Ulan Coal Mines Limited

Response to Submissions

Modification of Ulan Coal - Continued Operations

North 1 Underground Mining Area, Minor Modifications to Ulan No.3 and Ulan West Mine Plans and Proposed Concrete Batching Plant

September 2011

Umwelt
Environmental Consultants

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Prepared by

Umwelt (Australia) Pty Limited

on behalf of

Ulan Coal Mines Limited

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1.0 Introduction

This document has been prepared in response to a request from the Director-General of the Department of Planning and Infrastructure in accordance with section 75H(6) of the *Environmental Planning and Assessment Act 1979* (NSW) (EP&A Act) that Ulan Coal Mines Limited (UCML) prepare a response to issues raised during the public exhibition period for the Environmental Assessment, Modification of Ulan Coal - Continued Operations North 1 Underground Mining Area, Minor Modifications to Ulan No.3 and Ulan West Mine Plans and Proposed Concrete Batching Plant (the Project). This report has been prepared by Umwelt (Australia) Pty Limited (Umwelt) on behalf of UCML and addresses the issues raised in submissions during the public exhibition of the Environmental Assessment (EA). The public exhibition period was from 28 July 2011 to 18 August 2011. A total of six submissions were received, which consisted of submissions from:

- Department of Trade & Investment, Regional Infrastructure & Services (DTIRIS);
- Office of Environment and Heritage (OEH);
- Mid-Western Region Council (MWRC);
- NSW Office of Water (NOW);
- Mudgee Mini Mix & Landscaping Pty Ltd; and
- One community submission from the general public.

The DTIRIS and MWRC submissions raised no objection or concerns and supported the proposed modification.

1.1 The Project

UCML proposes to modify Project Approval 08_0184 to include the extraction of additional longwall panels in an area known as the North 1 underground mining area, minor modifications to the Ulan No.3 and Ulan West mine plans, and the establishment of a small Concrete Batching Plant (CBP) in the Bobadeen area. The proposed modifications sought by UCML are detailed below:

1.1.1 North 1 Underground Mining Area

The proposed North 1 underground mining area will include five new longwall panels, LWC, LWD, LWE, LWF and LWG. The approximate panel dimensions will vary between 250 and 350 metres in width and from 565 to 1205 metres in length. The Ulan coal seam in the area of the proposed North 1 underground mining area has varying overburden depths of between 115 and 195 metres.

The North 1 underground mining area is adjacent to areas mined during the early 1990s, but this area has not been previously mined. Due to poor development conditions being experienced in Longwall W3 as a result of difficult mining conditions, the North 1 underground mining area now becomes a viable and essential option to prevent significant longwall discontinuities from affecting the operational sustainability of UCML.

Coal generated from the North 1 underground mining area will not increase the annual coal production rates from the UCML Complex, but provides a substitute underground coal source during periods when coal production discontinuities are encountered as a result of unfavourable underground mining conditions or operational interruptions as a result of equipment relocation elsewhere within the mine system which limit supply. Preliminary mine planning for the North 1 underground mining predicts a total ROM coal yield of approximately 5 million tonnes.

The North 1 underground mining area will utilise existing infrastructure (access roads, ventilation infrastructure and coal conveyors). Development of the North 1 underground mining area will not increase staffing levels at UCML above presently approved levels.

1.1.2 Bobadeen Concrete Batching Plant (CBP)

UCML proposes to install a single silo CBP in the Bobadeen area adjacent to the existing fire water storage tanks and solcenic storage area.

The CBP is to be a dry mix plant, where products are delivered to a concrete mixing truck for batching. The agitator/mixing truck then automatically combines liquid (water) and dry products (aggregate, coarse river sand, cement) to form concrete.

The CBP will operate on an as needs basis with a nominal production capacity of approximately 80 m^3 per 12 hours. Under general operating conditions the plant will be operated by one staff member between the hours of 7.00 am to 5.00 pm Monday to Friday. The plant may also be operated 24 hours per day in emergency situations.

Cement required for batching will be stored in the plant's approximately 11 metres high, 65 tonne silo. Raw materials utilised in concrete batching will be sourced from various locations, with cement to be obtained from Newcastle and Kandos and aggregate/sand obtained on site or from the Gulgong or Mudgee area. Aggregate may also be sourced from the Bobadeen Basalt Quarry (located within the UCML Complex).

The proposed CBP is a modular unit capable of being transported to the site by truck and trailer and then erected with a mobile crane. CBP construction works will involve minor (0.07 hectare) extensions to an existing hardstand area and will include appropriate environmental controls, including for dust and water management:

1.1.3 Minor Amendments to the Ulan No.3 and Ulan West Mine Plans

As a part of this proposed modification, a minor amendment to the existing Ulan No.3 and Ulan West mine plan is proposed. The mine plan amendments sought are as follows:

- realignment of the approved Ulan West Mining area approximately 40 metres to the east;
- reduction of Ulan West Longwall Panels West 5 (by approximately 1670 metres) to enable this area to be mined by extending adjacent Ulan No.3 West Panels 4 to 6 to the west; and
- extension of Ulan No.3 West Longwall Panels 4 to 6 by approximately 490 metres to the west to mine areas previously to be mined by Ulan West 5.

Overall, the modified mine plan results in a 1.4 hectare reduction in mining footprint for Ulan No.3 and Ulan West operations.

1.2 Report Structure

To address the issues or concerns raised each of the six submissions was comprehensively reviewed and considered. Matters raised by each submission are addressed by category of issue, with additional information and or clarification (if required) provided.

2.0 Summary of Submissions

A total of six submissions were received during the public exhibition of the Environmental Assessment (EA). Submissions were received from the Department of Trade & Investment, Regional Infrastructure & Services (DTIRIS), NSW Office of Water (NOW), Office of Environment and Heritage (OEH), Mid-Western Region Council (MWRC), Mudgee Mini Mix & Landscaping Pty Ltd and Maddocks Lawyers (on behalf of Mr Reece Robinson landowner of the Eyrie Property).

The submissions raised a number of issues in relation to the Project and a number of agencies outlined proposed conditions of approval for consideration of the Department of Planning & Infrastructure (DP&I) in the determination of the Project. The issues raised in each submission have been summarised as set out in **Table 2.1** of this report. The table identifies the submission, provides a summary of the issues raised and identifies the section of this report where the issue has been addressed.

Table 2.1 - Issues Raised in Submissions for the proposed Orica ANE Production Facility EA

Respondent	Issue Raised	Response and Relevant Section in this Report
Department of Trade & Investment, Regional Infrastructure & Services (DTIRIS)	**Rehabilitation and Mine Closure**	
	Ulan West, No.3 Mine – The proposed modifications to the Ulan West and Ulan No.3 mine panel layout are minor and unlikely to lead to any adverse impacts.	Agreed
	North 1 Mine – Proposed new panels of the North 1 mine (LWC – LWG) represent new development and extraction of coal not previously considered under the 2010 approval. Provided mining is subject to appropriate subsidence management approvals, DTIRIS has no objection.	Agreed
	Concrete Batching Plant – EA adequately constrains the construction, operation and eventual decommissioning of this facility. An amendment to the Mining Operations Plan and revision of security will be required prior to commencement of construction.	Agreed
	Subsidence	
	DTIRIS will have further comments on subsidence related issues following review of the subsidence management plan and final site inspections by DTIRIS subsidence engineers.	Noted
	Aquatic Habitat and Agricultural Land	
	No objection	Noted
	Closing Comment	
	Ulan Colliery is a long term established coal mine and has satisfactorily demonstrated to DTIRIS its commitment towards stakeholder engagement, progressive rehabilitation and forward mine closure planning. DTIRIS supports the Ulan Coal Continued Operations Project for the continuation of coal mining operations within the Western Coalfield. The continuation of operations will maximise the valuable coal resource recovery within the colliery.	Noted
Office of Environment and Heritage (OEH)	Comment – OEH has reviewed the information provided and has determined that it is able to support the proposal subject to DP&I adopting the recommended conditions of consent contained in attachment 1 (attached to the submission, discussed below).	Noted
	Aboriginal Cultural Heritage	

Table 2.1 - Issues Raised in Submissions for the proposed Orica ANE Production Facility EA (cont)

Respondent	Issue Raised	Response and Relevant Section in this Report
	OEH acknowledges that the Aboriginal stakeholder groups support the proposed management strategy for ACH potentially affected by the North 1 Underground, consideration needs to be given to the total number of rock shelters potentially affected by Ulan No.3, Ulan West and the North 1 underground mines and the appropriateness of the Brokenback Conservation Area as an offset for the total potential impact. The approved Ulan No.3 and Ulan West underground mine plan will impact 53 rock shelters sites with a high to moderate significance within those areas, with the North 1 underground mining area impacting 43 rock shelters. The Brokenback Conservation Area contains 27 rockshelters, 11 of which are regarded as being of high significance. As such OEH considers that this issue requires further discussion.	See **Section 3.1**
	OEH considers the impact mitigation measures as recommended in Section 8 of Appendix 6 of the EA be implemented and are preferential to those as included in Section 6.5.5. Recommendations: • The Heritage Management Plan is updated to include the recommendations made in Section 8, Appendix 6 of the EA; and • All works as indicated in Section 8, Appendix 6 of the EA, are undertaken prior to the commencement of works for the North 1 Underground Mine.	See **Section 3.1**
	Air Quality	
	Comment – There will be minimal increase in the site's overall dust impacts as a result of the operation of the Concrete Batching Plan, provided that all dust mitigation options are implemented to minimise dust. No additional conditions required pertaining to air quality as OEH will regulate dust emissions from the Concrete Batching Plant through the conditions of Ulan Coal Mines Environment Protection Licence.	Noted
	Biodiversity	

Table 2.1 - Issues Raised in Submissions for the proposed Orica ANE Production Facility EA (cont)

Respondent	Issue Raised	Response and Relevant Section in this Report
	The EA states that *'consultation with the DECCW regarding the additional provision of cliff line management areas will be carried out as part of the modification approvals process*' OEH is not aware of any contact being made in regards to this issue and notes that there is no commitment made in the EA in regards to increasing the cliff line offset established previously. OEH notes that while a cliff line management area was approved previously, OEH's preference remains with habitat areas being avoided which is of particular importance with the cliff lines as they are not regenerative.	See **Section 3.2**
	Comments regarding Section 5.2.2 of EA – Micro-bat Cliff Line Monitoring – mitigation and management measures. • Large-eared pied bats exhibit high roost fidelity, especially maternity and crèche roost sites. It is not acceptable to destroy significant habitat during the time of year when the bats are not present. Harming the habitat is still considered harm to the threatened species. • Compensatory Habitat (artificial tunnels/caves and bat boxes) - There is published material from Australia that shows that rehabilitation of impacted cave roosts is very difficult and unlikely to work. OEH requests an assessment of why this measure is likely to be successful here. • Engineering Measures (rock-bolting or support columns) – Maternity caves for the large-eared pied bat are relatively small. The installation of support columns is likely to impact on the suitability of a cave as a roosting site. OEH requests evidence of why the installation of support columns and rock-bolting within maternity caves is unlikely to have an impact?	See **Section 3.2**

Table 2.1 - Issues Raised in Submissions for the proposed Orica ANE Production Facility EA (cont)

Respondent	Issue Raised	Response and Relevant Section in this Report
	Comment regarding the Test for Ecological Significance (Appendix 5 Ecology Assessment) in relation to comments regarding the Little Bentwing Bat, Eastern Bentwing Bat, Little Pied Bat, Large-eared Pied Bat and Eastern Cave Bat, OEH states the following: • The potential extinction of a local viable species of any of these species is unacceptable. • It is simply not possible to draw the conclusion that the proposed modification is unlikely to modify, remove or isolate a significant area of known habitat from currently interconnecting or proximate areas without knowledge of how much roosting habitat for each of the bat species there is within the modification area and region. There may be cliff line in the modification area and elsewhere within the region but the question is about the roosting habitat within the cliff line. • The conclusion states that 'No evidence of potential roosting/breeding habitat has been recorded within the cliff lines of the proposed North 1 underground mining area, however there is still habitat (albeit very small) that such habitation could occur in this area'. OEH commented that this conclusion is unsupported as an appropriate survey has not been conducted which would identify roosting and or breeding habitat within the North 1 area.	See **Section 3.2**

Table 2.1 - Issues Raised in Submissions for the proposed Orica ANE Production Facility EA (cont)

Respondent	Issue Raised	Response and Relevant Section in this Report
	In summary, OEH considers that the EA has not: • Adequately assessed and quantified roosting habitat for threatened cave dependent micro-bats within North 1 Underground. • Provided sufficient justification of how the proposal will maintain or improve cliff line habitat and hence adequately offset the loss of this habitat as a result of the proposal. • Demonstrated that measures are able to be implemented which will improve existing cliff line habitat in the 'cliff line management areas' that compensate for the loss of cliff line habitat within the mine site. OEH considers that the development as currently proposed does not maintain or improve biodiversity values for the following reasons: • The development as proposed fails to adequately avoid high. • Conservation value areas including Endangered Ecological Communities and cliff line threatened microbat species. • The EA does not propose measures to adequately mitigate impacts on threatened cave-dwelling microbats and other biodiversity values which may be impacted by the proposal. • No additional offset has been provided.	See **Section 3.2**
	OEH considers that insufficient information has been provided to allow OEH to indicate its level of support for this proposal as the impact on threatened bat species is not able to be determined at this time. OEH requests that the proposed monitoring of the entire area of the North 1 underground, in accordance with Appendix 5 Section 5.2.2 is undertaken prior to undermining this area. OEH expects that the opportunity to gather information on roosting sites of cave dwelling bats will then be used to modify mine plans to avoid impact bats or their habitats completely, not just during period when they are occupied. The modification requirements should be determined in consultation with OEH.	See **Section 3.2** We note that this comment is not consistent with the OEH covering letter that notes that OEH has determined that it is able to support the project.
	Noise	
	OEH considers that the operation of the Concrete Batching Plant will result in minimal increase in the site's overall noise impact, provided that all noise mitigation options are implemented to minimise noise.	Noted

Table 2.1 - Issues Raised in Submissions for the proposed Orica ANE Production Facility EA (cont)

Respondent	Issue Raised	Response and Relevant Section in this Report
	No additional conditions required pertaining to noise as OEH will regulate noise from the Concrete Batching Plant through the conditions of Ulan Coal Mines Environment Protection Licence.	Noted
	OEH recommends that operational hours for the Concrete Batching Plant are limited to 7 am to 5 pm Monday to Friday to protect residence 254.	See **Section 3.6**
	Water	
	OEH notes that mining of the proposed North 1 mining area will result in an increase in the predicted groundwater inflows of less than 1ML per day and the water management system established at the site provides sufficient capacity for the additional water generated.	Noted
	Comments regarding the potential impact of the North 1 underground mine on groundwater resources (e.g. aquifer pressure and baseflow), potential impacts on the Ulan Creek and bores, should be provided by the NSW Office of Water.	Noted
	No additional conditions required pertaining to water management as OEH will regulate water management through the conditions of Ulan Coal Mines Environment Protection Licence.	Noted
NSW Office of Water (NOW)	NOW reiterates concerns raised during the Ulan Coal Continued Operations Environmental Assessment with regard to impacts to base flows in the Talbragar and Goulburn River systems. In particular the potential impacts on Ulan Creek.	Noted
	NOW submitted a number of recommended conditions requesting that the management plan be reviewed within six months of any modification being approved.	Existing Project Approval conditions already address NOW's comments as noted below. The management plans will be reviewed and, as appropriate, refined, to consider the modification.

Table 2.1 - Issues Raised in Submissions for the proposed Orica ANE Production Facility EA (cont)

Respondent	Issue Raised	Response and Relevant Section in this Report
	UCML must obtain entitlement to the volumetric ingress and/or drawdown on surface or ground water systems caused by the mining project, in accordance with the provisions of the Water Management Act 2000 and/or Water Act 1912 and any water sharing plan in force in the affected water sources.	Noted. Condition 28 of Project Approval 08_0184 requires that: *The Proponent shall obtain all necessary water licences for the project under the Water Act 1912 or the Water Management Act 2000.*
	UCML must ensure any losses caused by the project to the base flows of the Talbragar River, Ulan Creek, Mona/Bobadeen Creeks is accounted for, and any licenses to account for this obtained in accordance with operating rules under any water sharing plan in force including the Hunter Unregulated Rivers and Alluvial Water Sharing Plan 2009.	Noted Condition 39 of Project Approval 08_0184 requires a Groundwater Monitoring Program which includes the requirement to monitor and validate the impacts of the project on base flows to the Goulburn and Talbragar Rivers and associated Creeks. Should any loss be caused by the project, then Condition 29 of Project Approval 08_0184 requires that: *The Proponent shall offset the loss of any base flow to the surrounding watercourses and/or associated creeks caused by the Project to the Satisfaction of the Director General.* Amendment to this project approval condition is not sought under the proposed modifications.

Table 2.1 - Issues Raised in Submissions for the proposed Orica ANE Production Facility EA (cont)

Respondent	Issue Raised	Response and Relevant Section in this Report
	UCML must carry out a regional water supply and monitoring investigation in consultation with Moolarbeen Coal Mine, with the aim to integrate monitoring networks and response protocols, and to ascertain and undertake remediation and rehabilitation with regard to the extent and severity of impacts caused by mining operations to any identified groundwater dependent ecosystems and connected river and alluvial systems within a nominated groundwater drawdown zone surrounding the project; the investigation must include; *a) Assess the feasibility and potential environmental benefits of increased water sharing between the three mining operations in the region;* *b) Consider the potential for developing regional surface water and groundwater monitoring programs to:* • *Rationalise the surface and ground water monitoring programs of the three mining operations in the region; and* • *Improve the monitoring of the individual and cumulative surface and groundwater of these mining operations and* c) *Recommend measures to reduce the surface and groundwater impacts of mining in the region, and any potential changes to existing licenses and/or approvals that could facilitate implementation of these measures.*	See **Section 3.3.1**
	UCML must provide updated water balances to NOW for assessment of projected water demand and surpluses over the lifetime of the project, in accordance with NOW Water Reporting Requirements for Mining Operations 2009.	This requirement is reflected in Project Approval 08_0184 Condition 34 which requires the preparation of a Site Water Balance. As a part of UCML's annual monitoring review/AEMR updated water balances will be provided to NOW over the life of the continued operations.
Mid-Western Regional Council	Mid-Western Regional Council discussed the proposal at Council Meeting dated 17th August 2011 and no concerns were raised regarding the proposal.	Noted

Table 2.1 - Issues Raised in Submissions for the proposed Orica ANE Production Facility EA (cont)

Respondent	Issue Raised	Response and Relevant Section in this Report
Mudgee Mini Mix & Landscaping Pty Ltd (Mudgee Concrete)	The submission states that the owners of Mudgee Concrete in consultation with a Mr Brian Pease (Construction Manager Ulan West Project) gained development consent for the Mudgee Concrete Plant in January 2011 with the knowledge that Mudgee Concrete would be considered for supply of concrete to any Ulan Projects.	This submission is made on commercial grounds only and any negotiations regarding the purchase or lease of this business is a matter for UCML to handle directly with the business owner.
	Since construction of the plant Mudgee Concrete have been supplying concrete to both Ulan Underground and Open Cut.	
	The owners of Mudgee Concrete consider that the addition of a concrete batching plant at the UCML site will result in financial hardship for Mudgee Concrete with downturn in workload resulting in staff being made redundant.	
	The owners of Mudgee Concrete included in their submission an offer to negotiate sale or the lease of the Mudgee Concrete Plant in order to ward off financial hardship and ensure that the staff remain employed.	
Maddocks Lawyers (on behalf of Mr Reece Robinson – Property Owner – Eyrie. Resident Identification Number 109)	The submission questions whether the project should be referred under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).	See **Section 3.5**
	Public Consultation	
	The property owner requested information regarding surface water, ground water and other matters during the assessment process for Project Approval 08_0184 which was not received.	See **Section 3.4**
	Identification of the key stakeholders to be consulted for the proposed modification application was based on the understanding that the proposed modifications are of a relatively minor scale that are unlikely to impact the community. This approach meant that Mr Robinson was not consulted although he feels his property will be impacted by the project and objects to not being formally consulted. Comment - the submission states that the approach to community consultation is not acceptable and that there needs to be a more extensive consultation with the community particularly in relation to the impacts of the project on groundwater and surface water.	See **Section 3.4**
	Groundwater Depressurisation	
	The landowner is concerned that depressurisation of groundwater will impact upon a spring which is located south of the Ulan West 9, 10 and 11 long walls and supplies surface water to the area.	See **Section 3.3.2**

Table 2.1 - Issues Raised in Submissions for the proposed Orica ANE Production Facility EA (cont)

Respondent	Issue Raised	Response and Relevant Section in this Report
	The EA has focussed groundwater impacts on stream catchments to the north and east of the Mr Robinson's property.	See **Section 3.3.2**
	Figure 6.3 (Attachment 2) of the EA shows the location of the monitoring bores and notably the monitoring bores are not located within the headwaters of the streams within the valley where Mr Robinson's property is located. The submission requests that there be adequate assessment of the likely impacts of the mining on the groundwater springs that feed the water courses that cross Mr Robinson's property.	See **Section 3.3.2**
	Surface Water	
	The focus of the assessment on surface water does not address the impacts within the surface watercourses within Mr Robinson's property.	See **Section 3.3.2**
	The focus of the assessment has been on surface water impacts within the mine site and the major adjoining watercourses but not on the lower order tributaries in particular those which are spring fed.	See **Section 3.3.2**
	The proponent acknowledges in Section 6.3.1 of the EA that minor changes are proposed for the Cockabutta Creek Catchment Area, but no further detail or assessment is provided.	See **Section 3.3.2**
	Threatened Species and EPBC Act	
	The EA assumes that the impacts to be assessed relate only to the modifications with limited discussion regarding the cumulative impacts. The assessment should focus on impacts on particular locations, in particular those immediately adjacent to the Ulan West operations such as Mr Robinson's property.	See **Section 3.2**
	The previous assessments have focused primarily on the impacts of the specific works in the particular approvals rather than the impacts of the mine operations as a whole. Through adopting this approach it is possible for the proponent to say at each step that the works being undertaken do not have a significant impact on threatened species either for the purposes of the New South Wales legislation or the Commonwealth legislation and to not adequately address the impact of the project as a whole.	See **Section 3.2**
	Diversion of Water	

Table 2.1 - Issues Raised in Submissions for the proposed Orica ANE Production Facility EA (cont)

Respondent	Issue Raised	Response and Relevant Section in this Report
	A request is made that consideration be given to the water management of the Mine being adjusted so that compensatory flows are added back into catchments to the west (as opposed to the majority of the groundwater extracted from the mine being discharged to the east) to secure water supplies to the west of the mine.	See **Section 3.3**
	The use of water resources following treatment should ensure that the resource is directed to the catchments or sub-catchments which are being impacted by the extraction – not diverted to the east as an expedient solution.	See **Section 3.3**

3.0 Response to Submissions

This section provides additional detail in response to the issues raised in the submissions for the EA of the proposed modification to Project Approval 08_0184 for Ulan Coal Continued Operations.

3.1 Aboriginal Archaeology

Of the Aboriginal sites indentified during the survey, only the rockshelter site types are potentially subject to subsidence related impacts as a result of the project.

As noted in Section 6.5.2 of the EA for the proposed modification, a total of 43 rockshelter sites were identified during the Aboriginal archaeological survey of the North 1 underground mining area, consisting of 11 rockshelter sites with artefacts, art and/or grinding groves and 32 rockshelter sites with Potential Archaeological Deposits (PADs). Section 6.5.3.2 of the EA summarised the archaeological/scientific significance of these rockshelter sites as:

- One rockshelter site/PADs is assessed as being of high significance within a local context;
- One rockshelter site/PADs is assessed as being of moderate to high significance;
- One rockshelter site/PADs is assessed as being of moderate significance;
- One rockshelter site/PADs is assessed as being of low to moderate significance;
- Six rockshelter site/PADs are assessed as being of low to possibly moderate significance; and
- 33 rockshelter site/PADs are assessed as being of low significance (77 per cent of rockshelters).

Section 6.5.4.2 of the EA notes that the majority (i.e. 32 rockshelters or 74 per cent) of the rockshelter sites are unlikely to be impacted as a result of subsidence. The remaining eleven rockshelter sites/PADs may be subject to subsidence impacts (greater than 10 per cent probability of perceptible impacts), three of which or 7 per cent of the rockshelters are of moderate, moderate-high and high significance (within a local context), being rockshelter sites ID # 104, 105 and 1420.

The mitigation and management strategy for rockshelter sites as noted in Section 7.0 of the EA is consistent with that approved in the Ulan Coal Continued Operations Environmental Assessment, being:

- Conservation of rockshelter sites, which includes the establishment of the Brokenback Conservation Area. Brokenback was established as a Aboriginal archaeological conservation area because the Brokenback valley area provided the most distinct cluster of rock shelter sites of moderate to high or high significance (SEA, 2009); and
- Further investigation and salvage of rockshelter sites that may be affected by subsidence. A two phase investigation of a representative sample would serve to mitigate potential subsidence impacts and address relevant research questions, particularly those relating to occupation models and the chronology of occupation within the Ulan locality.

As noted in Table 6.8 of the EA, rockshelter sites ID # 104, 105, 484, 485 and 1420 will be included in the representative sample of rockshelter sites which would be subject to further investigation and salvage. Subject to the approval of the proposed modification, UCML's existing Heritage Management Plan (HMP) will be updated to include the recommendations made in Section 8, Appendix 6 of the EA and in the subsequent South-East Archaeology Report (SEA, 2011).

The recommended works, specifically the investigation and salvage works associated with rockshelter sites ID # 104, 105 484, 485 and 1420, as detailed in Section 8, Appendix 6 of the EA and SEA (2011), will be undertaken prior to undermining (i.e. exposing these rockshelter sites to any potential subsidence impact).

3.2 Biodiversity

The key issues raised in the OEH submission with regard to Biodiversity have been summarised in **Table 2.1** above. In order to contextualise the responses to the issues raised by OEH, summaries of the issues from the OEH submissions have been provided in *bold and italics* below, with a response following in normal type.

Micro-Bat Cliff Line Monitoring: Mitigation and Management Measures

The proposed mitigation and management measures presented in Section 5.2.2 of the Ecological Assessment (Appendix 5 of the EA) were suggested as options only, with the following proviso:

> If a roosting/breeding cave is identified…the appropriate mitigation and management requirements will be determined in consultation with an appropriate expert and relevant authorities.

Detailed research, consultation and feasibility studies can be completed if the need arises, i.e. if a roosting/breeding cave is identified as part of the detailed pre-impact cliff line inspections that were committed to as part of the Continued Operations EA, and which are currently being completed prior to underground mining across the site. It should be noted that no evidence of such roosting/breeding caves has been recorded within the Ulan Project Area to date, despite considerable amounts of targeted micro-bat surveys over two decades.

Adequately assessed and quantified roosting habitat for threatened cave dependent micro-bats within North 1 Underground

Fly by Night Bat Surveys Pty Ltd (Fly By Night) has undertaken targeted micro-bat surveys within the broader Ulan Coal Complex since 1994, both as part of the Mount King fauna monitoring which commenced in 1980, and as part of other targeted surveys such as the monitoring of micro-bat use of rehabilitation areas (refer to Appendix 8 Section 4.5.2 of the Ulan Coal Continued Operations Environmental Assessment). This information, together with the targeted micro-bat surveys completed by Umwelt was used to assess the potential impacts of the Project on cave dependant bats.

No evidence of breeding or roosting caves for any micro-bat species has been recorded from any surveys completed within the proposed modification areas or broader Project Approval Area (Umwelt 2009a) and Mt King (2008) and Fly by Night (2009). In addition to this, targeted surveys of the cliff lines within the proposed modification area were completed by Fly by Night in 2011, as per the commitments made in the Ulan Coal Continued Operations Environmental Assessment.

The methodology of these targeted surveys included traversing all cliff line areas within the North 1 underground mining area to assess the potential roosting/breeding habitat for micro-bats within the North 1 underground mining area. Particular note was taken of any potential roosting/breeding habitat evident, i.e. caves fissures or overhangs. Any signs of previous use by microbats including the presence of droppings or staining of the ceiling were noted. In addition to walking cliff lines within the North 1 undergound mining area, four major areas of cliff line were sampled for bats through captures using harp traps as well as Anabat II detectors. From this survey, Fly by Night (2011) states that:

> The cliff lines within the area affected by the North 1 longwall panels contain relatively low densities of overhangs, caves and fissures. All potential roosts examined contained no evidence of substantial use through staining of the ceiling or accumulation of droppings. The results from harp trapping and particularly echolocation call detection further suggest that large aggregations of the three target species were unlikely to be present at the time of survey.

While not being able to conclusively rule out the potential for roosting/breeding colonies in these areas, such surveys (by a recognised expert with two decades of experience on this site) provide substantial indication of the lack of roosts, for consideration in assessing the likelihood of these species' making use of the cliff line habitats above the North 1 longwall panels.

To add further confidence to the conclusion of Fly by Night (2011), and following its recommendations, repeat surveys will be completed during the warmer summer months when these species are likely to be forming roosting/maternity colonies.

In considering the above, it must be remembered that such caves are typically very rare in the landscape, and there is no certainty that they occur in the Project Approval Area or proposed modification areas. However, the possibility of the presence of such caves cannot be (and has not been) excluded from consideration. As there is no way to conclusively exclude the potential for breeding and/or roosting of these species in the cliff lines of the proposed modification areas and broader Project Approval Area, the assessment assumed their potential presence, and assessed potential impacts accordingly. The commitment to complete the detailed targeted cliff line surveys prior to mining across the Project Area will provide further confidence to this conservative assessment approach.

Provide sufficient justification of how the proposal will maintain or improve cliff line habitat and hence adequately offset the loss of this habitat as a result of the proposal

The impact assessment completed for micro-bats have identified a very low potential for impact on these species as a result of the proposed modifications as no evidence of breeding or roosting caves for any micro-bat species have been recorded during surveys within the proposed modification areas. Despite the very low potential for impact, detailed micro-bat cliffline monitoring is proposed to survey for micro-bat habitat within each longwall prior to Longwall mining. This has been progressed for the proposed North 1 longwall areas, and the results confirm no current evidence of bat roosting in this cliff line habitat, as discussed in the above response.

While no direct offset has been offered as part of this project, this detailed mitigation strategy will allow progressive increasing confidence in the identification (or otherwise) of such species in the proposed longwall areas. Further to this, the commitment has previously been made that should this pre-mining monitoring identify roosting/breeding habitat within an area subject to significant subsidence impact for these species, then UCML would in consultation with an appropriate expert and relevant authorities, implement appropriate mitigation and management requirements.

Demonstrated that measures are able to be implemented which will improve existing cliff line habitat in the 'cliff line management areas' that compensate for the loss of cliff line habitat within the mine site

Existing cliff line management areas approved as part of the Ulan Coal Continued Operations Environmental Assessment will be secured for long-term conservation, and will be managed in accordance with Project Approval 08_0184 and the Draft BROMP (approved by the Commonwealth Department of Sustainability, Environment, Water, Population and Communities (DSEWPC)). The Draft BROMP currently provides a set of management objectives specific to these areas, and also provides for a set of preliminary performance criteria from which the performance of these areas will be monitored, as per the requirements of the Project Approvals.

The development as proposed fails to adequately avoid high conservation value areas including Endangered Ecological Communities and cliff line threatened micro-bat species

The overarching principles employed in the planning of the Project were to avoid, minimise or mitigate unavoidable ecological impacts as much as possible, while allowing an acceptable, economically viable Project outcome. UCML recognises that it is not possible to fully avoid or minimise all potential ecological impacts from large scale mining projects. As part of the Environmental Assessment for the proposed modification, alternatives to the North 1 underground mining areas were considered (see Section 3.3.1 of the EA), and the proposed option was deemed to provide the best balance between economic feasibility and environmental outcomes.

The proposed modification areas will not impact endangered ecological communities (EECs), either from the North 1 longwall panels or the CBP. The proposed modification to the layout of the Ulan No. 3 and Ulan West Mine plans (proposed as part of this modification as described in Section 3.1.3 of the EA) will reduce the amount of EEC that is currently approved to be undermined by 7.4 hectares (Refer to Table 4.1 of the Ecological Assessment provided as Appendix 5 to the EA).

The EA does not propose measures to adequately mitigate impacts on threatened cave-dwelling microbats and other biodiversity values which may be impacted by the proposal and further no additional offsets have been provided

The field surveys completed to date and the associated impact assessments completed for micro-bats have identified a very low potential for impact on these species as a result of the proposed modifications. Despite the very low likelihood of impact, detailed micro-bat cliffline monitoring has been proposed to survey for micro-bat habitat within each longwall prior to longwall mining. This has been completed for the proposed North 1 longwall areas, and the results have been discussed in the above response.

While no direct offset has been offered as part of this project, this detailed mitigation strategy will allow progressively increasing confidence in the identification (or otherwise) of such species in the proposed longwall areas. Further to this, the commitment has already been made that should this pre-mining monitoring identify roosting/breeding habitat for these species, then UCML would commence consultation with an appropriate expert and relevant authorities about appropriate mitigation and management requirements to be employed.

3.3 Water Resources

3.3.1 NOW Recommended Condition 3

As noted in Section 5.4.6.1 of the 2009 EA, a Heads of Agreement has been reached with Wilpinjong Coal Mine for the supply of water on an *'as required'* basis and a water transfer agreement is in place between UCML and Moolarben Coal Project for a minimum of 1000 ML per year. As such there is no need to assess the feasibility and potential environmental benefits of increased water sharing between the UCML, Moolarben and Wilpinjong Coal Mines.

Section 5.3.2.6 of the 2009 EA notes that increased cumulative impacts due to UCML operations are expected to be relatively minor, since the groundwater located between the area previously mined by UCML and the Moolarben Coal Mine project has already been subjected to mining activities and UCML's future mining areas are located at a distance where cumulative impacts are not expected to occur. Similarly the inclusion of the Wilpinjong Coal Mine in any regional monitoring program does not provide any benefit as it is located at a distance where cumulative impacts are not expected to occur. The potential to rationalise the regional groundwater monitoring requirements is therefore negligible. UCML note that it has had a number of discussions with the Moolarben Coal Mine regarding the establishment of a data sharing agreement. No such agreement has been formalised to date.

It is also noted that Condition 34 of Project Approval 08_0184, requires the preparation of a Water Management Plan and associated sub-plans, including a comprehensive water monitoring system.

3.3.2 Maddocks Lawyers on behalf of Mr Reece Robinson

The submission made by Maddocks Lawyers on behalf of Mr Reece Robinson (Property Owner of 'Eyrie', located approximately 1 kilometre west of the UCML approval boundary) raised concerns in relation to potential surface water and groundwater impacts. These issues are addressed in the following sections.

3.3.2.1 Surface Water

The surface water impacts of the Ulan Coal-Continued Operations Project were assessed and approved as part of Project Approval 08_0184.

The surface water assessment undertaken as part of the 2009 EA identified the key features of the Ulan Coal-Continued Operations Project that have the potential to impact on the surface water management requirements for the Ulan Coal-Continued Operations Project as:

- landform changes as a result of the proposed open cut extension including:
  - open cut pit;
  - emplacement areas for run-of-mine (ROM), product and reject stockpiles;
  - out-of-pit overburden emplacement areas;
  - clean water diversions; and
  - tailings emplacement;
- subsidence resulting from the underground mining of Ulan No. 3 and Ulan West;
- changes to the Ulan complex water balance associated with the Project;

- ongoing rehabilitation of mine disturbance areas;
- surface facilities; and
- surface water infrastructure such as the approved Rowans Dam Water Treatment Facility and the proposed Ulan West Water Treatment Facility and associated staging dams, pipeline and Talbragar River discharge structure.

As Mr Robinson's nearest property boundary is located approximately 1 kilometre to the west of the UCML's approved colliery holding boundary, approximately 5.5 kilometres from the North 1 underground mining area and in excess of 7 kilometres from the CBP. None of the above features will result in any direct impact on Mr Robinson's property. However as noted in Appendix 7 of the EA the subsidence predictions have been used to determine the potential impacts of the proposed underground mining operations on the surface drainage regime of the predicted subsidence affectation area and downstream catchments. The potential subsidence impacts are therefore relevant (i.e. the surface water catchment located upstream of Mr Robinson's Property may experience subsidence impacts), the potential impacts of which are detailed below.

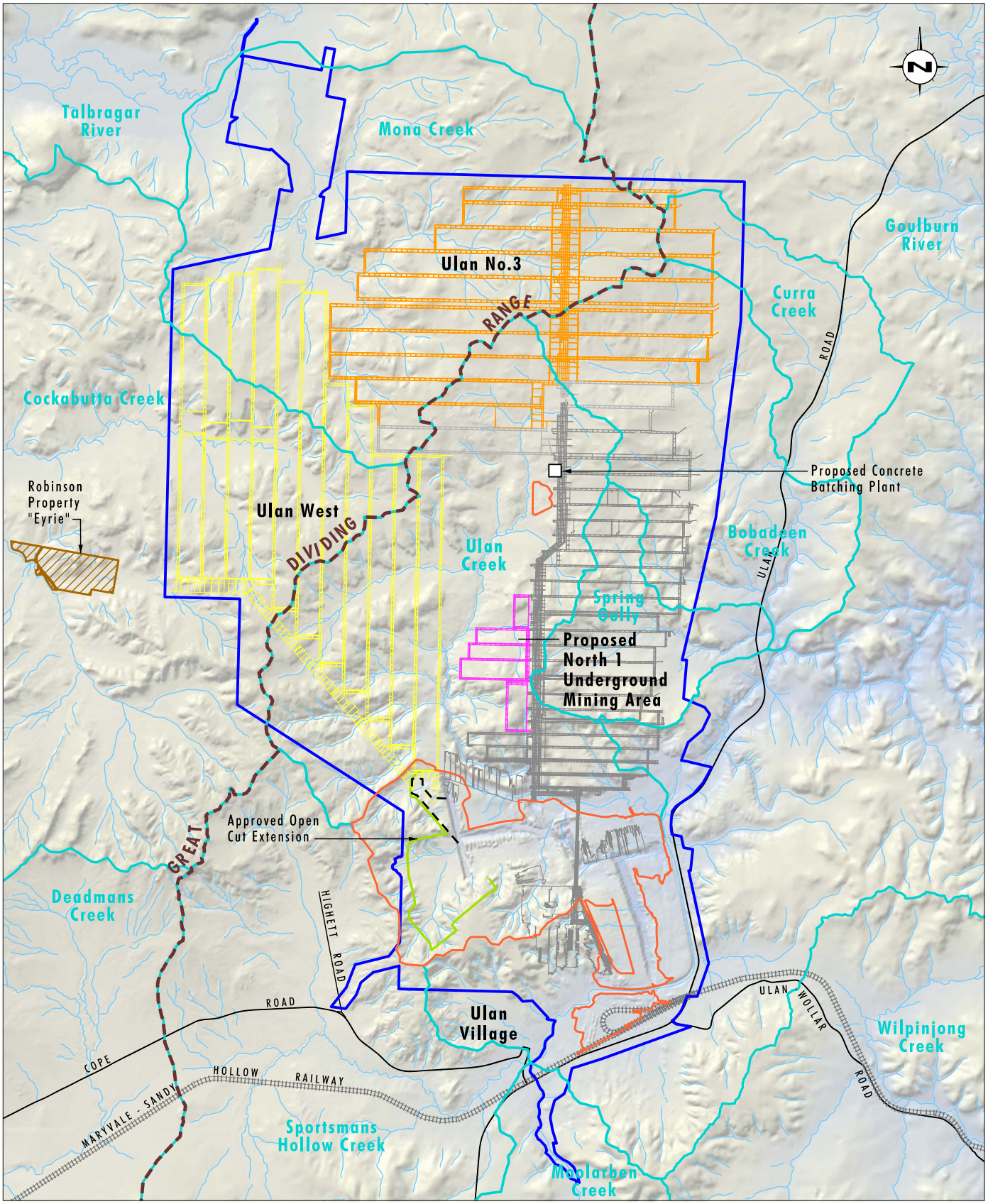
As shown in **Figure 1**, the Robinson property is located in the upper reaches of the Cockabutta Creek catchment. Cockabutta Creek is a second order stream within the subsidence affectation area and flows through the western section of the project area in a westerly direction to the Talbragar River catchment area (refer to **Figure 1**).

Cockabutta Creek is an ephemeral creek system with flows only occurring in the creek during storm events or after prolonged rainfall. The bed of Cockabutta Creek is typically sandy. There are no known rock bars in the creek within the project area. The creek system is poorly defined in the mid to upper reaches with bed and bank only becoming evident near the western boundary of the project area. Based on site inspection and aerial photograph interpretation, the creek appears to be in good condition with some pools occurring in the downstream reaches (Umwelt, 2009).

The Cockabutta Creek catchment area is approximately 10,330 hectares with 1500 hectares located within the project area. Approximately 1250 hectares (12 per cent) of the Cockabutta Creek catchment area of lies within the predicted subsidence affectation area for the proposed Ulan West underground mining operation (Umwelt, 2009).

No direct surface water impacts due to subsidence are predicted to occur on Mr Robinson's property as the subsidence impacts from underground mining at UCML are predicted to be contained within the mine lease and Mr Robinson's nearest property boundary being located approximately one kilometre to the west and downstream of the UCML's approved colliery holding boundary (Umwelt 2009).

No indirect impacts on Mr Robinson's property are predicted to occur as a result of the subsidence upstream of his property, as there will be negligible change to the Cockabutta Creek catchment boundary in the subsidence affectation area, and detailed hydrology analysis has confirmed that the predicted subsidence impacts will not result in any substantial ponding or drainage realignment within the project area (Umwelt 2009). Further, detailed modelling of landforms, pre and post subsidence, have confirmed that the stream velocities will not be significantly impacted, and thereby there should not be any substantial erosion affects in the subsidence area and therefore downstream water quality will be maintained. That is, there is not expected to be any impact on availability or quality of surface water flow at Mr Robinson's property downstream of the mining area.



Source: Ulan Coal, LPI Drainage Lines

0 1.0 2.5 5.0km
1:100 000

Legend

- Colliery Holding Boundary
- UCML Continued Operations Project Approval Area
- Approved Open Cut Extension
- Ulan West Mine Plan (amended)
- Ulan No.3 Mine Plan (amended)
- Previous Underground Mining Operations
- Proposed North 1 Underground Mining Area
- Box Cut Option
- Proposed Concrete Batching Plant
- Catchment Boundary
- Existing Mine WMS Catchment Boundary
- Watercourses
- Robinson Property "Eyrie"

FIGURE 1

Existing Catchment Boundaries and location of Reece Robinson Property

File Name (A4): R04/2879_057.dgn
20110901 15.17

A detailed drainage line monitoring program is planned to be implemented in locations which have been identified as being more susceptible to potential in-channel ponding or erosion (Umwelt 2009). The planned location of these monitoring points on Cockabutta Creek are shown in **Figure 2** attached.

In accordance with conditions 29 and 30 of Project Approval 08_0184, UCML remains committed to monitoring and if required offsetting or replacing water entitlements which are adversely impacted (other than an impact that is negligible) as a result of the project.

3.3.2.2 Groundwater

Triassic sandstones constitute much of the area of interest surrounding Mr Robinson's property 'Eyrie', with thicknesses varying from less than 20 metres in valley floors which host this property, up to more than 60 metres on adjacent ridges. The sandstones are jointed with at least two directions evident as occurs elsewhere in the region. The area is thus likely to comprise two groundwater systems - a shallow surficial rainfall driven perched system and an underlying deep system where a water table prevails.

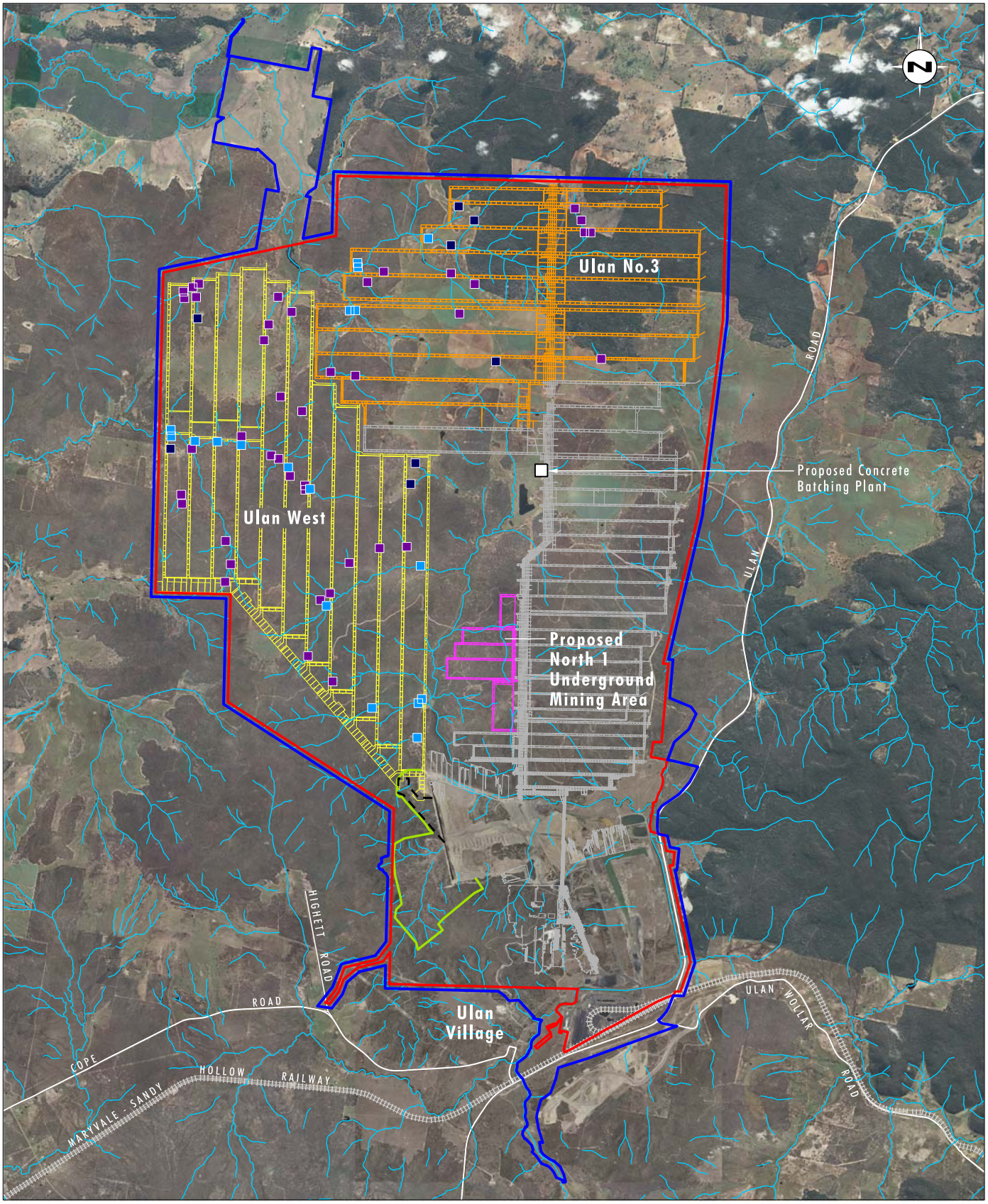
The spring noted in the Robinson submission has not been previously recorded, although it is quite feasible that such a feature exists either within 'Eyrie' or within the elevated areas surrounding it.

Such a spring is likely to be ephemeral and will flow for some time following extended periods of rainfall but may cease to flow during dry periods and is a situation typical of the shallow perched groundwater system in the region. The shallow system also acts as a source of recharge to the deep system via slow downwards percolation through the strata following extended rainfall periods. The deep system is highly unlikely to support the springs in elevated areas but may contribute to base flow in creek beds in low lying areas.

The valley surrounding the Robinson property exhibits a catchment area which is approximately 5.8 square kilometres. The proximity of the valley to the mining operations means the shallow perched groundwater system may be affected by surface movements in the strata which could potentially alter percolation pathways. Redirection of flows along these pathways could simply mean that spring flow occurs at a different and lower elevation within the affected part of the valley catchment. The most extreme case would be redirection towards the subsidence zone for those areas directly over the subsidence zone to the north and east of the Robinson property. However this would only be likely over an area of about 0.2 square kilometres or about 3.5 per cent of the catchment. Alternatively it is possible that impact on the shallow groundwater system may be altogether negligible.

We note that Mr Robinson has raised the issue of the 'spring' previously with UCML and he has declined an offer for UCML and/or its representatives to inspect the 'spring'.

In order to monitor impacts upon springs feeding Mr Robinson's property, subject to Mr Robinson's approval further investigation will be undertaken to identify the location of the springs feeding the site. In accordance with Project Approval 08_0184 Condition 39 UCML's Groundwater Monitoring Program includes detailed baseline data of groundwater levels, yield and quality in the region, and particularly any groundwater bores, springs and seeps (including spring and seep fed dams) that may be affected by mining operations on site.



Source: Ulan Coal, Aerial Photo December 2010

0 1.0 2.5 5.0km
1:100 000

Legend

- Colliery Holding Boundary
- UCML Continued Operations Project Approval Area
- Approved Open Cut Extension
- Ulan West Mine Plan (amended)
- Ulan No.3 Mine Plan (amended)
- Previous Underground Mining Operations
- Proposed North 1 Underground Mining Area
- Box Cut Option
- Proposed Concrete Batching Plant
- Private Residence
- Dam Monitoring
- Erosion Monitoring
- Ponding Monitoring
- Drainage Line

FIGURE 2

Subsidence Related Surface Water Monitoring

File Name (A4): R04_2879_060.dgn
20110224 15.03

3.3.2.3 Water Diversion

In accordance with relevant sections of the Ulan Coal Continued Operations EA, groundwater extracted as a result of mining activities will be discharged through the Bobadeen and Rowan's Dam Water Treatment Facilities to the Ulan Creek/Goulburn River (i.e. to the east of the great dividing range) and through the Ulan West Water Treatment Facility to the Talbragar River (i.e. to the west of the great dividing range). Should monitoring detect losses to base flows or a loss of water entitlements to any owner of privately owned land then offsetting and compensatory water supply will be provided by UCML, in accordance with Project Approval Conditions 29 and 30 respectively.

3.4 Public Consultation

A property owner located adjacent to the western boundary of the existing Project Approval area (Mr Robinson, 'Eyrie' property shown on **Figure 1**) raised a specific concern regarding consultation for the proposed modification. As described in Section 5.1 of the EA, the Ulan Coal Continued Operations Environmental Assessment undertook significant consultation with Government Agencies, the Aboriginal Community and the Community generally. Community Consultation included a comprehensive socio-economic impact assessment (SIA) and the following three broad consultation phases.

1. Stakeholder information: This initial phase sought to inform stakeholders and the communities of the proposed project, with feedback obtained in the development of the Ulan Coal – Continued Operations Environmental Assessment. Principal consultation methodologies employed during this phase included:

    a. interviews with 51 adjacent landowners and 63 local service providers;

    b. administering a survey to 237 existing UCML staff; and

    c. presentations to local groups and organisations (Local Lions, Rotary and environmental clubs/organisations).

2. Completed EA Consultation: This second phase followed the completion of the Ulan Coal – Continued Operations Environmental Assessment (Umwelt, 2009) and sought to inform stakeholders and the community in more detail of how the continued operations project at UCML would impact the community and environment. Principal consultation methodologies employed during this phase included:

    a. personal meetings with residents and landholders predicted to be impacted by continued operations;

    b. presentations to meetings of local community groups and the Ulan Coal Consultative Committee (CCC); and

    c. Updates on the UCML website and through the Ulan News (formerly Ulan focus newsletter).

3. EA Exhibition: involved exhibition of the Ulan Coal – Continued Operations Environmental Assessment (Umwelt, 2009) between 23 October 2009 and 4 December 2010. Public exhibition provided the broader community an opportunity to be involved with the Continued Operations Project. Continued CCC meetings, community newsletters and Ulan Coal website provided additional ongoing community consultation following the exhibition period.

Further to the extensive consultation carried out for the continued operations project, Mr Robinson was specifically engaged in regards to the Ulan Coal Continued Operations project. A summary of communication with Mr Robinson regarding the project is provided in **Table 3.1** below.

Table 3.1 - Specific Consultation with Mr Robinson

Date	Communication Method	Information Delivered
23 April 2008	Newsletter	Information about the Ulan Coal Continued Operations Project.
23 June 2008	Telephone Call & Mail	Detailed discussion about Ulan Coal Continued Operations Project. Sent Mr Robinson information on Mining Lease and Project boundary in relation to his property (including a figure showing property cadastre information).
21 July 2009	Community Information Session with Wongaroo Road stakeholders	Detailed presentation on EA findings with discussion about proposed mitigation and management measures.
2 February 2010	Telephone	Discussion regarding the granting of EL 3783. Project update on the Part 3A approval.

Community consultation for the Section 75W Modification Environmental Assessment has built upon consultation completed during the Ulan Coal Continued Operations Environmental Assessment. Due to the minor nature of the proposed modifications substantial additional community consultation was not undertaken. Community engagement was rather directed to the Ulan CCC, Ulan School and neighbours with closest proximity to the proposed North 1 underground mining area and CBP. Mr Robinson was not identified as being a party requiring specific direct consultation requirements due to the location of Mr Robinson's property 'Eyrie' property being located in excess of 5.5 kilometres from the proposed North 1 underground mining area and in excess of 7 kilometres from the CBP (see **Figure 1**). Minor amendments to the Ulan No. 3 and Ulan West Mine plans including the relocation of Ulan West mine plan 40 metres to the east will not create additional Environmental impacts (including groundwater and surface water impacts) on the 'Eyrie' property beyond those considered as a part of the Ulan Coal Continued Operations Environmental Assessment. In fact the proposed mine plan as a result of the proposed modification has been relocated 40 metres further away from Mr Robinsons Property. On this basis specific consultation regarding the proposed modification was not undertaken with Mr Robinson because his property was not considered to be impacted by the proposed modifications as noted in **Section 3.3.2** above.

We note Mr Robinson's reference to a previous request for further information presumably during the previous project approval process. UCML has no record of this outstanding request, however broadly with regards to dissemination of information in regards to the Project, both the Ulan Coal Continued Operations Environmental Assessment and this subsequent modification EA are available online and at UCML's offices for viewing by the general public.

UCML plans to contact Mr Robinson directly to further discuss information requirements and to provide clarification as necessary during this consultation.

3.5 Referral of the Project under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)

The Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) requires the completion of an Assessment of Significance relating to the potential impacts of an action on listed matters of national environmental significance (NES). Such an Assessment of Significance under the EPBC Act was completed as a part of the Environmental Assessment process and is provided in Appendix E of the Ecology Assessment (Appendix 5 to the EA). This assessment was completed for matters of NES that were considered to have the potential to be impacted by the proposed modifications, in this case being two species that had been recorded in the area of the North 1 longwall panels, and whose habitat may be impacted by the proposed modifications. These species were the large-eared pied bat (recorded in the locality and cave-dependent for roosting and breeding), and the brush-tailed rock-wallaby (recorded in local area on one occasion in 2001 (Refer to Section 6.2.1.24 of Appendix 5 of the Ulan Coal Continued Operations EA) and somewhat dependent on rocky cliff line areas as refuge from predators). No other matters of NES were considered to have the potential to be impacted by the proposed modifications. This assessment resulted in the following conclusions:

> The proposed modifications have the potential (albeit very low) to significantly impact on an *important population* of the large-eared pied-bat (*Chalinolobus dwyeri*) within the proposed modification areas. On balance, however, it is by far most likely that the proposed modifications would not significantly impact the large-eared pied-bat (*Chalinolobus dwyeri*) and, indeed, there is a reasonable chance that the proposed modifications would have no measureable impact whatsoever. Despite the low likelihood of impact, detailed micro-bat cliffline monitoring has been proposed to survey for micro-bat habitat within each longwall prior to impact. This will allow progressively increasing confidence in the identification (or otherwise) of such species in the proposed longwall areas and, as necessary, management of potential impacts, based on targeted survey results.
>
> The proposed modifications are not likely to result in a significant impact on an *important population* of the brush-tailed rock-wallaby (*Petrogale penicillata*) within the proposed modification areas.

On the basis of the assessment above, the proposed modifications project was not referred to the Department of Sustainability, Environment, Water, Population and Communities (DSEWPC), as it was concluded that:

- The project would not have a significant impact on an *important population* of the brush-tailed rock-wallaby; and
- While the project has a very low potential to significantly impact on an *important population* of the large-eared pied-bat (*Chalinolobus dwyeri*), such impacts are considered to be highly unlikely, and would be contingent only in the case of rock fall or cracking impacts occurring in a breeding/roosting cave for this species. No evidence of such an occupied cave has been recorded within the proposed modification areas.

This decision has been made following consideration and application of the relevant Commonwealth Guidelines to determine that a referral to DSEWPC was not required.

3.6 Noise

The location of the CBP in excess of 4 kilometres from the nearest private residence and the findings of the noise assessment prepared by PAE Holmes (Appendix 8 of the EA) notes that the CBP and its '*operations would not be expected to cause a noise impact at the surrounding residents and is indeed well below the criteria prescribed in Project Approval 08_0184 'Ulan Coal Continued Operations Project'.*

On this basis it is requested that the CBP be provided approval to operate 24 hours per day on the basis that its operation will have no noise impact. It is noted that as per the EA, general operating times for the plant will be between the hours of 7.00 am and 5.00 pm Monday to Friday, but that in order to meet site's operational requirements during times of increased concrete demand 24 hour batching may be required.

4.0 References

Fly by Night Bat Surveys Pty Ltd, 2009. *The Status of Target Cave-roosting Microchiropteran Bats in the Ulan project area. A report to Umwelt Australia Pty Ltd.*

Fly By Night Bat Surveys Pty Ltd, 2011. *Ulan Microbat Cliffline Monitoring for North 1 Longwall Panels.*

Mount King Ecological Surveys, 2008. Analysis of Fauna Survey Data from Ulan Coal Mine. Prepared for Ulan Coal Mines Limited.

South East Archaeology Pty Limited, 2009. *Ulan Coal Continued Operations: Aboriginal Heritage Assessment.*

South East Archaeology Pty Limited, 2011. *UCML Continued Operations Project – Modification to Part 3A Approval – Mine Plan Amendment: Aboriginal Heritage Advice*.

Umwelt (Australia) Pty Limited, 2008. *Ulan Coal – Continued Operations Environmental Assessment*.

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