



21 February, 2011

Director General
Department of Planning
23-33 Bridge Street
SYDNEY NSW 2000
AUSTRALIA

Our Reference: 0079383_PW-RTS_V1.DOC

Attention: Clay Preshaw

Dear Clay,

RE: PRELIMINARY WORKS PROJECT MP 10_0046

1. INTRODUCTION

The Major Project application for Preliminary Works Project at the NRE No.1 Colliery (10_0046) was exhibited from 28 October 2010 to 29 November 2010. Gujarat NRE FCGL Pty Ltd (NRE) has considered the issues raised during the exhibition period and this letter sets out:

- responses to submissions; and
- a revised statement of commitments (SoC).

2. RESPONSE TO SUBMISSIONS

Submissions were received from seven state government departments as well as the Wollongong City Council. The response to submissions has been prepared in consultation with Beca Pty Ltd, GeoTerra Pty Ltd and Seedsman Geotechnics Pty Ltd. *Table 1* provides a response to each of the issues raised by state government agencies. *Table 2* provides a response to council submissions. Eleven submissions were received from members of the public and two from special interest groups. *Table 3* summarises the issues raised and by these groups provides a response to each.

NRE is arranging a meeting with the Department of Environment and Climate Change and Water (DECCW) to discuss water management at the No.4 Shaft. A meeting is also being arranged with Wollongong City Council and DECCW to discuss proposed actions regarding the Green and Golden Bell Frog (GGBF).

Table 1 Response to State Government Submissions

Name	Issues		Response
Land Property Management Authority	Crown Land	No comment - no Crown land in the area.	NA
Department of Planning - Heritage Branch	Heritage	Previous comments by DoP have been addressed in EA. No comment/objection unless other heritage items are discovered during works.	Noted
Roads and Traffic Authority	Roads	No objection RTA encourages DoP to consider likely impacts of the proposal on the natural and built environment in the vicinity of the road fronting the development.	Noted Air and noise implications have been addressed in the EA. Refer <i>Chapters 12 and 14</i> .
Dam Safety Committee	Dams	Approval will need to be sought from the DSC by the company for mining within the Notification Area.	Noted. Approval will be sought through a separate process.
Sydney Catchment Authority	General	SCA does not agree with separation of project components. Wonga Mains should be assessed with Stage 2, as prior approval would put pressure on authorities to approve future mining projects.	Approval of Wonga Mains in Stage 2 would not allow timely access to the future mining areas. NRE acknowledges that construction of these access roadways and gate roads does not guarantee approval of longwall mining in the Wonga East area.
		SCA request consultation in any further assessments or management plans to be prepared.	NRE will continue to consult with the SCA.

Name	Issues		Response
	Subsidence	The first workings propose to leave coal pillars intact with overlying strata supported, resulting in 'zero subsidence'. However SCA still request a monitoring management plan (particularly for H panel) including a ground and catchment movement survey and water balance in workings.	H Panel as approved in 2005 is first workings only and will be completed in March 2011. Monthly monitoring reports are submitted to DSC.
		The subsidence predictions have not changed despite changes in the mine layout. (Vol 2, Annex F, Fig 11; and Vol 1 Fig 8.2 and 8.3). SCA recommend a review of subsidence, surface water and aquatic ecology impacts based on correct mine layout.	The predictions and impact assessment are based on the proposed mining layout.
		An extraction plan should be prepared for the project including a: • water management plan; • land management plan; • contingency plan; • subsidence monitoring program; and • adaptive management plan that is linked to monitoring programs.	Appropriate Management Plans will be prepared for V Mains prior to mining. These plans will be prepared in consultation with all necessary stakeholders including the SCA.
		Cumulative subsidence impacts from previously mined workings for V Mains have not been addressed. SCA request that cumulative impacts are addressed in extraction plans.	Previous mining in vicinity of the V Mains area comprise old workings with minimal subsidence records for reference. Previous mining was undertaken in an adjacent lease, and subsidence information is not publically available. Therefore, cumulative subsidence impacts cannot be assessed. This application seeks consent to continue mining in accordance with a previously approved SMP.

Name	Issues		Response
		It is unclear whether additional tilt and strain associated with the dyke has been accounted for in the impact predictions for Wallandoola and Lizard Creeks.	Systematic subsidence predictions do not account for small scale localised predictions of geological features such as dykes. It is acknowledged that impacts may occur, however Seedsman advises that the magnitude and distribution is expected to be very minor.
	Surface Water	SCA have provided the following performance measures for key aspects: • Cataract Dam Wall – zero impact; • Fire trail No.8 – safe, serviceable and repairable; • Catchment yield – negligible reduction in water quality and quantity; • Cataract Reservoir – negligible leaking and reduction in water quality; and • Wallandoola and Lizard Creeks and their swamps – negligible environmental consequences. SCA recommends that schedule of performance measures be included in consent conditions.	Suggested performance measures will be adopted in the SoC.
		Inconsistency between figures depicting Wallandoola Creek in Annex G and EA. This questions validity of predictions.	The sequence of overlapping aerial photographs shown in Annex G provides a visual representation of the features of the streams and their banks. The mine plan layout and subsidence assessment drawings and text in the main part of the report were used, in association with the aerial photographs and Geoterra's firsthand knowledge of the study area, to assess and interpret the subsidence predictions for the EA. As a result, the assessments of subsidence effects due to the proposed extraction are valid.

Name	Issues		Response
		Lack of certainty that the predicted negligible environmental consequences on stream flow and stream water quality could be achieved, given discrepancies in V Mains mine layout, Wallandoola Creek characterisation and existing stream flow monitoring shows water loss and increased drainage over subsidised Bulli seam working in some locations.	Although steam flow loss has been observed elsewhere in the NRE No. 1 lease area over previous Bulli Seam longwalls, no stream flow loss or adverse environmental effects have been observed in the vicinity of V Mains, as this area has not been previously mined. The predicted subsidence tilt and strain due to bord and pillar extraction at V Mains is assessed to provide negligible adverse consequences.
		A Catchment Monitoring Program should be prepared in consultation with the SCA. The program must be approved within three months of approval or prior to secondary extraction (which ever is earlier).	A monitoring program is included in the SoC.
	Aquatic Ecology	Given the uncertainty regarding subsidence and surface water predictions, predictions for aquatic ecology should be reviewed.	There are no uncertainties that give rise to the need for a review of the aquatic ecology report
	Groundwater	No groundwater monitoring has been undertaken within the V Mains area except for a single shallow water piezometer. SCA recommends additional groundwater bores be installed in the V Mains and that monitoring be undertaken as part of the environmental monitoring program.	Groundwater monitoring will be undertaken at P6 within the V Mains as outlined in the SoC. Additional groundwater monitoring sites will be established as appropriate and following consultation with SCA. in determining additional monitoring sites, consideration will also be given to potential vegetation impacts during egress and installation. These impacts may outweigh the benefits gained from the actual groundwater monitoring.

Name	Issues		Response
	Rehabilitation	A rehabilitation plan should be prepared in consultation with SCA prior to secondary extraction. The rehabilitation plan should include the following objectives; • SCA catchment infrastructure should be repaired to pre-mining conditions; and • Surface water flow and pool holding capacity should be restored in all 3rd order and above water courses as soon as reasonably practicable.	There is no expected impact predicted to SCA infrastructure or to 3rd order streams or higher. NRE will prepare a Rehabilitation Plan in consultation with key stakeholders including SCA.
		Environmental offsets should be identified to compensate for predicted or non-predicted impacts, which are not remediable.	The Project will not involve any clearing of native vegetation and based on predicted subsidence is not expected to have significant impacts on significant natural features. Therefore, it is considered that offsets are not required for this project.
Department of Environment, Climate Change and Water	General	Many elements of proposed Bulli coal extraction are already approved under the Mining Act 1992, including subsidence management plan (SMP) approval for the V mains. DECCW recommends the same environmental performance criteria that has been applied to the V Mains SMP should be applied to mining elements associated with the Stage1 Project.	Noted
	Noise	DECCW is not in a position to provide noise limits until the following matters have been resolved.	Noted

Name	Issues	Response
	The EA states the major noise contributors are the conveyors. However no assessment on reducing noise emissions has been undertaken or detailed in the EA. DECCW recommends implementation of Best Management Practice noise mitigation measures on conveyors (as was done at Port Waratah Coal Kooragang Island Coal Terminal).	The existing Bulli conveyor is proposed to be decommissioned in 2012. The acoustic assessment has regard to a new conveyor arrangement including a new Wongawilli belt which would be designed having regard to the SPLs in Table 6 of the Acoustic Report (Annex J).
	The primary mitigation proposed is barriers; however the construction of these is subject to site constraints. As a result of this there is some doubt as to whether the project can meet Project Specific Noise Levels (PSNL). DECCW recommends clarification from the proponent is sought as to whether mitigation barriers can be installed.	NRE confirms that barriers will be constructed. It is the exact location of barriers rather than the construction of barriers that will be subject to site constraints. Once barriers are in place, modelling predicts that PSNL will be met and this will be confirmed through the monitoring program and a validation of noise assessment, once the upgrades to surface infrastructure are complete.
	DECCW also recommends the following are secured as conditions of approval: • truck transport is restricted to 7am-6pm Monday to Friday and 8am-6pm Saturdays, with no transport between 10pm-7am or on Sundays; and • a traffic noise management strategy is developed by the proponent, for construction and operational noise impacts (including driver training, fleet selection, movement scheduling, auditing of non-conformances including disciplinary actions, and specific procedures to minimise impacts at identified sensitive areas).	NRE proposes to restrict trucking to these hours with the exception of a small number of trucks between 6pm and 10pm Monday to Friday as coal haulage to PKCT schedules demand. Any restrictions on the ability to truck between 6pm and 10pm would severely limit NRE's ability to meet contracted shipping schedules. NRE will develop and implement a Traffic Management Plan to include, but not be limited to, non-conformance measures, driver awareness and specific measures aimed at reducing impacts.

Name	Issues	Response
	Air Quality The proponent advised DECCW they would seal the new main haul road (as well as small areas on the upper pit top) as part of the 3A application, in response to a previous DECCW audit. In the EA, it was indicated this road may only be partly sealed. DECCW recommends the new haulage road be completely sealed and designed as to allow heavy machine use without degradation.	The internal haul road will be partially sealed and dust suppression sprays are proposed on the unsealed portion. The unsealed road is temporary, pending approval and construction of Stage 2 works when road layouts will be finalised.
	The EA states a truck wash will be utilised to drop emissions to negligible levels, however 'negligible levels' are not defined in the EA. Further, the current truck wash performance is not discussed. DECCW recommends the existing truck wash is upgraded or a new truck wash is installed to prevent material carry over onto sealed roads, and all vehicles leaving site are to be cleaned. Polluted water from vehicle maintenance is to be collected and treated so as to prevent water pollution.	Trucks are currently washed on site, where appropriate and this will continue to occur. The current location is prior to the trucks being weighed as they leave site. A review of this truck washing facility will be undertaken and as a result may be relocated if and when the need arises. The residual water from the truck wash facility will continue to be collected and treated in the current water clarifying process.
	Air emissions modelling undertaken for the EA included assumption that all conveyors would be covered, however the SoC states that conveyors will be covered where practicable. This raises uncertainty as to whether dust mitigation measures can actually be implemented at site. Therefore model predictions are potentially inaccurate. DECCW recommends clarification as to whether these covers are to be installed and if not that other feasible measures be implemented.	All conveyors will be covered. The SoC has been amended accordingly.

Name	Issues	Response
	No.4 Shaft Waste Water	The black water treatment system and associated effluent irrigation area doesn't meet contemporary standards. DECCW recommend a new SoC stating that the effluent treatment and irrigation system should be managed in accordance with DECCW's guideline: <i>Use of Effluent by Irrigation, October 2004</i> .
		The proponent's plan to install tertiary grey water treatment systems is not in accordance with appropriate standard. DECCW recommend that the SoCs should be updated to reflect Environment Protection and Heritage Council, the Natural Resource Management Ministerial Council and the National Health and Medical Research Council: <i>Australian Guidelines for Water Recycling Series, 2005-2009</i> .
		DECCW recommends a detailed soil and water management plan is prepared to reduce the risk of water pollution to Bellambi Creek during its reinstatement during construction phase and that existing underground stormwater diversion pipeline remain in use until creek diversion works have been stabilised.
		As outlined in Section 2.3 of Annex A the black water treatment system is consistent with the "Department of Environment and Conservation Environmental Guidelines for the Use of Effluent by Irrigation 2004". As outlined in Figure 12 of Annex A the grey water treatment system is consistent with the DECCW 2004 guideline: <i>Use of Effluent by Irrigation</i>, specifically referring to Table A1 and Note 5. NRE will continue to manage the grey water system in accordance with the DECCW guideline: <i>Use of Effluent by Irrigation, October 2004</i>. NRE is seeking the opportunity to discuss this aspect with DECCW in the near future. Soil and water management will be included, in accordance with Landcom 2006, Managing Urban Stormwater – Soils and Construction – Volume 1, as part of the Construction Environmental Management Plan (CEMP). The existing underground stormwater pipeline will remain in use until re-aligned channel works have been stabilised.

Name	Issues		Response
	Threatened species	The Project proposes the reinstatement of Bellambi Creek to address local flooding issues. The construction of the new creek channel will require the removal of Dam 6, which currently provides habitat for the endangered Green and Golden Bell Frog (GGBF). The EA indicates that only the presence of GGBF in Dam 6 will trigger habitat enhancement at Dam 5 as a mitigation measure. DECCW does not support this approach and recommends that Dam 5 be enhanced in any case as existing data indicates presence of GGBF in the PAA, Dam 6 is already known to contain actual GGBF habitat and there are difficulties associated with locating the GGBF during surveys.	There have been no known recordings of GGBF in Dam 6. Additional survey work has been undertaken in recent months and no record of GGBF has been detected on this occasion and on the previous surveys undertaken in 2010. The survey work has been prepared to satisfy EPBC requirements and may also be relevant to DECCW. A report on the survey work is in preparation in support of an EPBC referral to DSEWPC. NRE is seeking the opportunity to present this report to DECCW in the near future.
		The EA presented no assessment of other habitat that may be lost as a result of the proposal, nor measures to mitigate, despite potential GGBF use across the site. DECCW recommends the proponent indicate whether other habitat will be impacted and provide additional mitigation measures. For example opportunities for GGBF habitat to be incorporated into the design of the new channel.	The ecology assessment included consideration of surface areas across the Russell Vale site. All of the proposed works, with the exception of Dam 6, are in locations that have previously been significantly disturbed. No construction works are proposed that might impact on other GGBF habitat.
		While DECCW supports gathering further information (e.g. surveys etc) the EA does not indicate how this information will inform the construction phase and ongoing operations at the site. DECCW recommends the development of a GGBF Management Plan for construction and operation which is to include: • survey effort; • management measures to minimise impacts during construction; • mechanisms to enhance GGBF habitat and movement pathways;	Noted. NRE is seeking the opportunity to discuss this aspect with DECCW in the near future.

Name	Issues	Response
	• measures to improve security of each of the key sites; • identification of threats and priority actions; • identification of high risk areas; • notification and handling procedures; • a monitoring and reporting program; • GGBF awareness program for employees and contractors; and • use of an ecologist during decommissioning of Dam 6 and any vegetation clearing. The plan is to be prepared in consultation with DECCW and done in accordance with the <i>Draft Recovery Plan: GGBF (Lesson 1829) Recovery Plan</i> (DECCW and the <i>Best Practice Guidelines: GGBF Habitat</i> (DECCW 2008).	
	Movement of identified individuals 30 metres from Dam 6 to Dam 5 does not warrant a translocation plan. However DECCW recommend that a salvage program be implemented as part of the Management Plan to manage GGBFs encountered during construction. The program must be developed by a suitably qualified person in consultation with DECCW.	Noted NRE is seeking the opportunity to discuss this aspect with DECCW in the near future.
	Aboriginal Culture DoP should clarify whether consultation should continue with DECCW's <i>Interim Community Consultation Requirements 2004</i>, or with DECCW's <i>Aboriginal cultural heritage consultation requirements for proponents 2010</i>. DECCW recommends the proponent develop a communication strategy to ensure continued Aboriginal community consultation throughout the life of the mining lease	A programme of consultation has been developed and implemented for the Major Works project and will be presented through the EA for that project.

Name	Issues		Response
		<i>Russell Vale site</i> - DECCW supports Aboriginal community in recommending a management protocol in the event of unexpected findings. DECCW does not wish to be consulted in the creation of these protocols.	Noted
		In the event that human remains are discovered: - works must cease immediately; - notify local police and DECCW' Environment Line; - not recommence work until authorised in writing by DECCW.	The Statement of Commitments will be updated accordingly to include these aspects in the CEMP.
		<i>V Mains and 309 Panel</i> - DECCW recommends that a monitoring strategy be established for all registered sites in the V Mains and 309 Panel areas. Monitoring should be undertaken prior to commencement, regularly during extraction and for six months post completion. The Aboriginal community must be provided with opportunities to participate in the monitoring programme.	Pre and post mining monitoring is proposed at site 52-2-1223. The Aboriginal community will be provided with the opportunity to participate in monitoring. No other sites are located within, or will be impacted by the expected subsidence footprint, and as such the recommended monitoring is considered satisfactory.
Industry and Investment NSW	Rehabilitation	I&I recommend that a Rehabilitation Plan be prepared to the satisfaction of the Director General. The plan must: - be prepared in consultation with I&I, DECCW, NoW, DoP and Council; - be in accordance with I&I NSW Guidelines; and - be submitted within three months of Project approval.	A Rehabilitation Plan will be prepared for the project in consultation with relevant stakeholders.
	Surface water	The EA does not commit to implementation of the surface water plan for the V Mains. I&I recommends adding to the SoC that remediation will be carried out as required.	SoC has been amended accordingly.
	Subsidence	Comment to be provided once subsidence assessment has been reviewed by I&I	Noted. Still awaiting.

Table 2 Response to Council Submissions

Council		Issue	Response
Wollongong City Council	Subsidence	In regards to V Mains the predictions indicate 1.02m vertical subsidence and strains ranging from +3.3mm/m to -6.5mm/m. Council believes that the executive summary is incongruent with these predictions. Specifically:	
		Impacts in Wallandoola and Lizard Creek will be 'negligible'	The main channel of Lizard Creek is not within the predicted 20mm subsidence envelope and is therefore not anticipated to be adversely affected by subsidence. The maximum predicted subsidence does not occur under the main channel of Wallandoola Creek, which is predicted to undergo up to 1.02m of subsidence. As previously discussed, the environmental impacts from subsidence in Wallandoola Creek are anticipated to be negligible.
		'there will be negligible environmental consequences on groundwater in the Project Area.' However the GeoTerra report states there will be a drop of approximately 30m in hydrostatic pressure in the Bulgo Sandstone.	Although depressurisation of up to 30m is predicted in the Bulgo Sandstone, no adverse effects are anticipated in the overlying Hawkesbury Sandstone, or on the inter-connection between the Hawkesbury Sandstone and surface streams as the hydraulic separation between the Bulgo Sandstone and Hawkesbury Sandstone due to the Bald Hill Claystone is predicted to be maintained.

Council		Issue	Response
		Regarding swamps and their ecosystems, the project is 'unlikely to significantly impact ecological values within the mining areas.'	These findings are based on the subsidence assessment which concluded that mining in the V Mains area is not expected to adversely affect the hydraulic integrity of the Hawkesbury Sandstone. In addition, any fracture that may form at the interface between the Hawkesbury Sandstone and the Quaternary alluvial swamp sediments is not anticipated to adversely affect the water storage or through flow capacity of the swamp, therefore no water loss is predicted. The advantage of pillar extraction is that there is the ability to modify the mine plan if subsidence impacts vary significantly from what is predicted.
		There is insufficient reference is made to mitigation measures and inclusion of these into the consent conditions.	Comment noted. The Statement of Commitments has a suite of risk management measures to address any unpredicted impacts of subsidence.
	Russell Vale Water Quality	Discharges into Bellambi Creek will alter pH, increase turbidity above ANZECC guidelines and increase nutrient loading of nitrogen and phosphorus. This will degrade the ground and surface water.	Discharges to Bellambi Gully Creek via LDP2 are below and/or consistent with the background levels of other creeks in the local area that sometimes exceed the ANZECC guidelines. The current proposal does not involve any changes to the water quality at LDP2 (Section 3 of Annex A).
		WCC suggests management plan detailing all stormwater structures should be provided in accordance with WCC DCP.	Detailed design will take the DCP into consideration.

Council		Issue	Response
		Over flow paths should be provided for on site to allow for flows in excess of the new channel capacity. Blocked pipe situations with 1 in 100 year flood events should be incorporated into the design.	The new channel has been designed to accommodate control water flows through the site of previous storm events up to 1 in 100 year ARI. The existing pipe is proposed to be removed from site once the re-alignment channel is completed and operational.
		All stormwater outlets, overland flow paths, spillways and channels incorporate scour and erosion protection measures,	Added to statement of commitments.
		The depth and location of all services are determined prior to onsite works.	Added to Statement of commitments.
		A maintenance schedule for proposed on site stormwater system should be created.	Added to Statement of commitments.
		The design of stormwater improvement works should ensure adjoining properties are not affected and allowances are made for surface run off from adjoining properties.	The flow capacity of design of the re-alignment channel is consistent with the flow capacity of the existing pipe-line, therefore no adverse changes will arise to the stormwater management to adjoining properties. Through the design of an open channel, cascading structures and a dissipation pond, the control of storm water flow will be significantly improved. Allowances have been made in the hydrology assessment of the site for runoff from adjoining properties.
	Catchment Water	WCC recommends implementation of a rigorous monitoring and review program to allow for timely response to any changes in local water system.	A monitoring programme is included in the SoC.

Council		Issue	Response
		Subsidence of 1.25m has been predicted in V Mains area, but no impacts are predicted for surface water, groundwater or upland swamps. Wallandoola and Lizard Creek are under direct threat of subsidence which can affect flow rate and quality.	The main channel of Lizard Creek is not within the predicted 20mm subsidence envelope and is therefore not anticipated to be adversely affected by subsidence. The maximum predicted subsidence does not occur under the main channel of Wallandoola Creek, which is predicted to undergo up to 1.02m of subsidence. As previously discussed, the environmental impacts from subsidence in Wallandoola Creek are anticipated to be negligible.
		The proposed water quality monitoring programme which proposes to review one year after pillar extraction is inadequate. Recommends review at 6 monthly intervals and a remediation plan is prepared.	As defined in the SMP (and Section 9.4.1 of the EA) water quality monitoring in Wallandoola and Lizard Creeks will be undertaken every 2 months prior to mining; fortnightly during mining; and monthly post mining. Trigger levels will be set and if exceedances are observed these will be investigated immediately and management measures implemented accordingly. This is considered adequate.

Council		Issue	Response
	Groundwater	Concerned that even minor subsidence can directly impact perched aquifers.	Subsidence may affect perched aquifers, if they are present over V Mains, however the predicted total subsidence, tilt and strain, combined with the observation that the perched aquifers are of limited extent, and have limited duration following rainfall based recharge events, indicates there should be no anticipated observable adverse effect on perched aquifers over V Mains or the other extraction areas outlined in the EA.
	Air quality	Modelling data indicated an exceeded PM10 limit for 4 days at one receptor WCC notes this is not significant and suggests PM10 be measured during August and September as this is a windy period.	The modelling accounts for weather conditions over a 12 month period and therefore took account of windy periods of the year.
		Background concentrations of air quality and dust deposition at Russell Vale should be established for future modelling. In the absence of background data University of Wollongong air quality station data should be used.	Dust monitoring data from the Russell Vale site is provided in <i>Table 12.1</i> . This data does not identify background concentrations, but gives an indication of total dust depositions around the Russell Vale site from a variety of sources. Background concentrations were obtained from the DECCW air monitoring station at Gipps St Wollongong for use in the model to represent local conditions.
	GHG	Recommend implementation of a GHG emission reduction program to assist federal CPRS	Measures to help mitigate GHG impacts have been identified in the EA and are outlined in the SoC.

Council		Issue	Response
	Noise	Inform Bellambi Lane residents of results of noise monitoring program.	Information resulting from the noise monitoring programme will be provided to the appropriate stakeholders in accordance with any requirements of the development approval or EPL.
	Flora and Fauna	WCC supports the ecological risk management buffer zones. Recommend fencing to prevent fauna injury with fauna species and designated fencing to be listed in the EMP. WCC supports baseline data and monitoring plan, suggesting six-monthly intervals between monitoring events and the survey extent to be detailed in the EMP.	Noted
		WCC supports GGBF surveys and suggests September to March survey period. WCC states the success of mitigation measures is not fully explored. There are conclusions made during the 7 part test regarding impacts to GGBF if mitigation measures are implemented. Amelioration measures can not be considered in the 7 part test. There are a number of assumptions made that are dependant on success of previous assumption; this is not acceptable. Assessment of significance within GGBF report doesn't apply the precautionary principle.	There have been no known recordings of GGBF in Dam 6. Additional survey work has been undertaken in recent months and no record of GGBF has been detected on this or previous surveys undertaken in 2010. The survey work has been prepared to satisfy EPBC requirements and may also be relevant to DECCW. A report on the survey work is in preparation in support of an EPBC referral to DSEWPC. NRE is seeking the opportunity to present this report to WCC in the near future.
	Traffic	If any road closures are required, approval from WCC must be obtained.	Noted
	Geotech	Proposed civil works are located in areas where land slides have occurred in the past, this requires specific risk management.	A geotechnical assessment of the site has been undertaken by Coffey. All design plans will be reviewed by a suitably qualified engineer and all construction works will be undertaken in accordance with engineering plans.

Council		Issue	Response
	Heritage	Aboriginal heritage - as subsidence is likely to affect an Aboriginal site and likely to affect unknown sites located elsewhere, the comments of the Illawarra Aboriginal Land Council (IALC) should be noted and considered as part of consent conditions. IALC should be consulted further to ensure the whole of site is fully considered.	Consultation was conducted in accordance with DECCW guidelines. The Aboriginal community will also be involved in future monitoring.
		European heritage - impact assessment is based on 2005 report and this is not presented in the EA, or considered to be current. The proposal has not addressed the Strategic Management Plan for Historic Mine Sites of the Illawarra, endorsed by WCC in 2006. This plan listed the whole site as a heritage listing, and this has not been considered in the proposal.	European heritage - the 2005 GML report was supplemented by an ERM site visit and re-assessment of the site in 2009. The Heritage Branch of the Department of Planning is satisfied with the approach taken to heritage assessment.
		The recommendation to provide an updated CMP is supported provided that opportunity for input is given to Council and the DoP Heritage Branch, and mitigation measures recommended are monitored.	The CMP will be updated in consultation with Council and DoP Heritage Branch.
	Property	Lot 9130 DP 847392 is not available for waste emplacement activities anymore, as it is now owned by council.	Noted

Table 3 Response to Public Submissions

Issue		Response
Air pollution	Using residential roads to truck coal creates an amenity issue for residents, and health issue.	All trucks are covered when they leave the site.
	Dust settles throughout the house and washing lines. Ongoing monitoring of the mine's current production levels and associated dust emissions is inadequate and therefore modelling presents inaccurate data.	Existing dust monitoring along Bellambi Lane (refer to Section 12.2.3 of the EA) suggests that levels are generally significantly below DECCW criteria. Modelling provides an accurate prediction of dust emissions independent of site monitoring data.
	The EA explained no reason as to why the conveyor (only partially covered) and screening/sizing crusher are minor dust generators. No information is provided on how dust is suppressed. The conveyor and crusher should be considered in the dust assessment. There is a high concentration of dust from the mine in the air already; dust should be considered in addition to this. Roads used are not fully sealed, and transport dust already affects cyclist safety. Further, trucks are only partially covered. It is unclear as to where trucks are washed.	The decline conveyor and screening/sizing plant will be fully enclosed and therefore concluded to be minor dust generators. Dust from all conveyors, the crusher and road is considered in the model. Dust suppression on unsealed roads is by water spray. Trucks are currently washed on site prior to the trucks being weighed as they leave site. A review of this truck washing facility will be undertaken and as a result may be relocated if and when the need arises.
Commonwealth approvals	Approval is required under the EPBC Act 1999 due to potential impact to Green and Golden Bell Frog, therefore the application should not be determined until after EPBC Act approval.	NRE is preparing a separate referral and supporting report to the Commonwealth Government (DSEWPC) to determine if the project has any impact on matters of NES, including the Green and Golden Bell Frog.

Issue		Response
Community	Community consultation has been inadequate and impersonal to date. There is no ongoing committee for the mine.	NRE had undertaken a comprehensive community consultation strategy, including seven newsletters distributed and six community consultation meetings undertaken to date. Concerns raised have been addressed in <i>Chapter 22</i> . Consultation with the local community will be ongoing.
	DGR to consult groups and individuals has not been met and this is inadequate.	The specific groups identified in the DGRs have been consulted. This is summarised in <i>Chapter 6</i>
	Considering the project under Part 3A this removes the community consultation role.	NRE had undertaken a comprehensive community consultation strategy, including seven newsletters distributed and six community consultation meetings undertaken to date.
	Population in the vicinity of the mine has increased in the last 10 years Mining in proximity to residential development is unacceptable.	One of the objectives of the Preliminary Works Project is to make improvements at the site to manage potential environmental impacts including noise, dust and stormwater. These improvements are proposed to benefit the interface between the mine and its neighbours.
	Impacts to property values have not been adequately addressed in the EIA.	This is not a matter that is required to be addressed.
Contamination	The EA did not clarify if the site is contaminated and what the actions would be.	The proposal is to continue the use of the site for mining purposes.

Issue		Response
Environmental Management	The responsibility of escarpment management within the lease is not addressed. The area is not well taken care of as shown by the fact that vegetation is predominantly noxious/invasive weeds and no rehabilitation has occurred. Suggests NRE could fund rehabilitation of Bellambi Gully Creek from site to sea.	Weed control and rehabilitation is undertaken on site as required. The majority of Bellambi Gully Creek is on land not under the control of NRE. Most of the Creeks' length is fully channelized or piped, and is either under or within a fully urbanised landscape. As a consequence, the Creek receives the typical urban pressures such as high nutrient loads, weed infestation and highly modified hydrological loads. NRE's contribution to improvement of creek management is by way of the planned re-aligned channel works detailed in the EA.
Flora and Fauna	Believes subsidence may be underestimated and therefore, water quality, drainage patterns and erosion may be impacted, affecting swamps, freshwater macro invertebrate assemblages and threatened species, particularly frogs.	The subsidence predictions were used to assess impacts. The advantage of pillar extraction is that there is the ability to modify the mine plan if subsidence impacts vary significantly from what is predicted.
General	The mine needs a new lease to continue to operate on the site.	Surface leases are in place and current. The Russell Vale site is subject to Consolidated Coal Lease 745, which is valid until 30 December 2023.
	The EA for continued operations relies on the expansion application for justification. The application should be considered on its merits without reference to an undecided application	Noted

Issue		Response
GHG	The EIA gives little consideration to the: • end use of coal; • national cumulative effects of GHG emissions; • inefficient transport (shipping waste rock); • re-use of coal seam gas.	The GHG assessment was undertaken in accordance with accepted practice and included the end use of coal, transport and the range of variables required to be considered by the Commonwealth Department of Climate Change's National Greenhouse and Energy Reporting (Measurement) Technical Guideline 2008.
	Development of industry that contributes to greenhouse gas is irresponsible.	Noted. However, this is a matter to be addressed through State and Federal government policy, not at an individual project level.
Groundwater	Coal seam gas extraction process has been shown to have negative effects on groundwater and aquifers.	Coal seam gas extraction is not proposed.
Noise	Colliery noise levels found to be unacceptable at a residential receiver. Voice's need to be raised to hear and sleep often disturbed. Ongoing management of noise levels during current operations is inadequate (excessive noise is frequent and not mitigated).	NRE has progressively updated and replaced older infrastructure and equipment and this is contributing to improvements to the acoustic environment. The Bulli belt will be decommissioned in 2012 and this is expected to further decrease noise levels. Modelling detailed in the EA predicts that noise levels will meet relevant criteria.
	Adequacy of noise monitoring undertaken to date is questioned. Location of noise loggers not considered representative.	The purpose of the noise loggers is to determine background noise levels, not the operation of the site.
	Local topography and local structures are not adequately considered when noise is measured. Noise inversion is not considered.	The noise model incorporated identifiable and significant noise source data, meteorological data, surrounding terrain characteristics and the effects of proposed barriers. By definition, noise monitoring always considers local topography, structures and meteorological conditions.
	Truck noise management is poor; trucks are not the quiet vehicles that were promised in the EA. Trucking outside hours is common. Installation of sound barriers has not been considered.	Toolbox talks are being implemented on a regular basis to ensure drivers understand their responsibilities. The trucking fleet is being progressively upgraded to include a more modern fleet. Noise barriers are proposed to be constructed in the first stages of the project.

Issue		Response
Traffic and Transport	The road surface is currently inadequate to accommodate large truck traffic.	Bellambi Lane is not in the control of NRE.
	Transport hours are not adhered to. Hauling coal through a residential area is inappropriate at any time of the day. There has been no communication regarding a reason for the curfew hours being extended to include time between 6pm and 10pm.	The EA states that trucking is proposed between the hours of 7am and 6pm Monday to Friday and 8am and 6pm Saturday and Sundays. A small number of trucks will be loaded directly from the stockpile between 6pm and 10pm Monday to Friday, if required and as coal haulage schedules demand. It is assumed that the DoP will condition any approval to ensure that all trucking occurs within these hours.
	Olsen report states that at this time, 250 truck movements were normal, per day. The current EA states there will 8 to 10 trucks in total for the site, seemingly much less.	8 to 10 trucks is a reference to the number of trucks in the fleet. Each truck will make a number of trips per day.
	Truck driver behaviour is not appropriate and an ongoing problem with drivers not adhering to set speed limits, 'skidding' to a stop and ignoring red lights. This causes safety issue as used in a residential area	NRE has continued to work with Brindles through regular tool box talks to address driver behaviour and enforce a driver code of conduct.
	Truck numbers are considered unsafe for a residential road.	The traffic study prepared to assess Stage 2 Major Works project notes that the road system is adequate to cope with the traffic volume for the Project.
	Further coal delivery to Port Kembla has not been accepted by the residents.	This matter is being addressed in the application which seeks to continue the current use, albeit with some modifications to the operating hours.
	Assumptions made in the traffic study are based on truck activity during the 1980's and 1990's. This is inaccurate as the mine had a washery at the time and coal transportation was less, and capped as per an agreement regarding conveyor construction.	The traffic study is based on a number of traffic counts collected over the last decade, with the most recent being in 2010 after the opening of the Northern Distributor (see <i>Section 19.1.3</i> of the EA). Construction of a conveyor and rail loading is not part of the current proposal and has not been considered.

Issue		Response
	Increase in trucking coal from the mine to 3mtpa is not in accordance with the Illawarra Regional Strategy. Consideration should be given to the construction of a new mine outlet and connection to proposed Maldon Dumbarton rail link	Comments noted, although this would need to be balanced against the economic and environmental costs associated with such a project. The current proposal does not propose any increase in production and therefore consideration of this matter is not appropriate.
	Wollongong City will now have 7 mtpa coal on the existing road network and as these roads are not planned to be expanded for the purpose of accommodating this, a higher risk of traffic collisions, pollution (dust and noise) and congestion is imposed upon existing network users. Existing pressure from previous Port Kembla expansion has caused incidents in the past, indicating the road network can not accommodate mining traffic.	No increase in production is proposed in this application.
	As trucks fuel and registration is government subsidised, maintenance funding is inappropriately skewed to other road users.	Comment noted
	Consent should be subject to conditions including limiting expansion to 1mtpa. Further applications to increase production to be accompanied by analysis of wider benefits and costs associated with the construction of the Maldon Dumbarton Railway or a conveyor to Bellambi Station.	Noted
		The Storm Water Control Dam (SWCD) is a prescribed dam as approved by the DSC. This dam has specific design criteria, including monitored flow through the headwall. The Environmental Protection Licence (EPL) for the site addresses the criteria which are administered by DECCW. Maintenance and assessment of the SWCD is required from time-to-time in accordance with strict DSC requirements.
	The mine is located upstream of a catchment with residences. Considerable threat to catchment via inappropriate stormwater management.	Improvements to stormwater management are proposed.

Issue		Response
	Concern regarding potential for a repeat of the flooding disaster in 1998.	The proposed realignment of the drainage channel has been designed to manage stormwater so that potential for events such as the 1998 flows can be significantly minimised.
Subsidence	The EA recognises subsidence will affect gates and fibre optic cables but assumes the creek and riparian zone will not be affected. H panels have not been considered although these are directly under Cataract Dam. Preservation of the water catchment should take precedence over mining.	The EA recommends that management plans be implemented for infrastructure in the mining area. In terms of natural features, the EA notes that as no cracking is predicted there is unlikely to be impacts on creek and riparian zones. Notwithstanding this, a complex system of habitat monitoring is recommended both pre and post mining. There is no secondary extraction proposed under Cataract Dam. The H panel is first workings only.
	The conclusion there will be no subsidence impact to water resources is not supported by real impacts of subsidence	Subsidence and predicted impacts are dealt with in detail in the EA, risk management measures have been proposed.
Surface water	The mining lease includes a portion under the Cataract Dam. This is inappropriate use of resources.	No secondary extraction is proposed under Cataract Dam.
	EA does not give enough consideration to swamps and riparian sedge of Wallandoola Creek/Lizard Creek. Proposal acknowledges cracking and water level reduction already. Monitoring and management measures are inadequate as they are post-damage alert systems, and river remediation in other parts of NSW have proved to be ineffective in the past.	Lizard Creek and Wallandoola Creek both flow northwards through the V Mains area and it is noted that there is a cluster of upland swamps in the vicinity. No secondary extraction is proposed under Lizard Creek. In regards to Wallandoola Creek, the subsidence assessment concluded that mining in the V Mains area is not expected to crack solid rock and therefore no water loss is predicted. The advantage of pillar extraction is that there is the ability to modify the mine plan if subsidence impacts vary significantly from what is predicted.
	NSW government is not considering 2006 Metropolitan plan - long term water security which will be affected by a 30 year mine. Subsidence from similar longwall mining projects nearby has occurred in the past and compromised substrate stability, this could happen again.	This project does not involve longwall mining. The surface water assessment concluded that there will be no impact on surface water features within the PAA.

Issue		Response
	There is inadequate monitoring outlined in the EA.	There is a comprehensive suite of monitoring proposed in the Statement of Commitments.
	Flawed basis of subsidence assessment impact to surface and groundwater, as well as non-application of a Risk Management Zone to Creeks and wetlands in area presents potential for impact	Subsidence and predicted impacts are dealt with in detail in the EA, risk management measures have been proposed.
Visual	The mine is unsightly and this is an amenity issue, reducing tourism for the area.	The existing buildings and infrastructure on the site are part of the existing industrial landscape that has existed for 120 years.
	The existing zincalume shed is particularly visible and should be painted. Images in the EA of the mine is the escarpment's shadow are misleading.	The existing buildings and infrastructure on the site are part of the existing industrial landscape that has existed for 120 years. The shed mentioned in the submission sits at an RL of approximately 140m AHD against a backdrop of the escarpment which reaches 400m AHD. New infrastructure is proposed at a lower level and will have a final height at approximately 91m AHD which is similar to the height of existing infrastructure. New plant will be painted to blend with the surrounding environment
Waste	The EA was unclear as to the outcome of the northern emplacement area	The emplacement area is not part of this Project

3. STATEMENT OF COMMITMENTS

NRE has considered the submissions received during the exhibition period. In response, NRE has concluded that no modifications to the project are required. NRE has revised the SoC as set out in *Table 4*. The revised SoC reflects the responses included in *Table 1, 2 and 3*.

Outcome	Commitment	Timing
Statutory Requirements		
Compliance with all conditional requirements in all approvals, licences and leases.	- The development will be carried out as outlined in: - this Environmental Assessment Report (EA); - Project Approval; - Environment Protection Licence; - Subsidence Management Plans (SMPs); - Mining Lease(s) conditions; - Controlled Activity Approval; and - any other approvals, licences or leases.	Continuous and as required
All operations conducted in accordance with all relevant documentation.	Undertake all activities in accordance with the accepted Mining Operations Plan; environmental procedures; safety management plan and/or site-specific documentation in force at that time.	Continuous and as required
Stakeholder Consultation		
Effective communication/consultation is undertaken throughout construction and operation of the project.	NRE will conduct regular community liaison meetings and provide regular updates to the community both during construction and operation of the project.	Prior to construction and at regular intervals of not less than 2 times a year
Subsidence		
Potential adverse impacts from subsidence are managed, monitored and remediated where necessary.	Appropriate Management Plans will be prepared for V Mains prior to mining. These plans will be prepared in consultation with all necessary stakeholders including the SCA.	Prior to mining
	Implement V Mains SMP as amended by approval conditions.	Prior to mining and on going
	Continue implementing conditions of T and W Mains as relevant to 309 Panel.	Prior to mining and on going
	- Implement a subsidence monitoring program that will include: - monitoring before, during and after mining; - a set of pre-determined triggers; and	Prior to mining and on going

Outcome	Commitment	Timing
	responses and actions that flow from the identification of each trigger.	
	- Implement mitigation measures for No.8 Fire Trail as detailed in the V Mains SMP: - signs erected to warn motorists of potential subsidence impacts, including a recommended speed limit; - daily inspections (Monday to Friday) during mining under the fire trail; - a pre-approved treatment strategy; and - road rehabilitation if required, including regular regrading of the affected sections of the access road.	Prior to mining and on going
	A management plan has been developed for the in consultation with Telstra for management of the optical fibre cable during mining of the T and W Mains. NRE will consult with Telstra to have this plan extended to cover the V Mains.	Prior to mining and on going
Soil and Water		
Construction and operations are managed such that adverse impacts to water quality and flows Bellambi Gully Creek and surrounding residents are prevented or minimised.	The existing underground stormwater pipeline will remain in use until re-aligned channel works have been established.	Ongoing as required
	Dirty stormwater and mine water will be treated on site prior to discharge.	Continuous and as required
	Dirty stormwater from hard surfaces will be diverted into the SWCD. Water will be held in the SWCD to reduce solids prior to treatment and then discharging via LDP2.	Continuous and as required
	The stormwater control dam (SWCD) will be kept at a level that allows 30ML of stormwater to be captured on site, reducing the flow and flood potential downstream.	Continuous and as required
	Chemicals will be properly stored and banded. Dosing of flocculent will be metered and monitored on site.	Continuous and as required
	- The underground pipe section of Bellambi Gully Creek will be replaced with a suitably designed and engineered open bypass channel constructed on the southern side of the coal stockpile area. This will include: - a dissipation pond will be constructed at the end of the bypass channel to reduce the energy of flows back into Bellambi Gully Creek; - upgrades to the existing channel including Reno mattresses and Gabion drop structures to reduce the velocity of water flowing down the gully; and - regular maintenance to minimise scouring during major flow events.	Within 12 months of approval

Outcome	Commitment	Timing
	• Preparation of a Construction Management Plan that includes the following: • a soil and water management plan prepared in accordance with Landcom 2006, Managing Urban Stormwater – Soils and Construction – Volume 1; • a dry and wet basin arrangement to minimise sediment transportation to the stormwater dam; • works will not take place during heavy rainfall that is likely to contribute to erosion; • undertake stripping of topsoil, if required, immediately before starting bulk earthworks to be use for rehabilitation or revegetation works on site; • suitable areas for any temporary stockpiling of excavated soil (on flat ground) will be clearly identified and delineated before the commencement of works; • ensure stockpiles are: • constructed on the contour at least 2 (preferably 5) metres from hazard areas, particularly likely areas of concentrated water flows or slopes steeper than 10 percent; • stabilised if they are to be in place for more than 10 days. The stockpile of VENM excavated from the construction of the bypass channel will be grassed; • protected from run-on water by installing water diversions upslope; • installed with sediment filters immediately downslope to protect other lands and waterways from pollution; and • the depth and location of all services will be determined prior to onsite works.	Prior to construction
	• All stormwater outlets, overland flow paths, spillways and channels will incorporate scour and erosion protection measures.	Prior to construction and ongoing
	• All erosion, sediment control and runoff diversion measures will be established before any excavation begins. These will be left in place throughout works execution and beyond works completion until all surfaces have been fully restored and stabilised.	During construction
	• A maintenance schedule will be prepared and implemented for the new on site stormwater system.	Prior to construction and ongoing
<i>Surface Water</i>		

Outcome	Commitment	Timing
Operations are managed such that adverse impacts to catchment surface water are prevented or minimised.	- Implement a monitoring program including: - daily automated monitoring of selected pool water depths upstream, within and downstream of the V Mains area; - Water quality monitoring in Wallandoola and Lizard Creeks; - every 2 months prior to mining; - fortnightly during mining; and - monthly post mining - stream water level, or spot flow monitoring and sampling conducted at all locations on the same day; water depths in the stream monitoring sites should where practical be automatically monitored and photographed during site visits; - potential bedload movement in and downstream of the subsidence area visually monitored during and after significant flow events; - Stream bed/bank stability and vegetation will be visually monitored and photographically recorded prior to, during and post mining - rainfall monitored daily at the mine's weather station for the duration of mining.	On going during mining
	- The following performance measures as suggested by the SCA will be adhered to: - Cataract Dam Wall – zero impact; - Fire trail No.8 – safe, serviceable and repairable; - Catchment yield – negligible reduction in water quality and quantity; - Cataract Reservoir – negligible leaking and reduction in water quality; and - Wallandoola and Lizard Creeks and their swamps – negligible environmental consequences.	Prior to mining and ongoing
	An end of panel extraction report will be prepared, which summarises all monitoring over the period. The report will outline any changes in the surface water in the V Mains area.	Post mining
	Results of the monitoring programmes will be reviewed one year after pillar extraction has been completed and an updated ongoing monitoring and remediation program will be developed in association with IIN, DWE and the SCA. Remediation will be carried out as required.	One year after extraction of each pillar
<i>Groundwater</i>		

Outcome	Commitment	Timing
Operations are managed such that adverse impacts to local and regional groundwater resources are prevented or minimised.	- Groundwater quality monitoring will be undertaken at P6: - bimonthly prior to mining; - monthly during mining; and - quarterly post mining. - Standing water levels will be monitored: - daily prior to mining; - twice daily (automatic) and monthly (manual) during mining; and - quarterly post mining. - Mine inflows will be monitored monthly during and post mining.	On going during mining
	Additional groundwater monitoring sites will be established as appropriate and following consultation with SCA.	Following consultation with SCA
	An end of extraction report will be prepared, which summarises all monitoring over the period. The report will outline any changes in the groundwater.	Post mining
	Results of the monitoring programs will be reviewed one year after pillar extraction has been completed and an updated ongoing monitoring and remediation program will be developed in association with the IIN, NOW and the SCA.	One year after extraction
Air Quality		
Operations are managed to minimise potential adverse impacts to the environment, residences and the community.	All conveyors will be covered.	Continuous and as required
	Water sprays will continue to be used (on unseal roads and stockpiles etc) to minimise air borne dust on an as needs basis.	Continuous and as required
	Trucks will be covered before leaving the site.	Continuous and as required
	Trucks will be clean prior to leaving the site. A review of current truck washing facility will be undertaken and as a result may be relocated if and when the need arises.	Continuous and as required
	NRE will continue to enforce the Driver's Code of Conduct, through continuing driver education (tool box talks) and regular audits.	Continuous and as required
Greenhouse Gasses		
Manage operations such that greenhouse gas emissions on	Energy audits will be held when practicable to ensure that the mine is using current practice techniques to minimise energy use and is operating at optimum energy levels.	Continuous
	Site management will ensure that equipment is maintained to retain energy efficiency.	Continuous

Outcome	Commitment	Timing
the environment are minimised.	• The inventory of emissions developed for this assessment will be maintained.	Continuous and as required
	• Emissions and abatement strategies will be reported annually as part of internal environmental reporting and National Greenhouse and Energy Reporting System obligations.	Annually
	• NRE will investigate opportunities to capture and/or re-use ventilation gases.	2015 onwards
<i>Acoustics</i>		
Operations are managed to minimise potential adverse impacts on the environment, residences and the community.	• A 3 m high barrier will be constructed to the south of Broker Street across the intersection with West Street (subject to site constraints).	Within 12 months of approval
	• A 3.6 m high barrier will be constructed to north of the internal access road from the weighbridge to the Princes Hwy (subject to site constraints).	Within 12 months of approval
	• The existing Bulli decline conveyor will to be decommissioned and demolished on completion of the new driveage which is likely to start in mid to late 2012.	On completion of the new driveage
	• Attended noise monitoring will be undertaken upon the commencement of operations to confirm predicted minor exceedances which may occur at some receivers.	Following completion of construction works and upon the commencement of operation of new infrastructure.
	• An operational Noise Management Plan (NMP) will be developed to specifically address potential noise impacts associated with the proposed operations at the nearest receivers. The NMP will outline methods and procedures to manage the following: • results of the regular noise monitoring program on-site and within the surrounding area; • response to any complaints or issues raised by the owner of the affected residence; • noise mitigation measures and operating procedures to ensure compliance with noise goals; and • noise monitoring data from the early stages of Project operations will be utilised to calibrate an operational specific noise model, to refine the potential predicted noise impacts during the worst case scenario.	Within 18 months of approval
	• An operational noise monitoring program will be developed to monitor noise emissions from the proposed operations to determine ongoing compliance with PSNLs and to identify any further feasible noise mitigation measures that can be implemented.	Within 18 months of approval

Outcome	Commitment	Timing
	The results of the noise monitoring program will be reviewed by the operations manager to assess compliance with the PSNLs and reported in accordance with any requirements of the development approval or EPL.	Ongoing
	Site equipment to be selected to meet appropriate INP noise goals in accordance with the acoustic design parameters for acoustically significant plant and equipment presented in NRE No.1 Colliery Preliminary Work Acoustic Assessment.	Prior to operation
Construction activities are managed to minimise potential adverse impacts on the environment, residences and the community.	Construction will be limited to Monday to Friday 7am to 6pm and 8am to 1pm Saturday.	During construction
	All residents adjacent to the site will be notified of the start of works.	Prior to construction
	Where feasible, silenced site equipment will be used to minimise environmental noise emissions.	During construction
	Any complaints regarding environmental noise emissions will be investigated and responded to in an appropriate manner.	During construction
	All works will be undertaken in accordance with the DECCW's Interim Construction Noise Guideline (2009).	During construction
<i>Aquatic Ecology</i>		
Operations are managed such that adverse impacts to native aquatic habitats are prevented or minimised.	Observations of aquatic habitats and surveys of aquatic macroinvertebrates will be undertaken at impact and control locations in the headwater swamp regions during and after mining.	During and after mining
	A survey of aquatic macroinvertebrates (at impact and control locations) will be undertaken if the regular water quality monitoring program detects changes in the depth and quality of the water within Wallandoola Creek and Lizard Creek that are greater than anticipated on the basis of the subsidence predictions.	As required
	Baseline monitoring will continue.	Continuous
<i>Terrestrial Ecology</i>		
Mining operations are managed such that adverse impacts to native flora and fauna are prevented or minimised.	Monitoring habitat areas including the upland swamps, creeks and rocky habitats of the V Mains will occur pre and post mining.	Prior to and post mining
	- Additional fauna surveys in suitable seasons will be undertaken to detect the threatened species in the 309 Panel: - Red-crowned Toadlet; and - Giant Burrowing Frog.	During suitable seasons

Outcome	Commitment	Timing
	- Fauna surveys will be undertaken to determine if the following species are presenting the V Mains and 309 Panel: - Red-crowned Toadlet; - Giant Burrowing Frog; - Littlejohn's Tree Frog; and - Giant Dragonfly - If these species are detected, an Environmental Management Plan (EMP) will be developed in consultation with relevant agencies including DECCW and SCA to document contingency plans to mitigate unforeseen impacts from mine related subsidence.	During suitable seasons and prior to mining
Construction activities at Russell Vale are managed such that adverse impacts to native flora and fauna are prevented or minimised.	- Measures that will be implemented to assist in the management of impacts to the riparian areas of Bellambi Gully Creek including the following will be included in an CMP: - demarcation of works area prior to works beginning to avoid impacts to vegetation outside of the works areas; - appropriate sedimentation controls to be implemented prior to works beginning; and - weed removal and ongoing management of the area for weed control.	Prior to and during construction
Aboriginal Heritage		
Surface works at the Russell Vale site are managed such that adverse impacts to archaeology are minimised.	- A Protocol for the discovery of suspected Aboriginal objects (chance finds) will be included in the CEMP. The protocol will include: - contact the registered stakeholder groups who participated in fieldwork, Illawarra Local Aboriginal Land Council and the D'harawal Knowledge Holders and have a representative identify if the suspected item is in fact an Aboriginal site or object; - if the identification is positive, contact a qualified archaeologist to determine record the site or object. The archaeologist in consultation with the registered stakeholder groups should provide management and mitigation measures as necessary, and provide a short report of the investigation to NRE and a copy to DECCW; - if human skeletal remains are found the following actions should be immediately undertaken: - stop works in the immediate area of the remains; - notify local police and DECCW' Environment Line; - if the remains are determined to be of antiquity and of Indigenous origin contacted the registered stakeholder groups;	Prior to construction

Outcome	Commitment	Timing
	- management and mitigation measures to be drawn up in consultation with the registered stakeholder groups and the archaeologist; and - not recommence work until authorised in writing by DECCW.	
Mining operations are managed such that adverse impacts to Aboriginal heritage items are avoided or minimised.	Site 52-2-1223 will be monitored by a qualified archaeologist and Aboriginal community.	Pre and post mining
Non-Aboriginal Heritage		
Operations are managed such that adverse impacts to significant heritage items are avoided or minimised.	- A Conservation Management Plan (CMP) will be prepared for the Project in consultation with the Heritage Branch of the DoP. The CMP will reflect the future need of the site as a continuing mine. The CMP will include: - no items identified as having heritage value or contributing to the heritage value of the site, will be demolished as part of this Project; - a photographic recording of the 1887 portal and the site will be undertaken to Heritage Archival Recording standards. Copies of the recording will be lodged with the appropriate Local and State repositories; - procedures to follow for any unanticipated impacts to heritage structures and for the discovery of unanticipated 'Relics'; and - items of moveable heritage, including historical photos, plans, maps, records and the like will be documented, collated and catalogued records to Heritage Archival Recording standards. A conservator will provide advice regarding the long term storage of the items and an appropriate repository will be identified prior to Project works commencing.	Within 3 months of project approval During construction Within 3 months of project approval Within 3 months of project approval Within 3 months of project approval

Outcome	Commitment	Timing
<i>Traffic and Transport</i>		
Operations are managed to ensure minimal impacts on the local road network.	• A Traffic Management Plan will be prepared, which will include, but not be limited to, non-conformance measures, driver awareness and specific measures aimed at reducing impacts.	Within three months of approval
	• NRE will implement a traffic/driver management protocol which includes: • trucking during PCKT approved hours • obeying legal speed limits including a self imposed 50km/hr speed limit along Bellambi Lane; • ensuring drivers are vigilant regarding separation distances; • avoiding compression braking. Compression brakes must not be used on the approach to Port Kembla Rd/Springhill Rd lights when entering or exiting PKCT; • covering all loads; • washing all trucks prior to leaving the site; • reporting all vehicle faults to the owner; and • reporting all traffic incidents.	Continuous
<i>Visual Amenity</i>		
Construction and design is managed to ensure minimal visual impacts on local residents.	• Colour treatments for surface facility components will be selected to match the surrounding environment.	During design and construction
	• The area of disturbance will be restricted to the minimum practicable.	During design and construction
	• Facilities will be placed to minimise disturbance of vegetation.	During design and construction
Operations are managed to ensure minimal visual impacts on local residents.	• Progressive rehabilitation will be undertaken as required.	Continuous and as required
	• Routine use of low beam on vehicle headlights by all construction and maintenance personnel.	Continuous
	• Appropriate use of lighting equipment to limit impacts on sensitive locations. This will be managed through inductions of all construction and operations employees.	Continuous
	• Ensuring lighting is directed away from residences through the use of directional lighting and shielding in accordance with safety regulations, and which complies with Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting.	Continuous

Outcome	Commitment	Timing
Waste		
Avoidance of unnecessary resource consumption; reuse, reprocessing, recycling and energy recovery wherever possible and, where this is not possible, disposal of wastes in an environmentally responsible manner.	• All construction materials will be purchased with the aim of reducing waste products.	Prior to construction
	• The stockpile of clean excavated material will be seeded with grass to stabilise until it can be reused.	During construction
	• All waste material will be disposed of in accordance with the provisions of the <i>Protection of the Environment Operations Act 1997</i> and the Waste Classification Guidelines (DECC, 2008).	Continuous
	• Waste will be recycled where possible or disposed of at an appropriately licensed waste disposal facility.	Continuous
	• Onsite storage and disposal of different categories of waste will be defined prior to construction. A sufficient number of covered storage bins will be provided for waste disposal on site, with separate bins for recyclable and non-recyclable waste.	Prior to construction and ongoing
	• All records will be retained as proof of correct disposal for environmental audit purposes.	Continuous
	• At No 4 Shaft, NRE will implement a manual monitoring assessment including visual observation for the presence of ponding of water on the surface of the irrigation area.	Continuous
	• A tertiary treatment system will be installed at No 4 Shaft to reduce pathogens resulting in a 1mg\L chlorine residual after 30 minutes as required under the DEC reuse guidelines.	End of first quarter 2011
Rehabilitation		
Progressive rehabilitation of areas of the Colliery that are no longer in use and where safe operational conditions permit.	• Rehabilitation at the Russell Vale site and within the catchment area to be undertaken in accordance with the Schedules set out in <i>Tables 23.1</i> and <i>23.2</i>	Continuous
	• NRE will prepare a Rehabilitation Plan in consultation with key stakeholders including I&I, SCA, DECCW, NoW, DoP and Council.	Continuous

Yours sincerely,
for Environmental Resources Management Australia Pty Ltd



Christine Allen
Principle



Mike Shelly
Partner