development that is potentially affected by run-off and flood plain inundation.
230			The water management principles of the revised Project that relate to potential impacts on aquatic values 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 - Appropriately designed crossings that consider the hydraulic behaviour of Lagoon Creek.
231			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 - revegetation of disturbed areas no longer required for operational use to promote progressive rehabilitation.
232			Management of Cleared Vegetation 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 to the Manning Vale and Willaroo resource areas. Flood levees will be an 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 in accordance with the (formerly) DERM's Manual for Assessing 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 materials (e.g. rip-rap). - 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 Code for Brigalow Belt and New England Tablelands, which designate buffer 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 aquatic habitats and watercourses. This will be required for the development of all access roads and buildings where run-off could enter watercourses. - 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 Project is presented in Appendix J.2
233			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 quality targets (e.g. Environmental Authorities and Final Model 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 the Fitzroy Basin) to maintain seasonal flow regime and minimise potential 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 management structures using practical hydraulic parameters based on an 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 condition of aquatic and riparian habitat, water quality, aquatic flora and 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 specified by DEHP (2012). - 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.
234			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 construction and operation activities. - 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-assessable code (DEEDI, 2010a) including the provision of appropriate hydraulic 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). - Monitoring and maintaining water quality in accordance with Queensland Water Quality Guidelines (DERM 2009b) during and after construction. - Monitoring of aquatic flora and fauna before, during and after construction to provide assessment of impacts on community structure. - 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. Revegetation of riparian zones will use locally endemic species and include the identification and marking of exclusion areas to protect adjacent riparian communities where applicable.
235			Movement and Operation of Vehicles and Machinery: - 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 control measures. - Bunded fuel and chemical storage procedures will be applied to minimise risk of accidental chemical release or spillage.
236			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 the post-mine land use. - 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 erosion protection and drainage. - 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 regime until the total disturbed area is fully rehabilitated and relinquishment of 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 Commitments - AEIS			
237	5.2.4.23	Advisory Agency Responses	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 monitoring compliance with EA conditions. However, as agreed at the meeting 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 Project site requires regular monitoring involving rapid responses to rain events in order to comprehensively describe water quality conditions.
238	5.2.4.23	Advisory 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 detailed characterisation of baseline water quality conditions. The REMP will 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, within mine storages and downstream of mining activities. The REMP will be developed in accordance with the ANZECC/ARMCANZ (2000) water quality guidelines.
239	5.2.4.33	Advisory Agency Responses	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 baseline environmental conditions, prior to any influence of the revised 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 consideration to including seasonal macro-invertebrate assessments at relevant sites as part of the process of developing the REMP.

240	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.
242	5.2.9.27	Advisory Agency Responses	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 Lagoon Creek in accordance with DNRM's Riverine Protection Permit Exemption Requirements.
CHAPTER 9		Air quality	
Existing Commitments - draft EIS			
243			Dust control measures for operation of the revised Project
244			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. -Dozer operations on overburden dumps will be modified or suspended if dust generation is excessive.
245			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. -Gravel/basalt stemming will be used in blast holes.
246			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. -The private haulage route from the Materials Handling Facility to Train Loading Facility will be a sealed road.
247			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. -Unauthorised clearing of non-mine areas will be prevented using a 'permit to disturb' system.
248			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. -Water will be applied on the ROM coal stockpiles if significant dust levels are being generated.
249			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. -Water sprays will be used. -Crushing -Wet crushing will be employed. -This activity will be fully enclosed. -Conveyors -Water sprays will be used on transfer points.
250			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. -The washed coal will normally retain a moisture level of approximately 10%.
251			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. -Veneering and profiling of the loaded coal will be conducted to minimise dust emissions during transport.
252			Dust control measures for construction of the revised Project
253			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. -A watering truck will be employed to control dust in dry and/or windy conditions. -Cease works if excessive dust generation from construction activities occurs.

254			Rail Spur and Balloon Loop: -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. -A watering truck will be employed to control dust in dry and/or windy conditions. -Cease works if excessive dust generation from construction activities occurs.
255			Fume Management
256			The fume management procedures form part of the Air Quality Management Plan in Appendix J.10. Key fume management actions include: - review weather forecast; - establish 300 m machine and 500 m personnel exclusion zones; - establish Fume Management Zone based on expected meteorological conditions; - notify neighbours on blast contact list of time and date of blast, and whether their residence is in the fume management zone; - set up portable weather station to monitor field meteorological conditions; - blast when meteorological conditions favourable; and - capture, record and review relevant blast data.
257			Dust Forecasting System
258			NAC proposes to implement a dust forecasting system to provide daily predictions of upcoming meteorological conditions and potential risk of air quality impacts from mining operations from the revised Project. A proposed hierarchy of adaptive management measures for key sources of dust from mining operations is outlined in Section 9.5.5.
259			Air quality monitoring
260			An air quality monitoring program has been designed based on the dispersion modelling results presented in Section 9.4.4. The air quality monitoring requirements for the revised Project are presented in Table 9 23. The locations of air quality monitoring equipment for the revised Project are presented in Figure 9 37.
261			The rationale for each component of the air quality monitoring program is: -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 - Meteorological Station – analysis of data to will provide supporting data to assess potential for air quality impacts following any investigations of dust concerns raised.
262			Adaptive Air Quality Management
263			In addition to the dust controls identified in Table 9 21, a series of adaptive management measures are included in the Air Quality Management Plan for the revised Project in Appendix J.10.
264			An indicative hierarchy of controls in response to potential dust risk predictions from the dust forecasting system is presented in Table 9 24.
265			Local Stakeholder Engagement The potential for dust nuisance from the revised Project can be further reduced through: - effective communications with local stakeholders on air quality issues associated with mining activities; - a clearly identified point of contact should local stakeholders have comments or concerns; - a well defined process to ensure that any issues are dealt with promptly and where possible to a satisfactory level; and - a well defined system of recording any incidents or concerns.
266			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 with local stakeholders are provided in the Local Stakeholder Management Plan (refer to Appendix J.18).
267			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. The processes for recording and investigating dust concerns are provided in the Air Quality Management Plan (refer to Appendix J.10).
268			Acquisition/relocation/treatment strategy
269			NAC will undertake a specific consultation approach for local landholders/neighbours that may be potentially affected by air quality impacts from the revised Project (i.e. based on the air quality modelling results). Depending on individual circumstances, NAC will seek to negotiate legal agreement with potentially affected local landholders/neighbours for either property acquisition, relocation of their living arrangements or physical treatment of their residence.
270			NAC proposes to acquire land or relocate sensitive receptors in the event that air quality impacts cannot be adequately managed by dust minimisation activities and adaptive air quality management. NAC will ensure all acquisition and relocation processes are managed in a fair and equitable manner and to the satisfaction of both parties.
271			NAC may treat affected local landholder/neighbour's residences if potential air quality impacts cannot be adequately managed by dust minimisation activities and adaptive air quality management. NAC will ensure all proposed treatment options are negotiated in a fair and equitable manner (e.g. air conditioning).
272			The predicted PM10 concentrations for the revised Project including adaptive air quality management measures comply with the air quality objectives in the EPP (Air).
Additional Commitments - AEIS			
273	5.1.3.4	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 monitoring data. The environmental monitoring report will be made available to the public 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 with local stakeholders are provided in the Local Stakeholder Management Plan (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 will be maintained. The processes for recording and investigating dust 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 Vibration Management Plan (Appendix J.11 of the draft EIS).
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.
277	5.1.5.2	Water Resources	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 dust nuisance goals. NSW Health (2007) Options to protect water quality in rainwater tanks include: - 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 - installation of first flush devices to prevent bird droppings and dust entering the rainwater tank after first rains. 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. As standard practice NHG will investigate the matter, which generally includes sampling for water quality and sludge in the tank.
278	5.1.8.2	Health Impacts	NAC has instituted veneering of coal trains, has committed to the relocation of the JRLF, consultation with residents living closest to the mine, and has committed to an adaptive management approach for air quality and noise. For additional information on these matters, please refer to Section 5.1.3 of the AEIS.
279	5.1.8.2	Health Impacts	Whilst investigations have shown that coal mining is unlikely to result in adverse health effects, and health professionals in the vicinity of the current NAC operations do not report any adverse population trends relating to the Mine, NAC recognises that it is important to ensure residents are aware of the facts regarding health and coal. NAC is therefore committed to the ongoing provision of information and engagement with communities on this important issue.

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 health and the revised Project.
281	5.2.10.42	Advisory Agency Responses	The following dust mitigation measures are implemented at the JRLF to reduce the potential risk of air quality impacts: <ul style="list-style-type: none"> - 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; - Side tipper trucks are used because they possess lower emissions than other types of trucks; - Sealed roads are swept as required to reduce soiling due to track-out; and - 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.
282	5.2.10.42	Advisory Agency Responses	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 5.2 X. The air quality monitoring program for the JRLF includes: <ul style="list-style-type: none"> - 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 - Dust deposition gauges at 5 locations in Jondaryan and near the JRLF.
283	5.2.10.42	Advisory Agency Responses	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 estimated two year period with completion in approximately 2017. The 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 operation. The existing JRLF site will be returned to its original land use of grazing.
284	5.3.5.3	Responses to Submissions	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. NAC continue to regularly consult with the local Jondaryan community to resolve as legitimate complaints.
285	5.3.7.1	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').
286	5.3.8.1	Responses to Submissions	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 neighbours' properties.
287	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.
288	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).
289	5.3.40.2	Responses to Submissions	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 testing does not meet the water quality objectives in the ADWG, NAC commit to engaging with the local community with the objective of identifying key strategies that can be implemented to improve water quality in rainwater tanks.
290	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 consult with the landowner to determine the most appropriate monitoring location.
291	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.
CHAPTER 10		Greenhouse gases	
Existing Commitments - draft EIS			
292			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: <ul style="list-style-type: none"> - 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; - modifying operational procedures to improve the fuel use of selected machines (for example, minimising unnecessary idling of mobile equipment); and - implementing an operator education program to promote more fuel efficient operation of machines.
293			Reduce electricity usage from operations NAC are committed to undertaking the following actions to reduce electricity usage from mining operations for the revised Project: <ul style="list-style-type: none"> - 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 consumption.
294			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 change improve.
295			Reporting and Analysis Based on the revised Project's estimated annual greenhouse gas emissions the following actions will be undertaken to fulfil legislative requirements: <ul style="list-style-type: none"> - report annual greenhouse gas emissions under the National Greenhouse and Energy Reporting System under the NGER 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 planting are examples of options currently being considered.
296			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 revised Project through the trading scheme under the <i>Clean Energy Act 2011</i> .
297			Greenhouse Gas Reduction: <ul style="list-style-type: none"> - Mine planning to reduce haulage distances - Improving efficiency of payload management (e.g. run-of-mine coal haulage) - Consider 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 - Modifying operational procedures to improve the fuel use of selected machines (for example, minimising unnecessary idling of mobile equipment); - Implementing an operator education program to promote more fuel efficient operation of machines - Using power factor correction equipment at the CHPP to improve electricity consumption efficiency - Using LED lighting for general access and safety lighting, e.g. around personnel access walkways and doors and conveyor walkways can result in a reduction of electricity consumption - Report annual greenhouse gas emissions under NGERs - Identify, evaluate and publicly report cost effective energy savings opportunities under the EEO Act. - Investigate opportunities to offset greenhouse gas emissions through carbon trading scheme under the Clean Energy Act 2011
298			Climate Change <ul style="list-style-type: none"> - Recycled water will be supplied from Toowoomba's WWRF to provide a consistent and reliable source of water to the Project - Ongoing monitoring of rehabilitation areas and implement control measures, if required, to achieve rehabilitation success criteria - Responsive water management system to deal with severe storm events - Progressive rehabilitation will be undertaken as soon as practical to minimise risk of erosion from exposed areas
Additional Commitments - AEIS			

			NA
	CHAPTER 11	Noise and vibration	
	Existing Commitments - draft EIS		
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 will be conducted on a seven day, 24 hour basis. Certain mining related 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 practice in Queensland, with various measures in place to ensure a safe 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 attenuated equipment (including excavators, track dozers, loaders and rear dump 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 time hours at all noise sensitive receptors.
301			<p>The following mitigation measures are proposed by NAC as commitments to reduce the revised Project's potential noise impact.</p> <ul style="list-style-type: none"> - 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 stop noisier mining operations. - 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. A copy of the NVMP is provided in Appendix J.11. - 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 in the Manning Vale East pit during the night time period. This requirement is based on the noise assessment work completed for the revised Project's EIS. - 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 the revised Project's EIS. - 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 surface may be restricted during night periods (10pm to 7am). - 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 agreement implement some other form of amicable arrangement (e.g. acoustic 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 innovative solution). NAC would be responsible for all reasonable costs 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 facilitate this process. - 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 mine equipment. - 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 complaints received in relation to the revised Project's operation will be managed as 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 impartiality, and confidentiality. NAC is committed to open communication with its local stakeholders and active complaint resolution when issues or concerns are raised about its mining operations. - If a complaint is received and/or a noise issue is identified by investigation, NAC will modify mining operations until a satisfactory solution for the noise issue is developed and implemented. - NAC will ensure 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 solutions will be investigated and 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 maintained and the results will be interpreted by a qualified professional. - 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. - NAC will continue to utilise broad band 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 site. - NAC will continue its proactive assessment of possible noise attenuation options for both mobile or stationary noise emitting equipment. Noise emissions with tonal, impulsive and/or intermittent characteristics will be targeted for noise attenuation.
302			<p>For the management of airblast overpressure and vibration, the following measures will be adopted for the revised Project.</p> <ul style="list-style-type: none"> - 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 resolved).; - 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 receptors 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 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. - 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 mitigation solutions will be investigated and implemented by agreement.
	Additional Commitments - AEIS		
303	5.1.3.4	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 monitoring data. The environmental monitoring report will be made available to the public 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 will be maintained. The processes for recording and investigating dust 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 Vibration Management Plan (Appendix J.11 of the draft EIS).
305	5.2.4.8	Advisory Agency Responses	NAC commits to provide interpreted data within a week, or earlier if possible, from DEHP requesting the data.
306	5.2.4.14	Advisory Agency Responses	Nac will comply with the operational mining noise (all noise sources).
307	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 stop noisier mining operations and other noise sources.
308	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 implemented.
309	5.3.1.5	Responses to Submissions	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 on individual circumstances, NAC will seek to negotiate a landholder agreement with potentially affected local landholders/neighbours for either property acquisition, relocation of their living arrangements or physical treatment of their residence.
310	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.
311	5.3.23.1	Responses to Submissions	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 Aurizon. Longer term, NAC will use its monitoring results to continuously review its 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 operating the JRLF in compliance with the noise conditions of its environmental authority up until closure of the facility.
	CHAPTER 12	Cultural heritage	
	Existing Commitments - draft EIS		

312			<p>Acland Management Strategy</p> <p>In developing the Acland Management Strategy, the following guiding principles were adopted:</p> <ul style="list-style-type: none"> - remove dysfunctional 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. <p>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.</p>
313			<p>Acland Colliery Conservation Management Plan</p> <p>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 to set out an agreed framework for the management, preservation and maintenance of the listed structures within the former Acland No.2 Colliery site.</p> <p>As a Queensland Heritage listed site, the significance of the former Acland No.2 Colliery requires that the following general commitments are undertaken.</p> <ul style="list-style-type: none"> - 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 high rankings of significance; - 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.
314			Cultural Heritage Management Plan
315			<p>Two major clearance/collection activities involving the Western Wakka Wakka People have occurred on ML 50170 under permits administrated by the previous CR Act.</p> <p>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 basis within the Study area. All personnel and contractors (construction and subsequent workings) will undergo a cultural heritage awareness program.</p>
316			<p>Aboriginal cultural heritage</p> <ul style="list-style-type: none"> - 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 protection of Aboriginal cultural heritage within the Study area. -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.
317			<p>Acland No.2 Colliery</p> <ul style="list-style-type: none"> - 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 rankings of significance. - 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. <p>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 generations. NAC has developed the ACCMP and is provided in Appendix J.12.</p>
318			<p>Acland</p> <p>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.</p>
Additional Commitments - AEIS			
319	5.1.7	Acland Township	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 environmental objectives which stakeholders have raised during community 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 50232.
320	5.1.7	Acland Township	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 environmental management plans. The current management status of key sites throughout Acland is tabulated in detail in the AMP.
321	5.1.7	Acland Township	<p>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 include:</p> <ul style="list-style-type: none"> - A community information session with the opportunity to comment on the Acland township plan; - Acland township plans on display at the Oakey Community Information Centre, including community staff available to answer questions and provide information;
322	5.2.1.1	Advisory Agency Responses	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 representative from the Oakey Reconciliation Committee currently sits on NAC's 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 aim to foster a workplace where employees feel that they are valued members of the organisation and that they are treated fairly.
323	5.2.1.1		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 place between NAC and departmental officers regarding potential employment and business development opportunities for Aboriginal and Torres Strait Islander people.
324	5.3.21.6	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 public through additional planned consultation.
325	5.3.44.1	Responses to Submissions	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 Memorial described through the submission. NAC will conduct regular consultation with the community and the Private Submitter (Private Submitter 503) in relation to this matter.
CHAPTER 13 Traffic and Transport			
Existing Commitments - draft EIS			
326			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 Jondaryan-Muldu Road diversion to ensure appropriate detours are available.
327			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 infrastructure needs to be obtained by NAC prior to the rail corridor being leased to QR Limited or operated privately by NAC.
328			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 industrial rail management provisions will be adopted.
329			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 on site are fit for work, thereby not compromising safety within the 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 fatigued whilst travelling to and from work and whilst on the job. NAC's Fatigue Management Policy is located in Appendix A.4.
330			<ul style="list-style-type: none"> - Working hour arrangements will be modified and haulage tasks avoided during peak traffic periods and school drop-off and pick-up times. - Established truck routes and arterial roads will be used for the haulage of construction materials and spoil in order to minimise truck traffic on local roads.

331			<p>NAC will implement the following mitigation measures throughout the operational phase to minimise the impact of traffic movements:</p> <ul style="list-style-type: none"> - 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 traffic conditions, and as required, traffic control personnel. - 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. - Adequate consultation is undertaken with the appropriate regulatory authorities.
332			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 process. NAC will ensure that all road intersections required for the revised Project 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 irrespective of the additional development traffic, TMR and TRC should take an 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 Acland township and appropriate rerouting should be considered.
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 considerations outlined within the ALCAM Report.
Additional Commitments - AEIS			
334	5.1.6	Transport Traffic and Roads	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 be in place when these closures are implemented to warn public of the 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.
336	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.
337	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.
338	5.1.6	Transport Traffic and Roads	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 will be submitted to DTMR and TRC when the project execution contracts have been awarded.
339	5.1.6	Transport Traffic and Roads	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 these activities to ensure that TMR and TRC can undertake a compliance audit 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 Manual of uniform traffic control devices (MUTCD).
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.
341	5.1.6	Transport Traffic and Roads	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 the project execution contracts have been awarded. These documents will be submitted to DTMR and TRC for approval.
342	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.
343	5.1.6	Transport Traffic and Roads	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. Information will be available and discussed through landholder engagement activities as outlined in Section 5.1.10 of the AEIS.
344	5.2.3.1	Advisory Agency Responses	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.
345	5.2.3.6	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.
346	5.2.3.8	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 agreed mitigation measure will be outlined within the RIA report which will be undertaken during the detailed design stage.
347	5.2.3.12	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 that appropriate discussion are undertaken with the DTMR Downs-South 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 discussion with the relevant authorities. Any necessary construction approvals will be sought once an agreement has been reached with the relevant authorities during the detailed design stage.
348	5.2.3.15	Advisory Agency Responses	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 RMP and TMP.
349	5.2.3.16	Advisory Agency Responses	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 detailed design stage to ensure the confirmed transport route road safety risks 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.
350	5.2.10.49	Advisory Agency Responses	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 current measures stay in place to reduce the likelihood of product spill through covering loads and washing down vehicles prior to departure from the construction site is maintained during the operation phase also.
351	5.2.10.50	Advisory Agency Responses	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.
352	5.2.10.51	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 and will be prepared during the detailed design stage.
353	5.2.10.53	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 detailed design stage.
354	5.2.10.56	Advisory Agency Responses	Discussions between NHG, Queensland Rail and Aurizon will continue with regard to infrastructure and logistics associated with any required upgrades.
355	5.2.10.57	Advisory Agency Responses	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.
356	5.3.2.1	Responses to Submissions	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: <ul style="list-style-type: none"> - 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).
357	5.3.2.2	Responses to Submissions	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.
358	5.3.2.3	Responses to Submissions	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 maintained, or that impacts to access is minimised as per agreement with the submitter. This includes the Private Submitter's request to keep the realignment as close to the junction of Cookes Road and Jondaryan – Muldu Road.
359	5.3.2.4	Responses to Submissions	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 RP3467. An agreement will be developed and executed between NAC and the submitter.
360	5.3.3.3	Responses to Submissions	NAC commits to proactively consulting with the submitter (Private Submitter 17) on proposed plans for the realignment of Jondaryan – Muldu Road. NAC will ensure that impact to Lot 3444 is minimised, or that impacts are limited as per agreement with the submitter.
361	5.3.19.10	Responses to Submissions	The Private Submitter's suggestion to plant a tree screen along the western edge of Lot 3445 will be implemented in consultation with the landholder.
362	5.3.19.14	Responses to Submissions	NAC will further engage with the Private Submitter (Private Submitter 284) to discuss this impact and a possible solution.
363	5.3.20.5	Responses to Submissions	NAC is committed to the maintenance of a safe, all weather access to Acland for the local inhabitants and general public.
364	5.3.24.22	Responses to Submissions	NAC will fund all planned changes required to the local road and rail network as a result of the revised Project's implementation and operation.
365	5.3.32.6	Responses to Submissions	NAC will work with the bus company and the affected families in an attempt to develop amicable solutions for those school bus routes that may be impacted.
366	5.3.33.3	Responses to Submissions	NAC will fund all road diversions or other changes required as a result of the revised Project (e.g. the re-alignment of the Jondaryan-Muldu Road.). As a rule of thumb, any changes to local infrastructure as a result of the operation of the revised Project would be funded by NAC.
			NAC will undertake the appropriate discussions with QR, DTMR and TRC to ensure the appropriate mitigation measures are implemented based on the proposed design considerations outlined within the ALCAM assessment that would be undertaken by QR.

CHAPTER 14		Waste management
Existing Commitments - 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.
368		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 - 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.
370		The waste management strategies proposed for the revised Project will consider waste management from the concept and planning stages through design, construction, operation and decommissioning. Waste planning allows for considerable flexibility in the management of all 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 current regulations.
371		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 waste minimisation; - 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 - recycling of glass, aluminium, steel and cardboards.
372		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 materials cut to standard sizes, bulk purchasing of materials, reduction of 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 economic reuse and recycling, in preference to disposal to landfill.
373		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 receptacles. All forms of regulated waste will be tracked in accordance with a 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 the EHP. The certificates will outline the type and amount of regulated waste, the name of the waste producer and the nominated disposal/treatment/storage facility.
374		The spill response process in order of priority is to control, contain, absorb and finally to dispose of the spill material. Procedures will include the provision of spill containment equipment and materials at workshops, warehouses and fuel/chemical storage areas to reduce the 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 of chemicals, hydrocarbons and wastes.
375		Sites that become contaminated will be investigated, managed and remediated in accordance with the requirements of the contaminated land provisions of the EP Act.
376		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 levee/bunding structures. These structures are currently in place at NAC and 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 the revised Project
378		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 - 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 to the appropriate person for action and close out.
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 construction and operational phases of the revised Project.
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 measures to manage all wastes for the revised Project.
382		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 infrastructure areas to achieve maximum economic waste recovery. These bins will 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 disposal to the Oakey landfill by a licensed waste transporter. Recyclables will be transported to a local material recycling facility.
Additional Commitments - AEIS		
		NA
CHAPTER 15		Visual amenity
Existing Commitments - draft EIS		
383		The Aviation Hazard Management located in Appendix J.17 outlines the mitigation measures that will be implemented for the revised Project.
384		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 procedures to address concerns from near neighbours. The LSMP is provided in Appendix J.18.
385		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. This action will be considered at the following locations: - 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 - Within and surrounding Acland.
386		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 species used were Eucalyptus argophloia (Chinchilla white gum), Eucalyptus poplunea (Poplar box) and Casuarina cristata (Belah). New tree-screening activities will occur: - along the western side of Oakey-Cooyar Road to minimise expansive views of the revised Project site to the east; - along the western side of the re-aligned section of Jondaryan-Muldu Road to limit views of mining vehicle traffic; - 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 - on the eastern and western edges of Acland to preserve the character of the town. 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 consultation with individual landholders impacted by the revised Project.
387		Night lighting 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. Night lighting will 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 LSMP.

388		Rehabilitation of the Project site 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, will ensure that the visual environment is returned, as much as possible, to its predominately rural outlook.
389		Establishment of Visual Buffers The establishment of elevated bunds between the revised Project and sensitive receptors may be implemented to reduce the overall visibility of the revised Project. Mitigation strategies that were implemented for the Mine (refer to Photograph 15-3) will be incorporated along Oakey-Cooyar Road and the re-aligned section of Jondaryan-Muldu Road. These barriers may be established during the initial stages of the revised Project's early works and would be established from overburden spoil and done concurrently with the tree screening activities. However, in establishing these buffers, it will be necessary to consider the potential impacts from these features on the visual environment. Elevated bunds should only be implemented in areas where limited views are currently provided or where mining activities are located very near to roadsides and could present as a distraction to vehicle occupants.
390		Further identification of impacts 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 the back of a house to completely screen the views of the mine expansion areas is an option.
Additional Commitments - AEIS		
		NA
CHAPTER 16	Social environment	
Existing Commitments - draft EIS		
391		NAC will continue to adopt an equal employment opportunity approach to all recruitment and continue to support a diverse workforce that includes vulnerable population groups including people from culturally and linguistically diverse backgrounds, Indigenous peoples, women, school leavers, the unemployed and underemployed.
392		Table 16-16 summarises key impacts associated with property and land use, as well as mitigation strategies to manage impacts.
393		NAC will endeavour to source workers from the TRC area, where possible, depending on the specific skills required, the status of the labour market at the time, the trainability of the advertised position and the proposed timetable of construction.
394		Table 16-19 provides a summary of housing and accommodation impacts and the mitigation measures that will be applied to manage these.
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 employment enquiries 'on the ground'.
396		NAC will also target under-represented groups including women, the unemployed, unskilled workers, members of the Indigenous community and people with a disability to deliver work readiness and skills development training. This will be achieved through up-skilling existing and new employees and working with local recruitment firms to target diverse population groups.
397		NAC will continue to adopt an equal employment opportunity approach to all recruitment and continue to support a diverse workforce that includes vulnerable population groups including people from culturally and linguistically diverse backgrounds, Indigenous peoples, women, school leavers, the unemployed and underemployed.
398		Table 16-20 summarises impacts on employment and mitigation and enhancement measures.
399		NAC will undertake consultation with, and work in conjunction with local business and industry groups to provide relevant information to local businesses regarding procurement opportunities and processes.
400		Table 16-21 summarises impacts and mitigation measures relating to the economy, local business and industry.
401		NAC will work with the Rural Fire Brigade to develop consistent protocols and clear roles and responsibilities.
402		NAC will provide a first aid service and fire fighting services at the revised Project site. This will reduce the demand placed on government services. In addition, NAC will continue to liaise with the Queensland Government to identify potential impacts on emergency services over time.
403		NAC will continue its consultation with the Oakey Hospital.
404		Table 16-22 summarises impacts and benefits associated with social infrastructure. Key mitigation measures will be implemented to avoid or minimise impacts where possible.
405		NAC will continue to financially support a community bus which operates between Oakey and Toowoomba City.
406		Table 16-23 highlights the impacts that may be experienced in terms of traffic and access. Mitigation measures are also discussed.
407		Table 16-24 summarises the means by which key amenity impacts will be managed.
408		NAC will implement appropriate education to regulate driver behaviour and this will assist in managing these impacts. NAC's Fitness for Work Policy – Alcohol Management, Fatigue Management and Drug Management is located in Appendices A.3, A.4 and A.5 respectively and will be implemented for the revised Project.
409		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 of emergency situations in an appropriate manner. In addition, Emergency Preparedness and Response shall be tested via emergency exercises, audits and reviews to verify adequacy and effectiveness. This will be completed in consultation with local emergency service providers. NAC has developed emergency and evacuation planning and response procedures in consultation with state and regional emergency service providers. NAC will continue to liaise with Queensland Fire and Rescue Service (QFRS), Queensland Ambulance Service (QAS), local State Emergency Services, local ambulance, local hospital services and local Police throughout all stages of the revised Project. NAC will continue to conduct periodic emergency simulation drills with its regional emergency service providers over the life of the revised Project.
410		Table 16-25 summarises key impacts and mitigation measures associated with community health and safety.
411		Table 16-26 summarises the means by which key amenity impacts will be managed.
412		NAC will continue to provide a 24 hour employee support program. This employee support program provides counselling and support to all employees and immediate family members.
413		Table 16-27 summarises impacts on the revised Project workforce and recommends mitigation measures.
414		Community development -Continued operation of the Community Investment Fund and Community Sponsorship and Donation Program. - Maintain a community grievance mechanism to allow landholders and other stakeholders to lodge issues, concerns, questions or suggestions and have them responded to in a timely manner. - Engage with local schools to provide specific curriculum assistance through specialist visits.
415		Change of land use from agriculture to mining -APC will continue to undertake grazing and agricultural activities in the SIA study area and provide training and employment opportunities for local people. -Continued progressive rehabilitation of mined land – returned to grazing potential.
416		Changes to Acland Retain and maintain the Tom Doherty Park, War Memorial and the Acland No 2 Colliery.
417		Impact on amenity - Move the JRLF onto the revised Project site. - Continue dust suppression measures, such as veneering and implement the use of enclosed hoppers for loading. - Implement environmental management measures as identified in Appendix J.19. - NAC will continue its on-going community consultation to provide updated information and respond to issues and concerns. - The current and future activities of APC will promote the continued agricultural use of land surrounding the revised Project site. - Continue the CRG as a communication channel to identify concerns and disseminate information
418		Increase in SIA study area and TRC area population. - Where practical and possible, NAC will continue its employment of local people. - Where practical and possible, NAC will source employment from unskilled labour to help meet labour demand.
419		Demand for worker housing, potentially impacting on availability of local rental and purchase properties - NAC will liaise with local accommodation providers so that demand for short term accommodation can be met locally where possible. - Where practical and possible, adopt a target of 70% local employment to reduce demand for housing in the SIA study area.
420		Increased opportunities for local short term accommodation establishments. - NAC will liaise with local accommodation providers so that demand for short term accommodation can be met locally where possible.

421			<p>Creation of direct and indirect employment opportunities.</p> <ul style="list-style-type: none"> - 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 Training) - 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. - Job advertisements placed online and in physical locations to allow local access
422			<p>Creation of employment opportunities for vulnerable groups</p> <ul style="list-style-type: none"> - 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 disability, and assessing skills gaps and training required. - 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 females and Indigenous workers, dedicating 10% of NAC's recruitment budget to 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 balance and help disadvantaged groups transition to the workforce. - 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 linguistically diverse backgrounds, Indigenous peoples, women, school leavers, the unemployed and underemployed. - Continue to build partnership with the Oakey Reconciliation Council to encourage Indigenous peoples to apply for employment opportunities.
423			<p>Education and training.</p> <ul style="list-style-type: none"> - 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. - Continued access to Employee Educational Assistance Program to encourage staff to continue their education or undertake further training and qualifications. - Continued relationship with Downs Group Training to facilitate structure training programs.
424			<p>Procurement opportunities for local businesses.</p> <ul style="list-style-type: none"> - 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 detail design and construction of the project with potential -contractors and 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 opportunities. - 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. - Develop and distribute fact sheet on procurement requirements and processes to New Hope Community Information Centre at Oakey, Oakey Reconciliation Council and Traditional Owner representatives.
425			<p>Declining local employment opportunities in agriculture.</p> <ul style="list-style-type: none"> - Where possible, NAC will continue to provide employment and training opportunities through APC.
426			<p>Safety risks associated with travelling to site.</p> <ul style="list-style-type: none"> - NAC will continue to communicate the company's corporate policies. - 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.
427			<p>Impacts on health and emergency services.</p> <p>NAC will liaise with state and regional health departments to provide information about the revised Project and the potential for associated service provision requirements.</p> <ul style="list-style-type: none"> - 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 stations and the Jondaryan Rural Fire Brigade. - NAC will continue to liaise directly and through the CRG with Oakey Hospital and other local health services.
428			<p>Increased demand for education services</p> <ul style="list-style-type: none"> - NAC will continue to liaise directly with Oakey State High School and other local schools through the Community Reference Group and other mechanisms. - 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 opportunities.
429			<p>Decreased connectivity on and around the Project site due to increased vehicle movement.</p> <ul style="list-style-type: none"> - 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. - NAC will employ appropriate road safety signage and minimise delays to travel during the revised Project related construction and transport activities. - Develop a Traffic Management Plan for the revised Project in consultation with relevant state and local government departments.
430			<p>Increased traffic congestion and travelling times for local people.</p> <ul style="list-style-type: none"> - 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 agreement with the TRC.
431			<p>Improved amenity at site of JRLF.</p> <ul style="list-style-type: none"> - Decommissioning of the JRLF. - Removal of buildings, coal stockpile and concrete floors at JRLF. - Use of the JRLF site for grazing and agriculture following decommissioning of the JRLF.
432			<p>Dust, noise and visual impacts from mining operations.</p> <ul style="list-style-type: none"> - NAC will continue to implement the environmental impact control strategies and measures described in Appendix J.19. - Use of enclosed hoppers, veneering and dust suppression measures at the rail loading facility. - NAC will implement visual screening measures, such as tree planting, along roads and neighbouring properties.
Additional Commitments - AEIS			
433	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.
433	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 neighbours to help address this issue.

CHAPTER 17		Economic environment
Existing Commitments - draft EIS		
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 proposed timetable of employment required to meet the scheduled ramp up in production of up to 7.5 Mt/ya.
435		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 employment locally: <ul style="list-style-type: none"> - 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 leavers which provide opportunities to enhance the local skills base, including twice 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 to develop and implement university courses aimed at the mining industry. - 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 training required. - 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 sustainable employment opportunities both as part of the revised Project and on 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 expectations
437		In addition, specific strategies / actions which NAC has committed to engage local content and businesses for the revised Project are outlined below: <ul style="list-style-type: none"> - 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. - 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 Reconciliation Council and through existing relationships with traditional owners.
438		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 skills development, employment and business opportunities for Aboriginal and 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 headline internal (confidential) agreements which outline established processes to provide employment opportunities for recognised traditional owners. Noting that the agreements are confidential, a broad outline of the commitments by NAC includes: <ul style="list-style-type: none"> - Establishing clear position descriptions and notifying the Coordination Committee of available positions to enable awareness by local indigenous communities of skills, qualifications, attitudes/behaviours and experience necessary for employment and promotion on the revised 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 - 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.
439		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 in Oakey which will contribute to an awareness of potential employment / 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 through existing relationships with traditional owners.
440		Reduction in agricultural output from impacted land: <ul style="list-style-type: none"> - 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 post mine use as possible.
441		Lower than expected benefits for the regional study area: <ul style="list-style-type: none"> - 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.
442		Displacement of employment following construction and commissioning phase <ul style="list-style-type: none"> - 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; - Identify local skills shortages through consultation with state and local government, industry, economic development boards and local training providers.
443		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 proponent, however where possible local development should be supported through: <ul style="list-style-type: none"> - Training for currently unemployed workers to encourage generated employment - Advertising employment opportunities with welfare agencies in the Project study area
444		Significant migration to the local area causing upward pressure on property values <ul style="list-style-type: none"> - Source employment locally where appropriate to limit migration and pressure on property values - 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
445		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 materials exists. Should supply constraints exist, this impact can be mitigated through 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 benefits for the region. 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 enhanced through employing the strategies outlined in Section 17.4, where this does not cause excessive pressure on availability of labour and materials.
Additional Commitments - AEIS		
		NA
CHAPTER 18		Health, safety and risk
Existing Commitments - draft EIS		
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 Appendix G.10.2. Other MSDSs will be obtained and communicated to all site personnel involved in the storage, handling, use and disposal of dangerous and hazardous substances and materials.
447		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, handling and transport of these goods/substances will be in accordance with the current Australian Standards and industry codes of practice.
448		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 defined in AS 1940-2004 The storage and handling of flammable and combustible 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 existing operation and will be updated to include the revised Project.
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 relevant stakeholders.
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 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. Chemical spills will be minimised as outlined above. All sewage will be treated 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 considerations outlined within the ALCAM Report.
456			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. Appropriately trained personnel will be on-site throughout the life of the revised 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.
457			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 hoses) will be installed at strategic points within each building. Fire fighting 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 fighting capabilities are also addressed in the Emergency Management Plan. Fire 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.
459			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 Health Service) and local Police throughout all stages of the revised Project. NAC 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 appropriate time regarding emergency management procedures for the 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.
Additional Commitments - AEIS			
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 <i>Food Act 2006</i> for the revised Project.
	CHAPTER 19	Community consultation	
Existing Commitments - draft EIS			
461			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 - maintaining a positive reputation for the revised Project and the NHG in the community.
462			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 continue to ensure its neighbours are properly consulted in relation to revised Project.
Additional Commitments - AEIS			
463	5.1.9	Complaints and Dispute Resolution	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 particular issue, and may range from a reasonable rejection of the complaint (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 the complaint.
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).
466	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 NAC for further consultation and investigation. In the event that a 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 sensitive receptors and are communicated through the relevant Landholder Agreement.
467	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 NAC for further consultation and investigation. In the event that a Complainant rejects a proposed resolution, they will be invited to resubmit the complaint with an explanation for reconsideration.
468	5.1.9	Complaints and Dispute Resolution	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 parties. 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 Institute of Mining and Metallurgy or, if no longer in existence, other professional 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 Technical Dispute and the party's proposed method for resolution of the Technical 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's determination. 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 submission must be provided to the other party.
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 independent expert in making its determination. 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 understand the processes for raising concerns and complaints should they occur. Table 5.1.9-A of the AEIS outlines NAC's community engagement activities regarding the complaints procedures.
471	5.1.10	Consultation	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; - For urgent issues relating to the operating mine, near neighbours have access to senior site personnel via a 24hr phone number; and - Neighbours will be kept informed of revised Project construction activities that may impact them e.g. road closures.

472	5.1.10	Consultation	Table 5.1.10-A of the AEIS contains an outline of community consultation and engagement activities relating the revised Project and the environment.
			NAC acknowledges submitter concerns and has subsequently clarified and extended its consultation activities relating specifically to Acland. Key activities include, but are not limited to: - The development of the Acland Management Plan (AMP) which provides information regarding NAC's plans for Acland and its immediate surrounds. For additional information please refer to Section 5.1.7 and Appendix I of the AEIS. - A community information session with the opportunity for further community input into the AMP; - The AMP displayed at the Oakey Community Information Centre, including community staff available to answer questions, provide information; - Gather feedback; and - Information on road closures in the Acland area and options for access.
473	5.1.10	Consultation	
474	5.1.10	Consultation	Table 5.1.10- B provides a detailed overview of consultation and community engagement activities regarding Acland, transport and road closures. Please note that consultation relating to environmental management and monitoring in the Acland area is covered in Section 5.1.10.1 of the AEIS.
475	5.1.10		NAC accepts that residents of Jondaryan have concerns regarding the location of the JRLF prior to its decommissioning. As such, NAC will strengthen engagement activities in the Jondaryan area in the provision of updated information, results of air quality monitoring, and opportunities for regular discussion and feedback on the facility and potential impacts. Specific engagement activities will continue through decommissioning and rail construction and until such time as the facility is relocated from its current location. Following relocation, Jondaryan residents will continue to be considered part of the Mine's broader community for engagement activities.
476	5.1.10	Consultation	Commitments specifically relating to Jondaryan include: -NAC community staff to regularly visit Jondaryan and be available for residents to provide information, answer questions and respond to concerns regarding the rail construction and JRLF decommissioning; - Additional community information sessions to provide Jondaryan residents with further specific information around the revised Project timelines; - Preference will be given to at least one position on the CRG for a Jondaryan Community Representative. Note that the CRG includes 2 Jondaryan representatives for 2014 calendar year; - Ongoing engagement with the Jondaryan District Resident's Association (JDRA), including presentations to JDRA meetings; and - Jondaryan residents will receive mailed information on environmental monitoring and key milestones.
477	5.1.10	Consultation	Consultation and engagement regarding activities at Jondaryan is outlined in Table 5.1.10 - C of the AEIS.
478	5.1.10		Whilst investigations have shown that coal mining is unlikely to result in adverse health effects, and health professionals in the vicinity of the current NAC operations do not report any adverse population trends relating to the Mine, NAC recognises that it is important to ensure residents are aware of the facts regarding health and coal. NAC is therefore committed to the ongoing provision of information and engagement with communities on this important issue. Table 5.1.10 – D 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 health and the revised Project.
479	5.1.10	Consultation	Wherever possible, 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 particular issue, and may range from a reasonable rejection of the complaint (with a full explanation provided to the complainant) to mitigation or change in practices. 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 understand the processes for raising concerns and complaints should they occur. Table 5.1.10 – E outlines NAC's community engagement activities regarding the complaints procedures.
480	5.1.10	Consultation	The past and future communication activities specific to the broader community are presented in Table 5.1.10 - F.
481	5.1.10	Consultation	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. Further discussions will take place between NAC and departmental officers regarding potential 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
	Appendix G.1.8	Final Landform Technical Report	
	Existing Commitments - draft EIS		
482			NAC will progressively rehabilitate the active mine areas over the life of the revised Project to advance the mine closure process. Rehabilitation and full mine closure is expected to be completed in total to a standard for regulatory approval for surrender of the revised Project's mining leases by about 2039. It should be noted that these dates are subject to variation and can be significantly influenced by factors that affect the rate of mining, fluctuations in the global economic environment, legislative and regulatory changes, future business decisions by the NHCL's Board and Senior Management, and/or change of company ownership.
483			NAC will continue to consult with the Department of Natural Resources and Mines (DNRM) in the future to ensure compliance with the SCL legislation. As a preliminary task, NAC will lodge a validation application for the revised Project with the DNRM to delineate those areas that are not SCL, and therefore, will not require specific management to ensure statutory compliance.
484			NAC will continue to investigate other possible innovative final land uses for the revised Project. NAC will ensure the applicable government authorities and the community are appropriately consulted in relation to any proposed future changes for the revised Project's final land uses. NAC will also be required to seek regulatory approval, provide satisfactory scientific evidence and ensure community expectations are satisfied for all proposed future changes to the revised Project's final land uses. NAC will ensure all consultation undertaken for the revised Project is consistent with the Local Stakeholder Management Plan and the Stakeholder Engagement Plan located in Appendices J.18 and K.1 respectively.
485			The final phase of the revised Project's mine closure planning process will commence a minimum of five years from the end of the revised Project's life and will involve the development of a dedicated Mine Closure Plan. NAC will ensure the applicable government authorities, its workforce and the community are appropriately consulted during the development of the revised Project's Mine Closure Plan and that a risk based management approach is adopted to address all relevant environmental, social, economic and safety issues/matters at the end of the revised Project's life.
486			NAC is committed to delivering 'leading practice' rehabilitation management practices for the revised Project where they are prudent, economically feasible and will deliver beneficial outcomes.
487			NAC will continue to seek support from specialist consultancies and qualified professionals to address specific issues as they arise in relation to environmental management of the revised Project's mining operations.
488			NAC will employ a range of recognised water management structures to control rainfall run off to minimise the risk of significant erosion.
489			In summary, NAC will apply the following erosion and sediment control principles to all areas as general practice for the revised Project. 1) Erosion and sediment control planning will be incorporated into the mine planning process prior to commencing disturbance works in new mining areas. The erosion and sediment control planning will be amended as required to keep pace with the dynamic nature of the mining process, to ensure statutory compliance with discharge limits, and to minimise the potential for environmental harm to the downstream receiving environment. 2) Disturbance at the revised Project will be kept to an operational minimum. New disturbance areas will be carefully planned and controlled by the mine planning process. A 'permit to disturb' process will be applied to non mining areas to prevent accidental disturbance by contractors. 3) Clean water from undisturbed areas at the revised Project will be diverted around disturbed areas. 4) Where possible, top soil at the revised Project will be protected against erosion initiated by raindrops, wind, or concentrated flows. The revised Project's Topsoil Management Plan is located in Appendix J.3. 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 water ways, grassed diversion drains, etc.). 7) Disturbed areas at the revised Project will be progressively rehabilitated as soon as operationally possible to ensure a groundcover of >70% is established as a surface stabilisation and erosion control measure. 8) An inspection, monitoring, and corrective action maintenance regime will be applied to the revised Project to ensure erosion and sediment control measures and water management structures are functioning efficiently. NAC will continue to explore innovative erosion and sediment control measures and use recognised industry standards for general practices, for example, "Sediment Control Engineering Guidelines for Queensland Construction Sites (IEA Qld 1996)".
490			For the revised Project's depressed and elevated landforms, NAC will expand its current monitoring programs and grazing trials to incorporate the applicable rehabilitation success criteria to guide its rehabilitation management (e.g. performance and maintenance regime) and to collect the necessary data to demonstrate: • the geotechnical stability of the constructed landform; • the successful establishment of a suitable vegetative cover to support the final land use and minimise the potential for erosion; and • the productivity of the vegetative cover from a grazing (beef production) perspective.

491		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 demonstrate the long term geotechnical stability of the depressed and elevated landforms for future mine closure and mining lease surrender requirements. <ul style="list-style-type: none"> • 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 constructed landform to allow proper scientific evaluation; • NAC will establish permanent survey points along each profile; • 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); • 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 landforms; and • 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 action process.
492		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 formal study and report by a professional third party agricultural consultancy 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 include the revised Project's rehabilitation areas designated for grazing. NAC 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 surrender requirements.
Additional Commitments - AEIS		
		NA
	Appendix H.1	MNES Report
Existing Commitments - draft EIS		
493		The biodiversity offset will be located on land owned and controlled by the APC (another NHG subsidiary company). The BOMP is provided in Appendix J.8.
494		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 remnant vegetation not to be mined and to promote the restoration of the Lagoon 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 management goals/objectives, planned revegetation techniques (e.g. species 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 comprehensive long term management regime. The CZMP is provided in Appendix J.6.
495		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 style="list-style-type: none"> - a discussion of known ecology and reproductive biology of the target species; - a methodology for relocating the target species; - 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. The TSTP is provided in Appendix J.7.
496		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 existing clearance procedures. Particular attention will be paid to defining the boundaries of clearing where endangered ecological communities or listed species (under the EPBC Act) are present.
497		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 protocols for dealing with injured wildlife and other necessary actions relating to fauna.
498		All remnant vegetation that does not require clearing will be protected from further disturbance to enhance its potential for natural regeneration.
499		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 pests will also be consistent with any pest management plans set by the 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 Commitments - AEIS		
		NA
	Appendix H.2	IESC Submission
Existing Commitments - draft EIS		
501		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 site. Data collected from the groundwater monitoring program will: <ul style="list-style-type: none"> - 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 - be collated into a database that will be made available to the administering authority on request.
502		The groundwater monitoring network will: <ul style="list-style-type: none"> - 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 make recommendations about these matters; - 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 appropriately qualified driller; and - 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: <ul style="list-style-type: none"> - 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 - 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 with procedures conforming to the current industry standard: AS/NZS 5667.1, .11 1998.
504		The data gathered from the groundwater monitoring program will be collated into a database which will include: <ul style="list-style-type: none"> - 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 - a description of the procedures, methods and calculations used.
505		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 using appropriate field equipment that is 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).

508			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.
509			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 levels and groundwater quality in conjunction with metering 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 targeted for monitoring will be selected based on a thorough review of bores within the predicted drawdown impact zone. Section 9.4 details the approach for managing impacts on landholder bores in further detail.
510			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 reflect the actual activities undertaken on site (e.g. mine development and sump 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 authority).
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 outcome of determining the most appropriate means of 'Make Good' for 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 model where possible.
513			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 alternative supplies may be staged.
514			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 and water quality). NAC will review and update its groundwater monitoring 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 Environmental Monitoring Plan, which forms a supporting document to the NAC 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 addressed in an expedient manner.
516			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 any other applicable groundwater 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 F.
517			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 addition to these measures, the specific environmental management conditions 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.
518			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 Guidelines (2008) to comply with the EPP (Water). These measures include: - 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; - 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 through the disturbed construction site.
519			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 activities will be undertaken. - The current conservation zone, 50 m either side of Lagoon Creek, from the Mine will be extended into the revised Project site to promote the re-establishment of the riparian zone. No mining activities will occur within the proposed conservation zone. - 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 management plan (WMP). - The revised Project's water management will be based on the separation and management of clean and dirty water catchments where practicable. - 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 captured by these devices will be preferentially reused on site, while captured oil will be 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 adjacent to sensitive drainage paths and within other areas, such as workshops. - 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 procedures to minimise the possibility of a reoccurrence of the original issue. - 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 WMP is effective, to demonstrate compliance with the Mine's strict discharge limits, 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 basis, or when water is present, and heavy metals, nutrients, anions and 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 quality variables will include basic water quality indicators, suspended solids, 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. These management actions will focus on handling, storage, spill containment, 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 and the riparian zone 50 m either side of the creek
Additional Commitments - AEIS			
521	Appendix N	IESC Submission Response	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 the currently 'unknown aquifer' bores as well as bores used in entitlements, 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 model where possible (i.e. if the planned program of baseline assessments allows it to occur), such as the first 3-yearly review as outlined in the revised Project's GMIMP.
	Appendix I	Offset Strategy	
Existing Commitments - draft EIS			
522			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 - develop an Offset Area Management Plan (OAMP) for each offset management area.
523			There are several legally binding mechanisms available that may be applied to the final Biodiversity Offset Package including: - 'gazetted 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 - use of a 'covenant' under the Land Title Act 1994 or Land Act 1994.

524		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 offset site to abate those threats. Each OAMP will contain an estimate of the costs of management and will provide a monitoring program that will extend until the management outcomes are achieved.
525		Management actions may include: - management of grazing; - weed management; - feral pest management; - management of fire; and - if applicable, active revegetation.
526		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 incorporate conditions of approval required by the State and Commonwealth departments, including regular monitoring and reporting such as those conditions granted for the Stage Two Project in 2006.
Additional Commitments - AEIS		
		NA
Appendix J.1	In pit Tailings Storage Facility Management Plan	
Existing Commitments - draft EIS		
527		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-lease. Surface water will be managed upstream of the ITSFs to ensure runoff 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 levels within the ITSFs will be managed via the maximisation of water recycling 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.
528		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 following strategies will be applied on an 'as required' basis: • If operationally possible, additional water is applied to exposed tailings surface via spraying or flooding. • Disturbance of the exposed tailings surface is kept to a minimum. • If operationally possible, the exposed tailings surface will be armoured with moist coarse rejects. • Rehabilitation activities will be commenced as early as operationally possible. • If necessary, the use of suitable alternate dust mitigation measures (e.g. chemical surfactants and foggers) will be investigated.
529		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 monitoring will be incorporated into future updates of the ITSF Management Plan as it becomes an applicable issue for the ITSFs.
530		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, review of Design Storage Allowance (DSA) and Mandatory Reporting Level (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 of Environment and Heritage Protection (DEHP) within 28 days of the 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 maintenance and upkeep of all monitoring records. Appendix A of this Management Plan outlines the In-Pit Tailings Monthly Inspection Field Sheet.
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 by the rate of tailings dewatering and tailings placement objectives.
533		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 costs for the ITSFs will be a third party cost sourced from quotes provided by external contractors. In summary, future rehabilitation activities will include: • a suitable period for desiccation for the deposited tailings; • capping of the tailings area with a minimum one meter thick layer of coarse rejects to provide an impermeable cap above the tailings. The rejects will be dumped and pushed with low ground pressure dozers at a rate that prevents tailings bow waves and provides a smooth consistent cap; • 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. • final contouring of the covering spoil into the surrounding topography to improve drainage and visual amenity and meet slope stability requirements; • establishment of drainage structures to ensure free drainage off the capped ITSFs; • topsoiling and seeding with appropriate native and exotic pasture species; and • ongoing monitoring of rehabilitation to determine success in terms of erosion, stability, groundcover, sustainability and crust penetration.
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 consultation with the DEHP.
535		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 the DEHP has accepted the Final Rehabilitation Report (FRR) and 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, and evidence of demonstrated rehabilitation success.
Additional Commitments - AEIS		
		NA
Appendix J.2	FINAL LAND USE AND REHABILITATION PLAN	
Existing Commitments - draft EIS		
536		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, changes in legislative requirements, results of on-going studies and monitoring and/or through the introduction of future innovations in rehabilitation techniques.
537		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 maintenance commensurate with the proposed final land use. The post-mine 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 native tree and shrub species. The attainment of this land use will stabilise the landform, protect the downstream water quality and ensure an economic level of pastoral production is achieved by the Acland Pastoral Company (APC) post mining.
538		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 for the Mine and revised Project sites are summarised in Table 4-1. The 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, tailings emplacements will be capped with mine spoil then, topsoiled and 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 require spoil placement or capping but receive topsoil and seeding treatments similar to the solid waste disposal and capped tailings dams.
539		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 ensure geotechnical stability and designed to incorporate the required water management structures to manage storm runoff. Established topsoil and revegetation techniques will be applied to create a self-sustaining vegetation community capable of supporting grazing. A regular monitoring regime and grazing trial program will be implemented to demonstrate rehabilitation success, guide maintenance activities and to develop a long term management regime.

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 Centre Pit's final void will be backfilled by tailings from the CHPP. While 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 2013) that outlines the methodology behind the development of the depressed 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).
542		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 dump will be recontoured from angle of repose slopes to a range of 8.5 degrees to 17 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).
543		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 Authority until they are rehabilitated. In general, these structures are capped 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 Register (EMR) under the Environmental Protection Act 1994 and will require a long term site-based management plan at the time of mine closure.
544		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 contour banks to a rock lined waterway or onto natural ground, and then to 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 before eventual discharge off site. Water in the environmental dams is recycled to minimise the potential for off-site discharge.
545		NAC's rehabilitation strategy relies on the progressive rehabilitation of areas disturbed by mining using a range of proven techniques that include: <ul style="list-style-type: none"> • appropriate pre-disturbance preparation, such as a topsoil management plan and integrated mine planning to efficiently coordinate mining activities; • implementation of practical landform designs to prevent erosion and establish long term geotechnical stability; • identification of an appropriate post-mine land use consistent with local environmental constraints; • avoiding the placement of sodic/dispersive materials near the surface of the dumps or within the plant root zone; • 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 plan; • revegetation trials for selection of appropriate revegetation species and methodologies and development of a long term management regime; • progressive rehabilitation of disturbed areas using appropriate rehabilitation procedures; • a rehabilitation monitoring program to assess rehabilitation success against accepted performance indicators; and • a corrective action program to address areas of substandard rehabilitation.
546		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 as soon as possible when areas become available within the operational land. The main features of the progressive rehabilitation process are: <ul style="list-style-type: none"> • construction of waste dumps in 10 m lifts on external dump faces, with a maximum working dump lift height of 30 m; • development of a stable slope design that incorporates appropriate water management structures (e.g. contour banks, etc.); • use of suitable topsoil, which will either be stockpiled until recontoured areas are available or respread immediately across available recontoured areas; • contour ripping to water promote infiltration and minimise run off; • 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; • application of appropriate fertiliser or other soil ameliorants for plant establishment if required; and • the battering down of final void slopes to create depressed landforms that can safely support the proposed final land use.
547		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 Management Plan (SKM 2013) is administered and implemented as a key component of the FLURP, and is provided as an Appendix to the New Acland Coal Mine Stage 3 Project – Environmental Impact Statement (SKM 2013).
548		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 by the soil surveys and will either be stockpiled until suitable re-contoured 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 waste rock dumps and other disturbed areas.
549		NAC's revegetation methods for all types of mine disturbed land normally consist of the following practices: <ul style="list-style-type: none"> • respreading stockpiled or freshly stripped topsoil; • contour ripping; • application of appropriate fertiliser for plant establishment, after soil chemical analysis, if required; • seeding with an appropriate seed mix.
550		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.
551		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 areas occur, they will be investigated to determine the reason for substandard rehabilitation and to identify appropriate methods for repair.
552		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 landform design and management. The 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 operational activities (i.e. to guide medium and short term mine planning). As a result of this continuous planning process a competent Mine Closure Plan will be prepared towards the end of the revised Project's life. This approach is consistent with industry leading practice.
553		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. The implementation of the Mine Closure Plan will be through the Plan of Operations.
554		On the completion of mining activities, infrastructure will be treated as follows: <ul style="list-style-type: none"> • mine roads will be left behind for use as farm roads or if not required, rehabilitated; • 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 material handling facility and train loadout facility; • concrete pads will be covered with benign waste rock, topsoiled and revegetated or removed and disposed to the nearest landfill; • contaminated land management will be completed as required under the Environmental Protection Act 1994; • all TSFs will possess a competent final cover system; and • 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 tenures.
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 rehabilitation schedule will be made through the Plan of Operations process.
557		Table 6-1 and 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 revised Project as these are covered separately in the Conservation Zone Management Plan (SKM 2013), which is provided as an Appendix of the New Acland Coal Mine Stage 3 Project – Environmental Impact Statement (SKM 2013).
558		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 photograph should be recorded using GPS. This point will form the start of a permanent monitoring site. This will be an on-going process over the life of the Mine and revised Project.
559		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 any significant rehabilitation events over the 12 months in older rehabilitation areas. The Annual Rehabilitation Report will include the following: <ol style="list-style-type: none"> 1) a summary description of visual monitoring for active rill/gully erosion within the first 12 months after seeding and after heavy rainfall events; 2) photographs of the new rehabilitation areas from permanent photographic points; 3) a summary record of treatments used, including seeding rates, soil treatment, topsoil source; and 4) a summary description of any failure of rehabilitation works and maintenance conducted or proposed to be conducted for these areas.

560		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 success which may be affected by rainfall, seedling establishment and other seasonal 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 all rehabilitation works are deemed successful at New Acland Coal Mine for surrender of the associate mining tenure.
561		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 Table 6-1 (general grazing areas) and Table 6-2 (treed areas within grazing 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; 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.
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 a number protected ecological areas that will form part of the final land use for 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 Commitments - AEIS		
		NA
	Appendix J.3	TOPSOIL MANAGEMENT PLAN
Existing Commitments - draft EIS		
563		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, Cl-, CEC and Cations), particularly around soil type boundaries or where variation is suspected in relation to the original soil survey; • dispersion characteristics for erosion potential; and • review of existing soils data and experience gained in topsoil recovery of adjacent mining areas.
564		NAC has prepared a Standard Work Procedure to define the topsoil stripping process for the revised Project. This is located in Appendix A.
565		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-organisms) favourable to plant growth and propagules for natural regeneration (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 with sodic subsoil. • 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 as subsoil clay with mottles, saline material and material dominated with stones. Proposed pre-stripping assessments will help manage unexpected topsoil changes. • 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. • 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 government or the Department of Agriculture, Fisheries and Forestry. • 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 possible for rehabilitation. Rehabilitation of disturbed areas, such as roads, 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.
566		Stockpile locations will be subject to the following management actions. • Grazing stock, machinery and vehicles will be excluded. • Overland water flow onto or across stockpile site will be kept to a practical minimum. • 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 buffer treed zone or in the lee of hills, may be appropriate for these circumstances. • All long-term topsoil material stockpiles will be located outside the active mine path and away from drainage lines. • 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. • Topsoil stockpile locations will be strategically located to assist the sequence of future rehabilitation.
567		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 a greater number of low (<2 m high) mounds, rather than a few high spoil-type dumps, is preferable. Long term stockpiles will be revegetated to minimise loss of soil quality. Revegetating stockpiles will minimise weed infestation, maintain soil organic matter levels, maintain soil structure and microbial activity and maximise the vegetative cover of the stockpile.
568		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 identification and to avoid any inadvertent losses. The establishment of declared plants on the stockpiles will also be monitored and control programs implemented as required.
569		In general, topsoil stockpiles will be managed so that: • storage time is minimised; • Sodosols will be stockpiled separately (if they are to be used in rehabilitation); • locations are accurately surveyed and data is recorded relating to the soil type and volume; • stockpiles are located outside proposed mine disturbance areas and outside of the Lagoon Creek floodplain; • stockpiles are located in areas away from drainage lines or windy areas in order to minimise the risk of soil and wind erosion; • stockpile surfaces are seeded (if natural revegetation does not provide adequate cover); • 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 species.); • 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 traffic and accidental removal/disturbance; and • topsoil stockpiles possess a suitable embankment grade to limit the potential for erosion of the outer pile face.
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 with the practices described in DME (1995).
571		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 conservation earthworks. A number of variables must be considered, such as time of 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.
573		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 operational land. The main features of the progressive rehabilitation process are: • use of suitable topsoil, sourced either from stockpiles or respread immediately after stripping 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; • application of appropriate fertiliser for plant establishment if required; and • application of gypsum if required.

574			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 procedure. First, the overburden materials will be profiled or landformed to the design slopes, then if suitable, secondary media (subsoil) should be placed in position, followed by the primary media (topsoil).
575			The mine rehabilitation strategy may include the following measures which are designed to minimise the loss of topsoil material respread on rehabilitated areas and promote successful vegetation establishment. <ul style="list-style-type: none"> • Balance the topsoil requirement for rehabilitation areas against stored stockpile inventories and proposed stripping volumes. • Maximise the opportunities for direct placement of topsoil from pre-strip to rehabilitation areas. • Minimise the length of time that topsoil material is to be stockpiled. • During removal of soils from the stockpiles, take care to minimise structural degradation of the soils. • Respread topsoil material in even layers at a thickness appropriate for the landform and land capability of the area to be rehabilitated. • Use gypsum to stabilise sodic soil. • Contour rip to encourage rainfall infiltration and minimise run-off. • Soon after respreading, seed with sterile cover crops and pasture grasses and/or native tree species to establish revegetation cover as early as possible. • Construct contour banks in accordance with the applicable landform design criteria to limit slope lengths and control run-off. • Construct collection drains and sedimentation dams to collect run-off and remove suspended sediment. • Regularly inspect and maintain rehabilitation areas to facilitate sediment and erosion control and revegetation success. • Rehabilitation areas of returned topsoil will be ripped, with care taken not to bring subsurface materials to the surface (e.g. large rocks). Ripping should only be sufficient to allow equipment to work efficiently. Ripping along slopes should be along contour. • Regularly inspect rehabilitated areas for declared plants and environmental weeds, and control significant weed outbreaks using chemical or mechanical control methods. • Apply appropriate fire, grazing, and hygiene management procedures. • Continue to implement the SOP to ensure topsoil application is conducted in a consistent manner to ensure rehabilitation success.
576			In general, stable landforms will be established following mining, using soils capable of supporting vegetation communities adapted to the local environment. The stability of the post-mine landform will be achieved by applying sound rehabilitation practices. The disturbed land will be rehabilitated to a condition that is self-sustaining or to a condition where the maintenance requirements are consistent with the proposed post mining land use.
577			In addition, NAC will trial the return of selected rehabilitation areas within the revised Project site to dryland cropping. Topsoil management, drainage and slope conditions will be critical factors for the promotion of a successful outcome. NAC will engage a suitable academic institution to ensure an appropriate level of scientific rigour is applied to the trial process.
578			The effectiveness of the topsoil management practices outlined in this TMP will be assessed regularly in conjunction with overall rehabilitation assessments.
579			The TMP is to be reviewed at least every five years or as otherwise directed by NAC's management in consultation with the relevant government agencies. The review will reflect changes in environmental requirements, technology and operational procedures. The review will include soil depths, topsoil stockpiling locations and topsoil budgets for the proposed mining period.
580			Results of the assessments will be incorporated into future rehabilitation planning to continually improve the success of the program. The performance outcomes for the TMP are: <ul style="list-style-type: none"> • soil survey is conducted prior to stripping; • soil stripping is scheduled to minimise exposed areas; • soil material suitable for reuse is recovered and utilised in an appropriate manner; and • procedures are in place detailing methods to be used for the stripping and stockpiling of soils.
Additional Commitments - AEIS			
			NA
	J.4	WATER RESOURCE MANAGEMENT PLAN	
Existing Commitments - draft EIS			
581			All of the storages will be subject to a risk assessment as outlined in the 'Manual for Assessing Hazard Categories and Hydraulic Performance of Dams' (DERM, 2012).
582			All regulated storages will be inspected annually by a suitability qualified and experienced person for their structural, geotechnical and hydraulic adequacy and the results of the assessment reported to DNRM. Maintenance of pumps is the responsibility of the Maintenance Department, who will provide 24-hour support across the site, this will include a 250-hour interval time on all pump maintenance, stepped in complexity and thoroughness as the pump accumulates hours.
583			The revised Project will include flood defences in the form of levees for Lagoon Creek. All flood defences will have annual inspections after each wet season and significant flow event. Levees will not be to be altered or interfered with unless there has been thorough consultation with a professional engineer.
584			The NHG will also monitor 3 month rainfall outlooks provided by the BoM to manage the risk of high to extreme rainfall events.
585			Drought planning will involve monitoring and review of existing water use. Monitoring of existing water uses and analysis of the data will allow inefficiencies in the system to be identified and targeted for reduction in forward planning.
586			The NHG's Emergency Response Manual includes a section on actions to be taken in response to an environmental emergency. The discharge of water from the water management structures are included as an individual issue with specific requirements outlined in the Emergency Response Manual, which will be reviewed and updated as required. The NHG's emergency response plans also include incident reporting. These plans will be updated to incorporate risks specific to the revised Project.
587			This WRMP will be reviewed every 12 months prior to the end of September and after any event involving the uncontrolled release of water to the environment. The review will consider any updates to the system, predictions from the water balance model and any changes to regulatory or licensing conditions.
588			Monitoring of performance will involve the testing and gauging of a number of different systems. Monitoring programs will be in place and documented for the following areas: <ul style="list-style-type: none"> • dam safety inspections; • water quality monitoring; • groundwater monitoring; • dam level monitoring; • water use gauging; • levee audit and safety assessment; and • Lagoon Creek channel stability.
589			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 style="list-style-type: none"> • ensuring compliance with the EA and water licences; • ensuring that no unacceptable impacts to surface and groundwater systems are occurring as a result of activities; • ensuring that any regulatory non-compliance is detected and managed in accordance with procedures and regulatory requirements; • support operational control and update on-site water balances and off-site catchment models; • assess current and cumulative impacts of on the environment; • meet corporate and regulatory reporting requirements; • maintain safety and environmental inspection procedures, including the verification of identified hazards and compliance with licence conditions, for all licensed water control facilities; and • 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 be used to: <ul style="list-style-type: none"> • forecast mine water storage volumes and evaluate quality of mine site water and water not affected by mining against water quality criteria; • review the site water balance; and • identify any anomalies in data and recommended action items.

590		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 revised Project will be operated according to a series of documented procedures - Safe Operating Procedures (SOPs). The SOPs relating to the water management system are: <ul style="list-style-type: none"> • surface water management; • monitoring and reporting; • regulated dam management; • levee management; • water storages management; • water usage and release; • collecting water and groundwater monitoring data; • operation and maintenance of sediment dams, environment dams and sumps; and • groundwater management and reporting.
Additional Commitments - AEIS		
		NA
	Appendix H AEIS	Revised GMIMP
591		Baselines have been defined for monitoring bores associated with the groundwater monitoring program for existing operations at New Acland Coal Mine. Long term monitoring of bores for the expanded groundwater monitoring program which covers the revised Project will be undertaken to establish bore-specific groundwater level and quality baselines. The Life of Mine Plan will allow sufficient time for parameter baselines to be established in advance of any potential impacts from mining across the revised Project area.
592		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 area. Data collected from the groundwater monitoring program will: <ul style="list-style-type: none"> • be operated in accordance with the revised Project's approved EA; • be collated into six monthly and annual reviews of groundwater monitoring; • be used in the continued development and refinement of groundwater impact assessment criteria and investigation triggers; • enable verification and refinement of the groundwater modelling predictions presented in the revised Project's AEIS (Jacobs SKM 2014); and • be collated into a database that will be made available to the administering authority on request.
593		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 parameters, and frequency. The groundwater monitoring program 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 network which brings the total number of bores included in the groundwater 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 program for new bores will be established prior to the commencement of the revised Project's mining schedule to ensure there is sufficient baseline information on groundwater levels and quality for those bores.
594		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 proximity to local groundwater users. These bores will be individually identified in accordance with the bore naming convention at the revised Project site.
595		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 location of these reference bores and if necessary install new reference bores outside the revised Project's predicted zone of groundwater drawdown.
596		The groundwater monitoring network will: <ul style="list-style-type: none"> • 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 make recommendations about these matters; • be constructed in accordance with methods prescribed in the latest edition of "Minimum Construction Requirements for Water Bores in Australia" (National Uniform Drillers Licensing Committee, 2012) by an appropriately qualified driller; and • 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: <ul style="list-style-type: none"> • 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 • the quality of groundwater down gradient of potential sources of contamination including groundwater passing the relevant bore(s) of compliance.
597		Groundwater monitoring will be undertaken by appropriately qualified personnel. Groundwater level measurements, sample collection, storage and transportation will be undertaken in accordance with procedures conforming to the current industry standard: AS/NZS 5667.1, .11 1998.
598		The data gathered from the groundwater monitoring program will be collated into a database which will include: <ul style="list-style-type: none"> • 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 • a description of the procedures, methods and calculations used.
599		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 is undertaken using appropriate field equipment that is maintained and calibrated in accordance with the manufacturer's recommendations.
600		• 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 monitor groundwater levels and quality in the Oakey Creek Alluvium. 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.
601		• 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 monthly basis and samples will be collected and submitted for the analytical suite set out in Table 3 1 every six months.
602		• 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 1). Groundwater levels will be monitored on a monthly basis and samples will be collected and submitted for the analytical suite set out in Table 3 1 every six months.
603		The Mine currently abstracts groundwater from the Marburg Sandstone aquifer for the purpose of coal washing. NAC currently possesses an allocation of 271 ML/year for this aquifer. For the revised Project's future operation, abstraction from the Marburg Sandstone aquifer 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 confirm predictions of minimal impacts. The locations of these bores have been 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 hydraulic separation between the overlying aquifers.
604		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 that are currently within the maximum extent of predicted drawdown (for the 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 for these 'unknown aquifer' bores during the first groundwater model update (see 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, where not already established, will be developed using statistical analysis of the baseline data and the predicted effects presented in the revised Project's AEIS (Jacobs SKM 2014).
606		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), NAC will attempt in 'good faith' to negotiate suitable mitigation 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. The development of suitable mitigation measures will be based on the outcomes of an appropriate scientific investigation.

607		Possible mitigation measures that may be applied by NAC include: <ul style="list-style-type: none"> • the refurbishment of an existing groundwater bore; • the installation of a new groundwater bore; • the establishment of an alternative water supply arrangement; and/or • the use of another mutually agreed form of mitigation.
608		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 at NAC's expense. NAC will also ensure the proposed mitigation measures are commensurate with the identified groundwater loss.
609		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 groundwater user and pay all reasonable cost for the use of any interim mitigation 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.
612		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, using accepted and practical mitigation measures, and to the satisfaction of the affected groundwater user.
613		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 groundwater complaint to obtain all the necessary details to decide the next course of 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 Corporate Environmental Team may assist with management of the groundwater complaint.
614		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 current evidence or further scientific investigation establishes NAC is 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 or further scientific investigation establishes NAC is not responsible for the groundwater complaint, NAC will advise the complainant in a timely manner, and depending on circumstances, the Toowoomba Office of the DEHP.
615		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 undertaken, the final outcomes of the complaint investigation process, the 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 issue analysis, regulatory and audit purposes.
616		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.
617		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 style="list-style-type: none"> • 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: • relevant statutory requirements, limits or performance measures/criteria, • monitoring results of previous years, and • relevance to the revised Project's EA; • identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance; • 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 • review the condition and extent of the groundwater monitoring network in the context of meeting its objectives.
618		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 need to be replaced. NAC will proactively maintain the groundwater monitoring network, replacing bores as necessary, and use the regular review of monitoring data to inform the location of additional monitoring bores, if required.
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 necessary will be re-issued any new versions of the document.
	Appendix J.6	CONSERVATION ZONE MANAGEMENT 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 conservation and rehabilitation measures around Bottle Tree Hill.
621		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 each time the site is monitored. A metal peg or star-picket will be used to 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 intervention or management.
623		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 reached for the first 10 years. The qualitative visual monitoring will include the 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.
625		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 cause of the negative variance or failure. Based upon the findings of these 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 are achieved. If required, NAC may also adjust its standard revegetation 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 control, and control of fire fuel loads following good growing seasons.
Additional Commitments - AEIS		
		NA
	Appendix J.7	THREATENED SPECIES TRANSLOCATION PLAN
Existing Commitments - draft EIS		
627		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 actual translocation of the plants prior to the commencement of disturbance 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 three years between the anticipated timing of the SEWPaC approval and the 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.
628		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 progress of this schedule over the life of the revised Project. The plant 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 unexpected failure.
629		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. Existing groundcover will be cleared a suitable distance from around each translocation site to reduce competition from weeds and other plants in proximity to the translocation site.
630		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 high temperature or strong drying winds. Individual tussocks or small groupings 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 disturbance to the root mass did not thrive as well in the first three months 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 of moisture by transpiration.

631			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 transported from their excavation site to their replanting site under the cover of wet 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 will be placed on bare soil to reduce wind erosion and evaporation.
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.
636			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 second week. Watering will then continue as required based on weather 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) will be assessed before each watering use to determine watering requirements. 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 volumes will be reduced.
637			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 vegetation exclusion zone will be maintained until the translocated plants have become established. Follow-up maintenance activities (weed control) will be conducted as required such as during each watering.
638			Fire breaks 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, limited grazing may be carefully applied to these areas to reduce fire fuel loads. Grazing will only be used if plant re-establishment is well advanced.
639			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 during the initial watering phase of the translocation process. As required, corrective and/or maintenance actions will be undertaken based on the findings of these inspections.
640			A qualified ecologist will conduct regular monitoring at each translocation site, which will include the following actions. <ul style="list-style-type: none"> • 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 shoots and reproductive status). • 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. This assessment regime will continue for a minimum of 12 months and until 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. This assessment regime will continue for a minimum of 12 months and until successful establishment of the translocated plants can be scientifically confirmed. • 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 establishment of the translocated plants can be scientifically confirmed.
641			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 is prevented. Appropriate management strategies for managing competition from weed and exotic species include: <ul style="list-style-type: none"> • slashing or brush cutting; • mulching around the establishing plants; • hand weeding; and/or • 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 artificial propagation and re-planting. The progressive nature of the 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 until the last areas of each species are relocated.
643			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 Commitments - AEIS			
644	Appendix L	THREATENED SPECIES TRANSLOCATION PLAN	The management of the offset for <i>Homopholis belsonii</i> 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 excluded from mining activities. The translocation sites are on land owned by the 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 Project's impact on the species. Priority actions for the conservation of <i>Homopholis belsonii</i> , as committed to by NAC are: <ul style="list-style-type: none"> • removing habitat loss, disturbance and modification of habitat; • control of invasive weeds; • management of trampling, browsing and grazing; • awareness raising of the species in the local community; and • encouraging recovery of the species are additional sites.
645	Appendix L	THREATENED SPECIES TRANSLOCATION PLAN	<ul style="list-style-type: none"> • Once the plants are established, monitoring will be undertaken every six months, for a period of five years from the translocation of the plants.
646	Appendix L	THREATENED SPECIES TRANSLOCATION PLAN	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 the Acland area can be variable, it is intended that monitoring would include a period of low rainfall. NAC will liaise 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 that were experienced at the site. In the event that a period of low rainfall is 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 plants to reproduce, without management input.
	Appendix J.8	BLUEGRASS OFFSET MANAGEMENT PLAN	
Existing Commitments - draft EIS			
647			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 initiatives for adjacent areas. The offset areas will provide connectivity to a State 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.
648			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 mechanism will be established over the applicable land parcels (e.g. 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. This approach will be achieved through a combination of fencing, stock management, ecological restoration and maintenance works, weed management, performance monitoring, and general management (e.g. administration).
649			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 by the revised Project. The species are identified as Lobed Blue-grass (<i>Bothriochloa biloba</i>), Belson's Panic (<i>Homopholis belsonii</i>) and Finger Panic Grass (<i>Digitaria porrecta</i>). The management of the translocation of these species is described in the revised Project's Threatened Species Translocation Plan.
650			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 Bluegrass ecological community will be transplanted using the same methodology outlined in the revised Project's Threatened Species Translocation Plan.

651			<p>Upon implementation of the BOMP, the following measures will be implemented within the assisted natural regeneration areas.</p> <ul style="list-style-type: none"> • These areas will be spelled and weeds controlled using broad leaf herbicide application to avoid impacts on existing native grasses. • While being spelled and after favourable seasonal conditions, these areas will be direct-drilled with seed collected from local Bluegrass ecological community areas or purchased local seed if available. • These areas will be monitored pre- and post-wet season i.e. October and March to ascertain the ecological condition in association with the performance criteria. <p>Once the assisted natural regeneration areas meet the performance criteria for the Bluegrass ecological community they will be managed in accordance with the sustainable grazing areas.</p>
652			<p>Site based action plans will be developed for each Bluegrass rehabilitation area including on-ground biomass reduction of non-native perennials, seed collection, site preparation, planting, monitoring, replanting, weed control and on-going management. Upon acceptance of the BOMP, the following measures will be implemented.</p> <ul style="list-style-type: none"> • Sites for replanting will be prepared for sowing after initial biomass reduction and weed management. • Seed for replanting will be harvested from areas of known Bluegrass endangered ecological community and/or purchased if available to make up any short falls in seed quantities for sowing activities. Preference will be given to harvesting of local seed to promote the ecological 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 direct drilling enhancement planting is required. <p>Once these areas meet the performance criteria for the Bluegrass ecological community, they will be managed in accordance with the sustainable grazing areas.</p>
653			Performance criteria for the offset areas will be assessed as per the condition thresholds for the historical listing advice for the Bluegrass ecological community (section 3.3).
654			A monitoring and evaluation plan will be developed for all management areas and will be consistent with the Methodology for Survey and Mapping of Regional Ecosystems and Vegetation Communities in Queensland (Neldner et al., 2012) in combination with the Biocondition methodology for treeless ecosystems (DERM, 2011). Monitoring results will be evaluated against associated management objectives for each Bluegrass management area and reported to provide improved knowledge and understanding of maintaining existing Bluegrass ecological communities, and methods for sustainable grazing, assisted natural regeneration and rehabilitation (re-establishment).
655			The NHG's offsets were calculated based on 100% direct contribution. As a result, no indirect offsets will be required. The NHG may undertake a number of additional management actions, which are listed in Table 4 1. These additional management actions are consistent with the Bluegrass Recovery Plan (EPA, 2007, Appendix C). Broad descriptions of the proposed management actions are provided in part 5 of Appendix C. The main intention of additional management actions is to create awareness, improve knowledge and understanding of Bluegrass 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 NHG will engage a third party offset broker to source a suitable replacement offset strategy and will implement the replacement offset strategy in an expedient manner. If required to offset, the NHG will enter into a financial assurance arrangement with the SEWPac by legal or other agreement.
657			The NHG will ensure the Bluegrass ecological community offsets are appropriately monitored to demonstrate establishment success and guide maintenance requirements. The NHG will ensure the Bluegrass ecological community offsets are protected in perpetuity by a suitable legal mechanism. If required, the NHG will enter into a suitable legal or other agreement to manage any risk associated with establishing its Bluegrass ecological community offsets.
Additional Commitments - AEIS			
			NA
	Appendix J.9	PEST AND WEED MANAGEMENT PLAN	
Existing Commitments - draft EIS			
658			<ul style="list-style-type: none"> • 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. • All machinery that is entering NAC, including but not limited to light vehicles, heavy vehicles and mobile plant equipment is washed down in the washdown bay when the following is applicable: <ul style="list-style-type: none"> • Before a machine is to commence work in areas that require interaction with topsoil used for stockpiles or vegetation • Before a machine is due to work in an environmentally sensitive area • After leaving areas outside the ML that are not designated roads <p>Weeds that are cleared as part of clearing or topsoil stripping operations are disposed of within the mine spoil areas where the ability for them to reproduce is significantly reduced.</p>
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 in consultation with landowners and interested stakeholders.
660			Integrated pest management will not be commenced without consultation with affected relevant stakeholders, and/or TRC as required by statutory commitments. This will allow for a co-ordinated approach to management of target species to ensure successful management.
661			An annual monitoring program will continue to be undertaken to determine the current presence of pest and weed species and their abundance within the Study area. Any significant findings, such as new pest or weeds species, new outbreaks or any actions resulting from incidents, from the annual monitoring will be incorporated into an annual review of the PWMP. Weeds and pest identification is also included in the scope of the annual Rehabilitation Monitoring program.
Additional Commitments - AEIS			
662	5.2.5.5	Advisory Agency Responses	NAC acknowledges that throughout the construction and operation phases of the revised Project, there will be a number of itinerate workers visiting the site on a regular basis. In light of this, NAC will update its existing PWMP in accordance with QH's document, "Guidelines to minimise mosquito and biting midge problems in new developing areas" and the Public Health Act 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.
664			<p>Material extraction and handling</p> <p>Loading/dumping overburden</p> <ul style="list-style-type: none"> • 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. • Dozer operations on overburden dumps will be modified or suspended if dust generation is excessive.
665			<p>Drilling and blasting</p> <ul style="list-style-type: none"> • 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. • Gravel/basalt stemming will be used in blast holes. • A pre-blast environmental checklist will be used. Key actions will include: <ul style="list-style-type: none"> - Review of the current weather forecast. - Establishment of 300 m and 500 m minimum machine and personnel exclusion zones, respectively. - Establishment of a Fume Management Zone based on expected meteorological conditions. - Neighbours on blast contact list will be notified of whether their residence is in the fume management zone. - A portable weather station will be set up to monitor field meteorological conditions. - Blast will only be conducted when meteorological conditions are favourable. - Relevant blast data will be captured, recorded, and as required reviewed.

666			<p>Haul roads</p> <ul style="list-style-type: none"> • Water carts will maintain moisture conditions on haul roads. • 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: <ul style="list-style-type: none"> - 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. • The private haulage route from the Materials Handling Facility to Train Loading Facility will be a sealed road.
667			<p>Exposed areas</p> <ul style="list-style-type: none"> • 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. • Unauthorised clearing of non-mine areas will be prevented using a 'permit to disturb' system.
668			<p>ROM Pad</p> <ul style="list-style-type: none"> • 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. • Water will be applied on the ROM coal stockpiles if significant dust levels are being generated.
669			<p>Coal Handling and Preparation Plant & ROM Bin</p> <p>ROM Bin</p> <ul style="list-style-type: none"> • Automatic water sprays will be installed at the ROM hopper bin to produce a fine mist to suppress dust generated when sensors are triggered. <p>Surge Bin</p> <ul style="list-style-type: none"> • Dust curtains will be installed. • Water sprays will be used. <p>Crushing</p> <ul style="list-style-type: none"> • Wet crushing will be employed. • This activity will be fully enclosed. <p>Conveyors</p> <ul style="list-style-type: none"> • Water sprays will be used on transfer points.
670			<p>Material Handling Facility</p> <ul style="list-style-type: none"> • 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 Materials Handling Facility. • The washed coal will normally retain a moisture level of approximately 10%.
671			<p>Train Loadout Facility</p> <ul style="list-style-type: none"> • 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. • 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 impacts from the revised Project's mining operations.
673			<p>The proposed air quality monitoring program for the revised Project consists of</p> <ul style="list-style-type: none"> • 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. <p>The locations of air quality monitoring equipment for the revised Project are presented in Figure 3-1.</p>
674			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 instruments will be in accordance with the requirements of AS/NZS 3580.1.1:2007
675			Methods for sampling and analysis of ambient air. Part 1.1: Guide to siting air monitoring equipment.
676			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 revised Project.
676			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 revised Project will be formally documented and record of the following information is maintained for legal and compliance purposes.
677			<p>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:</p> <ul style="list-style-type: none"> • meteorological data; • relevant available air quality monitoring data; and • mine operations.
678			<p>Follow up actions taken by NAC's Environmental Team in relation to air quality (dust) concerns may include depending on circumstances:</p> <ul style="list-style-type: none"> • a site inspection of the complainant's residence; • targeted sampling at the complainant's residence of: <ul style="list-style-type: none"> – general surface dust and/or rainwater tank sludge for compositional analysis, and/or – collected rainwater for water quality analysis; • an investigation of other potential dust generating sources in the vicinity of the complainant's residence; • if the complainant's residence is outside NAC's proactive air quality monitoring network, installation of an applicable monitoring station at the complainant's residence (e.g. dust deposition gauge); and • engagement of an air quality specialist to assist the concerns investigation process.
679			NAC is committed to rectifying all air quality issues that are legitimately attributed to the revised Project's operations through proper scientific evaluation, in an appropriate timeframe, using accepted and practical mitigation measures, and if reasonably possible, to the satisfaction of the affected party.

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').
681			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 impact, NAC will ensure the notification requirements of Section 320 of the 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 air quality monitoring data.
683			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 annual and three yearly timeframes, respectively. The audit process will 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 the revised Project. The strategy for NAC's audit processes is to ensure 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 investigation process.
685			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. sensitive receptors) to help guide future air quality mitigation strategies ahead of the mine path.
Additional Commitments - AEIS			
			NA
Appendix J.11	NOISE AND VIBRATION MANAGEMENT PLAN		
Existing Commitments - draft EIS			
686			<p>The following mitigation measures are proposed by NAC as management commitments to reduce the revised Project's potential noise impact.</p> <ul style="list-style-type: none"> 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 stop noisier mining operations and other noise sources. 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 mining operations in the Manning Vale East pit during the night time period. This 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 the revised Project's EIS. 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 implemented. 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 surface may be restricted during night periods (10pm to 7am). 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 agreement implement some other form of amicable arrangement (e.g. acoustic 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 innovative solution). NAC would be responsible for all reasonable costs associated with any agreed solution to a noise issue. NAC will ensure proper maintenance and operational procedures will be undertaken to minimise noise emissions from equipment, including appropriate servicing and maintenance of exhaust systems on mine equipment. 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, and as required, noise amelioration solutions will be investigated and 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 maintained and the results will be interpreted by a qualified professional. 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. 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. NAC will continue its proactive assessment of possible noise attenuation options for both mobile or stationary noise emitting equipment. Noise emissions with tonal, impulsive and/or intermittent characteristics will be targeted for noise attenuation.
687			<p>For the management of airblast overpressure and vibration, the following measures will be adopted for the revised Project:</p> <ul style="list-style-type: none"> 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 resolved); 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. 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 mitigation solutions will be investigated and implemented by agreement.
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 from the revised Project.
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 basis, generating a daily automated email of forecast meteorological conditions.
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 potential impacts.
691			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 Talks'. This approach ensures that the day-to-day business focuses on good work practices to help reduce the potential for noise and vibration impacts from the revised Project.
692			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 monitoring system will be used in conjunction with the weather forecasting system 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 will attend the monitoring location as soon as possible to establish if the 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, it will be ideal during the cooler months when background noise levels are lower and temperature inversions are common. NAC will ensure use of the real-time monitoring equipment is appropriate and practical for the circumstances.
693			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 modification or cessation of mining activities at one or more of the revised Project's mine pits.
694			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 mining activities may mean reducing the intensity of noisier operations or moving particular noisier equipment to other areas or mine pits within the revised Project site. The actions taken will depend on the mine noise sources identified by the appropriate Mine staff following alert by the real-time monitoring system and the level of exceedance at the time (e.g. 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 forecasting system will help guide these mine planning decisions (e.g. wind conditions and temperature inversion conditions).
695			NAC will continue its proactive assessment of possible noise attenuation options for both mobile or stationary noise emitting equipment. Noise emissions with tonal, impulsive and/or intermittent characteristics will be targeted for noise attenuation.
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 Acland to continuously monitor the noise levels.
697			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 solutions will be investigated and implemented. 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 results will be interpreted by a qualified professional.
698			Monitoring of blasts will continue at the nearest sensitive receivers around the revised Project based on climatic conditions (e.g. wind conditions).

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 concern, the complainant(s), a summary of the investigations completed, any 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 with the necessary responsibility to take immediate actions if required. NAC's 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.
701			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 revised Project will be formally documented and record of the following 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. 5) The personal details of the complainant, if made available, or if no details were provided, a note to that effect. 6) The action taken in relation to the concern, including any follow-up contact, the outcome of investigations and any required on-going actions. 7) If no action was taken, then the reason why no action was taken. 8) The final status of the concern (e.g. resolved, continuing or unresolved).
702			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 • mine operations.
703			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; • an investigation of other potential noise generating sources in the vicinity of the complainant's residence; and • engagement of a 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 practical mitigation measures, and if reasonably possible, to the satisfaction of the affected party.
705			Non-compliant Monitoring Results 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 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).
707			General 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 applicable noise monitoring data.
708			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 on annual and three yearly timeframes, respectively, and will be incorporated 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 NAC's audit processes is to ensure compliance and promote continuous improvement as part of the revised Project's noise management regime. 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 complaint investigation process.
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 outcomes of a complaint investigation or following a regulatory inspection (i.e. as corrective actions). The DEHP will be advised of all significant revisions of the NVMP.
Additional Commitments - AEIS			
			NA
J.12	ACLAND COLLIERY CONSERVATION MANAGEMENT PLAN		
Existing Commitments - draft EIS			
710			As a State heritage place, the significance of the Former Acland No.2 Colliery requires that the following general commitments are undertaken as follows: • 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 significance, wherever possible; • 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.
711			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 considered as an adaptable guide that is reassessed and modified at regular intervals to retain a contemporary stance on the management of the site. 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 stabilisation of significant elements across the site should be undertaken where possible.
713			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 where applicable. 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 repairs to the site as required. 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 Commitments - AEIS			
			NA
J.13	WASTE MANAGEMENT PLAN		
Existing Commitments - draft EIS			
714			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 • investigate opportunities for improvement of waste management practices.
715			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 disposal under appropriate documentation. Waste grease will be predominately 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.
716			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 not in the region of an expressing aquifer will be prepared; the tyres will be then dumped, and surveyed as appropriate. Alternatively, tyres will be stored and transported off-site by a licenced regulated waste transporter to a licensed regulated waste receiver.

717		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 documentation. This waste will be transported to a suitable waste facility for 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 (i.e. outside the standard arrangement).
718		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 a bunded facility (compound, temporary or pallet) prior to removal from site 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 licensed regulated waste transporter to a licensed regulated waste receiver, for 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 drainage tray where excess oil can be drained from the filters and pumped from 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 content of soil, be placed in the dedicated contaminated land area.
722		The spill response process in order of priority will be to control, contain, absorb and dispose of the spilled material. Procedures will include the provision of spill containment equipment and materials at workshops, warehouses and fuel/chemical storage areas to reduce the 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 of chemicals, hydrocarbons and wastes.
723		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 emptied routinely and as required by an accredited contractor under appropriate 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 sediment dam for evaporation or possible reuse on-site.
725		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 buildings) will be minimised by producing/procuring only the amount necessary. 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 receiver.
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 compound and disposed of as described in Section 2.1.4.
727		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. Sewage collected by fixed structure locations will be transferred to the Sewage Treatment Plant (STP), treated and then irrigated or returned to CHPP 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 the STP. The thickened sludge will be removed from site by a licensed contractor. 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 EA.
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.
729		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. All treated water from the Wash-down Bay will be diverted to NAC's Environmental Dam. Contractors will be engaged to remove wash-down bay sludge on an as required basis.
730		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 volume of waste generated.
731		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-serviceable by NAC will be dispensed to the general waste bins, which will be removed by a nominated accredited waste removal contractor.
732		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 returning the used printer cartridges to the supplier for refilling and reuse.
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 skip bins where it will be collected by an accredited waste removal contractor 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 may be conducted where necessary, with appropriate permits in place.
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 landfill.
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. Dedicated scrap metal bins will be emptied as required by an accredited contractor 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 will be sold and removed appropriately from site.
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 site by an accredited waste removal contractor.
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 much as practicable to construct haul roads and pads. Unsuitable material will 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 possible, and waste will be minimised by procuring only the amount necessary.
743		Electrical waste will be collected and segregated on-site and transported by a waste contractor for off-site recycling.
744		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 either disposed of over the active dump, or used to sheet haul roads within revised Project site.
747		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 cells for immobilisation. Flocculating agents may be added to the tailings to assist in dewatering, and beaching.
748		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.
749		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 following commitments. • 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.
750		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 of materials cut to standard sizes, bulk purchasing of materials, reduction of 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 economic reuse and recycling, in preference to disposal to landfill.
751		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 receptacles. All forms of regulated waste will be tracked in accordance with a 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 copies being retained by the waste contractor and by the EHP. The 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 appropriate person for action and close out.
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.

Additional Commitments - AEIS		
		NA
	Appendix E AEIS	Revised SIMP
754		<p>The Community and Stakeholder Engagement Action Plan is a framework to provide effective community engagement and communications mechanisms to stakeholders and community members. Key strategies that will support the implementation of this Action Plan include:</p> <ul style="list-style-type: none"> • continued operation of the New Acland Community Reference Group (CRG); • continued commitment to provide the staffed New Hope Community Information Centre at Oakey; • ongoing proactive stakeholder and landholder engagement; • 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; • 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 other local groups; and • Partnerships and relationships with local educational institutions such as Oakey State High School, University of Queensland and University of Southern Queensland.
755		<p>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 includes a number of approaches to support employment locally including for, Indigenous people, women and unemployed people. The key initiatives to be continued or implemented as a part of this plan include:</p> <ul style="list-style-type: none"> • 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 Training); • 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 linguistically diverse backgrounds, Indigenous peoples, women, school leavers, 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 • 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 disability, and assessing skills gaps and training required.
756		<p>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, Toowoomba Regional Council and State Agencies. The slight increase in the 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 housing. The implementation of this Action Plan will work towards achieving the following outcomes:</p> <ul style="list-style-type: none"> • neutral impact on housing affordability and availability for locals; • additional business opportunities for local accommodation providers; and • benefits for temporary accommodation providers.
757		<p>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 build supply chain value. Strategies which are outlined in the Code for ensuring that local industry receives a full, fair and reasonable opportunity include:</p> <ul style="list-style-type: none"> • 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 and any pre-tender requirements; • 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 and construction of the project with potential contractors and subcontractors 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; • provide feedback if requested by suppliers that were unsuccessful in prequalification or tendering; and
758		<p>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:</p> <ul style="list-style-type: none"> • NAC will continue their relationship with the Oakey Hospital and meet regularly with key management staff to understand potential concerns or opportunities; • 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; • NAC will provide first aid services and fire fighting services at the revised Project site; • 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 • 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.
759		<p>In order to successfully implement the management plans outlined in this SIMP, NAC will commit to a number of key mechanisms or tools, including:</p> <ul style="list-style-type: none"> • 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; • key partnerships with government agencies and non-government organisations in the local community; and • on-going provision of a Community staff to provide information to the public and deal with stakeholder issues and grievances.
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.
762		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 how funds are being used to achieve key objectives. Additionally, the findings generate knowledge of what works, what does not work and why; helping the project team to appropriately manage impacts.
763		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 be discussed at the weekly Senior Management Team meetings and may be issued in the internal employee newsletter, "Between the Seams".
764		External reporting during construction and operation will be reported as part of regular community newsletters, and in an annual report to the Coordinator General.
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 Community Engagement and Development for the mining industry.
766		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 community expectations around employment, economic and community 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 activities can be found in Section 5.1.10 of the AEIS.
769		<p>A number of methods will be used to evaluate the effectiveness of the engagement program with local stakeholders. These methods include:</p> <ul style="list-style-type: none"> • 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 behaviours. • 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 how they reacted. Team members will also record 'stand out moments' and quotes. • Media analysis: Analysis of negative versus positive media coverage.

Appendix J.15		EMERGENCY MANAGEMENT PLAN
Existing Commitments - draft EIS		
770		. 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 Project. NAC 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 appropriate time regarding emergency management procedures for the revised Project.
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.
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 of emergency situations in an appropriate manner.
773		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 immediate attention, NAC will engage an appropriate media campaign to inform all stakeholders about the nature of the emergency, that status and actions to be undertaken to minimise risks to human health and safety.
774		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. Potential hazardous materials stores and incident control points, containing fire extinguishers, are depicted in Figure 1-1. All work areas will be within the required distance to reach emergency exits.
775		Emergency response procedures will be reviewed within four weeks of any emergency incident, in consultation with relevant state and regional emergency service providers.
776		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 Commitments - AEIS		
		NA
Appendix J.17		AVIATION HAZARD MANAGEMENT PLAN
Existing Commitments - 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 changes to assumptions made and/or the effectiveness of the Mitigation Actions implemented.
779		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 groups. For New Hope Coal, this will involve the ongoing communication of: a) Hazard/risk management expectations, objectives and emerging trends from the SET and MRMIA; and b) Key risks, sources of risk, potential consequences and the progress mitigation strategies top-down and bottom-up through the organisation.
780		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 and relevant risk related information. Risk communication and consultation, although formalised through quarterly reporting requirements, should be frequent and dynamic in response to changing risk profiles and emerging trends both internally and externally.
781		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 analysis and modelling indicates that the mining operations associated with the 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 Hope Coal will be maintained to facilitate periodic feedback of operational monitoring results as necessary, allowing comparative analysis/validation against the predictive modelling results to be performed if required.
Additional Commitments - AEIS		
		NA
Appendix J.18		LOCAL STAKEHOLDER MANAGEMENT PLAN
Existing Commitments - draft EIS		
782		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 revised Project team and those responsible for the technical studies will be 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 understanding stakeholder's preferred mitigation and management strategies as they 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.
783		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 the following process will be followed: • community feedback on the mitigation measure will be reviewed further to better understand the issue; • the feedback will be investigated further through discussions with stakeholders, community members, government agencies and other groups, field investigations, further technical monitoring or data collection as required; and • 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 communicated to the relevant NAC staff for implementation.
784		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 Project team and those responsible for the technical studies will be 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 understanding stakeholder's preferred mitigation and management strategies as they 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.
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 land owners will be recorded in Consultation Manager.
786		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 behaviours. • 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 how they reacted. Team members will also record 'stand out moments' and quotes. • Media analysis: Analysis of negative versus positive media coverage.
787		
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 • to assess potential for air quality impacts following any investigations of dust concerns raised.
789		• 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. • 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. • The revised Project will maintain plant and equipment in a proper condition. • The revised Project will investigate energy efficiency ratings of plant and equipment for consideration in [plant installations]. • A greenhouse gas inventory will be maintained and reported as required by the NGER legislation

790			<p>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 tailings wastes are addressed in Section 3.8 Land Management.</p> <ul style="list-style-type: none"> Waste management mitigation measures and commitments for the revised Project are provided in Table 3 9.
791			<p>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 disposal procedures. This information is also available in MSDS's which are kept for all materials and chemicals maintained within the HMR.</p> <p>In addition:</p> <ul style="list-style-type: none"> 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; no chemical will be allowed on site without an MSDS; a chemical register will be continued on-site; corrosive materials will be stored and handled in accordance with AS 3780.8 (Class 8 substances – corrosives); 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; fuels, oils and chemicals in containers less than 200 L capacity will be stored as above or in a fenced, bunded and roofed compound; all fuels, oils and chemicals will be clearly labelled; transfer of bulk fuel and handling of hazardous chemicals will be undertaken only by trained personnel and in accordance with a Standard Operating Procedure; spill cleanup kits including absorbent materials will be kept at each fuel and chemical storage facility; and an area will be designated for the temporary storage or bioremediation of hydrocarbon contaminated soils. <p>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 recycle aluminium cans, some containers such as glass bottles, paper, and scrap steel. 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 for recycling and reuse on a regular basis and will update the WMP accordingly.</p>
792			<p>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 design investigations will be undertaken to facilitate:</p> <ul style="list-style-type: none"> physical characterisation of available non-acid forming (NAF) materials for burying potentially-acid forming (PAF) materials; physical characterisation of the PAF rock to be covered; and development of selective placement options.
793			<ul style="list-style-type: none"> General Waste A WMP will be regularly reviewed and revised as required. Recycling of glass, aluminium, steel and cardboards will be undertaken, if feasible. Regular monitoring and auditing will be undertaken, with a program to address any outstanding non-conformances. Waste Rock Management NAC will evaluate the acid generation potential appropriately regularly during mining operations to assess its acid generating capacity. The following measures will be implemented to manage mine waste. Low capacity PAF (PAF-LC) and PAF mine waste: <ul style="list-style-type: none"> 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.
794			<p>The following mitigation measures are proposed by NAC as commitments to reduce the revised Project's potential noise impact.</p> <ul style="list-style-type: none"> 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 stop noisier mining operations. 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. 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 in the Manning Vale East pit during the night time period. This requirement is based on the noise assessment work completed for the revised Project's EIS. 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 the revised Project's EIS. 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 surface may be restricted during night periods (10pm to 7am). 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 agreement implement some other form of amicable arrangement (e.g. acoustic 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 innovative solution). NAC would be responsible for all reasonable costs 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 facilitate this process 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 mine equipment. 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 complaints received in relation to the revised Project's operation will be managed as 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 impartiality, and confidentiality. NAC is committed to open communication with 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 other dumps as noise barriers between active mine operations and nearby noise receptor locations. NAC will continue to utilise broad band 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 site. NAC will continue its proactive assessment of possible noise attenuation options for both mobile or stationary noise emitting equipment. Noise emissions with tonal, impulsive and/or intermittent characteristics will be targeted for noise attenuation.
795			<p>For the management of airblast overpressure and vibration, the following measures will be adopted for the revised Project.</p> <ul style="list-style-type: none"> 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. 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 resolved). 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 receptors 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 revised Project site will be proactively invited to join the blast notification contact list. A qualified professional with suitable experience will be responsible for the revised Project's blast management.
796			<p>A monitoring program will be implemented as per a NVMP and will include the following activities:</p> <ul style="list-style-type: none"> NAC will continue its current proactive monthly noise monitoring program and will expand its coverage around the revised Project site. 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 as required, noise amelioration solutions will be investigated and implemented by agreement. The monitoring of blasts will continue at the nearest sensitive receptors based on the interpretation of pre-blast weather data. 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 mitigation solutions will be investigated and implemented by agreement.

797		<ul style="list-style-type: none"> Noise and vibration monitoring will be undertaken as per the EA. The Proponent will implement the NVMP. All substantiated noise and vibration complaints will be investigated and corrective action will be implemented as required.
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.
799		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 water levels and quality from strategic bores surrounding the revised Project site to help identify potential impacts from the revised Project and to confirm legitimate issues raised by surrounding groundwater users.
800		<p>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 a timely manner, which may involve the provision of alternative water 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. Possible alternative water supply options may include:</p> <ul style="list-style-type: none"> installation of new pumps capable of extracting groundwater from greater depths or more efficiently within existing bores; refurbishment of existing bores to improve the efficiency of groundwater extraction; deepening of existing bores to target new and/or more reliable aquifers; or installation of a new bore at another location on the property. <p>Construction and decommissioning activities are not expected to impact groundwaters.</p>
801		<p>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 collected from the groundwater monitoring program will:</p> <ul style="list-style-type: none"> 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 the AEIS; and be collated into a database that will be made available to the administering authority on request.
802		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 seven additional bores already installed around the revised Project site.
803		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 for new bores will be established prior to the commencement of mining to ensure there is sufficient baseline information on groundwater levels and quality for those bores.
804		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 procedure. The surface water and groundwater monitoring regime will be 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.
805		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 minimum, includes a summary of water management, current monitoring 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 of water monitoring results will be undertaken to check the effectiveness of the revised Project's water management.
806		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 necessary investigations to ensure there are no long-term or residual impacts on the local groundwater regime as a result of the revised Project's previous mining activities.
807		<ul style="list-style-type: none"> 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 activities will be undertaken. 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 occur within the proposed conservation zone. 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. 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 captured by these devices will be preferentially reused on site, while captured oil will be 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 adjacent to sensitive drainage paths and within other areas, such as workshops. 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 procedures to minimise the possibility of a reoccurrence of the original issue.
808		<p>In general, the monitoring program will include the following actions.</p> <ul style="list-style-type: none"> 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 basis, or when water is present, and heavy metals, nutrients, anions and 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 quality variables will include basic water quality indicators, suspended solids, 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. These management actions will focus on handling, storage, spill containment, emergency response, establishment of 'standard operating procedures' for key operational aspects, and development of a responsibility matrix for operational and reporting matters.
809		Nature conservation will be managed by NAC's EMS based on the CZMP, TSTP, PWMP, BOMP, and FLURP.
810		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 be paid to defining the boundaries of clearing where endangered and of concern regional ecosystems are present.
811		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 injured wildlife and other necessary actions relating to fauna.
812		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 monitoring program will be broadened as required for the revised Project and will continue until decommissioning and final rehabilitation.
	Appendix B AEIS	<i>Koala Species Management Plan</i>
813		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 Eucalyptus orgadophila. NAC will aim for a stem density of 200-300 stems per 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.
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 increased to accommodate the infrastructure whilst still providing a 50 meter buffer of vegetation.
815		The proposed Koala restoration area is shown on Figure 4.1, together with recommended locations for future Koala exclusion fencing. The Action Plan to mitigate the loss of Koala habitats is provided in Table 4.1.

816		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 Management Program 2006-2016 (EPA 2006), which is provided in Appendix 2 and 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; - the exclusion of vegetation clearance between the hours of 6pm and 6am; and - the use of exclusion fencing around dangerous or high risk operational mining area.	
817		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 is present, the proposed clearing of these trees will be undertaken in a 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 mining and other activity within this area 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.	
818		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 Koalas in the trees to be cleared. For further guidance around this process, please refer to Appendix 2.	
819		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 within the vicinity of the Manning Vale East and Willeroo Pits as a major high risk area. NAC will develop a Standard Operating Procedure for the management of Koalas within this high risk area.	
820		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 within the Mine and revised Project areas. Temporary fencing and other methods will be used to exclude stock from the conservation zone, particularly from newly planted or direct seeded areas. Importantly, the overuse of fencing along the conservation zone can detrimentally exclude migrating Koalas from potential habitat along Lagoon Creek. Therefore, NAC and the Acland Pastoral Company will actively manage the revised Project's fencing requirements for conservation purposes to ensure positive outcomes.	
821		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. Wherever practical, the animal will be encouraged to move of its own volition. 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.	
822		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 equipment and cages and to immediately release all animals after capture, unless veterinary attention is required.	
823		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 expedite tree felling activities. The licenced and experienced Koala 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 provided in Appendix 2.	
824		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 all contractors working on these activities are contractually bound to comply with the KSMP, especially in areas where vegetation clearance is required.	
825		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, the 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 area by a licenced and experienced Koala Spotter/Handler.	
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 vicinity of the revised Project.	
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 identified by poor monitoring results.	
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 based on the outcome of this continuous improvement process.	
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 or any associated reports to the general public on a formal request basis.	
834		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 amendments to the KSMP. NAC will also comply with all statutory obligations if applied to the management of Koalas in the future.	
835		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 compliance and to identify potential areas for improvement. These audits will be 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.	
836		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 and 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 historical site.
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 provided in the New Acland Coal Mine Stage 3 Project draft EIS (Appendix J.12).
840			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 intended that these buildings will be utilised periodically by company personnel for meetings and training purposes. Reasonable community requests for access and the use of these buildings, will also be given favourable consideration.
841			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 plans will be followed, in the repair, maintenance and management of heritage 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).
842			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 and the associated war memorial (either regularly, or on special occasions such as Anzac Day or Remembrance Day).
843			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 nearby townships such as Acland and Jondaryan. The company is committed to targeted community engagement activities to ensure local stakeholders have the opportunity to comment on the Acland township.