Additional Information Report for Spot Rezoning

Lots 271 & 276, DP 755442, Ulan & Toole Roads, Ulan NSW

For: Forty North Pty Ltd

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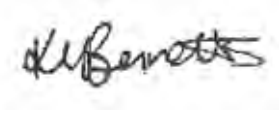
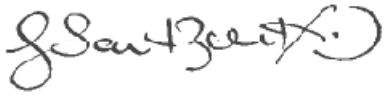


Kristy Bennetts
Environmental Scientist

Peer Reviewer **Date: 22 September 2009**



Jim Sarantzouklis
Senior Planner, Barnson Pty Ltd

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EXECUTIVE SUMMARY

Barnson was commissioned to undertake the necessary planning and environmental reporting on behalf of Forty North Pty Ltd for the rezoning of land – Lots 271 & 276 DP 755442, from Agricultural to General Industrial. The subject land is approximately 38 hectares and is located within close proximity to the Village of Ulan, fronting Ulan and Toole Roads. Barnson has prepared this information for the Mid-Western Regional Council.

In April 2009, Barnson prepared a Pre-rezoning Report, which involved a desktop study of the area together with a review of the current planning instruments and Council Strategies. The Mid-Western Regional Council (MRWC) requested additional information with respect to the following to support the proposed rezoning:

- Flora and Fauna
- Soils and Salinity
- Aboriginal Archaeology
- Adjoining Land Impacts
- Concept Plan

Several specialist sub-consultants assisted in the development of the studies identified above. These studies are provided as Attachments to this report. Overall, the area was deemed appropriate for the proposed rezoning from Agricultural to Industrial. The site is supported by geographic and physical advantages for rezoning. These include:

- Several road frontages;
- Strategic location between numerous local and regional mining operations;
- Ready access to the necessary services of electricity, telecommunications and water (including its own water licence for 45 mega litres);
- Is located within the compulsory acquisition zone of Moolarben Coal Mine therefore reducing potential future landuse conflicts;
- Maintains direct access the Sandy Hollow railway line;
- The historical use for agricultural purposes has ensured that future clearing requirements are reduced.

It should also be noted that the rezoning of this area does not sterilise any coal reserves. These attributes provide a beneficial arrangement between future businesses and the mining operations, as well as comply with the objectives and visions of the MWRC. In summary, the establishment of an Industrial zone within the vicinity of Ulan Village shall provide much needed General Industrial Land to accommodate businesses that support the local mining operations and other ventures in the area.

1.0 INTRODUCTION

1.1 Background

Barnson was commissioned by Forty North Pty Ltd (previously referred to as Primary Project Solutions Pty Ltd) in March 2009 to assist with the rezoning application for Lots 271 and 276 DP 755442, Ulan NSW. The applicant wishes to gain approval for the spot rezoning of the identified lots from Agricultural Zone to Industrial Zone pursuant to the Mid Western Regional Council Interim Local Environment Plan (LEP), 2008. A pre-rezoning submission was made to the Mid-Western Regional Council seeking support for this development in April 2009 (**Attachment A)**. Council responded with a request for additional information in a letter dated 30 April 2009. The aim of this 'Additional Information Report' is to provide Council with enough information to grant an amendment to the Interim LEP via a Spot Rezoning.

The subject land involves Lot 271 and 276 DP 755442 and is and is located on the corner of Ulan and Toole Roads, Mudgee (**Figures 1 and 2).** The total land area is approximately 88 acres, or 38 hectares (Lot 271 – 16.66 hectares and Lot 276 – 21.1 hectares). The subject land is located on the edge of the Village of Ulan, which supports several large mining operations in the locality. The primary purpose of the rezoning proposal is to provide suitable industrial land for industries ancillary to the nearby mining operations. It may also be utilised for rural industries.

1.2 Report Objectives and Scope

The broad objective of this report is to provide the Mid Western Regional Council with the requested additional information to support the rezoning application and address issues as required by MWRC, in respect to the identified issues, namely:

- Flora and Fauna – mapping, together with opportunities and constraints identification, undertaken by a specialist sub consultant;
- Soils and salinity – mapping and suitability for on site drainage and irrigation purposes, undertaken by Barnson Environmental Scientists;
- Aboriginal Archaeology – site inspection and reporting, undertaken by members of the local indigenous community;
- Adjoining Land impacts – notification to adjacent property owners with respect to perceived impacts, with any submissions considered by Barnson Environmental Scientist and Town Planner;
- Concept plan – identifying the stages of development, as undertaken by Barnson's Registered Engineer.

Additional information in relation to water sharing options and a traffic assessment, has also been undertaken during this rezoning study.

Figure 1: Locality Map

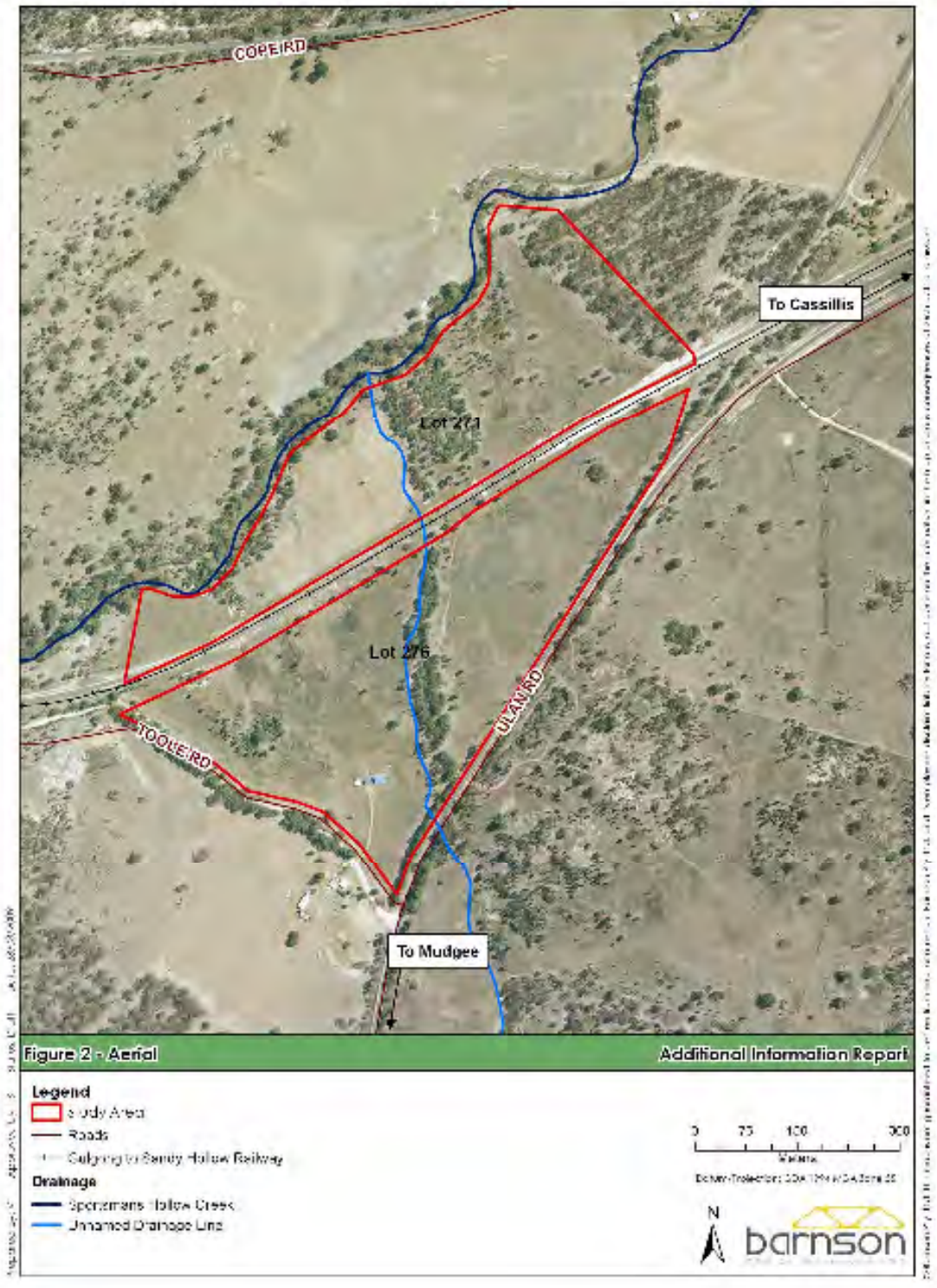


Figure 2 - Site Aerial

2.0 SITE OVERVIEW

2.1 Site Location

The subject land is located in the north-east sector of the Mid-Western LGA, alongside the Village of Ulan (Refer to **Figure 1**). The subject land is bordered by Ulan Road, Toole Road and Gulgong to Sandy-Hollow Railway (**Figure 2**), together with the Transgrid 330KW powerline. The site is within the Land Acquisition Criteria for Moolarben Coal Mine as contained within Development Approval 05_0117 (see **Attachment B**) as issued by the Department of Planning, with the predicted noise levels expected to be approximately 45dB(A) (refer to **Figure 3)**. Ulan Village is located approximately 1km to the North of the site. The subject land is adjacent to the major mining operations of Ulan Coal Mine, and Moolarben Coal Mine and in the vicinity of Wilpinjong Coal Mine (**Figures 4 and 5)**.

2.2 Site Description

The property description is Lots 271 & 276 DP 755442, Parish of Moolarben. It is Zoned Agriculture pursuant to the Mid-Western Regional Interim Local Environmental Plan 2008. It has an area of approximately 88 acres and consists of two roughly triangular land portions - Lot 271 – 16.66 hectares and Lot 276 – 21.1 hectares. Sportsman's Hollow Creek runs adjacent to the boundary of Lot 271. It is a third order stream and flows in a south-easterly then north-easterly directions. Sportsman's Hollow forms a tributary of the Goulburn River. An unnamed creek runs though both lots, joining Sportsman's Hollow creek on the northern boundary of Lot 271.

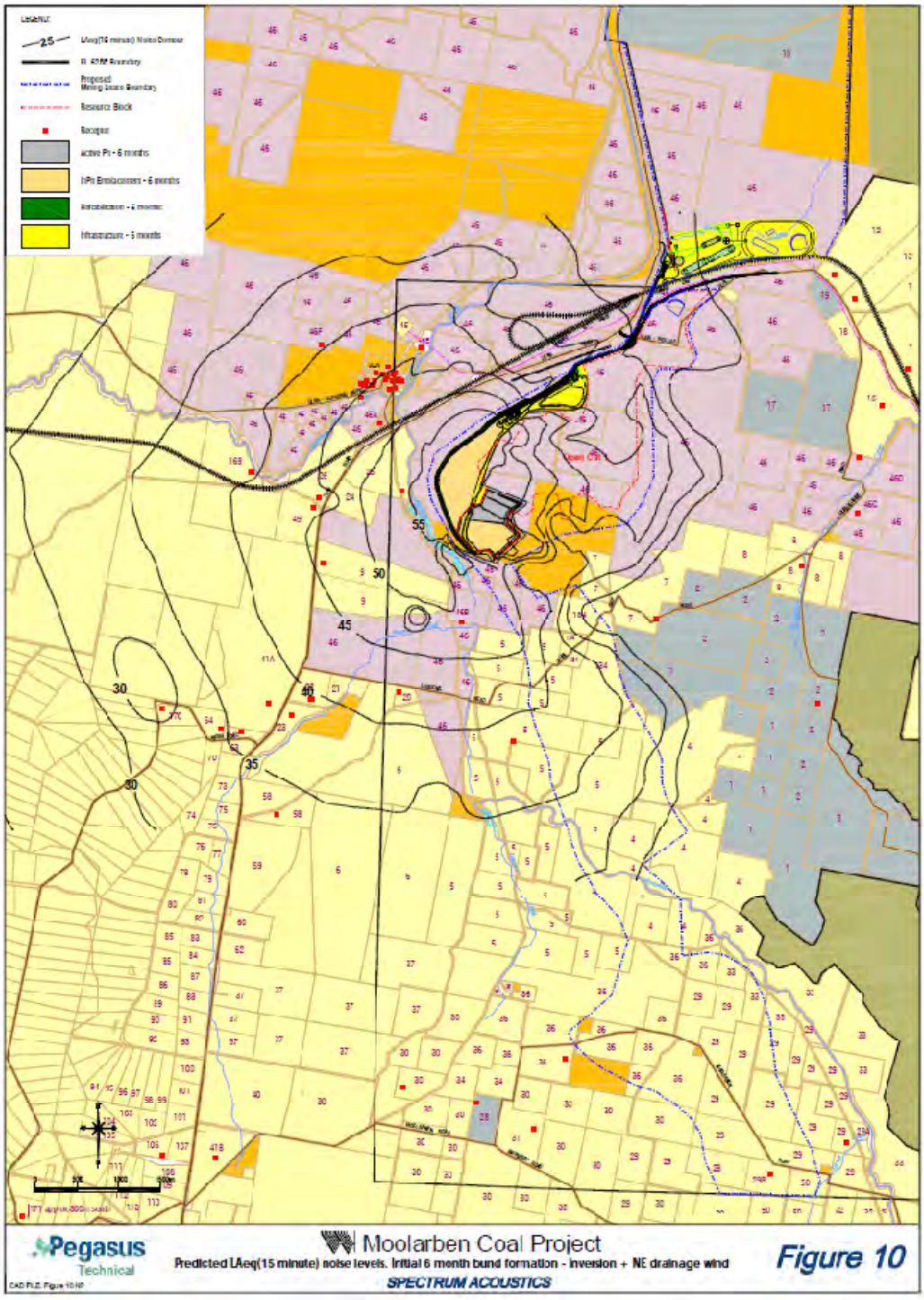
2.3 Past and Current Land Uses

The subject land maintains a house and shed and is otherwise currently used for general agricultural use – namely cattle and sheep grazing. The land is not considered suitable for cropping. In the past it is believed to have been part of a large farming establishment and there is evidence of old contour banks and tree removal, particularly in Lot 271.

The area subject to the rezoning application is bisected by the Sandy Hollow to Gulgong Railway which poses significant advantages for longer term rail movement.

The recently installed Transgrid 330kV Power Line borders the subject land to the north.

The site has been extensively cleared, however patches of remnant vegetation do exist, particularly along the drainage lines.



Source: On-Line Access – http://www.moolarbencoal.com.au/Downloads-EnvironmentalAssessment-Stage2.htm

Figure 3 – Predicted Noise Levels from Moolarben Coal Mine

2.4 Surrounding Development

The subject land is surrounded by fragmented rural land. The village of Ulan is located approximately 1km to the north and the major mining operations of Ulan and Moolarben are adjacent to the proposed rezoning area. The subject land is located adjacent to Ulan Road. The Sandy Hollow to Gulgong Railway divides both lots and the Transgrid Wellington to Wollar powerline runs to the north of the site.

The site is located within the Compulsory Acquisition Zone of the Moolarben Coal Mine as issued by the Department of Planning and contained within **Attachment B.** It provides details on the anticipated noise emissions to the subject site on the commencement of the operations. Details of these predicted levels are presented below in **Figure 3**. This Figure was developed by Spectrum Acoustics in 2006 as part of the *Noise and Vibration Impact Assessment- Proposed Moolarben Coal Mine* report contained within Appendix 4 of the Moolarben Environmental Assessment which is accessible online.

2.5 Surrounding Landowners

An inspection of the Lands Title Database on 9/7/09 indicated that the surrounding parcels of land were predominantly owned by Ulan Coal Mine Pty Ltd and Moolarben Coal Mines Pty Ltd. This is with the exception of Lot 8 DP 626648, which was indicated to be privately owned. This land is also located within the Compulsory Acquisition Zone for the Moolarben Coal Mine, as indicated in the attached DA. Several lots are also Crown owned land as detailed within **Figures 4 and 5.**

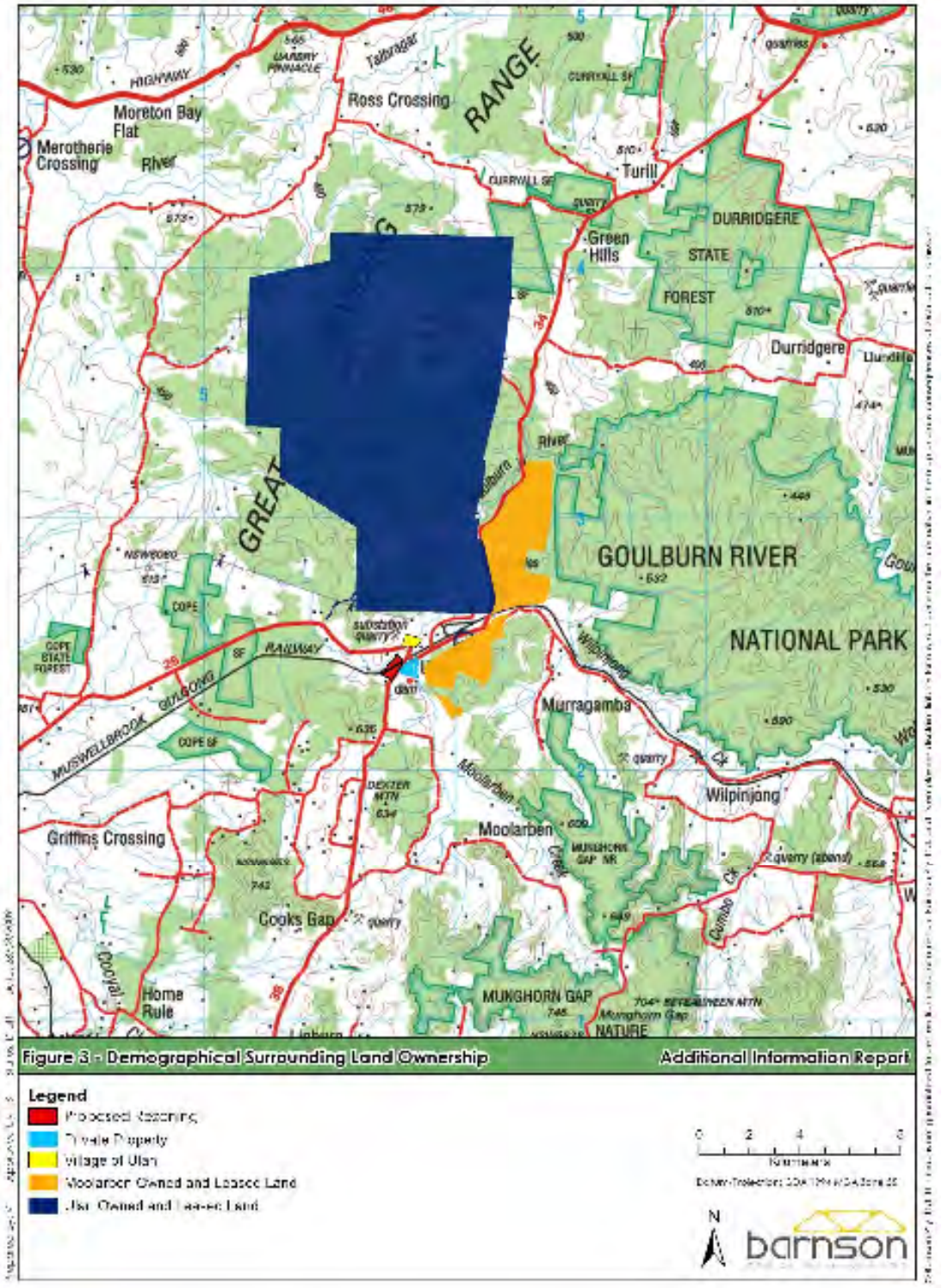


Figure 4: Surrounding Land Ownership Map

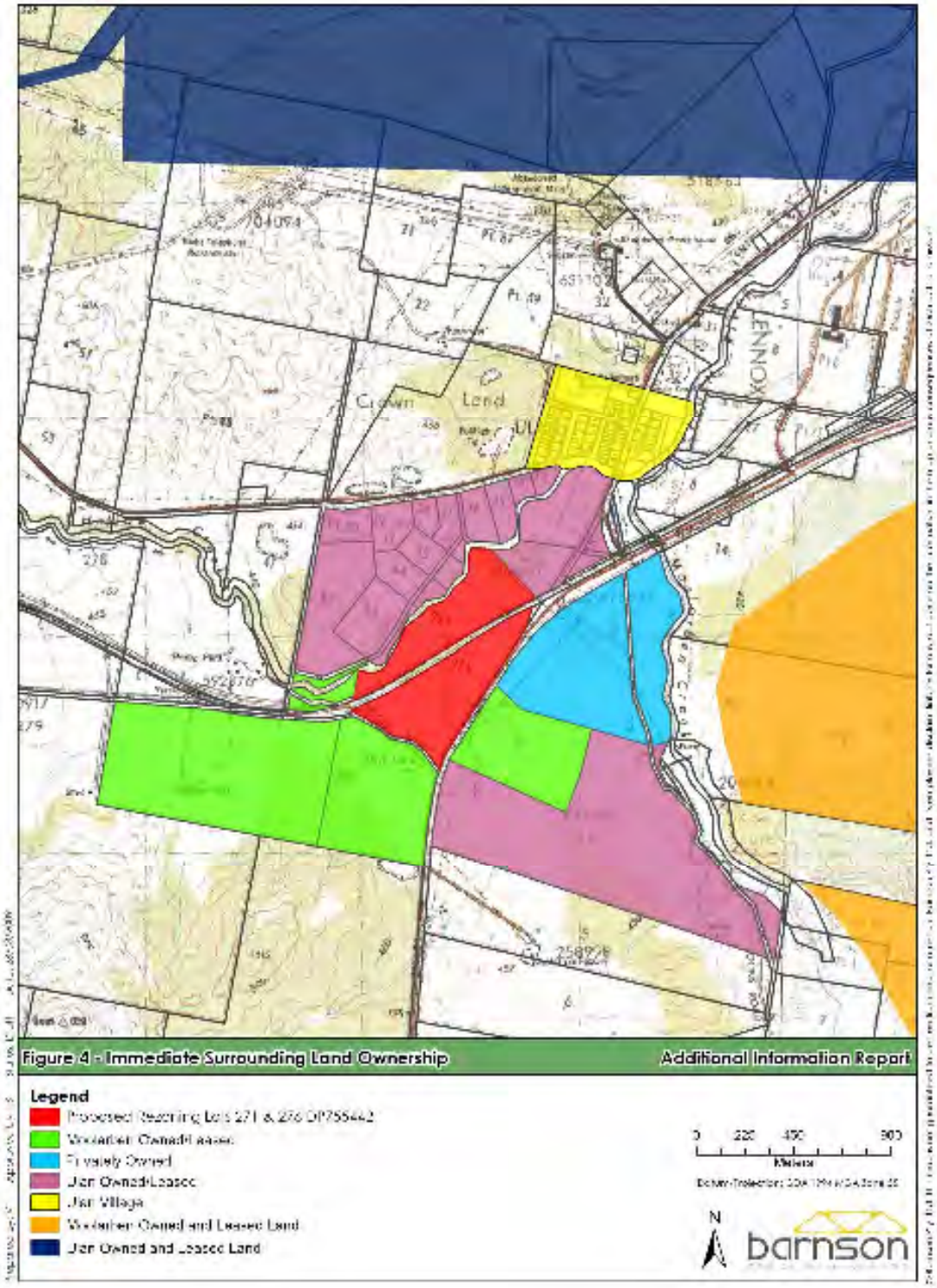


Figure 5 - Neighbouring properties

3.0 SUMMARY OF ADDITIONAL INFORMATION

3.1 Soils and Salinity Investigation - *Barnson Pty Ltd*

This report is provided in full at **Attachment C.** A summary of information is provided below.

3.1.1 Objectives of the Investigation

The primary purpose of this investigation was to identify the main soil and landscape types across the site, as well as any areas of salinity.

3.1.2 Scope of Works

Included:

- A desktop review of available information about the site and surrounding areas;
- Electromagnetic Induction (EMI) Survey mapping – undertaken by the Lachlan CMA;
- Field Investigation – excavation of seven test across the site to expose the soil profiles;
- Laboratory Analysis – on several selected samples to determine soil conductivity.

3.1.3 Summary of Main Findings

Soil Landscapes

The study area was identified on the Dubbo 1:250 000 Soil Landscape Map to comprise of one main soil landscape. It is summarised in the following table.

Table 1: Soil Landscapes of Lots 271 and 276

LANDSCAPE	LANDFORM	LITHOLOGY	TYPICAL SOILS	LIMITATIONS
Home Rule (hr)	Undulating, low rises ranging from 420-500m in elevation. Slopes are gently inclined 4-8%. Local relief varies from 30-60m.	Quaternary alluvium and the Gulgong and Rouse Granites.	Mainly Siliceous Sands and Earthy Sands on upper and mid slopes. Bleached sands, Yellow Podzolic Soils and yellow Solodic Soils on lower slopes and flats. Layered Siliceous Sands in drainage lines.	Very low fertility, low available water holding capacity, acidic surface soils, seasonal waterlogging, sodic subsoils in lower slopes, high permeability on mid to upper slopes, moderate to high erosional hazard under cultivation.

Hydrological Information

Ten bores were located within a 2.5km radius of the site. Bore Summaries are provided in the report. These summaries indicated that the local areas groundwater is at a depth of greater than 15m below the earths surface and has a moderate flow rate. Several bore holes indicated a Fresh salinity rating (meaning no conductivity as a result of salty groundwater).

EMI Mapping

The EMI map produced across the site displays a range of bulk conductivity readings between the two extremes of High apparent Conductivity (where heavy clay may also occur and become seasonally waterlogged) and Low apparent Conductivity (dry sandy soils which are free draining with little clay and no salt). This map was used to identify Survey site locations for pit excavation. The EMI map is located at **Figure 6** in the Investigation report, located at **Attachment C**.

Field Inspection

As well as soil profiling and sample collection, the field survey also indicated that:

- There was no salinity damage observed to the house existing on Lot 276;
- Some minor waterlogging was identified at the following locations-
    - Close to the dam in Lot 276;
    - In the southern portion of Lot 271, close to Sportsman's Hollow creek;
- Both lots at the time of inspection were generously covered with surface vegetation. There were no evident clear patches of exposed topsoil and no evidence of salt crystals;
- No puffiness of dry soil were identified across either lot;
- No black staining on the soil surface was identified in either lot;
- Gully and bank erosion was evident along the drainage line running between both lots;
- Severe bank erosion exists in the bottom of Lot 271 along the Sportsman's Hollow Creek;
- No water was encountered in any of the excavation pits at the time of survey;
- Water in both Sportsman's Hollow Creek and the drainage line was not running clear (indicative of high salt concentration in the water);
- Vegetation did not appear yellow, stunted, wilting or dead as a result of salinity.

Soil Profiling

A soil profiling map was produced and is located at **Figure 7** within the report, at **Attachment C**. Four main soil types were identified across the site. These were:

- Type 1 – Shallow Siliceous Sand overlaying quaternary alluvium derived from Gulgong granite, Land capability class of III -IV;
- Type 2 – Yellow Solodic Soils – hardsetting surface soils with slightly acidic topsoils, Land capability class of IV-V;

- Type 3 – Yellow Podzolic Soils – commonly located in the drainage lines around the Ulan area in association with Rough Barked Apple trees. Soil is subject to moderate gully erosion, Land capability class of III-IV;
- Type 4 – Siliceous Sand overlaying a thick clay pan – indicative of the higher EMI reading across the site, Land capability class of III-IV.

Areas of Concern

Figure 8 in the report (**Attachment C**) was constructed using all available information. It identifies three main areas of potential concern.

- Area 1 – this area was indicated on the EMI survey map as being potentially saline. Ground truthing was not undertaken in this area and therefore it can not be determined that this area is not prone to salinity. This together with the fact that waterlogging occurs in this area and there is a high degree of erosion along the bank of Sportsman's Hollow Creek has resulted in the identification of this area as a potential concern.
- Area 2 – this area was identified on the EMI survey map as being potentially saline. Although there is sub surface clay layer existing in this area, slightly saline analytical results were obtained. Therefore this area may be of potential concern in the future.
- Area 3 – soils along the drainage lines of the site are prone to erodibility. Management of these areas is essential to ensure that major gullying does not result.

3.1.4 Future on Site Drainage Considerations

It is expected that up to 60% of the site may be hardstand when the area is fully developed. This would greatly increase the run-of into the unnamed drainage line that runs through the site. It is therefore expected that any development application (DA) submitted at the site would be required to demonstrate that post development flows will not exceed pre-development flows for all storms up to and including the 1:100yr ARI. This will require the provision of on-site detention (OSD) units, thus reducing overland flow.

It is expected within the proposed industrial area, all roads would have a piped stormwater reticulation system. Therefore the impact of the soils on the drainage system is negligible. The outlet for any drainage system discharging to the unnamed drainage line should have a 'Downstream Defender' (or approved sim) to prevent pollution, reduces velocities and control sediment. There should also be a provision for an energy dissipation device to prevent scour at the discharge point.

3.1.5 Conclusions

The following points provide a summary of findings based on the information gained though this investigation:

- The proposed development area is considered to be non –saline across most of the site. Slightly saline surface and sub-soils do exist in the northern portion of the land area and it is believed that there may be slightly saline soils in the southern portion of the land area. This is likely to be the result of naturally occurring salt in the soil rather than redistribution by a rising groundwater table.
- The groundwater bores located within the vicinity of the site show that the permanent water table is well below a depth of 5m. Apart from the farm dam, there was no evidence to indicate that the watertable across most of the site was raised (or perched) during the time of inspection. The area around the farm dam was waterlogged, which may indicate perching but more likely a leaking dam.
- Apart from around the Farm Dam, there was no evidence to indicate that the watertable across most of the site was raised (or perched) during the inspection time. This area around the farm dam was waterlogged – which may indicate perching or a leaking dam.
- The soil types found during the field inspection are consistent with the landform grouping described as Home Rule by Murphy and Lawrie, 1998. These soils are identified as possessing a high to very high erosional hazard, low to moderate soil salinity potential, and slightly acidic in nature. Appropriate long term management of the site will ensure that potential land degradation as a result of erosion or salinity are minimised.

3.2 Flora and Fauna – Ecological Assessment – *Ecological Australia Pty Ltd*

This report is provided in full at **Attachment D.** A summary of information is provided below:

3.2.1 Objectives of the Assessment

The main objective of this assessment was to determine the likely constraints and opportunities to development of the site for industrial purposes.

3.2.2 Scope of Works

Included:

- Literature Review of available literature and database records pertaining to the ecology of the study area;
- Site Survey that included vegetation mapping and targeted searches for threatened flora and fauna habitat features;
- Vegetation mapping was undertaken using aerial photography and ground-truthing. The site was traversed and a list of species recorded;
- Flora Survey across the site;
- Fauna habitat features such as hollow-bearing trees, potential nesting or roosting sites, rocky outcrops, waterbodies and winter flowering eucalypts were recorded;
- An aquatic habitat assessment was undertaken for Sportsman's Hollow Creek in accordance with the Australian River Assessment System (AUSRIVAS) habitat assessment method.

3.2.3 Summary of Main Findings

A total of four vegetation communities were mapped across the site. These were:

- Rough-barked Apple / Blakely's Red Gum Open Woodland – not Threatened;
- Derived Grassland – (Rough-barked Apple / Blakely's Red Gum Open Woodland) – not Threatened;
- *Grey Box / Yellow Box / Red Gum Woodland) - Threatened Ecological Community (ECC)*
- *Derived Grassland – (Grey Box ± Yellow Box Woodland) – Threatened Ecological Community (ECC)*

A total of 65 flora species were recorded across the four vegetation communities present throughout the study area. Of these, 10 were exotic species. One threatened species, *Acacia ausfeldii* (Ausfeld's Wattle) was recorded on the boundary of the site, in the north-eastern corner within the riparian zone of Sportsman's Hollow Creek. Refer **Figures 3** and **4** of the report, at **Attachment D**.

Fauna habitat was limited across the site due to past disturbance and fauna activity at the time of the surveys was limited.

A water hole is also present along Sportman's Hollow Creek. This area supports a large amount of aquatic vegetation and a stag on the northern bank. The water hole and associated vegetation are likely to provide habitat for a variety of aquatic species. However, based on visual observations the water quality appears to be degraded. The drainage line through the centre of the site is ephemeral and was dry at the time of the survey. The riparian vegetation is narrow for the most part. Whilst the understorey is primarily native, the shrub layer is limited but increases in the area north of the railway. Bank erosion and trampling by cattle is also evident.

3.2.4 Summary of Recommendations

Should development occur on the site, the following matters should be considered and recommendations addressed. Any likely legislative requirements as they relate to the recommendations below have also been outlined below. Figure 4 illustrates the recommended developable area based on the ecological constraints.

- Development should be avoided within the area mapped as Derived Grassland (formerly Grey Box / Yellow Box Woodland) as this area supports an endangered ecological community;
- Should development be proposed in this area, a more detailed ecological assessment of the Derived Grassland (formerly Grey Box / Yellow Box Woodland) during Spring is recommended to provide a better indication of the true condition of this community;
- A formal impact assessment under both the NSW EP&A Act and EPBC Act for Box Gum Woodland would be required;
- Development of riparian areas and current woodland vegetation should be avoided;
- Any vegetation clearance within riparian areas would require approval under the Water Management Act 2000;
- A buffer is provided between any areas of development and the *Acacia ausfeldii* record. It is recommended that the riparian area where this species is located, which is currently fenced, remains fenced;
- Cattle grazing be excluded from riparian areas and the area of Derived Grassland (formerly Grey Box / Yellow Box Woodland);
- In areas where development is proposed, a more detailed ecological assessment is undertaken in Spring when the majority of flora species will be in flower to provide a more accurate assessment of the condition of the vegetation across the site;
- The mature Yellow Box in the east of the site be conserved and protected from any future development impacts; and
- Current vegetation corridors (eg. riparian vegetation) are to be maintained.

3.3 Aboriginal Cultural Heritage Assessment- *Local Aboriginal Lands Council*

This report is provided in full at **Attachment E.** A summary of information is provided below.

3.3.1 Objectives of the Assessment

The main objective of this assessment was to carry out an Aboriginal Cultural Heritage Inspection across the proposed rezoning site.

3.3.2 Representatives

The Mudgee Local Aboriginal Lands Council operates within the Tribal area of the Wiradjuri People.

Two representatives were available on the first day of surveying. Four representatives were available on the second day of surveying. MLALC and M.G.A.T.S.I.C Representative conducted the survey.

3.3.3 Field Survey Strategy

The aim of the survey is to determine the presence of any Aboriginal Cultural Heritage sites within the proposed rezoning. The area was inspected by carrying out a series of 10m wide parallel transects over the entire site. All eroded areas were thoroughly investigated to gain a representative sample of the area. All trees within the study area were investigated to determine the presence of any scarred trees.

3.3.4 Results

No Aboriginal Heritage Sites were identified during the survey.

3.3.5 Recommendations

Mudgee Local Aboriginal Land Council and Murong Gialinga Aboriginal and Torres trait Islander Cooperation supports the concepts of Environmental Impact Studies that include Aboriginal and Archaeological concerns. Mudgee Local Aboriginal Land Council and Murong Gialinga recognises that development are necessary and considers Aboriginal Cultural Heritage Assessments as a mechanism for protecting areas of Cultural Significance for the Wiradjuri People.

Despite the fact no Aboriginal Cultural Heritage Sites were identified during the survey, MLALC and M.G.A.T.S.I.C consider there is potential for Aboriginal Cultural Heritage Materials to be brought to the surface during this type of development.

This may include any stone, artefacts, bone artefacts or shell artefacts.

If any such material is brought to the surface work should cease immediately in the affected area and the MLALC, M.G.A.T.S.I.C and the National Parks and Wildlife office should be contacted immediately, in accordance with the NSW National Parks and Wildlife Act, 1979.

3.4 Adjoining Land Impacts - *Barnson Pty Ltd*

3.4.1 Adjoining Landholder Letters

Letters to adjoining landowners advising of the development and seeking comment, were posted on 22 July 2009. Persons were given 10 working days to respond to Barnson by either letter or email.

Respondent – Moolarben Coal Mine – Objection to the rezoning

At the time of writing the only response received by Barnson was an email from a representative of Felix Resources (Moolarben Coal Mine). The following details the major concerns raised by the Mine with a response. The email is provided at **Attachment F.**

Moolarben owns a number of properties with residential housing in close proximity to the hub. These will be leased to local residence and contractors to the minesite. The major concerns are that the future industrial activity may potentially affect residences in the locality, by:

1. **Noise**
2. **Dust**
3. **Increased Traffic Flow**
4. **Impact by way of negative Rental Return**

Comments to address these concerns

1. **Noise** – A noise assessment has not been specifically prepared as part of the additional information. It should be noted the subject land is located within a fragmented rural locality, and background noise is influenced by agricultural activities, mining operations including traffic noise and to a lesser extent activity within Ulan village. The issue of potential noise impact from future industrial activity may be considered further in developing a detailed concept design as part of the development application process, with appropriate buffers maintained in the direction of any sensitive receptors. In addition the consent authority may want to place conditional requirements on hours of operation, work methods, and use of noise insulating construction materials, if deemed necessary.

The establishment of the Industrial site adjacent to the Moolarben Coal Mine should also be seem as positive impact to the operation with respect to noise, as the establishment of a zoned Industrial area adjacent to the operation should result in noise operation targets and exceedence limits being appropriately adjusted, as well as potentially reducing traffic noise impacts along existing routes. Furthermore it is noted that the subject land is located within the Land Acquisition Criteria as detailed within Schedule 3, Clause 3 of Development Approval 05_0117 as issued by the Department of Planning to Moolarben Coal Mines (refer to **Attachment B**).

2. **Dust** –the impact of air pollution may be addressed further when specific industrial activities are known and in developing a detailed concept design which among other things considers appropriate buffers from any sensitive receptors. Dust related activities may be minimised by requiring appropriate hardstand surfaces over trafficable areas and confining dust related activities within buildings.

3. **Increased Traffic Flow** – one of the primary purposes of the proposed 'Industrial Style Hub' within the study site is to reduce the amount of heavy traffic travelling to and from Mudgee, Gulgong and other neighbouring towns and villages. This will assist in providing safer and protecting the life of the roads by eliminating some of the heavy vehicle movement in the area. It is not envisioned that the 'Industrial Style Hub' will include small/light Industry style establishments and therefore visits to the Hub will be site specific. A detailed Traffic Impact Study may be undertaken during the development application process, if deemed necessary.

4. **Impact by way of negative rental returns** – it is understood this is a concern based on the above issues having major negative impacts on neighbouring land. This matter cannot be assessed at this time, however it is contended that the proposed development shall have a positive economic impact on the locality by generating employment opportunities and ancillary business activities, which may in fact result in an even greater demand for local housing, and therefore lift rental prices.

3.5 Concept Plan - *Barnson Pty Ltd*

Figure 6 illustrates the perceived staging of the proposed Industrial development, following successful rezoning of Lots 271 and 276 DP 755442. It is envisage that the staged developments 1-3 will encompass a variety of Lot sizes suitable for medium to heavy industry. A detailed lot layout design will be provided with the development application, at a latter stage of the project. The purpose of the offset areas as identified in the concept plan is to provide future conservation zones for the site. Development should not take place immediately adjacent to the drainage line or upon the boundary of Sportsman's Hollow Creek. All provisions for development near a waterway will be considered during future stages of the development.

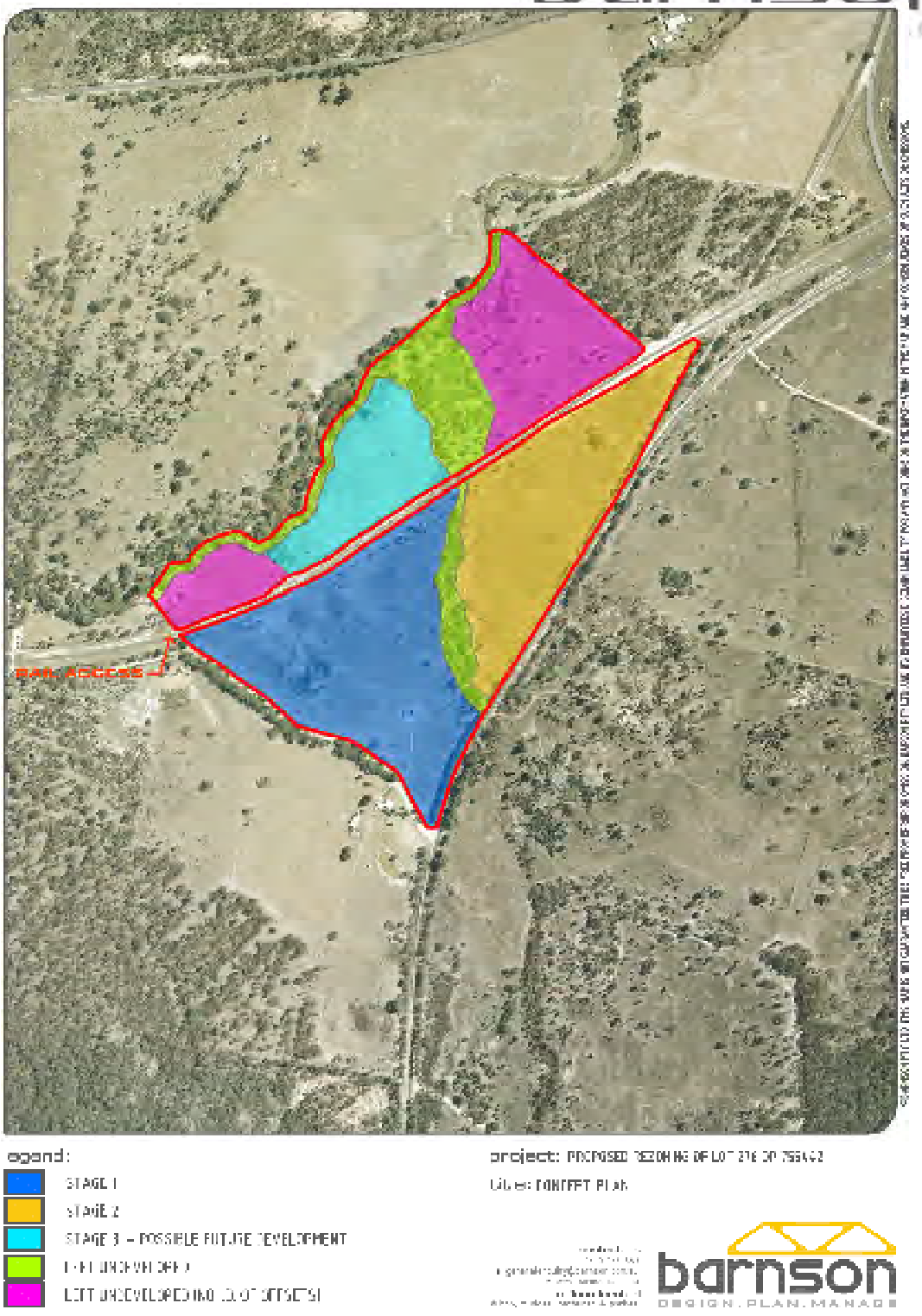


Figure 6 – Concept plan

3.6 Traffic Management

Entrance to the site shall be from Toole Road. As shown in **Figure 1**, the site is adjacent to the Toole/Ulan Road intersection. The Ulan Road at this location is on a sweeping bend, with vegetation either side limiting available site distance. The latest traffic data supplied by Mid Western Regional Council is shown below.

Site	Road	Date of Last Count	Daily Avge	Weekly Total
170	MR 214-30mtrs south of LGA Boundary	26th November 2002	285	1995
171	MR 214-south of School Lane	26th November 2002	616	4309
169	MR 214-south of Wyaldra Lane	26th November 2002	528	3693
151	Ulan Rd - 150mtrs Nth of Wollar Rd	3rd October 2008	1623	11361

The daily traffic flow along Ulan Road is approximately 1623vehicles per day. This translates to 162 vehicles per hour during peak times. From Figure 4.5.12 of the NSW Road design Guide, the intersection is required to be upgraded to a AUR right turn treatment and BAL left turn treatment as a minimum.

The limit of seal along Toole Road would finish at the entrance to the proposed industrial subdivision. Therefore, no intersection treatments would be required at this location. The Toole Road upgrade would be as per Mid Western regional Councils specifications, with a standard 7m sealed pavement, 1m wide gravel shoulders and standard table drain formation.

Roads within the subdivision will fully sealed with roll-type kerb and gutters.

3.7 Water Supply

Sportsman's Hollow Creek is a third order stream and flows in a south-easterly then north-easterly direction and adjoins the proposed rezoning application area. Sportsman's Hollow forms a tributary of the Goulburn River which is category 3 stream under the *Draft DWE Guidelines for Management of Stream/Aquifer Systems in Coal Mining Developments - Hunter Region* (undated) indicating that the Goulburn River is a primary source of high quality surface and alluvial groundwater. The un-named creek through the subject property drains to Sportmans Hollow Creek.

The subject land does maintain a 45 Mega litre irrigation license which would be utilised to support the proposed Industrial operations. A copy of licence 20SL029803 is appended as **Attachment G**.

The irrigation license is currently for 'agricultural purposes', but can be transferred to industrial if required. This allowance however, would not be sufficient to satisfy the potable water and fire fighting requirements of an industrial subdivision. Therefore, the water supply for the subject land will be from Moolarben Dam. The proponent has had discussions with Mr Hans Richter from Ulan Coal Mine Ltd regarding a water sharing agreement. Moolarben Dam is owned and operated by Ulan Coal Mine and the dam is currently the primary water source for Orica. Ulan Coal Mine Ltd has indicated that water would be available for the proposal.

The water usage requirements for the subdivision would be for potable water and fire fighting requirements. It is proposed that water storage tanks be installed on the property. These tanks would be fed from Moolarben Dam with a small water treatment plant to upgrade water to the potable standard. A water reticulation system with minimum 100mmØ pipe would distribute water throughout the subdivision under minimum 250kPa pressure to satisfy hydrant and hose reel requirements.

To reduce potable water supply and promote sustainability, it is recommended that any development application (DA) for future industrial lots are conditioned so all toilets and outdoor landscaped areas are fed from small tanks that harvest water on-site. These tanks can from part of the on-site detention (OSD) system as described in section 3.1.

4.0 STRATEGIC AND ECONOMIC BENEFITS OF THE REZONING

4.1 Strategic Context

The establishment of an Industrial zone within the vicinity of Ulan Village shall provide much needed General Industrial Land to accommodate businesses that support the local mining operations and other ventures in the area. Presently in the local Mid-Western Regional LGA there is limited Industrial Lots exceeding 2000sq.m, which is the general need of large, heavy machinery businesses and operators.

The rationale for supporting the rezoning is found in the MWRC key planning strategies and instruments. These are examined in more detail in Section 3, **Attachment A** (Rezoning submission). In summary, the main points documented are:

- Comprehensive Land Use Strategy *(Draft)* - the proposed rezoning complies with the objectives of the strategy, by supporting the Shires important mining related activities, being within the vicinity of Ulan adjacent to current operations, able to create employment opportunities, and supports the strategies need for the identification and development of appropriately suited and positioned general industrial land.
- Mid Western Regional Interim Local Environment Plan, 2008 – This LEP will eventually be the instrument to implement the appropriate land use zoning of the land. The proposed rezoning supports the conditions of a general industrial zone for the land in question. Notably, the proposed rezoning should reduce the reliance of heavy vehicle movement in and out of Mudgee, thus creating a safer Ulan Road.

In summary, the proposed rezoning of Lots 271, and 276 which are adjacent to both Ulan and Moolarben Coal Mines and within the vicinity of Wilpinjong Coal Mines, indicate a prime location for an industrial hub. This together with the Lots closeness to Ulan Village as well as infrastructure and rail, provide a mutually beneficial arrangement between future businesses and the mining operations, as well as comply with the objectives and visions of the MWRC.

4.2 Economical Benefits

The economic benefits of the proposed rezoning can be broadly classified into several main areas:

- Local Industry and Businesses – providing a cost effective solution to limited land resources in Mudgee. The rezoning aims to provide adequate land for businesses within the local vicinity of the targeted clients. This will result in a reduction of heavy machinery travel time to and from the mine and therefore travel cost. The rezoning also aims to encourage suitable businesses to become established at Ulan, rather than rely on outsourcing of jobs to larger Industrial areas, outside the area;
- Mining Companies – the closeness of required Industry to the local mining operations will be a mutual advantage for both operator and business owner. The services to be provided will be at a highly competitive price as a result in the reduction of travel costs. Having businesses close by should also result in fast, reliable services to the mining operations and therefore encourage repeat business;
- Village of Ulan – the introduction of an Industrial area to Ulan should result in an positive multiplier effect, resulting in expansion of other businesses in the township to support the proposed Industry; and
- Mid-Western Regional Local Community – the Mid-Western Regional Comprehensive Land Use Strategy nominates 'Mining as a key driver in the growing population and economy in the Mid-Western Regional local government area…'. The introduction of a new industrial area, which may cater for large, heavy machinery and provides an opportunity for larger lot sizes for businesses, will be of great benefit to the local area and the mining sector. Businesses may be enticed to relocate or open a new office at the Ulan site, rather than commute, with the advantage of having a business within close proximity to a client providing a competitive edge over rival competitors.

5.0 SUMMARY OF OPPORTUNITIES AND CONSTRAINTS

The additional information obtained about the study site as requested by Councils has provided the following list of opportunities and constraints in relation to the proposed rezoning of land:

- The subject land is relatively flat and contains a natural fall towards the eastern corner. It is envisaged that water sensitive urban design features will be incorporated to retain most of the stormwater on site;
- Salinity was not determined to be a major issue across the site, however management strategies will need to be employed to ensure that land degradation in the form of salination and erosion are minimised;
- The subject land was determined to have a limited agricultural potential. Land Capability classing of III-V exists over much of the site, restricting agricultural activities to minor grazing. The size, shape and location of the lots is not considered to be of agricultural advantage;
- The subject land did not contain any known items of aboriginal cultural heritage significance, however in the event that sub-surface items are located, work is to cease immediately and the appropriate authorities contacted;
- Vegetation mapping provided detail on flora communities assessed as occurring across the site. Two communities are identified as Endangered Ecological Communities and it is recommended that the suggested surveys be conduced during the development application stage (preferably during spring) to further verify boundary location;
- The Ecological constraints map ranks the northern portion of the lots together with the drainage areas within a high ecological constraints area. It is recommended that buffering and site offsets be explored during further development of concept design;
- The site is well located adjacent to Ulan village and the three mines in the area. The proposed Industrial Hub would provide the Ulan community with alternative employment options, reduction in heavy vehicle traffic, and a reduction in commuting to and from the mine costs (together with a reduction in vehicle emissions); and
- The subject land did not display any contamination issues. The site has not been occupied by any activity with the potential to cause any significant soil contamination.