



10.2.2. Mangoola Coal Continued Operations Project Yarraman Road Upgrade s.138 Roads Act 1993 Permit

Attachments:	1. Mangoola Coal Continued Operations Project Yarraman Road Upgrade Draft Special [10.2.2.1 - 4 pages]
Responsible Officer:	Derek Finnigan - Acting General Manager
Author:	Imelda Williams (Traffic & Roads Status Officer), Kellie Scholes (Manager - Roads, Drainage & Technical Services)
Community Plan Issue:	5 - Community Infrastructure
Community Plan Goal:	Effective and efficient infrastructure that is appropriate to the needs of our community.
Community Plan Strategy:	5.1.3 - Facilitate investment in high quality community infrastructure necessary to a Regional Centre.

PURPOSE

To request Council to delegate to the General Manager authority to approve the s.138 Roads Act 1993 Permit relating to the Mangoola Coal Continued Operations Project, for the works associated with the Yarraman Road Portion Upgrade.

OFFICER'S RECOMMENDATION

Council:

1. Delegates to the General Manager authority to sign the s.138 Roads Act 1993 Permit approval generally in accordance with the Draft Special Conditions as attached to the report;
2. As outlined in the Draft Special Conditions, all insurances, detailed design plans certified by a suitably qualified consultant and Traffic Management Plans are to be submitted and accepted by the General Manager.

Moved: _____ **Seconded:** _____

BACKGROUND

On 26 April 2021, the NSW Independent Planning Commission approved the development application for the Mangoola Coal Continued Operations Project (SSD8642) (MCCOP). This allows for the expansion of mining to the new area north of Wybong Road and the extraction of an additional 52 million tonnes of run-of-mine (ROM) coal.

Council entered into the "Road Closure and Works Deed" outlining, among other matters, the Yarraman Road Portion Upgrade contained in Clause 5. This s.138 Roads Act 1993 application forms part of the commitment made under this section. The 80% detailed Design Drawings and Review of Environmental Factors for the Yarraman Road Portion Upgrade were endorsed by Council at the 22 November 2022 Ordinary Council Meeting.

CONSULTATION

Roads Drainage & Technical Services



Road Closure and Works Deed

Mangoola Coal Project Team

REPORT

A portion of Yarraman Road as defined in the 'Road Closure and Works Deed' will be upgraded, including the construction of a bridge across Wybong Creek. The location of the proposed road upgrade extends from the intersection of Wybong Post Office Road for a distance of 1.5km south. Part of Yarraman Road will be realigned to provide a straight horizontal road segment where the road crosses Wybong Creek at the location where a new bridge will be constructed.

Prior to the construction of the 'Yarraman Road Portion,' in accordance with Clause 5.3 (b) Council must, at its cost, acquire all land, by compulsory acquisition or otherwise, necessary in order to construct the Yarraman Road Portion Upgrade, including any temporary areas required during construction. Therefore, approval under s.138 Roads Act 1993 is required, as the new realigned portion of Yarraman Road will be dedicated as road prior to construction of the road asset and for the area of road where the new road intersects with the existing constructed portions of Yarraman Road.

The work within the proposed new road alignment is proposed to commence upon finalisation of the property acquisition, which is anticipated to occur in the second half of 2023. The construction hours for the Yarraman Road Portion Upgrade will generally be during the standard construction hours of 7.00 am to 5.00 pm, Monday to Friday and, if required, 8.00 am to 1.00 pm on Saturdays. Workforce arrival at site, workforce pre-start communications, work site inspections and workforce leaving site will occur outside of the construction hours. Work activities (such as critical concrete pours) may occur outside of the nominated construction hours, however these will be managed to minimise impacts to the community. Some works, such as augmentation of power utilities, may need to be undertaken at specific times to minimise disruption to users. Construction activities undertaken outside these hours will be managed in consultation with Council.

For the purposes of construction, periodic public access, and temporary closure of Yarraman Road at the construction location may be required. It is expected this will be required for periods throughout construction to prevent public interaction with heavy plant, crane operations and road tie-in works. Local traffic access will be maintained wherever possible, with alternative access for road users available via Ridgeland Road and Wybong Road.

Contractor construction compounds will be located within the work area, and accessed from Yarraman Road South of Wybong Creek, in consultation with Council. Temporary access points from Yarraman Road, generally shown in Figure 1.3, will provide access to unsealed gravel hardstands, temporary office and equipment laydown areas, and construction work areas. These temporary accesses will allow for the crossing of Yarraman Road with plant and equipment.

A construction water supply pipeline (~125mm) may be required from nearby dams to the work area. Water will also be sourced via truck from nearby Mangoola owned dams connected to the site via public roads.

Rural fencing removal and augmentation will be completed as required. Redundant communications services spanning Wybong Creek will be removed.



FIGURE 1.3 – ANTICIPATED TEMPORARY ACCESS POINTS FROM YARRAMAN ROAD

The design of the Yarraman Road Portion Upgrade is supported by a Level 2 Road Safety Audit undertaken by an independent, qualified road safety auditor (separate to the design consultancy) accredited by Transport for NSW to undertake the level of road audit required. The constructed portion of the Yarraman Road Portion Upgrade will be supported by a Level 4 Road Safety Audit to include day and night-time conditions prior to opening the upgraded section of Yarraman Road to traffic.



It is standard practice for Council as the consent authority under the *Roads Act 1993*, to apply fees and charges to cover staff costs for time spent on plan approvals, construction observation, review of Traffic Guidance Schemes and final acceptance of plans, including the review of works as executed documentation. However, under clause 5.3 of the Deed, "Approval of Yarraman Road Portion Upgrade", it states that:

5.3 Approval of Yarraman Road Portion Upgrade

Council must (at its cost)

(a) obtain all necessary Approvals for the construction and opening of the Yarraman Road Portion Upgrade

by definition "Approval" means any certificate, licence, consent, permit, approval, or other requirement of any Authority having jurisdiction in connection with the works and activities contemplated by this Deed.

Therefore, in accordance with the Deed, Council will not be applying fees and charges in this instance, and these fees have not been included in the Draft Special Conditions.

OPTIONS

s.138 Roads Act 1993 Approval

Council may decide to:

1. approve delegation to the General Manager to issue consent for the works under Section 138 *Roads Act 1993* generally in accordance with the conditions recommended by staff and outlined in the "Special Conditions" attached to the report;
2. request modification to the conditions; or
3. refuse the delegation.

CONCLUSION

Council has obligations under the Road Closure and Works Deed entered into with Mangoola Coal Operations Pty Limited. It is recommended that Council approves the delegation to the General Manager to issue consent for the works under Section 138 *Roads Act 1993* generally in accordance with the conditions recommended by staff and outlined in the "Special Conditions" attached to the report

SOCIAL IMPLICATIONS

During construction of the bridge and road upgrade works, there will be disruption to normal traffic conditions and an increase in heavy vehicle construction traffic on Yarraman Road for an extended period of time (approximately 12 months). Once completed, the road upgrade and bridge will significantly improve the safety and access serviceability for traffic using Yarraman Road, particularly during major flood events. The construction of the new bridge provides a height of the deck being above a '1-in-100-year flood' event, thereby providing flood free access in most flood events at this location. The detour available for traffic during periods of temporary closure of Yarraman Road will be via Ridglands Road. This will add additional travel time for road users travelling to the west of the Shire.

FINANCIAL IMPLICATIONS

Mangoola must, at its cost, carry out and complete the Yarraman Road Portion Upgrade in accordance with the provisions of the Road Closure and Works Deed and in accordance with the detailed design plans approved by Council.

**Ongoing Operational and Maintenance Costs Implications Associated with Capital Project****1. Financial Implications – Capital**

Council is required to purchase, from the affected landowners, the land for road purposes, as per the resolution in the confidential report to the 24 January 2023 Ordinary Council Meeting.

2. Financial Implications – Operational

Once completed, Council will be responsible for the ongoing maintenance of the works. Operational costs are expected to decrease due to the new road asset including a flood free crossing which will reduce the need to remove debris and make safe each time Wybong Creek floods.

POLICY IMPLICATIONS

Not applicable.

STATUTORY IMPLICATIONS

Council as the roads authority for Yarraman Road is acting within its powers under the *Roads Act 1993*.

LEGAL IMPLICATIONS

As the roads authority for Yarraman Road, Council is acting within its powers under the *Roads Act 1993*. Council has entered into the Road Closure and Works Deed which outlines the commitments and obligations of both Council and Mangoola in this matter.

OPERATIONAL PLAN IMPLICATIONS

Submission of the report complies with item 19.3.4 of the Operational Plan: “Investigate and recommend appropriate management treatments for road safety and traffic management.”

RISK MANAGEMENT IMPLICATIONS

Works are required to comply with the appropriate Standards, particularly Austroads and Transport for NSW guidelines “Traffic Control at Work Sites” traffic management guidelines. Flood events could delay construction.

WASTE MANAGEMENT IMPLICATIONS

Not applicable.

COMMUNITY CONSULTATION/MEDIA IMPLICATIONS

Extensive consultation will be provided to the community and road users by Mangoola Coal through the Mangoola Newsletter, the Mangoola Consultative Committee, variable message boards, and Council’s website. Directly affected landowners will be notified by both Mangoola and Council.

Schedule of Details

1. The Works	The works are the works within the Road Reserve of Yarraman Road.
2. The Site	Yarraman Road for a 1.5km length of the existing road alignment south of the intersection of Wybong Post Office Road
3. Estimated Cost of the Works	N/a No Bond to be taken
4. Estimated Council Costs	As per Clause 5.3 Council is responsible for the fees and charges associated with the approval
5. Defects Liability Period	See Clause 16 Road Closure and Works Deed
6. Consent Holder's Representative	Name: Grant Harrison Position: Project Manager– Glencore Mobile Phone: 0427 124 071 Email: grant.harrison@glencore.com.au
7. Council's Representative	Name: Kellie Scholes Position: Manager Roads, Drainage and Technical Services Mobile Phone: 0407 252 142 Office Phone: (02) 6549 3756 Email: kellie.scholes@muswellbrook.nsw.gov.au

Special Conditions

1. This s.138 Roads Act 1993 Consent is not valid until all relevant Consent conditions have been complied with. The works must be undertaken in accordance with the Mangoola Road Closure and Works Deed dated 18 November 2021.
2. Prior to commencement of work within the proposed new Yarraman Road alignment, Council must acquire all land necessary in order to construct the Yarraman Road Portion Upgrade including any temporary areas required during construction.
3. The Consent Holder must design and construct the Yarraman Road Portion Upgrade and bridge in accordance with the Austroad Guide to Road Design, Austroad Guide to Bridge Technology, Bridge Design Standards where applicable and any other applicable standards to MSC satisfaction. The Consent Holder is to provide Council with written certification by an independent expert, acceptable to Council, that the Yarraman Road Upgrade Portion including the Bridge structure has been designed and built to all applicable standards.
4. Construction is to be undertaken in accordance with Aus-Spec specifications with the exception of flexible pavement base and subbase. For flexible pavement and sub base RMS 3051- Granular Base and Sub Base materials with a minimum edition 6 is the specification to be applied.
5. A construction Traffic Management (and Vehicle Movement Plan) MTP is to be developed in consultation with Council. The CTMP is to be developed to specifically address each stage of construction and the management of traffic on Yarraman Road. The Consent Holder is to discuss details of Traffic Management, including construction traffic volumes, staging, timing and Traffic Guidance Schemes with Council's Technical Officer, Works, prior and during the construction. The information is to be provided and accepted by Council prior to commencement of construction and during the period of construction.
6. All works impacting public roads will require a Traffic Guidance Scheme (TGS). All TGS plans are to be developed as per TfNSW "Traffic Control at Worksites Conditions" and are to be accepted by Council prior to use. Any changes to the TGS's will require submission to Council prior to the implementation of the changes.
7. A dilapidation report which records the condition of the road pavement, drainage structures and other road related infrastructure must be compiled in consultation with Council Manager Roads Drainage & Technical Services for Yarraman Road from the intersection of Wybong Road to the Work Site. On Practical Completion of the Project, the dilapidation report must be undertaken again and all defects identified. The Consent Holder must rehabilitate and/or make good construction related damage (excluding fair wear and tear and general maintenance associated with the road use) identified in the post-dilapidation survey prepared under this section 138 consent.
8. A schedule of works will be provided to Council in the form of a Gant chart detailing individual key work activities associated with the overall work project and completed work stages. Specifically, where this works impact Council's road reserve. This is to be updated every 4 weeks and made available to

Council. A liaison meeting should be schedule as required.

- 9.** Construction traffic is not to operate on Wybong Road, (Ridgelands if use is approved by Council) and Yarraman Road during the school bus times. School bus times are to be confirmed by the applicant in consultation with the relevant bus companies and documented in the CTMP.
- 10.** All access for construction traffic both heavy and light vehicles is to be via Yarraman Road from the Wybong Road intersection unless otherwise agreed with Council. It is acknowledged that Ridgelands Road will be required for access during stages of construction of the northern abutment and tie in road works.
- 11.** The proposed location and design of the access for the contractors site office is to be provided to Council for approval prior to construction.
- 12.** The constructed Yarraman Road Portion Upgrade is to be supported by a Level 4 Road Safety Audit to include day and night-time conditions prior to opening to traffic.
- 13.** Prior to commencement of any construction activity in the proposed new Yarraman Road reserve, all proposed temporary construction and permanent accesses are to be located, designed and constructed to meet the minimum requirements of Muswellbrook Shire Council's Rural Property Access Drawing 0041/1 Revision A dated 16/07/2012. Approved accesses are to be in accordance are to be located in consultation with Council and to Council's satisfaction.
- 14.** All constructed temporary accesses are to be removed and decommissioned upon completion of construction and boundary fencing reinstated and all areas of disturbances within the road reserve are to be reestablished to Aus-Spec standards including top soiling, grass seeding, reshaping of table drains and scour protection where required to Council's satisfaction.
- 15.** The Consent Holder is to advise Council's Technical Officer, Works on 0418 110 010 ten (10) days prior to commencing work to confirm inspections.
- 16.** The Consent Holder is to assist Council to liaise with directly affected residents and property owners of the program of Works that may affect accesses etc. at least a week in advance, and incorporate reasonable access needs for those properties. The consent Holder is to advise he general public of the Works by variable message board in the local area of Works.
- 17.** The occupation of the Road should be undertaken in a safe manner, with adequate dust control.
- 18.** The Consent Holder must ensure that mud and dust from the Works is not carried onto the Road. It is recommended that a device (from the Soil Management book) be used to remove such materials prior to entering the roads.
- 19.** The Consent holder shall check for other services, have these services located and is responsible for any damage to services and Council infrastructure. Dial before you dig 1100.

- 20.** This Consent does not constitute approval of any environmental impacts and the Consent Holder is responsible for any such impacts. The Consent Holder is required to apply such measures as outlined in the Review of Environmental Factors for the Works and the Fisheries Permit.
- 21.** The Consent Holder must appoint a suitably qualified independent consulting engineer to perform Project Verifier services, being a person who:
- Is independent of the Consent Holder, any consultant involved in preparation of the Design Documents, the contractor engaged by the Consent Holder to carry-out the works;
 - Is a Chartered Engineer registered with the Institute of Engineers Australia;
 - Is familiar with and experienced in using RMS's QA specifications and
 - Holds appropriate professional indemnity insurance.
- 22.** The Project Verifier is required:
- To provide a project and verification plan for Council approval prior to commencement of construction works;
 - To provide certification that all finding/ non conformances of Road Safety Audits have been satisfactorily addressed and closeout prior to their acceptance by Council;
 - Provide a Construction Certificate to verify that the works comply with the Project documents; and
 - Provide a Final Verification Certificate certifying that all design, construction, inspection, repairs, maintenance and monitoring by the contractor has been undertaken in accordance with the approved design.
- 23.** The consent holder must provide the following documents at the completion of the project for Council consideration to determine Practical Completion:
- Works as Executed Plans;
 - Supporting quality documents including hold point documentation;
 - Completed Asset Data Sheet; and
 - Road Safety Audit and Close outs
- 24.** Fencing of the road reserve is to be undertaken to TfNSW standards and undertaken in consultation with Council. Any property accesses are to meet the minimum requirements of Muswellbrook Shire Council's Rural Property Access Drawing 0041/1 Revision A dated 16/07/2012.
- 25.** Council as the road authority reserves the right to automatically suspend or decrease the construction activity in the event of heavy or prolonged rain affecting public roads. Construction traffic movements are not permitted on public roads when fog conditions prevail, and sight distances are compromised.
- 26.** Council as roads authority reserves the right to reconsider and review the special conditions relating to the movement of construction vehicles on public roads.

**10.2.3. Section 138 Roads Act 1993 Approval Mangoola Coal - Wybong Road Culvert Replacement**

- Attachments:**
1. Mangoola Coal Wybong Road Culvert Replacement Concept [10.2.3.1 - 11 pages]
 2. Mangoola Coal Wybong Road Culvert Replacement REF [10.2.3.2 - 78 pages]
 3. Mangoola Coal Continued Operations Project Wybong Road Culvert Upgrade Draft [10.2.3.3 - 5 pages]

Responsible Officer: Derek Finnigan - General Manager

Author: Imelda Williams (Traffic & Roads Status Officer), Kellie Scholes (Manager - Roads, Drainage & Technical Services)

Community Plan Issue: 5 - Community Infrastructure

Community Plan Goal: Effective and efficient infrastructure that is appropriate to the needs of our community.

Community Plan Strategy: 5.1.3 - Facilitate investment in high quality community infrastructure necessary to a Regional Centre.

Not applicable

PURPOSE

To request Council to delegate to the General Manager authority to approve the s.138 Roads Act 1993 Permit relating to the Mangoola Coal Continued Operations Project for the works associated with the Wybong Road Culvert Upgrade.

OFFICER'S RECOMMENDATION

Council:

1. Delegates to the General Manager authority to sign the s.138 Roads Act 1993 Permit approval generally in accordance with the Draft Special Conditions as attached to the report;
2. As outlined in the Draft Special Conditions, all insurances, detailed design plans certified by a suitably qualified consultant, and Traffic Management Plans are to be submitted and accepted by the General Manager.

Moved: _____ **Seconded:** _____

BACKGROUND

Mangoola Coal Operations Pty Limited (Mangoola) operates an open cut coal mine located near Wybong, approximately 20 kilometres west of Muswellbrook, and approximately 10 kilometres North of Denman in the Muswellbrook Local Government Area. Mangoola has operated Mangoola Coal Mine under Project Approval (PA) 06_0014 since mining commenced at the site in September 2010.

Throughout 2021, Mangoola gained all necessary approvals and agreements for the Mangoola Coal Continued Operations (MCCO) Project. These included:



- Development Consent under Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act) for State Significant Development (SSD) 8642 by the NSW Independent Planning Commission (IPC); and
- Federal approval under the Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act) for application EPBC 2018/8280 by the Department of Agriculture, Water, and the Environment.

Construction of the MCCO Project commenced in accordance with SSD 8642 in December 2021, and the Project execution is nearing completion. As part of remaining completion tasks, the existing culvert capacity in the location shown in Figure 1.1 on Wybong Road will be increased, herein described as the proposed activity.

Following the recent construction of the western Clean Water Diversion Drain (herein referred to as Clean Water Drain 1 (CWD1)) and subsequent additional engineering investigations, a need for additional culvert capacity on Wybong Road has been identified. Following engagement with Muswellbrook Shire Council (MSC), Mangoola has agreed to further investigate, seek approval, and construct the upgrade of the existing Wybong Road culverts to accommodate high-rainfall events, herein described as the proposed activity. As the Wybong Road culverts are within the MSC owned road corridor, consent under Section 138 of the Roads Act 1993 is required, where MSC is the determining authority.

However, under Part 5 Section 5.5 of the Environmental Planning & Assessment (EP&A) Act, MSC has the duty to examine and consider to the fullest extent possible all matters affecting or likely to affect the environment by reason of that activity. Accordingly, a Review of Environmental Factors (REF) has been prepared by Umwelt (Australia) Pty Limited (Umwelt) on behalf of Mangoola to allow MSC to fulfill its duty under Part 5 of the EP&A Act and consider the environmental impacts of the proposed activity applied for under Section 138 of the Roads Act 1993.

CONSULTATION

Roads Drainage & Technical Services

Mangoola Coal Project Team

REPORT

The proposed activity subject to this S138 permit approval is to replace the existing triple (3 cell) 600mm diameter culverts with a revised installation to increase hydraulic conductivity under Wybong Road. Provisional concept design drawings to improve the hydraulic conductivity of this specific culvert set are attached to the report. The final design of the culverts will be submitted and approved by Council as a condition of approved consent. The proposed activity will require traffic control to allow the existing piped culverts below Wybong Road to be excavated and replaced with Reinforced Box Culverts.

The applicant notes that the design will accommodate the 10% Annual Exceedance Probability (AEP) (that is, 10yr Average Recurrence Interval (ARI)) rainfall event, in accordance with the Muswellbrook Floodplain Risk Management Study and Plan findings for Wybong Road (Hunter River Floodplain crossing) (08 April 2019): *'In the 10% AEP (i.e. 10yr ARI) most roads in the area are likely to be impassable to cars, though trucks, 4WDs and tractors may be able to pass these roads up to the 5% AEP (i.e. 20yr ARI) event.'*

Additionally, MCCO water diversion structure capacities are anticipated to be greatly reduced through mine advancement, reducing the applicable catchment area continuously through to mine completion.

The tributary channel will be protected from scouring with a combination of permanent vegetation, geosynthetics and rock riprap. All external batters will be topsoiled and grassed.



The section of the impacted Wybong Road wearing surface will be replaced to the following standard:

- Two-way with two traffic lanes 3.5m wide with 1.0m shoulders;
- 3% cross fall;
- 2 coat spray seal (14/10); and
- Line marking and signage to AS1742.

For the purposes of construction, periods of traffic control will be required along Wybong Road in the vicinity of the works. It is expected this will be required for periods throughout construction to prevent public interaction with heavy plant, crane operations, and road tie-in works.

During the construction of the new culvert installation, there will be an estimated 4-week period where the work area will not be able to accommodate Oversize Over Mass (OSOM) vehicle requirements. Wybong Road is identified as an alternate OSOM route, as per the Transport for NSW (TfNSW) OSOM Load Carrying Vehicles Network Map.

As described in the approved REF and shown in Figure 1.1 attached, the works will be situated on Wybong Road, West of the MCCO Project. Primary access to the work area will be via Wybong Road. No alternate access will be proposed for this Project and the works will be undertaken under traffic control.

The Wybong Road Culvert Upgrade is anticipated to be completed within 6 months after MSC give approval for the works. It is anticipated the Project will commence in mid-2023 and will be commissioned in late 2023.

The construction hours for the Wybong Road Culvert Upgrade, will generally be during standard construction hours of 7.00 am to 6.00 pm, Monday to Friday, and 8.00 am to 1.00 pm on Saturdays. Workforce arrival at site, workforce pre-start communications, work site inspections and workforce leaving site will occur outside of the construction hours. Work activities (such as critical concrete pours) may occur outside of the nominated construction hours, however these will be managed to minimise impacts to the community. Construction activities undertaken outside these hours will be managed in consultation with MSC.

A contractor construction compound will be located within the work area (and/or within Mangoola Coal Operations owned land) and accessed from Wybong Road. The temporary access point from Wybong Road, generally shown in Figure 1.3, will provide access to unsealed gravel hardstands, temporary office and equipment laydown areas, and construction work areas. The temporary access will allow for the entry and exit of plant and equipment from Wybong Road.

A construction water supply pipeline (~125mm diameter) may be required from nearby dams to the work area. Water will also be sourced via truck from nearby Mangoola owned dams connected to the site via public roads.

Rural fencing removal and augmentation will be completed as required.

OPTIONS

s.138 Roads Act 1993 Approval

Council may decide to:

1. approve the delegation to the General Manager to issue a consent for the works under Section 138 *Roads Act 1993* generally in accordance with the conditions recommended by staff and outlined in the "Special Conditions" attached to the report;
2. request modification to the conditions; or
3. refuse the delegation.



CONCLUSION

It is recommended that Council approves the delegation to the General Manager to issue consent for the works under Section 138 *Roads Act 1993* generally in accordance with the conditions recommended by staff and outlined in the “Special Conditions” attached to the report.

SOCIAL IMPLICATIONS

During construction of the culvert upgrade works, there will be disruption to traffic and an increase in heavy vehicle construction traffic on Wybong Road for an extended period of time (approximately 6 months). During the construction of the new culvert installation, there will be an estimated 4-week period where the work area will not be able to accommodate Oversize Over Mass (OSOM) requirements. Wybong Road is identified as an alternate OSOM route, as per the TfNSW OSOM Load Carrying Vehicles Network Map.

FINANCIAL IMPLICATIONS

Mangoola must, at its cost, carry out and complete the Culvert upgrade on Wybong Road.

Ongoing Operational and Maintenance Costs Implications Associated with Capital Project

1. Financial Implications – Capital

Not applicable.

2. Financial Implications – Operational

Council will be responsible for the ongoing maintenance once constructed.

POLICY IMPLICATIONS

Nil known.

STATUTORY IMPLICATIONS

As the Roads Authority for Wybong Road, Council is acting within its powers under the *Roads Act 1993*.

LEGAL IMPLICATIONS

As the Roads Authority for Wybong Road, Council is acting within its powers under the *Roads Act 1993*.

OPERATIONAL PLAN IMPLICATIONS

Submission of the report complies with item 19.3.4 of the Operational Plan “Investigate and recommend appropriate management treatments for road safety and traffic management.

RISK MANAGEMENT IMPLICATIONS

Works are required to comply with the appropriate Standards, particularly Austroads and Transport for NSW guidelines “Traffic Control at Work Sites” traffic management guidelines. Flood events could delay construction.

WASTE MANAGEMENT IMPLICATIONS

Not applicable.



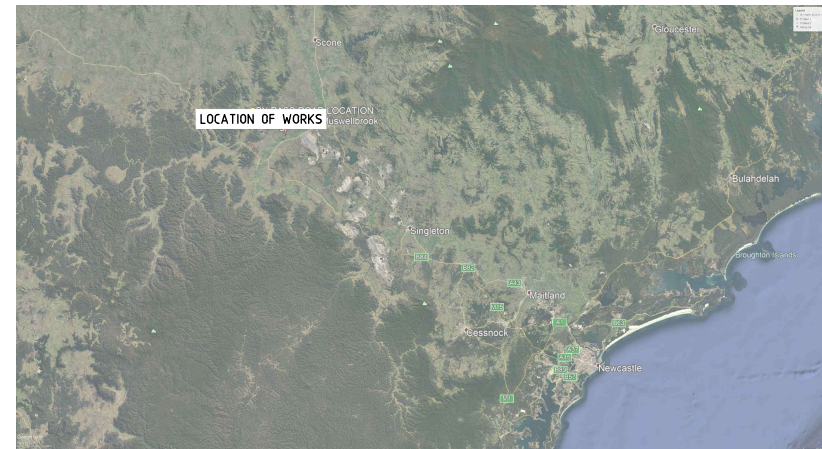
COMMUNITY CONSULTATION/MEDIA IMPLICATIONS

Council staff will consult with freight operators and the National Heavy Vehicle Regulator to restrict OSOM movements during the nominated restricted period of construction.

Consultation will be provided to the community and road users by Mangoola through the Mangoola Newsletter, the Mangoola Consultative Committee, variable message boards and Council's website.

MCCO PROJECT WYBONG ROAD CULVERT UPGRADE COVER SHEET

ARKHILL DRG No.	DESCRIPTION
3999C2000	MCCO PROJECT WYBONG ROAD CULVERT UPGRADE COVER SHEET
3999G0050	MCCO PROJECT EARTHWORKS GENERAL NOTES
3999G0051	MCCO PROJECT CONCRETE WORKS GENERAL NOTES
3999C2005	MCCO PROJECT WYBONG ROAD CULVERT UPGRADE SITE PLAN
3999C2006	MCCO PROJECT WYBONG ROAD CULVERT UPGRADE DETAIL PLAN
3999C2010	MCCO PROJECT WYBONG ROAD CULVERT UPGRADE LONGSECTION AND CROSS SECTION
3999C2015	MCCO PROJECT WYBONG ROAD CULVERT UPGRADE SURFACE WATER CONTOUR DRAIN PLAN
3999C2016	MCCO PROJECT WYBONG ROAD CULVERT UPGRADE SURFACE WATER CONTOUR DRAIN LONGSECTION
3999C2017	MCCO PROJECT WYBONG ROAD CULVERT UPGRADE SURFACE WATER CONTOUR DRAIN TYPICAL SECTION
3999C2020	MCCO PROJECT WYBONG ROAD CULVERT UPGRADE BASE SLAB AND HEADWALL DETAILS SHEET 1 OF 2 - TBC
3999C2021	MCCO PROJECT WYBONG ROAD CULVERT UPGRADE BASE SLAB AND HEADWALL DETAILS SHEET 2 OF 2 - TBC
3999C2050	MCCO PROJECT WYBONG ROAD CULVERT UPGRADE BOX CULVERT TYPICAL UNIT DETAILS - TBC
3999C2055	MCCO PROJECT WYBONG ROAD CULVERT UPGRADE TYPICAL PAVEMENT DETAILS



REV	DATE	REVISIONS	CHK	APP
0	23-02-23	FOR CLIENT REVIEW	J.M.	-

**PRELIMINARY ISSUE
NOT FOR CONSTRUCTION**

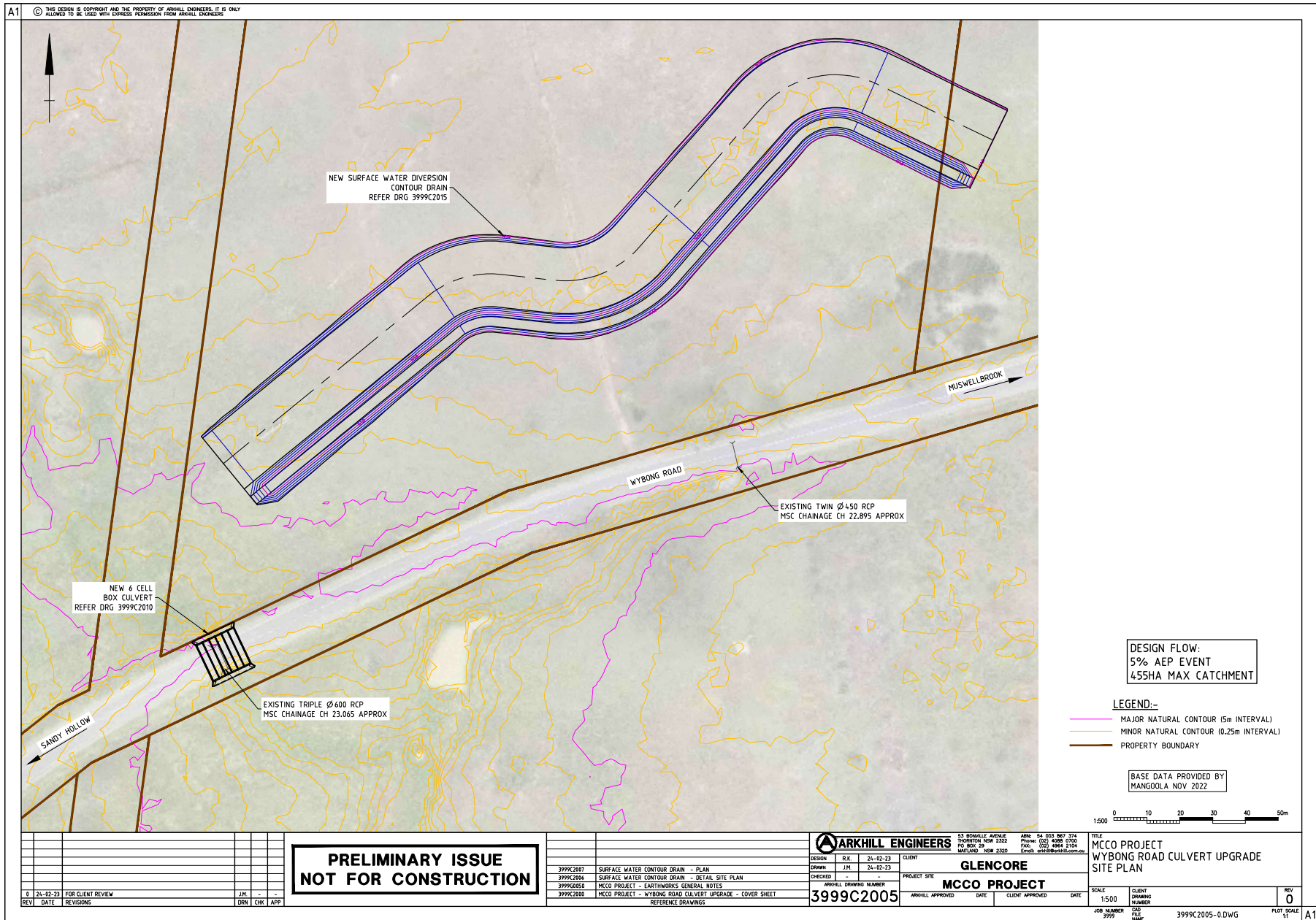
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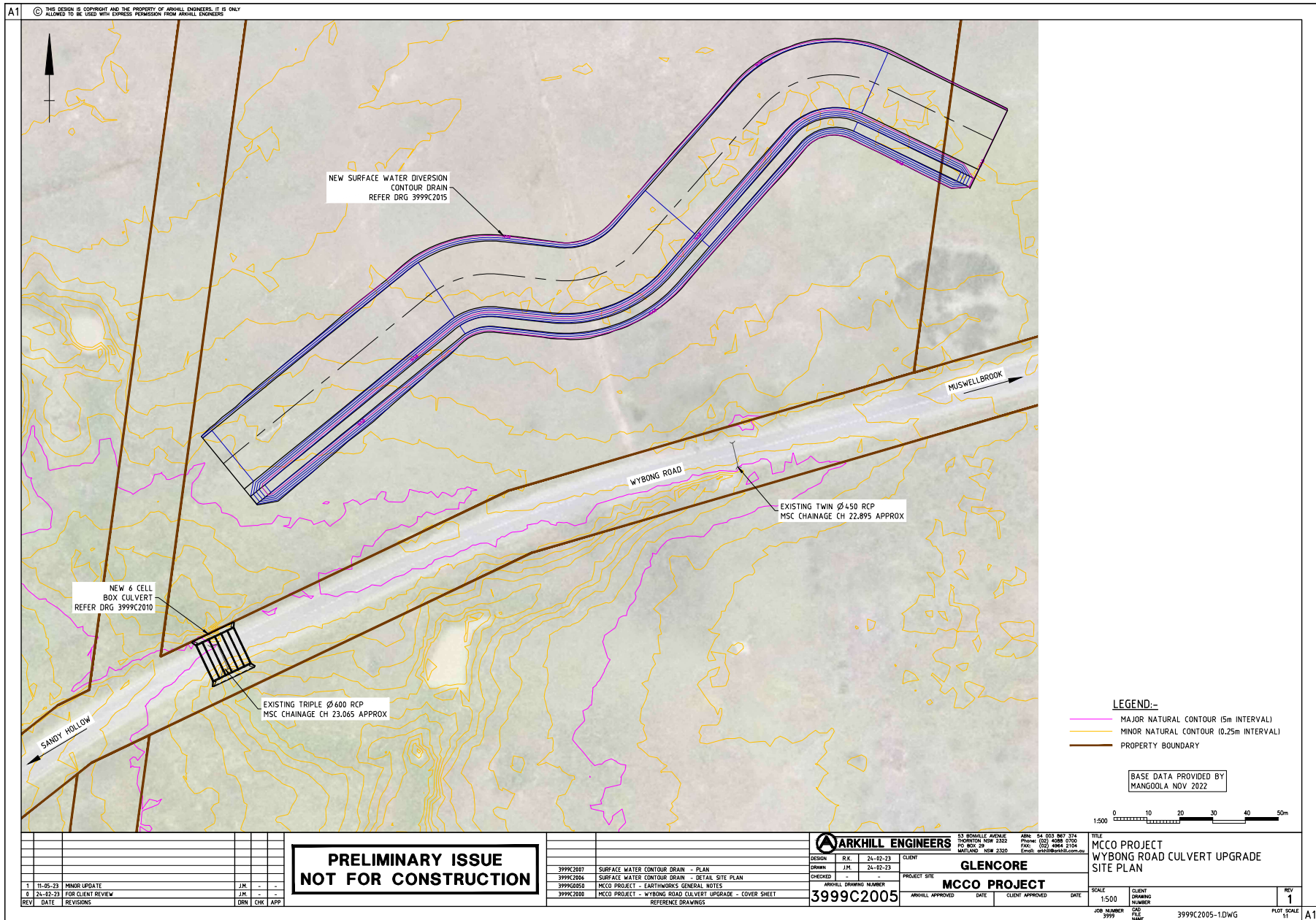
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DRAWN	J.M.	23-02-23	PROJECT SITE	MCCO PROJECT	
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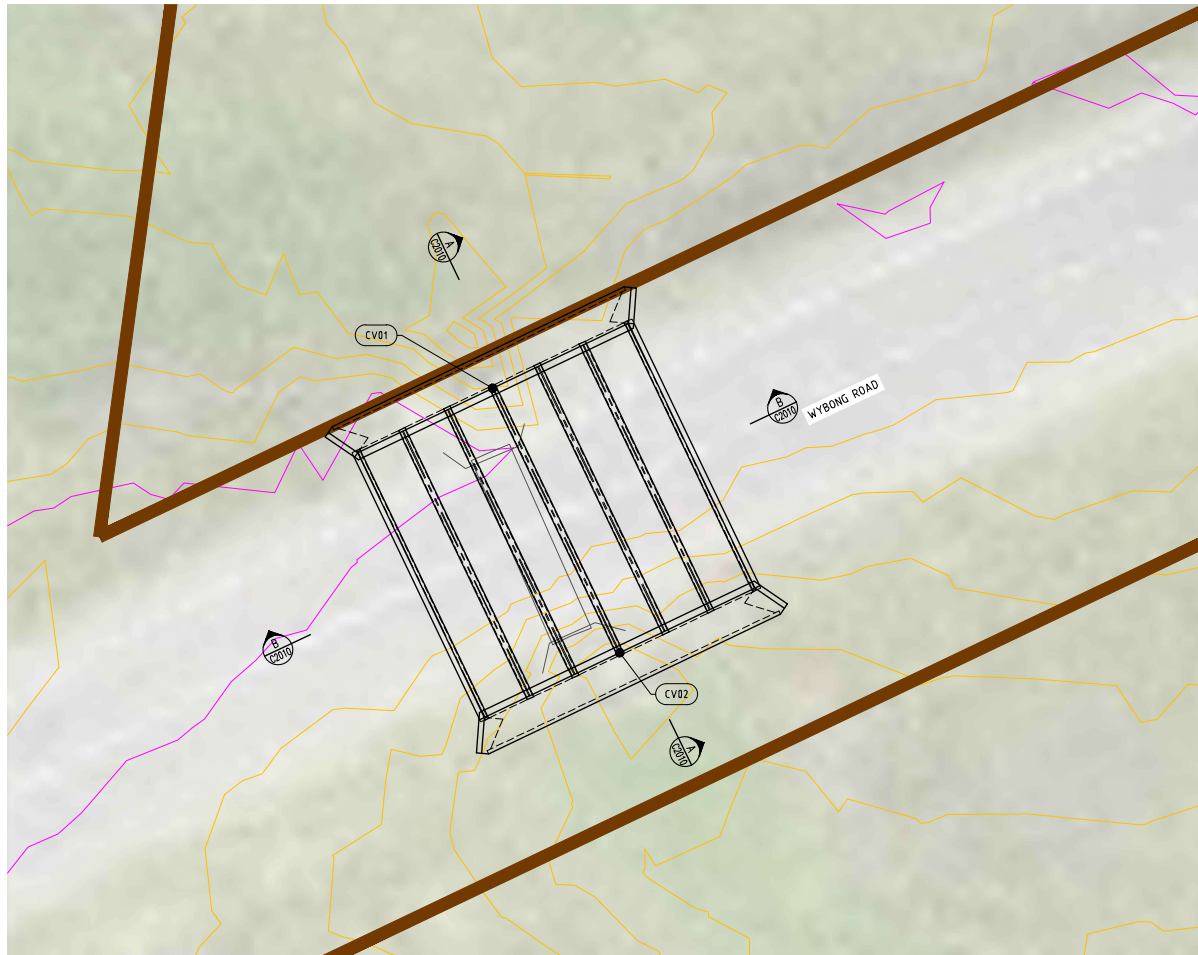
**MCCO PROJECT
WYBONG ROAD CULVERT UPGRADE
COVER SHEET**

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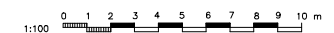




CULVERT SETOUT			
S.O.P	EASTING	NORTHING	INVERT
CV01	279,262.463	6,426,316.073	138.636
CV02	279,267.771	6,426,304.978	138.565

LEGEND:-

- MAJOR NATURAL CONTOUR (5m INTERVAL)
- MINOR NATURAL CONTOUR (0.25m INTERVAL)
- PROPERTY BOUNDARY



REV	DATE	REVISIONS	DRN	CHK	APP
0	24-02-23	FOR CLIENT REVIEW	J.M.	-	-

**PRELIMINARY ISSUE
NOT FOR CONSTRUCTION**

3999C200	WYBONG ROAD CULVERT UPGRADE - LONGSECTION & CROSS SECTION
3999G0050	MCCO PROJECT - EARTHWORKS GENERAL NOTES
3999C2000	MCCO PROJECT - WYBONG ROAD CULVERT UPGRADE - COVER SHEET
REFERENCE DRAWINGS	



DESIGN	R.K.	24-02-23
DRAWN	J.M.	24-02-23
CHECKED	-	-
ARKILL DRAWING NUMBER		
3999C2006		

63 BONVILLE AVENUE
THORNTON NSW 2322
PO BOX 59
MAITLAND NSW 2320

ARH: 54 053 867 374
Phone: (02) 4086 0700
Fax: (02) 4086 2104
Email: arkill@arkill.com.au

GLENCORE

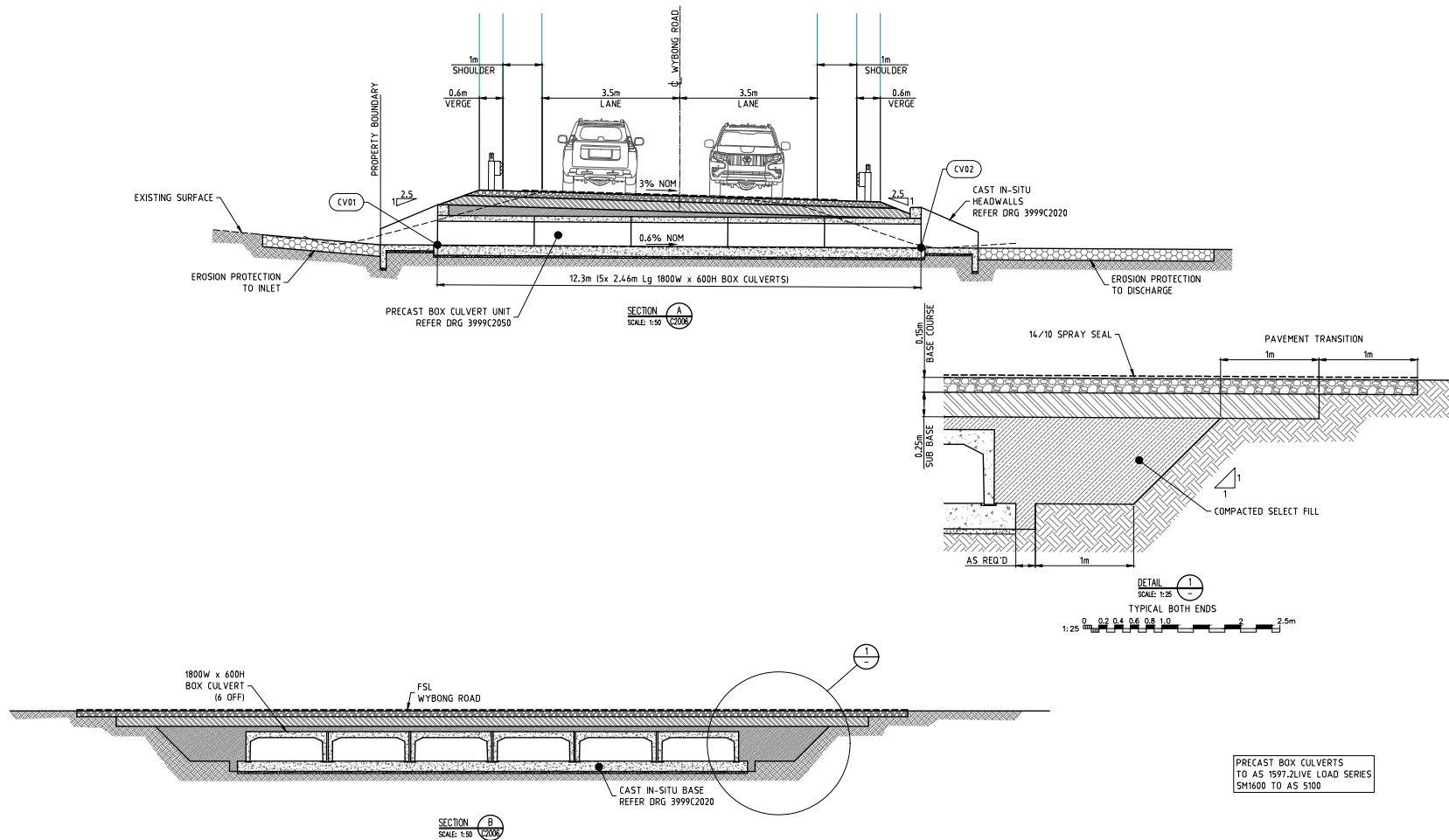
MCCO PROJECT

ARKILL APPROVED DATE CLIENT APPROVED DATE

TITLE
**MCCO PROJECT
WYBONG ROAD CULVERT UPGRADE
DETAIL SITE PLAN**

SCALE 1:100 CLIENT DRAWING NUMBER
JOB NUMBER 3999 FILE NAME 3999C2005-0.DWG

REV	0
DATE	



PRECAST BOX CULVERTS
TO AS 1597.2 LIVE LOAD SERIES
SM1600 TO AS 5100

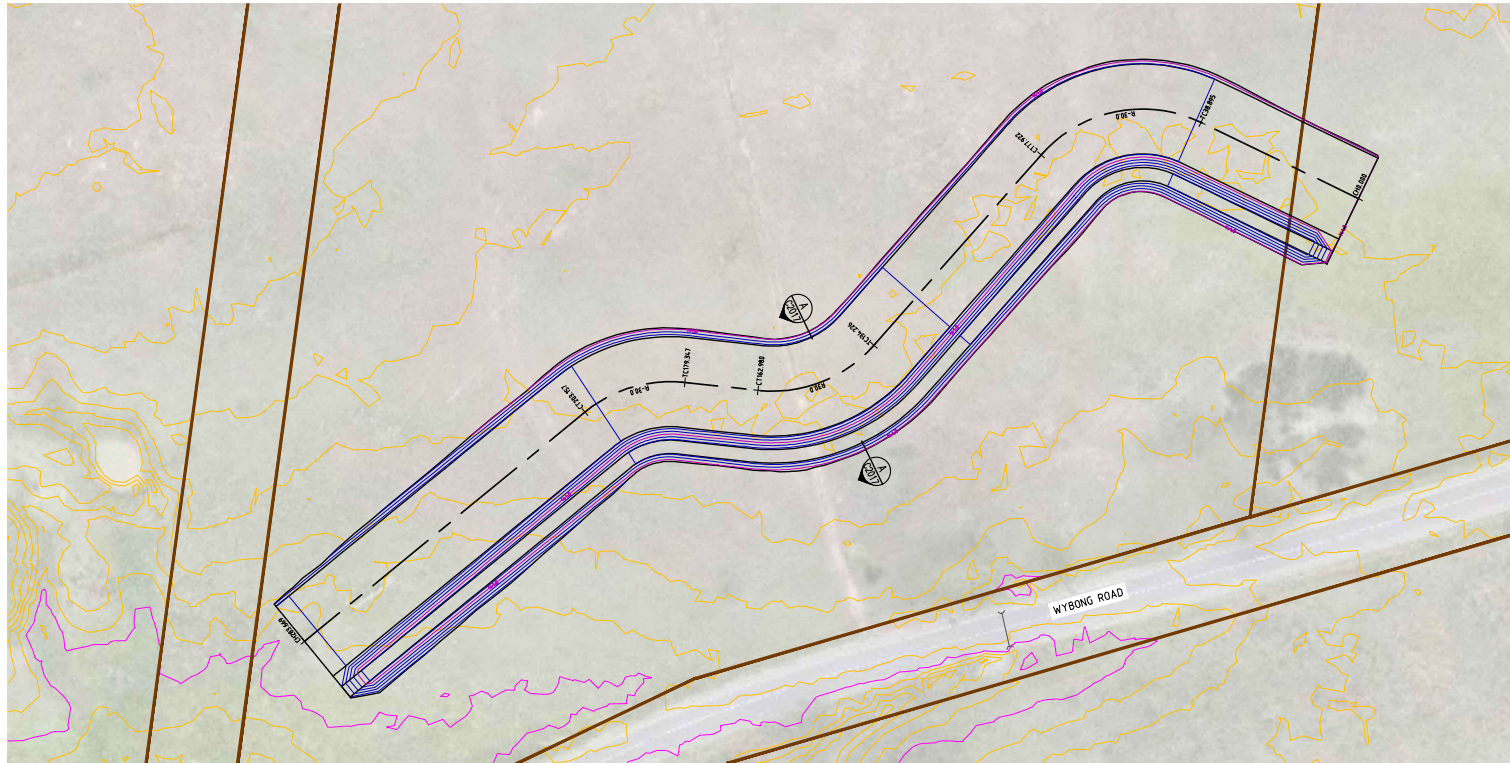
REV	DATE	REVISIONS	DESIGN	CHECK	APP
0	20-02-23	FOR CLIENT REVIEW	JM	-	-

**PRELIMINARY ISSUE
NOT FOR CONSTRUCTION**

NO	DESCRIPTION
3999C2000	WYBONG ROAD CULVERT UPGRADE - BOX CULVERT TYPICAL UNIT
3999C2001	WYBONG ROAD CULVERT UPGRADE - BASE SLAB & HEADWALL DETAILS
3999C2002	WYBONG ROAD CULVERT UPGRADE - DETAIL PLAN
3999C2003	MCCO PROJECT - EARTHWORKS GENERAL NOTES
3999C2004	MCCO PROJECT - WYBONG ROAD CULVERT UPGRADE - COVER SHEET

ARKHILL ENGINEERS		63 BONVILLE AVENUE INVERHILL NSW 2325 PO BOX 24 MAYLAND NSW 2320		ARH: 54 003 867 334 Phone: (02) 4886 3700 Fax: (02) 4886 3704 Email: arkhill@arkhill.com.au	
DESIGN	R/R	20-02-23	CLIENT	GLENCORE	
DRAWN	J/M	20-02-23	PROJECT SITE	MCCO PROJECT	
CHECKED	-	-	ARKHILL DRAWING NUMBER	3999C2010	
DATE	DATE	DATE	ARKHILL APPROVED	DATE	CLIENT APPROVED

1:50		SCALE	1:50	CLIENT DRAWING NUMBER	3999C2010-0.DWG	REV	0
JOB NUMBER	3999	CAD FILE NAME	3999C2010-0.DWG	PLOT SCALE	1:1	A1	

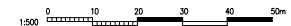


CONTOUR DRAIN SETOUT TABLE

POINT	CHAINAGE	EASTING	NORTHING	RL	BEARING	LENGTH	RADIUS
IP	0.000	279,499.499	6,426,467.067	141.038	295°48'50.77"		
TC	38.895	279,464.485	6,426,484.004	140.803	295°48'50.77"		
IP	58.408	279,443.936	6,426,493.944	140.754		39.026	-30.000
CT	77.922	279,428.876	6,426,476.790	140.705	221°16'45.67"		
TC	134.226	279,391.730	6,426,434.477	140.564	221°16'45.67"		
IP	148.603	279,381.446	6,426,422.762	140.528		28.754	30.000
CT	162.980	279,365.948	6,426,424.444	140.493	276°11'42.32"		
TC	179.347	279,349.677	6,426,426.210	140.452	276°11'42.32"		
IP	191.252	279,337.178	6,426,427.567	140.422		23.810	-30.000
CT	203.157	279,327.447	6,426,419.608	140.392	230°43'17.34"		
IP	283.669	279,265.124	6,426,368.636	140.191	230°43'17.34"		

LEGEND:-

- MAJOR NATURAL CONTOUR (5m INTERVAL)
- MINOR NATURAL CONTOUR (0.25m INTERVAL)
- MAJOR DESIGN CONTOUR (1m INTERVAL)
- MINOR DESIGN CONTOUR (0.2m INTERVAL)
- PROPERTY BOUNDARY



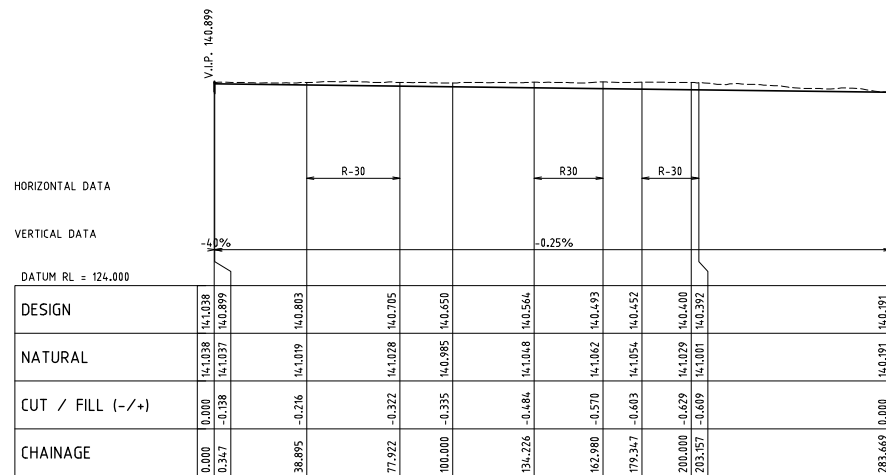
REV	DATE	REVISIONS	CHK	APP
0	24-02-23	FOR CLIENT REVIEW	JM	-

**PRELIMINARY ISSUE
NOT FOR CONSTRUCTION**

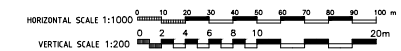
NO	DESCRIPTION	DATE
3999C2017	SURFACE WATER CONTOUR DRAIN - TYPICAL SECTION	24-02-23
3999C2016	SURFACE WATER CONTOUR DRAIN - LONGSECTION	24-02-23
3999C2005	SURFACE WATER CONTOUR DRAIN - SITE PLAN	-
3999G0050	MCCO PROJECT - EARTHWORKS GENERAL NOTES	-
3999C2000	MCCO PROJECT - WYBONG ROAD CULVERT UPGRADE - COVER SHEET	-

ARKHILL ENGINEERS		63 BONVILLE AVENUE MACKERRON, NSW 2535 PO BOX 20 MACKERRON, NSW 2530		ARB: 54 003 867 334 Phone: (02) 4884 2700 Fax: (02) 4884 2704 Email: arkhill@arkhill.com.au	
DESIGN	R.R.	24-02-23	CLIENT	GLENCORE	
DRAWN	J.P.	24-02-23	PROJECT SITE	MCCO PROJECT	
CHECKED	-	-	ARKHILL DRAWING NUMBER	3999C2015	
ARKHILL APPROVED		DATE	CLIENT APPROVED	DATE	REV
					0

TITLE		SCALE		CLIENT	
MCCO PROJECT WYBONG ROAD CULVERT UPGRADE SURFACE WATER CONTOUR DRAIN PLAN		1:500		DRAWING NUMBER	
JOB NUMBER		CADC FILE NAME		PLOT SCALE	
3999		3999C2005-0.DWG		1:1	




CONTROL LINE DB1 - LONG SECTION



0	27-02-23	FOR CLIENT REVIEW				JM.	-	-	
REV	DATE	REVISIONS				DRN	CHK	APP	

**PRELIMINARY ISSUE
NOT FOR CONSTRUCTION**

3999C2017	SURFACE WATER CONTOUR DRAIN - TYPICAL SECTION
3999C2015	SURFACE WATER CONTOUR DRAIN - PLAN
3999G0050	MCCO PROJECT - EARTHWORKS GENERAL NOTES
3999C2000	MCCO PROJECT - WYBONG ROAD CURB/VERT UPGRADE - COVER SHEET
	REFERENCE DRAWINGS

 ARKHILL ENGINEERS			
DESIGN	D.K.	27-02-23	CLIENT
DRAWN	J.M.	27-02-23	
CHECKED	-	-	PROJECT SITE
ARKHILL DRAWING NUMBER			M
3999C2016			ARKHILL APPROV

53 BONVILLE AVENUE
THORNTON NSW 2322
PO BOX 29
MAITLAND NSW 2320

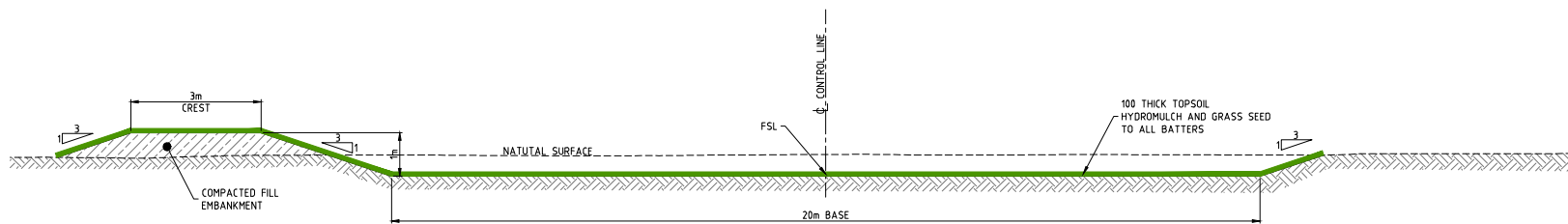
ABN: 54 003 867 374
Phone: (02) 4088 0700
Fax: (02) 4964 2104
Email: enrichit@enrichit.com

GLENCORE

INCCO PROJECT

ED	DATE	CLIENT APPROVED	DATE
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TITLE		
MCCO PROJECT WYBONG ROAD CULVERT UPGRADE SURFACE WATER CONTOUR DRAIN LONGSECTION		
SCALE	CLIENT	REV
1:1000	DRAWING NUMBER	0



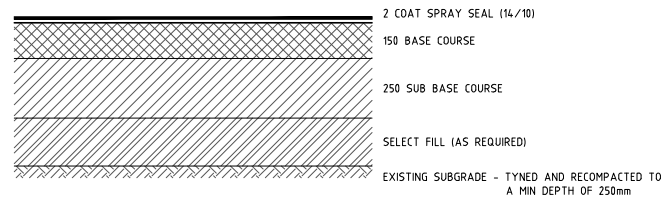
REV	DATE	REVISIONS	DESIGN	CHECK	APP
8	27-02-23	FOR CLIENT REVIEW	JM	-	-

**PRELIMINARY ISSUE
NOT FOR CONSTRUCTION**

REV	DATE	REVISIONS	DESIGN	CHECK	APP
3999C2016		SURFACE WATER CONTOUR DRAIN - LONGSECTION			
3999C2015		SURFACE WATER CONTOUR DRAIN - PLAN			
3999C0050		MCCO PROJECT - EARTHWORKS GENERAL NOTES			
3999C2000		MCCO PROJECT - WYBONG ROAD CULVERT UPGRADE - COVER SHEET			

ARKHILL ENGINEERS		63 BONVILLE AVENUE JACKSONS NSW 2322 PO BOX 29 MAYLAND NSW 2320		ABN: 54 100 867 324 Phone: 027 4284 2700 Fax: 027 4284 2704 Email: arkhill@arkhill.com.au	
DESIGN	J.M.	27-02-23	CLIENT	GLENCORE	
DRAWN	J.M.	27-02-23	PROJECT SITE	MCCO PROJECT	
CHECKED	-	-	ARKHILL DRAWING NUMBER	3999C2017	
ARKHILL APPROVED		DATE	CLIENT APPROVED	DATE	SCALE

FILE		MCCO PROJECT WYBONG ROAD CULVERT UPGRADE SURFACE WATER CONTOUR DRAIN TYPICAL SECTION	
SCALE	CLIENT DRAWING NUMBER	REV	0
JOB NUMBER 3999	CAD FILE NAME 3999C2017-0.DWG	PLOT SCALE	1:1



PAVEMENT DETAIL

REV	DATE	REVISIONS	DRN	CHK	APP
0	23-02-23	FOR CLIENT REVIEW	J.M.	-	-

**PRELIMINARY ISSUE
NOT FOR CONSTRUCTION**

3999C2010	WYBONG ROAD CULVERT UPGRADE - LONGSECTION & CROSS SECTION
3999G0050	MCCO PROJECT - EARTHWORKS GENERAL NOTES
3999C2000	MCCO PROJECT - WYBONG ROAD CULVERT UPGRADE - COVER SHEET
REFERENCE DRAWINGS	

ARKHILL ENGINEERS		63 BONVILLE AVENUE THORNTON NSW 2322 PO BOX 59 MAITLAND NSW 2320		ARCH: 54 053 987 374 Phone: (02) 4088 0700 FAX: (02) 4088 2104 Email: arkhill@arkhill.com.au	
DESIGN	R.K.	23-02-23	CLIENT	GLENCORE	
DRAWN	J.M.	23-02-23	PROJECT SITE	MCCO PROJECT	
CHECKED	-		ARKHILL DRAWING NUMBER	3999C2055	
ARKHILL APPROVED		DATE	CLIENT APPROVED		DATE

TITLE MCCO PROJECT WYBONG ROAD CULVERT UPGRADE TYPICAL PAVEMENT DETAILS		SCALE 1:10	CLIENT DRAWING NUMBER 3999C2055-0.DWG	REV 0
JOB NUMBER 3999		FILE NAME	PLOT SCALE 1:1	

GENERAL

- THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS AND SPECIFICATIONS AND WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ANY DISCREPANCIES SHALL BE REFERRED TO THE PRINCIPAL FOR RESOLUTION PRIOR TO PROCEEDING WITH THE WORK.
- MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE RELEVANT AND CURRENT AUSTRALIAN STANDARD EXCEPT WHERE VARIED BY THE PROJECT SPECIFICATION.
- DIMENSIONS SHALL NOT BE OBTAINED BY SCALING DRAWINGS. SETTING OUT DIMENSIONS AND LEVELS SHOWN ON THE DRAWINGS SHALL BE VERIFIED BY THE CONTRACTOR ON SITE.
- ALL SETOUT CO-ORDINATES AND LEVELS ARE TO M.G.A. (GDA94) AND m A.H.D. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
- THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL SERVICES PRIOR TO COMMENCING CONSTRUCTION.

SEDIMENT CONTROL

- THE CONTRACTOR SHALL PLAN AND CARRY OUT THE WORKS TO AVOID EROSION AND SEDIMENTATION OF THE SITE, SURROUNDING COUNTRY AND WATERCOURSES.
- TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED AND MAINTAINED DURING THE COURSE OF THE WORKS AS REQUIRED.
- THE CONTRACTOR SHALL PREPARE AND SUBMIT AN EROSION AND SEDIMENT CONTROL PLAN FOR APPROVAL PRIOR TO STARTING WORKS ON SITE.
- THE EROSION AND SEDIMENT CONTROL PLAN SHALL BE IN ACCORDANCE WITH THE GLENCORE COAL ASSETS AUSTRALIA PROCEDURE 11.06.

CLEARING AND GRUBBING

- UNLESS OTHERWISE DIRECTED, THE AREA TO BE CLEARED IS THAT WHICH WILL BE OCCUPIED BY THE WORKS, PLUS A CLEARANCE OF 4m BEYOND TOPS OF CUTS AND TOES OF EMBANKMENTS.
- THE AREA WITHIN THE LIMITS OF CLEARING SHALL BE CLEARED OF ALL VEGETATION, MAN MADE STRUCTURES, ALL RUBBISH AND OTHER MATERIALS NOT SUITABLE FOR USE ON THE WORKS.
- ALL CLEARED AND GRUBBED MATERIALS SHALL BE REMOVED TO A DUMP SITE LOCATED ADJACENT TO THE WORKS, IN AREAS APPROVED BY THE PRINCIPAL.

FOUNDATIONS

- FOUNDATION MATERIAL FOR FOOTINGS SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER BEFORE PLACING CONCRETE. THE MINIMUM REQUIRED DESIGN CAPACITY SHALL BE AS NOTED ON THE DRAWINGS.
- FOUNDING LEVELS FOR FOOTINGS SHOWN ON DRAWINGS REPRESENT MINIMUM DEPTHS BELOW GRADE AND SHALL NOT BE ALTERED WITHOUT WRITTEN DIRECTION OF THE GEOTECHNICAL ENGINEER.
- ALL FOOTING EXCAVATIONS SHALL BE MAINTAINED FREE OF WATER.
- FOUNDATIONS THAT BECOME SOFTENED, LOOSENED OR OVER EXCAVATED, SHALL HAVE THE SOFT OR LOOSE MATERIAL REMOVED AND THE ADDITIONAL EXCAVATED DEPTH OR OVER EXCAVATION SHALL BE BACKFILLED WITH BLINDING CONCRETE.
- ALL FOUNDATION SUBGRADES (OTHER THAN ROCK) SHALL BE PROTECTED WITH 50mm NOM THICK BLINDING CONCRETE.
- ALL BACKFILL TO FOOTINGS SHALL BE "SELECT FILL".

BULK EARTHWORKS

TOPSOIL

- TOPSOIL AND ROOT AFFECTED ZONES OVER THE FULL WIDTH OF CUTTINGS, SECTIONS ON NATURAL GROUND, AND THE BASE OF ALL EMBANKMENTS THROUGHOUT THE FULL EXTENT OF THE WORKS SHALL BE REMOVED TO A NOMINAL DEPTH OF 150mm.
- THE STRIPPED SURFACE SHALL BE PROOF ROLLED AND INSPECTED BY THE GEOTECHNICAL ENGINEER TO CONFIRM ADEQUACY OF THE SUBGRADE. NO WORK SHALL PROCEED WITHOUT WRITTEN APPROVAL FROM THE GEOTECHNICAL ENGINEER.
- TOPSOIL STOCKPILES SHALL BE LOCATED WELL CLEAR OF THE WORKS, AS APPROVED BY THE PRINCIPAL.
- TOPSOIL SHALL BE RESPREAD OVER BATTER AREAS PRIOR TO HYDROMULCHING AND SEEDING.

EXCAVATION

- EXCAVATIONS SHALL BE SECURED BY NECESSARY MEANS INCLUDING SHORING AND BRACING, SHEET PILING OR BATTERING SIDE SLOPES AS REQUIRED TO MAINTAIN THE EXCAVATION SAFE.
- THE CONTRACTOR SHALL ENSURE ADEQUATE DRAINAGE OF ALL WORKING AREAS.
- ALL EXCAVATIONS SHALL BE INSPECTED BY A GEOTECHNICAL ENGINEER AS BEING STABLE AND SAFE FOR ENTRY OF PERSONNEL INTO THE EXCAVATION.
- THE EXCAVATED MATERIAL SHALL BE LOADED AND HAULED FOR REUSE WITHIN THE WORKS, OR TO SPOIL DUMPS AS APPROVED BY THE PRINCIPAL.
- EXCAVATION SHALL BE CARRIED OUT TO DESIGN LEVEL, REMOVING ANY TOPSOIL, SOFT OR WEAK/WET MATERIALS, AND/OR ANY UNSUITABLE MATERIAL AS DIRECTED BY THE PRINCIPAL.

SUBGRADE

- FOLLOWING EXCAVATION, THE EXPOSED SUBGRADE SHALL BE PROOF ROLLED (MINIMUM 10 TONNE STATIC ROLLER), TO IDENTIFY ANY WET OR EXCESSIVELY DEFLECTING MATERIAL. ANY SUCH AREAS SHALL BE OVER EXCAVATED AND BACKFILLED WITH AN APPROVED SELECT MATERIAL.

COMPACTED FILL

- EMBANKMENT CONSTRUCTION SHALL INCLUDE SUBGRADE PREPARATION PLACING AND COMPACTION OF FILL MATERIAL INCLUDING MOISTURE CONDITIONING.
- COMPACTED FILL MATERIAL SHALL BE APPROVED BY THE PRINCIPAL PRIOR TO USE AND SHALL GENERALLY BE SOURCED FROM EXCAVATIONS WITHIN THE WORKS OR MINE STOCKPILES DESIGNATED BY THE PRINCIPAL.
- COMPACTED GENERAL FILL SHALL BE FREE FROM LUMPS GREATER THAN 150mm WITH NOT MORE THAN 2% ORGANIC CONTENT AND BE CAPABLE OF BEING BROUGHT TO A MOISTURE CONTENT SUITABLE FOR COMPACTION.
- COMPACTED SELECT FILL SHALL BE FREE FROM LUMPS GREATER THAN 50mm WITH NOT MORE THAN 2% ORGANIC CONTENT AND BE CAPABLE OF BEING BROUGHT TO A MOISTURE CONTENT SUITABLE FOR COMPACTION.
- ALL FILL SHALL BE PLACED IN LAYERS NOT EXCEEDING 300mm LOOSE THICKNESS.
- UNLESS NOTED OTHERWISE ALL COMPACTED GENERAL FILL MATERIAL AND SUBGRADE SHALL BE COMPACTED TO 98% STANDARD COMPACTION (MIN.) WITH A MOISTURE CONTENT WITHIN -3% (DRY) TO 1% (WET) OF OPTIMUM.
- UNLESS NOTED OTHERWISE ALL COMPACTED SELECT FILL SHALL BE COMPACTED TO 100% STANDARD (MIN) WITH A MOISTURE CONTENT WITHIN -2% (DRY) TO +2% (WET) OF OPTIMUM.
- TESTING REQUIREMENTS AND FREQUENCY SHALL COMPLY WITH THE SPECIFICATION. TESTING TO BE CARRIED OUT BY AN APPROVED NATA REGISTERED LABORATORY.

EROSION PROTECTION

- EROSION PROTECTION SHALL COMPRISE OF A WELL GRADED MIXTURE OF DURABLE RIP RAP (ROCK).
- ALL EROSION PROTECTION INCLUDING DUMPED ROCK AND ROCK MATTRESSES SHALL BE INSTALLED OVER A LAYER OF FILTER FABRIC.
- EROSION PROTECTION TO DRAINS SHALL BE PLACED TO THE NOMINAL THICKNESS SHOWN ON THE DRAWING.
- MINIMUM DENSITY ROCK FILL 2000kg/m³.
- ROCKS SHALL BE INTERLOCKED USING TOUGH, CLEAN, HARD DURABLE, ANGULAR-SHAPED FRAGMENTS NOT AFFECTED BY REPEATED WETTING AND DRYING CYCLES, IN SIZES/TYPES AS FOLLOWS:

TYPE	d ₅₀	MINIMUM SIZE (mm)	MAXIMUM SIZE (mm)	DESCRIPTION
'A'	350	250	600	RIP RAP USE ONLY
'B'	200	150	300	RIP RAP AND GABION USE ONLY
'C'	150	125	200	RIP RAP, GABION AND 300 THICK WIRE MATTRESS USE ONLY
'D'	-	75	150	170 THICK AND 230 THICK WIRE MATTRESS USE ONLY 80% OF ROCK > 100mm

PAVEMENTS

- THE CONTRACTOR SHALL SUPPLY, PLACE AND COMPACT ALL STRUCTURAL PAVEMENT MATERIALS.
- THE CONTRACTOR SHALL SUPPLY TEST CERTIFICATES OF ALL PAVEMENT MATERIALS TO BE USED, AND SUBMIT FOR APPROVAL BY THE PRINCIPAL PRIOR TO USE.
- PAVEMENT MATERIAL SPECIFICATION AND COMPACTION STANDARDS SHALL COMPLY AS FOLLOWS.

PAVEMENT COURSE	MATERIAL SPECIFICATION	COMPACTION REQUIREMENTS
BASE COURSE	CBR ≥ 80%, PI ≤ 6%	98% MODIFIED
SUB-BASE	CBR ≥ 30%, PI ≤ 12%	96% MODIFIED
SELECT FILL	SELECT, CBR ≥ 15%, P ₁₅ ≤ 15% MAX PARTICLE SIZE 75mm	95% MODIFIED
SUBGRADE (TOP 300mm)	MINIMUM CBR = 5%	100% STANDARD
SUBGRADE/FILL BELOW	MINIMUM CBR = 3%	98% STANDARD

REFER TECHNICAL SPECIFICATION FOR FULL DETAILS.

- ALL PAVEMENT MATERIALS TO BE MOISTURE CONDITIONED WITHIN -2% (DRY) TO +2% (WET) OF OPTIMUM.
- TESTING REQUIREMENTS AND FREQUENCY SHALL COMPLY WITH THE SPECIFICATION. TESTING TO BE CARRIED OUT BY AN APPROVED NATA REGISTERED LABORATORY.

RCP CULVERTS

SELECT BACKFILL AND FOUNDATION MATERIALS

- SELECT MATERIAL USED FOR FOUNDATION, BEDDING, SIDE, HAUNCH AND OVERLAY ZONES SHALL COMPLY WITH THE SPECIFICATION AND AS/NZS 3725.
- SELECT MATERIAL SHALL BE PLACED AND COMPACTED IN ACCORDANCE WITH THE SPECIFICATION AND AS/NZS 3725.
- TESTING REQUIREMENTS AND FREQUENCY SHALL COMPLY WITH THE SPECIFICATION. TESTING TO BE CARRIED OUT BY AN APPROVED NATA REGISTERED LABORATORY.

PIPES

- ALL CULVERT PIPES SHALL BE CLASS 4 REINFORCED CONCRETE PIPES TO AS/NZS 4058 WITH SPIGOT AND SOCKET JOINTS U.N.O.
- ALL CULVERT PIPES SHALL BE FITTED WITH PRECAST CONCRETE HEADWALLS.
- CULVERT PIPES SHALL BE LAID WITHIN ±10mm OF DESIGN ALIGNMENT.
- CONCRETE PIPES SHALL BE LAID TO PROVIDE A MINIMUM COVER OF 600mm TO FINISHED PAVEMENT SURFACE.
- MINIMUM CULVERT GRADE 0.5% U.N.O.
- ALL CULVERTS SHALL BE HS2 BEDDED TO AS/NZS 3725 U.N.O.

RCB CULVERTS

SELECT BACKFILL AND FOUNDATION MATERIALS

- SELECT MATERIAL FOR FOUNDATION, BEDDING AND SIDE SUPPORT SHALL COMPLY WITH THE SPECIFICATION AND AS 1597 PARTS 1 & 2.
- SELECT MATERIAL SHALL BE PLACED AND COMPACTED IN ACCORDANCE WITH THE SPECIFICATION AND AS 1597 PARTS 1 & 2.

BOX CULVERTS

- ALL BOX CULVERTS SHALL BE CLASS 2-A PRECAST CROWN UNITS WITH PRECAST BASE SLABS.
- ALL BOX CULVERTS SHALL BE FITTED WITH PRECAST CONCRETE HEADWALLS.
- BOX CULVERTS SHALL BE LAID WITHIN ±10mm OF DESIGN ALIGNMENT.
- MINIMUM CULVERT GRADE 0.5% UNO.

CSP CULVERTS

SELECT BACKFILL AND FOUNDATION MATERIALS

- SELECT MATERIAL FOR FOUNDATION, BEDDING AND SIDE SUPPORT SHALL COMPLY WITH THE SPECIFICATION AND AS/NZS 2041.1.
- SELECT MATERIAL SHALL BE PLACED AND COMPACTED IN ACCORDANCE WITH THE SPECIFICATION AND AS/NZS 2041.2.

CORRUGATED STEEL PIPES

- ALL CORRUGATED STEEL PIPES SHALL BE G250 TO AS 1397 MINIMUM WALL THICKNESS 2.00mm U.N.O.
- ALL CORRUGATED STEEL PIPES SHALL BE FITTED WITH PRECAST CONCRETE HEADWALLS.
- CORRUGATED STEEL PIPES SHALL BE LAID WITHIN ±10mm OF DESIGN ALIGNMENT.
- MINIMUM CORRUGATED STEEL PIPE GRADE 0.5% UNO.

REV	DATE	REVISIONS	DRN	CHK	APP
3	26-11-21	CONSTRUCTION ISSUE	J.M.	R.K.	R.K.
2	28-05-20	TENDER ISSUE	J.M.	-	-
1	22-04-20	MINOR REVISION	B.S.	-	-
0	19-02-20	PRELIMINARY ISSUE	J.M.	-	-

APPROVED FOR
CONSTRUCTION

DESIGN	D.R.	15-08-19	CLIENT
DRAWN	J.M.	15-08-19	
CHECKED	R.K.	26-11-21	
REFERENCE DRAWINGS			

ARKHILL ENGINEERS		63 BONVILLE AVENUE THORNTON NSW 2322 PO BOX 19 MAYLAND NSW 2320		ABN: 54 003 887 374 Phone: (02) 4098 0700 Fax: (02) 4098 2104 Email: enr@arkhill.com.au	
3999G0050		GLENCORE MCCO PROJECT		TITLE MCCO PROJECT EARTHWORKS GENERAL NOTES	
ARKHILL APPROVED	DATE	CLIENT APPROVED	DATE	SCALE N.T.S.	CLIENT DRAWING NUMBER

JOB NUMBER 3999	CAD FILE NAME 3999G0050-3.DWG	PLAT SCALE 1:1	REV 3
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GENERAL

- THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS AND SPECIFICATIONS AND WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ANY DISCREPANCIES SHALL BE REFERRED TO THE PRINCIPAL FOR RESOLUTION PRIOR TO PROCEEDING WITH THE WORK.
- MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE RELEVANT AND CURRENT AUSTRALIAN STANDARD EXCEPT WHERE VARIED BY THE PROJECT SPECIFICATION.
- DIMENSIONS SHALL NOT BE OBTAINED BY SCALING DRAWINGS. SETTING OUT DIMENSIONS AND LEVELS SHOWN ON THE DRAWINGS SHALL BE VERIFIED BY THE CONTRACTOR ON SITE.
- ALL SETOUT CO-ORDINATES AND LEVELS ARE TO M.G.A. (GDA94) AND m A.H.D. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
- THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL SERVICES PRIOR TO COMMENCING CONSTRUCTION.

CONCRETE

- ALL WORKMANSHIP AND MATERIAL SHALL BE IN ACCORDANCE WITH THE SPECIFICATION AND AS 3600 CONCRETE STRUCTURES.
- CONCRETE GRADES SHALL BE AS FOLLOWS UNO:

FOOTINGS AND IN GROUND CONCRETE	N32
ABOVE GROUND CONCRETE, IN NON TRAFFICKED AREAS	N32
ABOVE GROUND CONCRETE, IN TRAFFICKED AREAS	N40
FIBRE REINFORCED	S40
BLINDING	N15
PRECAST COMPONENTS	N40
- MAXIMUM NOMINAL SIZE OF AGGREGATE SHALL BE 20mm MAXIMUM SLUMP 80mm U.N.O.
- MINIMUM CONCRETE COVER TO REINFORCEMENT SHALL BE AS FOLLOWS:

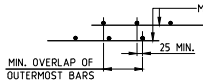
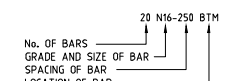
IN-SITU CAST AGAINST FORMS	40
BELOW GROUND CONCRETE CAST AGAINST FORMS	60
CONCRETE CAST AGAINST GROUND	75
TOP COVER TO FOOTINGS, WALLS, PEDESTALS AND PLINTHS	40
BOTTOM COVER TO SLABS, CAST AGAINST GROUND	60
TOP COVER TO SLABS	40
TOP COVER TO SLABS IN WASH DOWN AND TRAFFICKED AREAS	50
BORED PIERS	75
- SIZES OF CONCRETE ELEMENTS DO NOT INCLUDE THICKNESS OF ANY APPLIED FINISHES.
- BEAM DEPTHS ARE SHOWN FIRST AND INCLUDE THE THICKNESS OF THE SLAB IF ANY.
- SLABS CAST ON GROUND SHALL BE CONSTRUCTED ON EITHER:
 - POLYTHENE BUILDING FILM OVER 50 THICK SAND BEDDING.
 - 50 THICK CONCRETE BLINDING.
 FOOTINGS SHALL BE CONSTRUCTED ON 50 THICK CONCRETE BLINDING.
- CONSTRUCTION JOINTS SHALL BE USED ONLY WHERE SHOWN ON THE DRAWINGS OR AT APPROVED LOCATIONS.
- ALL FACES OF CONSTRUCTION JOINTS SHALL BE SCABBLED TO EXPOSE AGGREGATE AND TO A MIN AMPLITUDE OF 5mm AND COATED WITH A BONDING AGENT IMMEDIATELY PRIOR TO CASTING ABUTTING CONCRETE.
- NO HOLES, CHASES OR EMBEDMENTS OF PIPES OTHER THAN THOSE SHOWN ON THE DRAWINGS SHALL BE MADE WITHOUT APPROVAL.
- CONDUITS, PIPES ETC. SHALL NOT BE PLACED IN COVER CONCRETE AND SHALL ONLY BE LOCATED IN THE MIDDLE ONE THIRD OF SLAB DEPTH AND SPACED AT NOT LESS THAN 3 DIAMETERS.
- ALL CONCRETE SHALL BE COMPACTED BY MECHANICAL VIBRATION.
- CURING OF CONCRETE SHALL COMMENCE NO LATER THAN 2 HOURS AFTER FINISHING OPERATIONS HAVE BEEN COMPLETED AND EXTEND FOR 7 DAYS MIN.
- CURING METHOD TO BE APPROVED BY THE PRINCIPAL PRIOR TO THE POUR.
- UNLESS NOTED OTHERWISE, FINISH TO UNFORMED CONCRETE SURFACES SHALL BE AS FOLLOWS:

UNLESS SPECIFIED OTHERWISE	MACHINE FLOAT OR STEEL TROWEL
FLOOR SLABS	BROOMED
STAIR PADS	BROOMED
FLOOR SLABS TO INTERIOR OF OFFICES AND AMENITIES BUILDINGS	MACHINE FLOAT OR STEEL TROWEL
SURFACES WHICH ARE TO RECEIVE GROUT UNDER BASEPLATES	SCABBLE TO EXPOSE AGGREGATE AND TO A MINIMUM AMPLITUDE OF 5mm.

FORMWORK

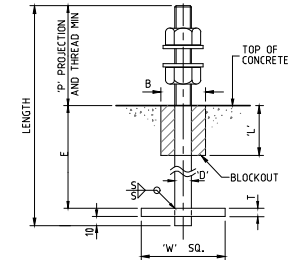
- ALL FORMWORK AND FALSEWORK SHALL COMPLY WITH AS 3600 CONCRETE STRUCTURES AND AS 3610 FORMWORK FOR CONCRETE AND THE SPECIFICATION.
- FINISH TO VISIBLE FORMED SURFACES SHALL BE CLASS 3 U.N.O. SURFACES SHALL BE UNTREATED AND COLOUR CONTROL IS NOT REQUIRED.
- FINISH TO CONCEALED FORMED SURFACES SHALL BE CLASS 5 U.N.O.
- STRIPPING TIMES TO BE IN ACCORDANCE WITH AS 3600.
- FORMS SHALL BE CHAMFERED FOR RE-ENTRANT ANGLES AND FILLETED FOR CORNERS, WHERE THESE WILL BE EXPOSED TO VIEW IN THE COMPLETED PROJECT. THE FACE OF THE CHAMFER IN EACH CASE SHALL BE 25mm WIDE UNO.

REINFORCEMENT

- SYMBOLS ON DRAWINGS FOR GRADE AND TYPE OF REINFORCEMENT:
 - R - DENOTES GRADE 250N ROUND BAR TO AS/NZS 4671.
 - N - DENOTES GRADE 500N DEFORMED RIBBED BAR TO AS/NZS 4671.
 - SL - DENOTES GRADE 500L DEFORMED RIBBED WELDED SQUARE MESH TO AS/NZS 4671.
 - RL - DENOTES GRADE 500L DEFORMED RIBBED WELDED RECTANGULAR MESH TO AS/NZS 4671.
- THE FOLLOWING ABBREVIATIONS APPLY TO THE LOCATIONS OF REINFORCEMENT:
 - FF - FAR FACE
 - EW - EACH WAY
 - BTM - BOTTOM FACE
 - NF - NEAR FACE
 - EF - EACH FACE
 - TOP - TOP FACE
- WELDED MESH LAPS SHALL BE AS SHOWN:
 
- ALL COGS, HOOKS AND BENDS SHALL COMPLY WITH AS3600 U.N.O.
- LAPS IN REINFORCING SHALL BE IN THE LOCATIONS INDICATED ON THE DRAWING. LAP LENGTHS SHALL BE IN ACCORDANCE WITH AS 3600. LAPS SHALL BE STAGGERED U.N.O.
- REINFORCEMENT IS SHOWN ON THE DRAWINGS DIAGMATICALLY AND NOT NECESSARILY IN TRUE PROJECTION.
- TYPICAL REINFORCEMENT NOTATION:-
 
- NO REINFORCING SPLICES SHALL BE MADE OTHER THAN AT THE LOCATIONS INDICATED ON THE DRAWINGS.
- WELDING OF REINFORCING STEEL IS NOT PERMITTED UNLESS SHOWN ON THE DRAWINGS.
- ALL REINFORCING STEEL COVER TO BE MAINTAINED UTILISING PROPRIETARY BAR CHAIRS.

HOLD DOWN BOLTS

- ALL HOLDING DOWN BOLTS TO BE SUPPLIED IN ACCORDANCE WITH DETAILS AS SHOWN BELOW UNLESS DETAILED OTHERWISE.



D	E	L	P	W	T	S	B
M16	300	75	110	50	10	6	50
M20	450	150	130	50	10	6	60
M24	520	150	140	50	12	6	75
M30	600	200	160	75	16	8	90

- ALL H.D. BOLTS SHALL BE COMMERCIAL GRADE 4.6/5 BOLTS IN ACCORDANCE WITH AS4100.
- ALL H.D. BOLTS ASSEMBLIES SHALL BE HOT DIPPED GALVANIZED INCLUDING NUTS AND WASHERS.
- H.D. BOLTS TO BE THREADED FULL LENGTH OF PROJECTION.
- ALL H.D. BOLTS TO BE SUPPLIED WITH 2 NUTS AND 2 WASHERS.
- NUTS AND WASHERS TO BE FITTED TO H.D. BOLTS PRIOR TO POURING CONCRETE.
- ALL H.D. BOLT THREADS TO BE GREASED PRIOR TO POURING CONCRETE.
- ALL WELDING SHALL COMPLY WITH AS1554 CATEGORY SP. ALL ELECTRODES TO BE E48XX OR EQUIVALENT.

REV	DATE	REVISIONS	DRN	CHK	APP
2	26-11-21	CONSTRUCTION ISSUE	J.M.	R.K.	R.K.
1	28-05-20	TENDER ISSUE	J.M.	-	-
0	19-02-20	PRELIMINARY ISSUE	J.M.	-	-

APPROVED FOR CONSTRUCTION

DESIGN	CHECKED	DATE	CLIENT
J.M.	R.K.	15-08-19	GLENCORE
J.M.	R.K.	15-08-19	MCCO PROJECT
J.M.	R.K.	26-11-21	MCCO PROJECT

ARKILL ENGINEERS	63 BONVILLE AVENUE THORNTON NSW 2322 PO BOX 19 MAYLAND NSW 2320	ABN: 54 003 887 374 Phone: (02) 4088 0700 Fax: (02) 4088 2104 Email: arkill@arkill.com.au
3999G0051	DATE	CLIENT APPROVED

MCCO PROJECT CONCRETE WORKS GENERAL NOTES	SCALE N.T.S.	CLIENT DRAWING NUMBER	REV 2
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JOB NUMBER 3999 CAD FILE NAME 3999G0051-2.DWG PLOT SCALE 1:1



WYBONG ROAD CULVERT UPGRADE PROJECT

Review of Environmental Factors

FINAL

May 2023

WYBONG ROAD CULVERT UPGRADE PROJECT

Review of Environmental Factors

FINAL

Prepared by
Umwelt (Australia) Pty Limited
on behalf of
Mangoola Coal

Project Director: Paul Douglass
Project Manager: Nadia Aurisch
Report No. 23314/R01
Date: May 2023



This report was prepared using
Umwelt's ISO 9001 certified
Quality Management System.

Acknowledgement of Country

Umwelt would like to acknowledge the traditional custodians of the country on which we work and pay respect to their cultural heritage, beliefs, and continuing relationship with the land. We pay our respect to the Elders – past, present, and future.

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	Name	Date	Name	Date
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Table of Contents

1.0	Introduction	1
1.1	Background	1
1.2	Description of the Activity	2
1.3	Location	2
1.4	Overview of Existing Environment	2
1.5	Justification for the Activity	3
1.6	Evaluation of Alternatives	3
2.0	Planning Context and Other Approvals	5
2.1	Planning and State Legislation	5
2.2	Commonwealth Legislation	5
3.0	Consultation	6
3.1	ISEPP Consultation	6
3.2	Other Consultation	6
4.0	Environmental Assessment and Mitigation Measures	7
4.1	Air Quality Assessment	7
4.1.1	Air Quality Mitigation Measures	7
4.2	Surface Water Assessment	7
4.2.1	Surface Water Mitigation Measures	8
4.3	Soils Assessment	11
4.3.1	Soil Mitigation Measures	11
4.4	Noise and Vibration Assessment	11
4.4.1	Noise and Vibration Mitigation Measures	12
4.5	Biodiversity Assessment	12
4.6	Natural Hazards Assessment	15
4.7	Spoil and Waste Management Assessment	15
4.7.1	Spoil and Waste Management Mitigation Measures	15
4.7.2	Chemical and Hazardous Waste Mitigation Measures	16
4.8	Traffic Generation and Management	16
4.8.1	Traffic Mitigation Measures	16
4.9	Aboriginal Cultural Heritage Assessment	16
4.9.1	Aboriginal Cultural Heritage Mitigation Measures	18
4.10	Visual Impacts	20
4.11	Public Access and Safety	20

4.12	Socio-Economic Impacts	20
4.13	Future Land Use	20
5.0	Ecologically Sustainable Development and Sustainability	21
5.1	Sustainable Outcomes	21
5.2	Cumulative Environmental Impacts	21
6.0	Environmental Factors Considered	22
6.1	Consideration of Clause 228 Factors	22
6.2	Consideration of Matters National Environmental Significance	23
6.3	Summary of Mitigation Measures	23
6.4	Construction Environmental Management Plan	26
7.0	Conclusion	27
8.0	References	28

Figures

Figure 1.1	Location of Proposed Activity	4
Figure 4.1	Catchment Context	10
Figure 4.2	Ecological Survey Results	14
Figure 4.3	Recorded Aboriginal Archaeological Sites	19

Tables

Table 3.1	ISEPP Consultation	6
Table 5.1	Sustainable Outcomes of the Proposed Activity	21
Table 6.1	Consideration of Clause 228 Factors	22

Appendices

Appendix 1	Flora and Fauna Due Diligence Assessment
Appendix 2	Aboriginal Archaeology Due Diligence Assessment

1.0 Introduction

1.1 Background

Mangoola Coal Mine is an existing open cut coal mine located approximately 20 kilometres (km) west of Muswellbrook and 10 km north of Denman in the Upper Hunter Valley of NSW. Mangoola Coal Operations Pty Limited (Mangoola) which is owned by Glencore Coal Pty Ltd (Glencore) has operated the Mangoola Coal Mine in accordance with NSW Project Approval (PA) 06_0014 since mining commenced at the site in September 2010.

The Mangoola Coal Continued Operations (MCCO) Project (SSD 8642) was approved by the NSW Independent Planning Commission on 26 April 2021 in accordance with Part 4 of the *Environmental Planning and Assessment Act 1979* (EPA Act). Commonwealth approval EPBC 2018/8280 under the *Environment Protection & Biodiversity Conservation Act 1999* (EPBC Act) was received from the Federal Minister for the Environment on 1 October 2021.

The MCCO Project has been approved to extend mining to a new area north of Wybong Road to provide access to approximately 52 million tonnes of run-of-mine (ROM) coal. The approval covers undertaking various construction activities associated with establishing the new mining area as described in the MCCO Project Environmental Impact Statement (EIS). This includes establishing Clean Water Diversion Drains to service the new mining area, one to the north and one to the west. Construction of the MCCO Project commenced in accordance with SSD 8642 in December 2021 and the Project execution is nearing completion.

Following the recent construction of the western Clean Water Diversion Drain (herein referred to as Clean Water Drain 1 (CWD1)) and subsequent additional engineering investigations, a need for additional culvert capacity on Wybong Road has been identified. Following engagement with Muswellbrook Shire Council (MSC), Mangoola has agreed to further investigate, seek approval, and construct the upgrade of the existing Wybong Road culverts to accommodate high-rainfall events herein described as the proposed activity.

As the Wybong Road culverts are within the MSC-owned road corridor, consent under Section 138 of the *Roads Act 1993* will be required, where MSC is the determining authority. However, under Part 5 Section 5.5 of the EP&A Act, MSC has the duty to examine and consider to the fullest extent possible all matters affecting or likely to affect the environment by reason of that activity.

Accordingly, this Review of Environmental Factors (REF) has been prepared by Umwelt (Australia) Pty Limited (Umwelt) on behalf of Mangoola to allow MSC to fulfill its duty under Part 5 of the EP&A Act and consider the environmental impacts of the proposed activity applied for under Section 138 of the *Roads Act 1993*.

This REF has been prepared following MSC's REF Proforma (Revision 1.2, October 2020).

1.2 Description of the Activity

The proposed activity is to replace the existing triple (3 cell) 600mm diameter culverts with a revised installation to increase hydraulic conductivity under Wybong Road. Provisional concept design drawings to improve the hydraulic conductivity of this specific culvert set will be submitted with this REF to MSC. However, the final design of the culverts will be submitted and approved through the MSC Roads and Drainage Team.

The proposed activity will require the diversion of traffic to allow the existing culverts below Wybong Road to be excavated and replaced. The required works are proposed to be undertaken during standard construction hours being:

- Monday to Friday 7 am to 6 pm
- Saturday 8 am to 1 pm
- No work on Sundays or public holidays.

1.3 Location

The MCCO Project includes both the existing Mangoola Coal Mine and the new mining area which is located immediately north of the existing operations, north of Big Flat Creek and Wybong Road.

All of the land is owned by Mangoola with the exception of some road reserves. As described in **Section 1.1**, engineering investigations have identified a need for additional culvert capacity on Wybong Road. As described in the MCCO Project EIS, the western clean water diversion (CWD1) will include a culvert crossing under the realigned portion of Wybong Post Office Road with discharge to an existing natural drainage line.

Mangoola will construct and upgrade the existing Wybong Road culverts to improve hydraulic conductivity. The location of the proposed culverts to be upgraded are shown in **Figure 1.1**.

1.4 Overview of Existing Environment

The proposed activity will be located along Wybong Road which borders the MCCO Project area to the southeast. Wybong Road functions as a local road connecting Kayuga Road, at Muswellbrook, and Golden Highway at Sandy Hollow. Wybong Road is constructed to a rural road standard and has single traffic lanes in each direction. Wybong Road typically has a speed limit of 100 km/h.

The proposed activity lies within the catchment of Big Flat Creek. Big Flat Creek flows to Wybong Creek and is part of the upper catchment of the Hunter River. A review of recently completed studies for the area note that the local ecological community of the proposed activity is predominantly comprises native grasslands and grass open forest communities.

1.5 Justification for the Activity

Engineering investigations demonstrate a need for additional culvert capacity on Wybong Road to mitigate against flood events overtopping Wybong Road and causing traffic disruption and hazard. The proposed activity will provide this mitigation through upgrade of the existing culverts to increase hydraulic capacity in which will improve flood mitigation for this specific section of Wybong Road.

1.6 Evaluation of Alternatives

Mangoola has undertaken extensive consultation with MSC regarding the proposed activity and potential interactions with MSC-owned roads. In this regard, the requirements for upgrading the existing culverts and mitigating the risk of waters overtopping Wybong Road have been addressed collaboratively. As a result, the design, and standards of the proposed activity as described in this REF and to be applied for under Section 138 of the *Road Act 1993* is to be in accordance with MSC development controls.

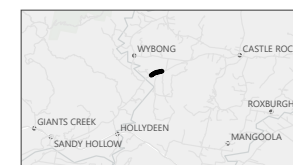
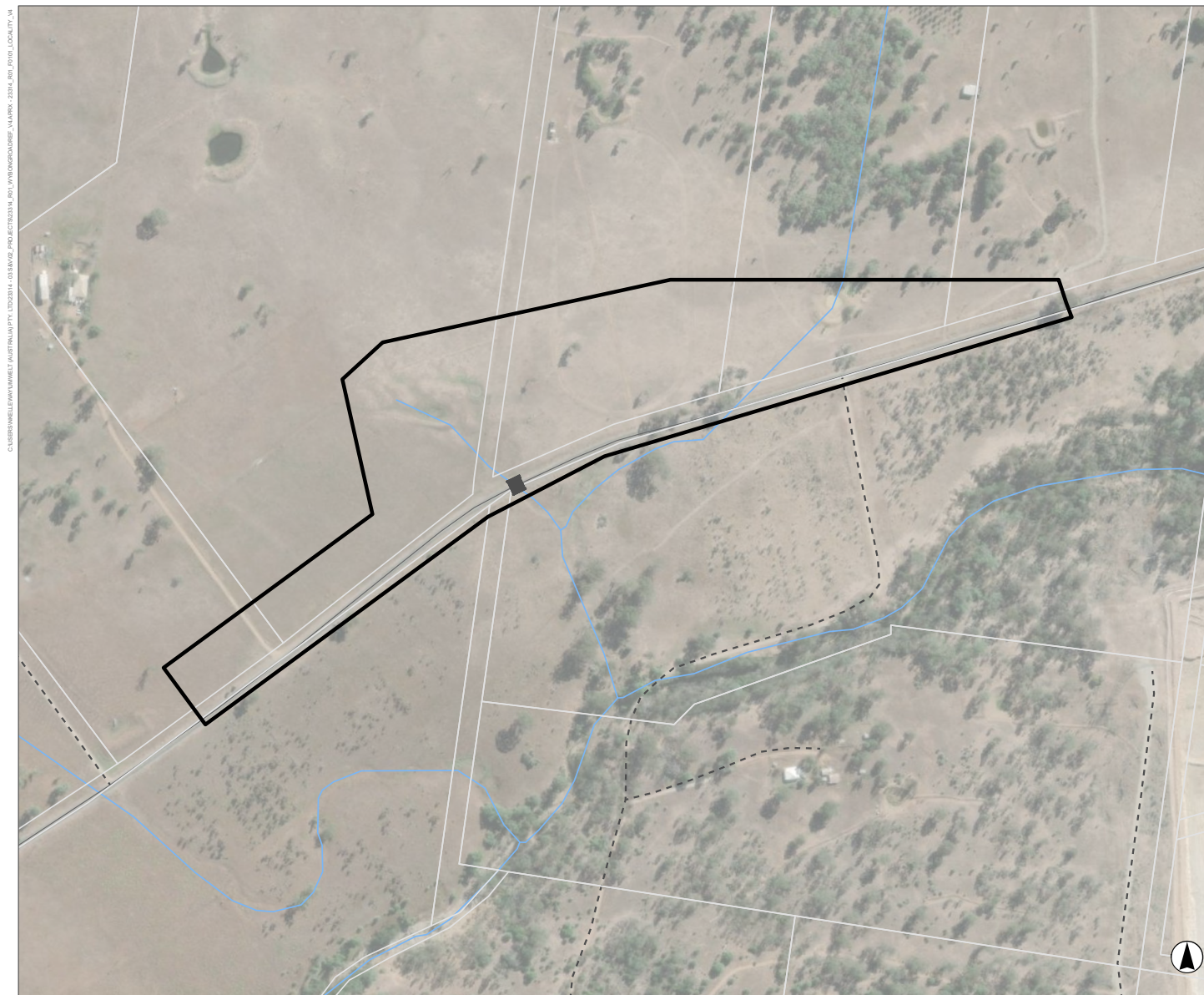
A 'do-nothing' approach would not be beneficial for MSC, Mangoola, or the local community and would not create an opportunity to improve the long-term serviceability of Wybong Road and as such has not been considered.

FIGURE 1.1

Location of the Proposed Activity

Legend

- Proposed Culvert Design
- Watercourse
- Road
- - - Track
- ▬ Assessment Area
- ▬ Cadastre



0 100 200
Metres

Scale 1:5,500 at A4
GDA 1994 MGA Zone 56

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Image Source: ESRI Basemap (2022) Data source: NSW DFSI (2022)

2.0 Planning Context and Other Approvals

2.1 Planning and State Legislation

The NSW State Environmental Planning Policy (SEPP) (Transport and Infrastructure) 2021 permits development on any land for the purpose of a road or road infrastructure facilities to be carried out by or on behalf of a public authority without consent.

As the proposed activity is for the purpose of road infrastructure facilities and is to be carried out by Mangoola on behalf of MSC, it can be assessed under Part 5 of the EP&A Act. This REF has been prepared to assess the proposed activity.

The description of the proposal and associated environmental impact has been carried out in the context of clause 228 of the NSW Environmental Planning and Assessment Regulation 2000. In doing so, the REF supports the requirements of Section 5.5 of the EP&A Act being that MSC examines and considers to the fullest extent possible all matters affecting or likely to affect the environment by reason of the activity.

2.2 Commonwealth Legislation

The REF assesses the impact of the proposed activity on matters of national environmental significance (MNES) listed under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The only relevant MNES is that of threatened ecological species. A Flora and Fauna Due Diligence Assessment has been undertaken as and is provided **Appendix 1** with a summary of the findings presented in **Section 4.5**. The location of the proposed activity was assessed for the potential presence of threatened species, populations and ecological communities listed under the EPBC Act and concluded that it is unlikely there will be significant impacts as a result of the proposed activity.

3.0 Consultation

3.1 ISEPP Consultation

Part 2.2, Division 1 of the Transport and Infrastructure SEPP (ISEPP) contains provisions for consultation with public authorities prior to the commencement of certain types of development. Table 3.1 lists the consultation requirements under the ISEPP.

Table 3.1 ISEPP Consultation

Is consultation required under the Infrastructure SEPP Section 2.15?	Yes	No
Section 2.13: Is the Proposed Activity located on flood liable land? If so, will the works change flooding patterns to more than a minor extent? The location of the proposed activity is not mapped as a Flood Planning Area under the Muswellbrook Local Environmental Plan 2009. The proposed activity is unlikely to change flooding patterns to more than a minor extent as there are no extensive landform changes or erection of structures that could influence flood patterns.		X
Section 2.15, Clause 2(a): Is the Proposed Activity located adjacent to a national park, nature reserve or other area reserved under the National Parks and Wildlife Act 1974, or on land acquired under that Act?		X
Section 2.15, Clause 2(b): Is the Proposed Activity located on land in Zone E1 National Parks and Nature Reserves?		X
Section 2.15, Clause 2(c): Is the Proposed Activity include a fixed or floating structure in or over navigable waters?		X
Section 2.15, Clause 2(d): Is the Proposed Activity likely to increase the amount of artificial light in the night sky and that is on land within the dark sky region as identified on the dark sky region map?		X
Section 2.15, Clause 2(e): Is the Proposed Activity located on defence communications facility buffer land within the meaning of clause 5.15 of the Standard Instrument—the Secretary of the Commonwealth Department of Defence?		X
Clause 2 (f): Is the Proposed Activity within a mine subsidence district within the meaning of the Mine Subsidence Compensation Act 1961?		X
Section 2.16: Is the Proposed Activity for the purpose of residential development, an educational establishment, a health services facility, a correctional facility or group home in bush fire prone land?		X

In accordance with the ISEPP, consultation with public authorities is not specifically required for the proposed activity.

3.2 Other Consultation

Mangoola has been constructively engaging with MSC in relation to various aspects of the MCCO Project execution plan. Mangoola raised the matter of the potential for culvert upgrade works on Wybong Road to increase capacity and both parties are supportive of the proposed activity.

If the proposal is determined to proceed, community stakeholders will require notification to ensure that the local community is advised of road and traffic changes along Wybong Road. Mangoola states that MSC will undertake community notification, which will be determined during the Section 138 approval process.

4.0 Environmental Assessment and Mitigation Measures

4.1 Air Quality Assessment

Potential air quality impact during work would mainly be from machinery and other vehicles emitting exhaust fumes. Gaseous emissions are associated with diesel fuel and petrol combustion from vehicle movements and operation of on-site plant and machinery. The impact of these emissions would be temporary (limited to the duration of work) and are considered to be minor.

Potential air quality impact may also occur from dust generation. However, the likely impacts of the proposed activity would be negligible in comparison with the construction activities assessed and approved under the MCCO Project.

As the proposed activity does not include odour-generating operations, it is not considered that dust and odour impacts are likely, nor would there be any long-term impacts.

4.1.1 Air Quality Mitigation Measures

Proactive controls and safeguards for the potential air quality impacts to be used during construction of the proposed activity include:

- Installing all vehicles, machine and /or equipment used on site with suitable emissions control mechanisms that will be maintained to manufacturer standards.
- Covering any vehicles which are transporting waste, spoil or other fill materials during transport.
- Switching off, vehicles, plant and equipment when not in use, where possible.
- Using of predictive meteorological forecasting to assist with construction planning when adverse meteorological conditions could give rise to dust emissions.
- Minimising double handling of materials.
- Minimising the distance of fall of materials during loading and tipping as far as practical.

4.2 Surface Water Assessment

The proposed activity is located on an unnamed first order stream that drains in a south easterly direction under Wybong Road and then into a second order unnamed tributary of Big Flat Creek within the broader Goulburn River catchment (refer to Figure 4.1). Big Flat Creek drains in a south westerly to southerly direction into Wybong Creek approximately 800 m downstream of the confluence with the second order tributary. Wybong Creek drains to Reedy Creek which ultimately drains to the Goulburn River approximately 9.5 km south west of the proposed activity site.

The soils in the proposed activity site are likely to be moderately to highly erodible. The proposed activity has the potential to impact on downstream water quality during and post construction, primarily as a result of erosion and subsequent transport of sediment. Construction activities will be undertaken on waterfront land and within a first order drainage channel which has a very high erosion hazard when assessed in accordance with *Managing Urban Stormwater – Soils and Construction Volume 1* (Landcom, 2004) (i.e., a soil loss class of 6). Potential impacts to water quality post construction are also associated with erosion and sedimentation which could occur if disturbed areas are not appropriately stabilised following culvert installation.

There is the potential for impacts on water quality from hydrocarbons spills (e.g., engine or hydraulic oils from mobile plant leaks, diesel spills during refuelling) and inappropriate handling of surplus concrete or concrete washout.

Managing Urban Stormwater – Soils and Construction Volume 1 (Landcom, 2004) recommends that works not be undertaken on waterfront land (soil loss class 6) during periods of high rainfall erosivity. The timing restriction recommendations are determined based on the soil loss class and the rainfall distribution zone of the works location. Based on a soil loss class of 6 and the proposed activity being located in rainfall distribution zone 6, *Managing Urban Stormwater – Soils and Construction Volume 1* (Landcom, 2004) indicates that works should ideally be undertaken in the period April through October.

4.2.1 Surface Water Mitigation Measures

It is considered that the implementation of appropriate erosion and sediment controls designed, installed, and maintained in accordance with *Managing Urban Stormwater – Soils and Construction Volume 1* (Landcom, 2004) and *Volume 2D Main roads construction* (Department of Environment and Climate Change NSW, 2008) (hereafter collectively referred to as the Blue Book) will adequately mitigate the risks to downstream water quality. Following detailed design and prior to construction, a detailed erosion and sediment control plan (ESCP) will be required to be prepared in accordance with the Blue Book and with reference to *Best Practice Erosion and Sediment Control* (International Erosion Control Association (Australasia), 2008). The works will also be undertaken in accordance with the following guidelines for controlled activities on waterfront land:

- Guidelines for riparian corridors on waterfront land (DPE, 2022a)
- Guidelines for instream works on waterfront land (DPE, 2022b)
- Guidelines for vegetation management plans on waterfront land (DPE, 2022c)
- Guidelines for watercourse crossings on waterfront land (DPE, 2022d).

It is anticipated that the ESCP will include the following controls:

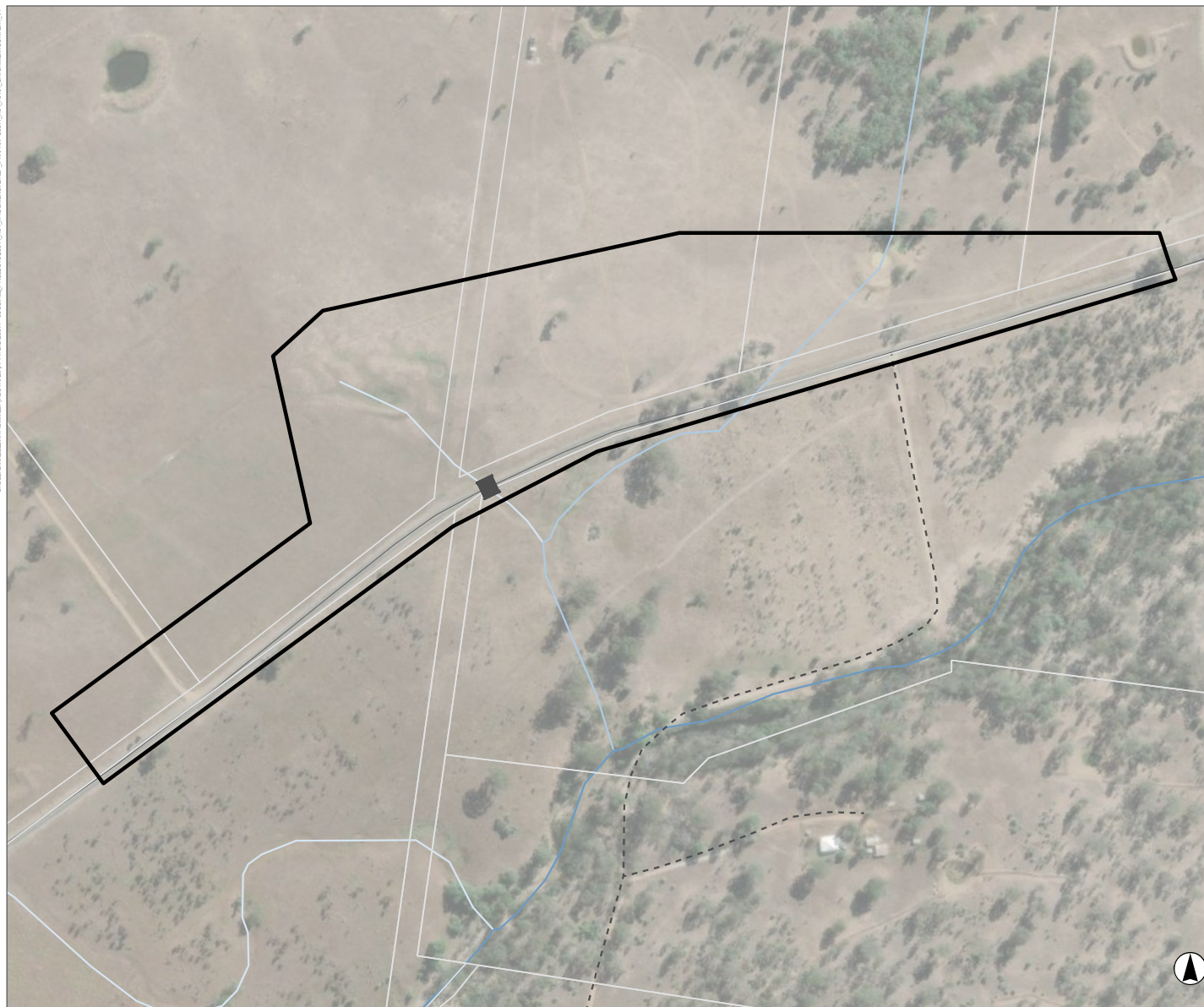
- Diversion of clean water around disturbed areas.
- Staging of works to minimise the extent of ground disturbance at any one time and progressive rehabilitation.

- All instream works are to be undertaken during a period of forecast dry weather that has a duration long enough to allow stabilisation of the works area to achieve a cover management factor (C-factor) of 0.05 (i.e., approximately 70% cover). Contingencies will be in place to ensure that the works area within the drainage channel can be stabilised to achieve a C-factor of 0.1 or less (i.e., approximately 60% cover) within four hours should the forecast prove inaccurate.
- Works on waterfront land will be scheduled for periods of low rainfall erosivity where possible. Where scheduling of works during periods of low rainfall erosivity is not possible or is impractical, erosion control measures should be implemented to ensure disturbed lands have C-factors less than 0.1 (i.e., more than approximately 60% ground cover) when the three-day forecast indicates that rain is likely. Management regimes should be established to ensure that the site can be stabilised (i.e., C-factor 0.1 or less) within 24 hours if the forecast is incorrect.
- Stockpiles managed in accordance with Blue Book standard drawing SD 4-1 Stockpiles and all stockpiles (if required) are to be placed in designated locations within the proposed activity site disturbance limits at locations identified on the progressive ESCPs.
- Stockpiles of erodible material that have the potential to cause environmental harm if displaced will:
 - be appropriately protected from wind, rain, concentrated surface flow and excessive up-slope stormwater surface flows
 - constructed on the contour at least 2 m (preferably 5 m) away from high erosion hazard areas, particularly areas of likely concentrated water flows, e.g., roads, slopes steeper than 10% etc.
 - not located within areas of degraded land (where possible), flood-prone or poorly drained areas.
- Fuels, chemicals, and liquids are stored in impervious bunded areas, a minimum of 50 m away from:
 - rivers, creeks, or any areas of concentrated water flow
 - flooded or poorly drained areas
 - slopes above 10%.
- Chemical spill kits will be available, and personnel will be familiarised in spill response.
- All vehicles and mobile plant will be appropriately maintained and subject to daily pre-start checks for fluid leakage.
- Bunded concrete wash-out bunds lined with plastic sheeting will be provided and sign posted so they are clearly identified by contractors and concrete agitator/pump drivers. No concrete wash-out will occur within 50 m of drainage lines or waterways.
- Inspection and maintenance of installed erosion and sediment controls.
- Downstream water quality monitoring (pH, turbidity and TSS).

FIGURE 4.1

Catchment Context

- Legend**
- Road
 - - - Track
 - Proposed Culvert Design
 - ▭ Assessment Area
 - ▭ Cadastre
- Strahler Stream Order**
- 1
 - 2
 - 4



0 100 200
Metres

Scale 1:4,500 at A4
GDA 1994 MGA Zone 56

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Image Source: ESRI Basemap (2022) Data source: NSW DFSI (2022)

4.3 Soils Assessment

Soil mapping indicates that the Project is located within the Sandy Hollow soil landscape which consists of red solodic soils, yellow solidic soils, red earths, brown solodic soils, siliceous sands, and alluvial soils. Modelled soil properties sourced from DPE's online mapping tool eSpade indicate that the Project site has:

- fine textured (silt and clay >70%, sand<30%)
- moderate to high erodibility (Revised Universal Soil Loss Equation K-factor of 0.04-0.06)
- slightly acidic to neutral topsoils and neutral subsoils (Electrical Conductivity of 0.2-0.4 dS/m).

The disturbance of soils underneath the road reserve to excavate and replace the existing culverts will be required. However, there are no major geotechnical or soil constraints to the construction and long-term maintenance of the proposed activity. The proposed activity would be unlikely to cause any substantial impacts to the geomorphic stability of the areas adjacent to the culvert. Overall, soil impacts are expected to be low due to the limited amounts of excavation needed for the proposed activity.

There is potential for fuel or chemical spills during construction, which may result in localised contamination of soils. Spills could occur during refuelling or through leaking of hydraulic and lubricating oil from plant and equipment. The potential for contamination from fuel and chemical spills is considered to be low provided that refuelling of plant and planned equipment will be carried out 50 metres away from waterways and drainage lines and chemical spill kits will be kept on site at all times.

4.3.1 Soil Mitigation Measures

Erosion and sediment control measures are to be implemented and maintained to:

- Prevent sediment moving offsite and sediment laden water entering any water course, drainage lines, or drainage inlets.
- Reduce water velocity and capture sediment on site.
- Minimise the amount of material transported from site to surrounding pavement surfaces.
- Divert clean water around the site (in accordance with the *Managing Urban Stormwater, Soils and Construction Guidelines* (the Blue Book) (Landcom, 2004)).

4.4 Noise and Vibration Assessment

The likely noise impacts during construction and operation of the MCCO Project were assessed as part of the MCCO noise impact assessment (Section 6.4, Umwelt, 2019 (EIS)). The proposed activity will have a negligible noise impact in comparison to the approved limits set out by the Development Consent for SSD 8642.

Noise impacts during construction activities were assessed in the EIS as being largely a result from noise generated during earthworks and activities associated with the establishment of the Wybong Post Office Road realignment (that is no longer being pursued), construction of the haul road overpass over Big Flat Creek and Wybong Road, and construction of water management infrastructure.

Potential nearby receivers are retained under the existing acquisition and mitigation rights for those receptors previously determined to be impacted by operations as listed in PA 06_0014. Accordingly, relative to what has been assessed and approved as part of the MCCO Project, noise impacts from the proposed activity are considered negligible.

4.4.1 Noise and Vibration Mitigation Measures

Noise and vibration management will generally follow the approach in the Interim Construction Noise Guideline (ICNG) (DECC, 2009).

4.5 Biodiversity Assessment

In preparation of this REF, Umwelt has undertaken a desktop ecological due diligence assessment for threatened species at the location of the proposed activity. The assessment sought to identify potential habitat for threatened flora and fauna species at the location of the proposed activity. Detailed results of the ecological due diligence assessment are provided in **Appendix 1** and mapping of these results is provided in Figure 4.2.

Umwelt senior ecologist Rhys Osborne undertook the inspection of the existing culvert on the 29th of March 2023. The assessment area was approximately 6 km west from the intersection entrance of Mangoola Coal Mine with the inspection area extending approximately 10 metres either side of the existing culvert within the road corridor (hereafter referred to as the assessment area).

The assessment found no threatened flora or fauna species listed under the *Biodiversity Conservation Act 2016* (BC Act) or the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) recorded within the assessment area. Additionally, the current culvert structures are not considered to provide habitat for threatened microbat species given the small size and location of culvert entrances. Culverts were found to be in good condition with no signs of defects that are associated with roost habitats for threatened microbat species.

Other observations included:

- One ephemeral drainage line was observed extending south of existing culvert to flow into Big Flat Creek. A small stagnate pool (less than 2 metres in length) was observed at both culvert entrances during the site inspection.
- Vegetation within assessment area comprised an exotic ground layer. The exotic ground layer was dominated by paspalum (*Paspalum dilatatum*), Rhodes grass (*Chloris gayana*), and purple top (*Verbena bonariensis*). Exotic species including farmers friends (*Bidens pilosa*), curled dock (*Rumex crispus*) flax-leaf fleabane (*Conyza bonariensis*), fireweed (*Senecio madagascarensis*), coolatai grass (*Hyparrhenia hirta*), African lovegrass (*Eragrostis curvula*), galenia (*Galenia pubescens*), Paddy's lucerne (*Sida rhombifolia*) were commonly observed within the assessment area. The presence of native flora species within the assessment area was limited to common couch (*Cynodon dactylon*).
- Vegetation within the assessment area is not considered to conform to any Threatened Ecological Community (TEC) listed under the (BC Act or EPBC Act).

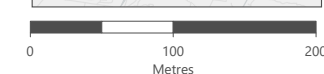
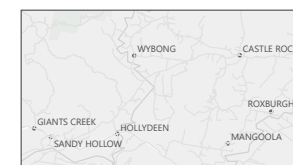
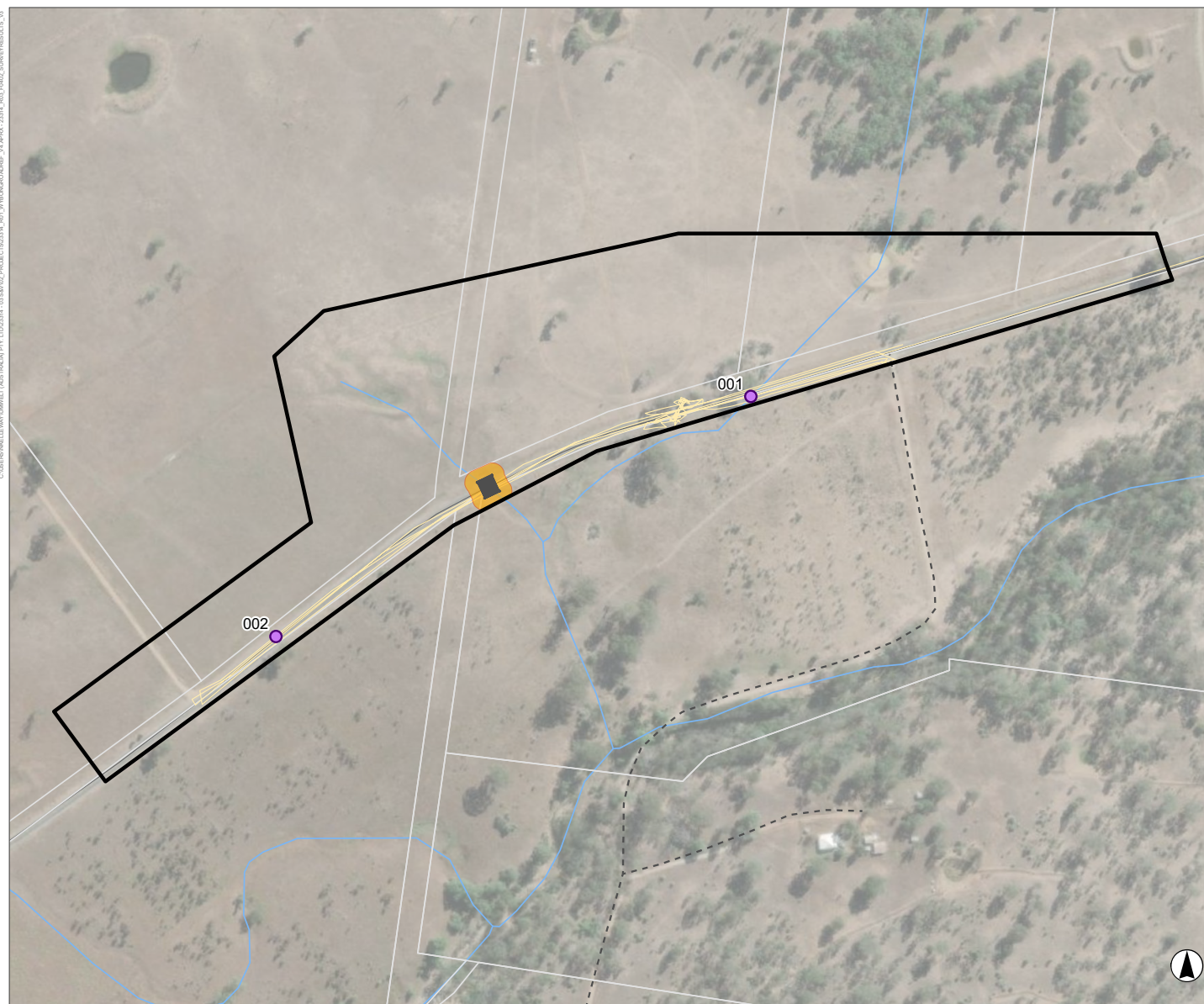
Assessments of significance, in accordance with the EP&A Act and EPBC Act, were precautionarily completed for potentially occurring threatened species and TEC. Based on the outcomes of those assessments, the ecology due diligence assessment undertaken concluded that the proposed upgrade of an existing culvert along Wybong Road is unlikely to result in a significant impact to any BC Act and or EPBC Act listed threatened species or communities within or in the proximity of the assessment area.

FIGURE 4.2

Inspection Area and Survey Results

Legend

- Hollow Bearing Trees
- Survey Tracks
- Proposed Culvert Design
- Watercourse
- Road
- - - Track
- Assessment Area
- Inspection Area
- Cadastre



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Image Source: ESRI Basemap (2022) Data source: NSW DFSI (2022)

4.6 Natural Hazards Assessment

Parts of the surrounding area of the proposed activity's location are identified as containing bushfire prone land by MSC's Bushfire Prone Land map (refer to Section 6.20, Umwelt, 2019)). It is noted that active operational areas within the existing Mangoola Coal Mine continue to be mapped as bushfire prone, although some of these areas have now been cleared of vegetation and the new mining areas as approved would also be subject to further clearing activities. The forested area to the south and west of the site support a potentially significant fuel load capable of sustaining and spreading bushfire and represents the most significant bushfire threat to the Mangoola Coal Mine site. Areas of forest/woodland vegetation formations to the north and east within and adjacent to the site also represent a potential linkage between vegetated areas within and adjoining the MCCO Project Area, which has the potential to support the spread of bushfire.

The culvert upgrade has been proposed to alleviate the potential for flood impacts on Wybong Road, i.e., flood waters overtopping Wybong Road. Engineering investigations were undertaken to determine improvements to hydraulic conductivity of the existing culvert set. The qualitative investigations undertaken in this REF indicate that adverse impacts to flood regimes as a result of the proposed culvert upgrade are unlikely.

The proposed activity, in isolation, is unlikely to impact or be impacted by natural hazards that could occur in the area. Any natural hazards will be managed by following the information as provided by the MSC's Disaster Dashboard.

4.7 Spoil and Waste Management Assessment

The proposal has the potential to generate waste from the following sources, some of which would be recycled or reused:

- Concrete waste from the removal of parts of the existing apron.
- Green waste from vegetation clearing (native and introduced vegetation). Noxious weed material would be separated from native green waste.
- Excess soil from excavation works.
- Roadside materials (fencing, guide posts, guard rail etc).
- Paper and office waste from site management facilities.
- General waste from staff (lunch packaging etc).

4.7.1 Spoil and Waste Management Mitigation Measures

The potential to reuse materials would be investigated during detailed design. Mulched vegetation would be used in sediment erosion controls, stabilisation, and rehabilitation where appropriate. Any spoil material that cannot be used on site would be classified in accordance with the 'Waste Classification Guidelines' (NSW Environment Protection Authority (EPA), 2014) and disposed of at an approved materials recycling or waste disposal facility.

4.7.2 Chemical and Hazardous Waste Mitigation Measures

As discussed in **Section 4.7** above, waste classification will manage and mitigate the use and disposal of wastes, including hazardous wastes. Controls will also be put in place to manage risk including appropriate chemical handling and storage procedures, appropriate waste management systems, spill and emergency response procedures and equipment, and regular inspection and reporting processes.

4.8 Traffic Generation and Management

A comprehensive Traffic and Transport Impact Assessment (TTIA) was prepared by GHD (2019) for the MCCO Project which included traffic counts completed on the road network within the immediate vicinity of the MCCO Additional Project Area (including on Wybong Road, Ridgeland Road, Wybong Post Office Road and Yarraman Road). The traffic counts conducted indicated that background traffic levels were very low. With regard to Wybong Road the peak vehicle activity recorded was approximately 100-150 vehicles per hour for the morning period (6.00 am to 7.00 am) and afternoon period (4.00 pm to 5.00 pm) with each coinciding with Mangoola Coal Mine shift changes. Traffic counts in other periods for Wybong Road were much lower at around 30 to 40 vehicles per hour.

Construction impacts to traffic would occur throughout the construction period and lane closures for short periods would cause minor traffic delays. No temporary detours would be required for the proposed activity.

Changed traffic conditions during construction may result in short term delays to traffic.

4.8.1 Traffic Mitigation Measures

Traffic management measures will be prepared in accordance with the Transport for NSW (TfNSW) Traffic Control at Work Sites Manual (TfNSW, 2022) and QA Specification G10M Traffic Management (Maintenance Works) (TfNSW, 2022). Traffic measures will include:

- Measures to maintain access to local roads and properties.
- Site specific traffic control measures (including signage) to manage and regulate traffic movement.

4.9 Aboriginal Cultural Heritage Assessment

An extensive history of Aboriginal cultural heritage and archaeological assessments exists for the MCCO Project Area and immediate surrounds. In recent decades, the Upper Hunter Valley has become one of the most intensively studied regions in NSW with numerous archaeological surveys and excavations conducted in advance of proposed mining activity. This body of research has identified numerous archaeological sites and provides a broad understanding of archaeological site patterning at local and regional levels.

Due to the potential occurrence of Aboriginal artefacts in the area, Umwelt was engaged to complete an Aboriginal archaeology due diligence assessment for potential Aboriginal heritage impacts associated with the proposed activity. Details of the assessment are provided in **Appendix 2**. A pedestrian survey of the proposed activity was undertaken on the 31 March 2023 by Alison Fenwick. The archaeological surveys comprised inspection of the area to identify surface artefacts and consideration of the potential that additional artefacts may be present but not visible due to vegetation coverage and/or lack of exposure.

A search of the Heritage NSW administered Aboriginal Heritage Information Management System (AHIMS) database conducted on the 17 April 2023 returned 51 results for Aboriginal sites within the designated search area (Lat, Long From : -32.2854, 150.6413 - Lat, Long To : -32.2716, 150.6722.). There are no previously recorded sites within 50m of the proposed works area. The AHIMS search results are shown in **Figure 4.3**.

The previous archaeological investigations undertaken for the Mangoola Coal Mine provide a significant body of data with which to consider the likelihood that Aboriginal objects will be present within particular environmental contexts. These investigations have identified over 100 sites in the Big Flat Creek catchment, which the proposed activity is located in. With the exception of one rockshelter, all of the sites within the Big Flat Creek catchment consisted of artefact scatters and isolated finds. The majority of these sites were located in close proximity to the main channel of Big Flat Creek and may represent different exposures of archaeological evidence associated with this landform. However, it is noted that sites may occur within all landforms in the Big Flat Creek catchment (Umwelt 2010), albeit with varying frequency and density of artefacts.

The proposed area of works was inspected for previously unidentified Aboriginal sites and/or objects, however, due to extensive vegetation growth and the prevalence of introduced gravels and foreign materials associated with prior infrastructure works, visibility was greatly reduced. Due to the construction of Wybong Road and the existing culvert, the proposed areas of works, in addition to surrounding landscape, were highly disturbed and have been extensively modified.

The landform upon which the proposed works is situated can be described as a flat to gentle inclination slope. Multiple watercourses are located in the wider environs, with Big Flat Creek ~230 m south and Wybong Creek 250 m southwest. A minor tributary of Big Flat Creek runs directly underneath Wybong Road and through the extant culvert. As a result, the landscape to the north and south of Wybong Road consists of swampland (or similar). Although sources of fresh water, these minor tributaries are unlikely to represent a reliable source of water and are unlikely to have been utilised by the Aboriginal community. In addition, the flat to gently sloping landforms are not representative of an attractive camping location, nor would they be a suitable for short term occupation.

No Aboriginal sites and/or objects were identified during the course of the visual inspection. Additionally, no Aboriginal objects or sites have been previously identified within 50 m of the proposed works area, and due to the extensive disturbance resulting from site development, it is unlikely that any Aboriginal archaeological sites and/or objects would remain in situ. Overall, the archaeological potential of the area is assessed as low. Based on the limited access to reliable fresh water, lack of suitable elevated landforms and the nature of disturbance within the area, it is unlikely that Aboriginal people utilised the area for long term or short-term occupation. Due to the presence of multiple water courses in the wider environs, it is possible that Aboriginal people did travel across the landscape, in a transient manner. However, no Aboriginal objects were identified and due to the extensive disturbance of the area, it is unlikely that the artifactual evidence of their occupation would be identified in a surface or subsurface context within the proposed works area. It is therefore unlikely that the proposed works will result in harm to Aboriginal objects.

4.9.1 Aboriginal Cultural Heritage Mitigation Measures

To ensure the greatest possible protection to the area's Aboriginal cultural heritage values, the following recommended mitigation and management recommendations are provided with reference to the provisions of the NPW Act, the NPW Regulation, the due diligence code and the information as provided in **Appendix 2:**

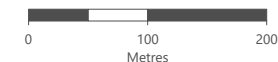
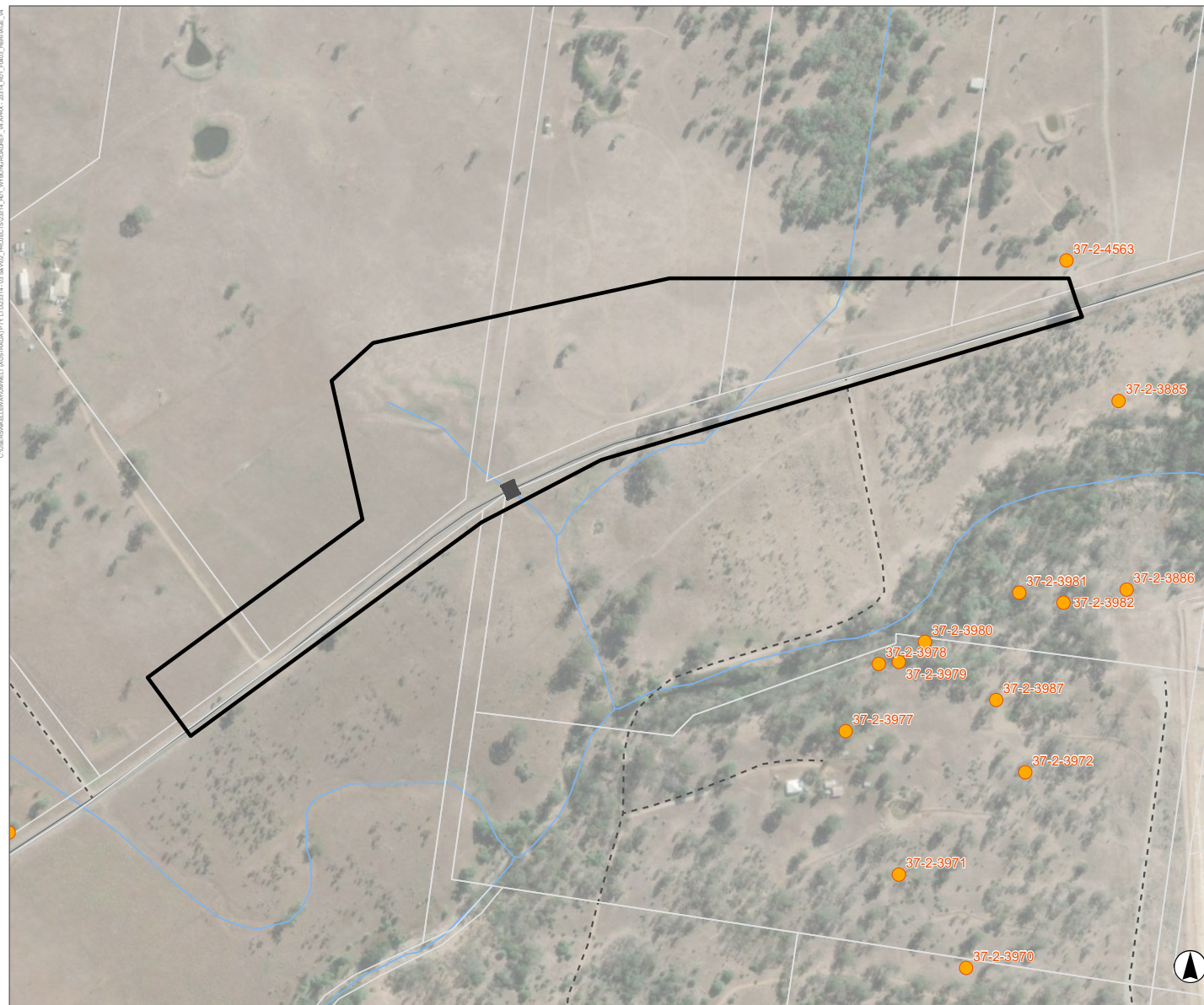
- All staff and contractors involved in the proposed activity should be made aware that it is an offence under Section 86 of the NPW Act to harm or desecrate an Aboriginal object unless that harm or desecration is the subject of an Aboriginal Heritage Impact Permit, or an approved Aboriginal Cultural Heritage Management Plan approved in relation to a State Significant Development.
- The proposed works may proceed with caution without requiring further archaeological assessment.
- In the event that an Aboriginal object or objects are uncovered during the proposed works, ground disturbance works should cease within 20 m of the object and management of the find should be undertaken generally in accordance with the process for the identification of new sites.
- In the unlikely event that human skeletal material is uncovered during the proposed works, all works should cease immediately, and management of the find should be undertaken generally in accordance with the procedure for the management of potential human skeletal remains.

FIGURE 4.3

Recorded Aboriginal Archaeological Sites

Legend

- AHIMS Site
- Proposed Culvert Design
- Road
- - - Track
- Watercourse
- ▭ Assessment Area
- ▭ Cadastre



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4.10 Visual Impacts

The Development Control Plan 2009 (DCP) applies to all land within the Muswellbrook Shire local government area and is used to assist proponents of development in achieving development outcomes, consistent with the provisions of the Muswellbrook Local Environment Plan 2009 (LEP).

The proposed activity is unlikely to impact the visual amenity of the local landscape as it will be located outside of the line of sight of sensitive receivers in the vicinity. The proposed activity will be constructed to meet the requirements as set out by the LEP and DCP and as a result will have a negligible impact on the visual amenity of the surrounding areas.

4.11 Public Access and Safety

The proposed activity aims to improve public safety along the local road network by facilitating safe and controlled traffic movements across Wybong Road during high rainfall events.

Construction of the proposed activity will be progressed while public access is maintained on Wybong Road. As stated in **Section 4.8**, site specific traffic control measures (including signage) will be implemented to manage and regulate traffic movement in a safe and controlled manner.

4.12 Socio-Economic Impacts

As described in the above sections of this REF all potential environmental and social impacts associated with the proposed activity are considered to be low to negligible. Accordingly, no socio-economic impacts are anticipated as result of the proposed activity.

4.13 Future Land Use

Once completed, the proposed activity will remain as a permanent part of the regional road network.

5.0 Ecologically Sustainable Development and Sustainability

Based on the findings of the assessments undertaken as part of this REF (refer to **Section 4.0**) it has been determined that the construction activities required for the proposed activity are unlikely to have adverse impacts on the environment including on soil and water resources, local biodiversity, and Aboriginal heritage. Accordingly, it is considered that the proposed activity is consistent with the principles of ESD and sustainability.

5.1 Sustainable Outcomes

The proposed activity was assessed on the sustainability regarding the impacts on the local biodiversity and risk to Aboriginal archaeology. These outcomes are included in the context of the Triple Bottom Line (TBL) elements as shown in **Table 5.1**.

Table 5.1 Sustainable Outcomes of the Proposed Activity

Triple Bottom Line Element	Component	Expected Outcome
Economic	No Impact.	No Impact.
Environmental	Conservation of Biological Diversity.	The undertaking of the due diligence process confirmed that no threatened species will be impacted as a result of the proposed activity. In this regard the proposed activity is not expected to impact on the conservation of biological diversity.
	Conservation of Aboriginal Heritage and Intergenerational Equality.	The undertaking of the due diligence process resulted in the conclusion that no Aboriginal objects or intact archaeological deposits will be harmed by the proposed activity. In this regard the proposed activity is not expected to impact on the conservation of Aboriginal heritage or intergenerational equity.
Social	No Impact.	No Impact

5.2 Cumulative Environmental Impacts

Due to the isolated nature of the proposed activity, no cumulative environmental impacts have been predicted in preparation of the REF. The construction and installation of the proposed activity is unlikely to result in any cumulative environmental impacts.

6.0 Environmental Factors Considered

6.1 Consideration of Clause 228 Factors

Consideration of each of each of the Clause 228 Factors of the Environmental Planning and Assessment Regulation 2000 is included in **Table 6.1** below. The Impacts have been quantified as:

- a. **Positive** – The overall effect on the environment is beneficial
- b. **Non-Significant Impact** – There is likely to be some detrimental impact on environment.
- c. **Significant Impact** – The impacts are significant and cannot be adequately mitigated. An EIS is required.
- d. **Neutral** – The overall effect on the environment is neither beneficial nor detrimental.
- e. **Not Applicable** – The factor cannot be applied in any way in any aspect of the activity.

Table 6.1 Consideration of Clause 228 Factors

Matters for Consideration	Impact
a) Any environmental impact on a community (e.g. public health, traffic and pedestrian safety, criminal activities, flooding).	Neutral
b) Any transformation of a locality (e.g., viability of current AND future land uses).	Neutral
c) Any environmental impact on the ecosystems of the locality (e.g. Marine or terrestrial habitats, trees, shrubs, wildlife, birds, insects, flora and fauna communities and corridors).	Neutral
d) Any reduction of the aesthetic, recreational, scientific, or other environmental quality or value of a locality (e.g., Streetscape, scenic views, vistas, lifestyle, convenience, aesthetic quality of natural and built environment).	Neutral
e) Any effect on a locality, place or building having aesthetic, Anthropological, archaeological, architectural, cultural, historical, scientific, or social significance or other special value for present or future generations (e.g., Heritage buildings, sacred sites, etc. See LEP & REP for listings).	Neutral
f) Any impact on the habitat of any protected fauna (within the meaning of the National Parks and Wildlife Act 1974).	Neutral
g) Any endangering of any species of animal, plant or other form of life, whether living on land, in water or in the air (refer to 7-part test under TSC Act and EPBC Act.).	Neutral
h) Any long-term effects on the environment (e.g. Soil, estuaries, creeks, air, aesthetics, noise, climate).	Neutral
i) Any degradation of the quality of the environment (e.g., Soil, estuaries, creeks, air, aesthetics, noise, climate).	Neutral
j) Any risk to the safety of the environment (e.g., Risk of fire or explosion, public health, traffic and pedestrian safety, chemical incidents, criminal activities, flooding).	Neutral
k) Any reduction of the range of beneficial uses of the environment (e.g., scenic views, vistas, water, or field sports, bushwalks, lifestyle, convenience, viability of current and future land uses, aesthetic quality of natural and built environment).	Neutral
l) Any pollution of the environment (e.g., Air, water or noise pollution).	Neutral
m) Any environmental problems associated with the disposal of waste (e.g., Solid or liquid wastes, effluent).	Neutral

Matters for Consideration	Impact
n) Any increased demands on resources (natural or otherwise) that are, or are likely to become, in short supply (e.g., Water, energy, hard rock, etc).	Neutral
o) Any cumulative environmental effect with other existing or likely future activities (e.g., Soil, estuaries, creeks, air, aesthetics, noise, climate).	Neutral

6.2 Consideration of Matters National Environmental Significance

Consideration of Matters National Environmental Significance (MNES) was undertaken in preparation of this REF (refer **Section 2.2**). The due diligence surveys conducted by Umwelt at the proposed activity location (refer to **Section 4.5**) detected no threatened species or species listed as MNES. Accordingly, the proposed activity does not require referral to the Commonwealth under the EPBC Act.

6.3 Summary of Mitigation Measures

As described in the above sections of this REF all potential environmental and social impacts associated with the proposed activity are considered to be low to negligible. Accordingly, it is considered that the majority of aspects are able to be managed utilising the proposed mitigation measures outline below. The exception was the biodiversity and Aboriginal due diligence assessments which outlined requirements for specific mitigation measures to manage the proposed activity. These are included below and will be adhered to.

Air Quality

Proactive controls and safeguards for the potential air quality impacts to be used during construction of the proposed activity include:

- All vehicles, machine and /or equipment used on site will be installed with suitable emissions control mechanisms that will be maintained to manufacturer standard.
- Any vehicles which are transporting waste, spoil or other fill materials will be covered during transport.
- Where possible, vehicles, plant and equipment will be switched off when not in use.
- Use of predictive meteorological forecasting to assist with construction planning when adverse meteorological conditions could give rise to dust emissions.
- Minimise double handling of materials.
- Minimise the distance of fall of materials during loading and tipping as far as practical.

Surface Water

It is anticipated that the ESCP will include the following controls to manage surface water and erosion impacts:

- Diversion of clean water around disturbed areas.
- Staging of works to minimise the extent of ground disturbance at any one time and progressive rehabilitation.

- All instream works are to be undertaken during a period of forecast dry weather that has a duration long enough to allow stabilisation of the works area to achieve a cover management factor (C-factor) of 0.05 (i.e., approximately 70% cover). Contingencies will be in place to ensure that the works area within the drainage channel can be stabilised to achieve a C-factor of 0.1 or less (i.e., approximately 60% cover) within four hours should the forecast prove inaccurate.
- Works on waterfront land will be scheduled for periods of low rainfall erosivity where possible. Where scheduling of works during periods of low rainfall erosivity is not possible or is impractical, erosion control measures should be implemented to ensure disturbed lands have C-factors less than 0.1 (i.e., more than approximately 60% ground cover) when the three-day forecast indicates that rain is likely. Management regimes should be established to ensure that the site can be stabilised (i.e., C-factor 0.1 or less) within 24 hours if the forecast is incorrect.
- Stockpiles managed in accordance with Blue Book standard drawing SD 4-1 Stockpiles and all stockpiles (if required) are to be placed in designated locations within the proposed activity site disturbance limits at locations identified on the progressive ESCPs.
- Stockpiles of erodible material that have the potential to cause environmental harm if displaced will:
 - be appropriately protected from wind, rain, concentrated surface flow and excessive up-slope stormwater surface flows
 - constructed on the contour at least 2 m (preferably 5 m) away from high erosion hazard areas, particularly areas of likely concentrated water flows, e.g., roads, slopes steeper than 10% etc.
 - not located within areas of degraded land (where possible), flood-prone or poorly drained areas.
- Fuels, chemicals, and liquids are stored in impervious bunded areas, a minimum of 50 m away from:
 - rivers, creeks, or any areas of concentrated water flow
 - flooded or poorly drained areas
 - slopes above 10%.
- Chemical spill kits will be available, and personnel will be familiarised in spill response.
- All vehicles and mobile plant will be appropriately maintained and subject to daily pre-start checks for fluid leakage.
- Bunded concrete wash-out bunds lined with plastic sheeting will be provided and sign posted so they are clearly identified by contractors and concrete agitator/pump drivers. No concrete wash-out will occur within 50 m of drainage lines or waterways.
- Inspection and maintenance of installed erosion and sediment controls.
- Downstream water quality monitoring (pH, turbidity and TSS).

Soils

Erosion and sediment control measures are to be implemented and maintained to:

- Prevent sediment moving offsite and sediment laden water entering any water course, drainage lines, or drainage inlets.
- Reduce water velocity and capture sediment on site. Minimise the amount of material transported from site to surrounding pavement surfaces.
- Divert clean water around the site (in accordance with the Managing Urban Stormwater, Soils and Construction Guidelines (the Blue Book) (Landcom, 2004)).

Biodiversity

Considering the results of the biodiversity surveys conducted for the proposed activity, the following mitigation measures are recommended to manage biodiversity impacts:

- If any trees with hollows are removed, appropriate measures to ensure wildlife are not affected should be implemented such as:
 - use of fauna spotter catcher and mechanical disturbance before removal
 - provide the equivalent number of nest boxes to compensate the removal of fauna habitat features.

Traffic and Transport

Traffic management measures will be prepared in accordance with the Transport for NSW (TfNSW) Traffic Control at Work Sites Manual (TfNSW, 2022) and QA Specification G10M Traffic Management (Maintenance Works) (TfNSW, 2022). Traffic measures will include:

- Measures to maintain access to local roads and properties.
- Site specific traffic control measures (including signage) to manage and regulate traffic movement.

Aboriginal Heritage

To ensure the greatest possible protection to the area's Aboriginal cultural heritage values, the following recommended mitigation and management recommendations are provided with reference to the provisions of the NPW Act, the NPW Regulation, the due diligence code and the information as provided in **Appendix 2**:

- All staff and contractors involved in the proposed activity should be made aware that it is an offence under Section 86 of the NPW Act to harm or desecrate an Aboriginal object unless that harm or desecration is the subject of an Aboriginal Heritage Impact Permit, or an approved Aboriginal Cultural Heritage Management Plan approved in relation to a State Significant Development.
- The proposed works may proceed with caution without requiring further archaeological assessment.
- In the event that an Aboriginal object or objects are uncovered during the proposed works, ground disturbance works should cease within 20 m of the object and management of the find should be undertaken generally in accordance with the process for the identification of new sites.

- In the unlikely event that human skeletal material is uncovered during the proposed works, all works should cease immediately, and management of the find should be undertaken generally in accordance with the procedure for the management of potential human skeletal remains.

6.4 Construction Environmental Management Plan

As the proposed activity will result in negligible environment impact, a Construction Environmental Management Plan has not been prepared and the mitigation measures provided in **Section 6.3** will be applied to the proposed activity.

However, as stated in **Section 4.2**, a detailed erosion and sediment control plan (ESCP) will be required to be prepared in accordance with the Blue Book and with reference to Best Practice Erosion and Sediment Control (International Erosion Control Association (Australasia), 2008). The ESCP will be required to include the mitigation measures provided in **Section 6.3** relating to surface water management.

7.0 Conclusion

This REF has been prepared to support an application to be made by Mangoola to MSC under Section 138 of the *Roads Act 1993* for the approval of the proposed activity as it is required over road corridors owned and managed by MSC.

As stated in **Section 1.1**, under Part 5 Section 5.5 of the EP&A Act, MSC has the duty to examine and consider to the fullest extent possible all matters affecting or likely to affect the environment by reason of that activity. This REF has been prepared to allow MSC to consider the possible impacts of the proposed activity applied for under Section 138 of the *Roads Act 1993*.

The REF has assessed the potential environmental impacts of the proposed activity which requires work within MSC's road corridors to improve the local road network.

Potential environmental impacts to biodiversity and Aboriginal archaeology present in the vicinity of the proposed activity have been assessed in preparation of this REF. As a result of the scientific surveys undertaken, it is concluded that the proposed activity is unlikely to impact threatened species or impact Aboriginal heritage.

Safeguards and management measures as detailed in this REF will minimise the potential for impacts of the proposed activity enabling it to proceed in a safe and sustainable manner.

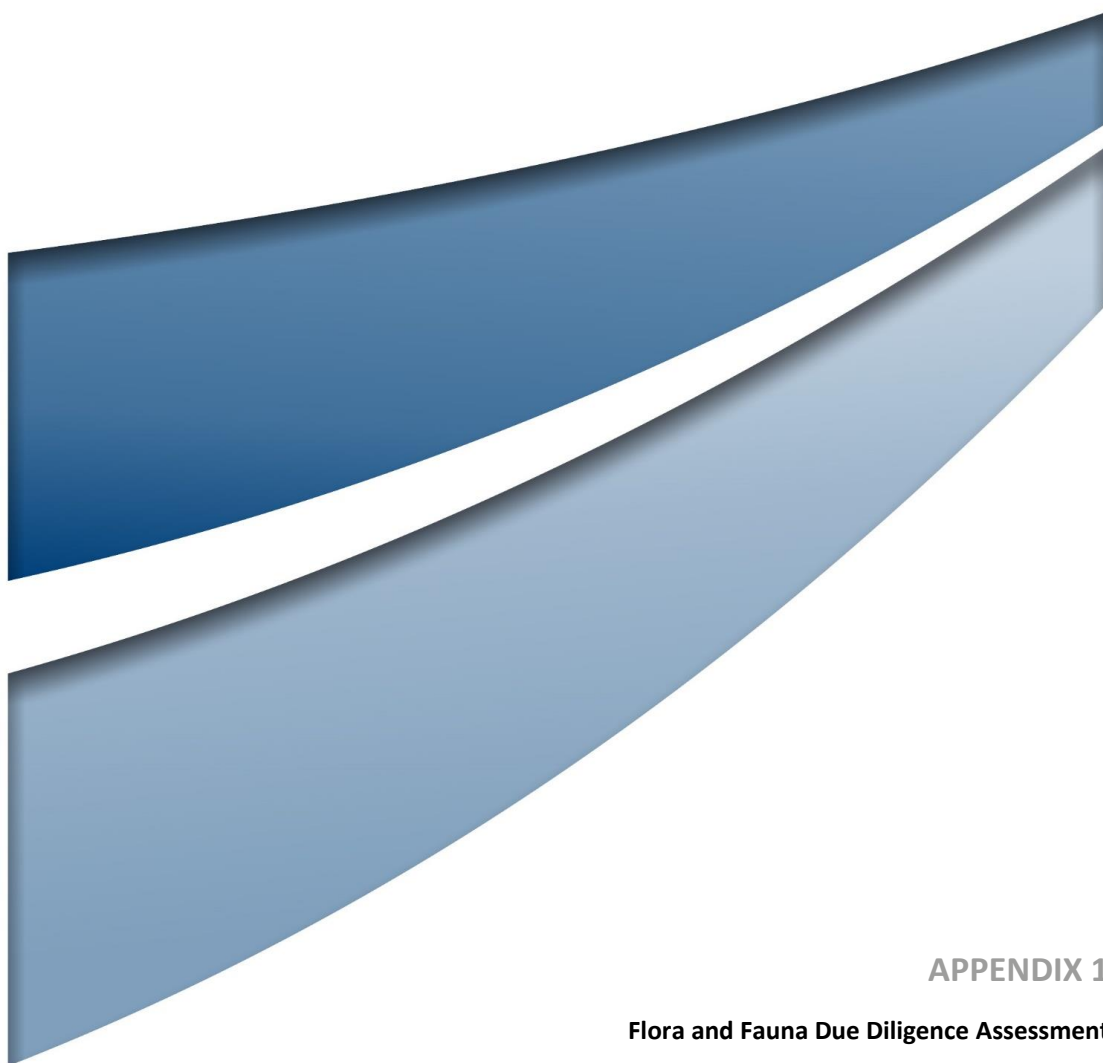
8.0 References

- Department of Environment and Climate Change NSW. (2009). Interim Construction Noise Guideline. Retrieved April 10, 2023, from <https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/noise/09265cng.pdf?la=en&hash=EF4576FD79DBB25D5AC22DFA1A883A2BADA1F77B>
- Department of Environment and Climate Change NSW. (2008). Managing Urban Stormwater - Soils and Construction Volume 2D Main road construction. Retrieved April 11, 2023, from <https://www.environment.nsw.gov.au/-/media/oeh/corporate-site/documents/water/water-quality/managing-urban-stormwater-soils-construction-volume-2d-main-road-construction-08207.pdf>
- GHD. (2019). Mangoola Coal Continued Operations Project Traffic and Transport Report .
- International Erosion Control Association (Australasia). (2008). Best Practice Erosion and Sediment Control.
- Landcom. (2004). Managing Urban Stormwater: Soils and construction - Volume 1. Retrieved April 11, 2023, from <https://www.environment.nsw.gov.au/research-and-publications/publications-search/managing-urban-stormwater-soils-and-construction-volume-1-4th-edition>
- NSW Department of Planning and Environment. (2022a). Controlled activities – Guidelines for riparian corridors on waterfront land. Retrieved April 11, 2023, from https://www.nrar.nsw.gov.au/__data/assets/pdf_file/0008/386207/licensing_approvals_controlled_activities_riparian_corridors.pdf
- NSW Department of Planning and Environment. (2022b). Controlled activities – Guidelines for instream works on waterfront land. Retrieved April 11, 2023, from https://www.dpie.nsw.gov.au/__data/assets/pdf_file/0005/386204/licensing_approvals_controlled_activities_instream_works.pdf
- NSW Department of Planning and Environment. (2022c). Controlled activities – Guidelines for vegetation management plans on waterfront land. Retrieved April 11, 2023, from https://water.nsw.gov.au/__data/assets/pdf_file/0009/386208/Fact-sheet-Guidelines-for-vegetation-management-plans-on-waterfront-land-May-2022.pdf
- NSW Department of Planning and Environment. (2022d). Controlled activities – Guidelines for watercourse crossings on waterfront land. Retrieved April 11, 2023, from https://www.nrar.nsw.gov.au/__data/assets/pdf_file/0010/386209/licensing_approvals_controlled_activities_watercourse_crossings.pdf#:~:text=These%20guidelines%20relate%20to%20the%20design%20and%20construction,ecological%20values%20and%20functions%20of%20th
- NSW Environment Protection Authority. (2014). Waste Classification Guidelines. Retrieved from <https://www.epa.nsw.gov.au/your-environment/waste/classifying-waste/waste-classification-guidelines>
- Transport for NSW. (2022). QA Specification G10M: Traffic Management (Maintenance Works). Retrieved April 8, 2023, from <https://roads-waterways.transport.nsw.gov.au/business-industry/partners-suppliers/documents/specifications/g010m.pdf#:~:text=This%20Specification%20sets%20out%20the%20requirements%20for%20managing,Traffic%20Control%20Devices%20to%20direct%20and%20control%20>



Transport for NSW. (2022). Traffic control at work sites. Retrieved April 8, 2023, from <https://standards.transport.nsw.gov.au/search-standard-specific/?id=TBA%20-%200004229:2022>

Umwelt Pty Ltd (Australia). (2019). Mangoola Coal Continued Operations Project: Environmental Impact Statement.



APPENDIX 1

Flora and Fauna Due Diligence Assessment



Our Ref: 23314_R03_20230510_ltr

10 May 2023

Liam Richards
Environment and Community Coordinator
Mangoola - Glencore Coal Assets Australia

E | Liam.Richards@glencore.com.au

Dear Liam

RE: Ecological Due Diligence for Wybong Road Culvert Upgrade Project

Mangoola Coal Mine is an existing open cut coal mine located approximately 20 km west of Muswellbrook and 10 km north of Denman in the Upper Hunter Valley of NSW. Mangoola Coal Operations Pty Limited (Mangoola) which is owned by Glencore Coal Pty Ltd (Glencore) has operated the Mangoola Coal Mine in accordance with NSW Project Approval (PA) 06_0014 since mining commenced at the site in September 2010.

The Mangoola Coal Continued Operations (MCCO) Project (SSD 8642) was approved by the NSW Independent Planning Commission on 26 April 2021 in accordance with Part 4 of the Environmental Planning and Assessment Act 1979 (EPA Act). Commonwealth approval EPBC 2018/8280 under the Environmental Protection & Biodiversity Conservation Act 1999 (EPBC Act) was received from the Federal Minister for the Environment on 1 October 2021.

The MCCO Project has been approved to extend mining to a new area north of Wybong Road to provide access to approximately 52 million tonnes of run-of-mine (ROM) coal. The approval covers undertaking various construction activities associated with establishing the new mining area as described in the MCCO Project Environmental Impact Statement (EIS). This includes establishing Clean Water Diversion Drains to service the new mining area, one to the north and one to the west. Construction of the MCCO Project commenced in accordance with SSD 8642 in December 2021 and the Project execution is nearing completion.

Following the recent construction of the western Clean Water Diversion Drain (herein referred to as Clean Water Drain 1 (CWD1) and following additional engineering investigations a need for additional culvert capacity on Wybong Road has been identified. Following engagement with Muswellbrook Shire Council (Council), Mangoola has agreed to further investigate, seek approval and construct the upgrade of the existing Wybong Road culverts to accommodate high-rainfall events herein described as the proposed activity.

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Pty Limited

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Umwelt (Australia) Pty Ltd was commissioned by the Mangoola to undertake an ecological due diligence inspection for the proposed upgrade to culverts along Wybong Road, for the purpose to increase the draining capacity for high-rainfall events. This will consist of replacing the existing 3 cell (600 mm diameter) culverts with a revised installation to increase hydraulic conductivity under Wybong Road for the purpose of increasing hydraulic capacity in which will improve flood mitigation for this specific section of Wybong Road.

1.0 Methodology

Umwelt senior ecologist Rhys Osborne undertook the inspection of the existing culvert on the 29th of March 2023. The assessment area was approximately 6.2 km west from the intersection entrance of Mangoola Coal Mine with the inspection area extending approximately 10 m either side of the existing culvert within the road corridor (hereafter referred to as the assessment area) (refer to **Figure 1.1**).

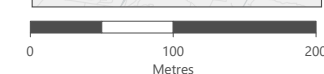
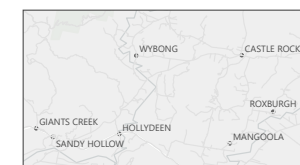
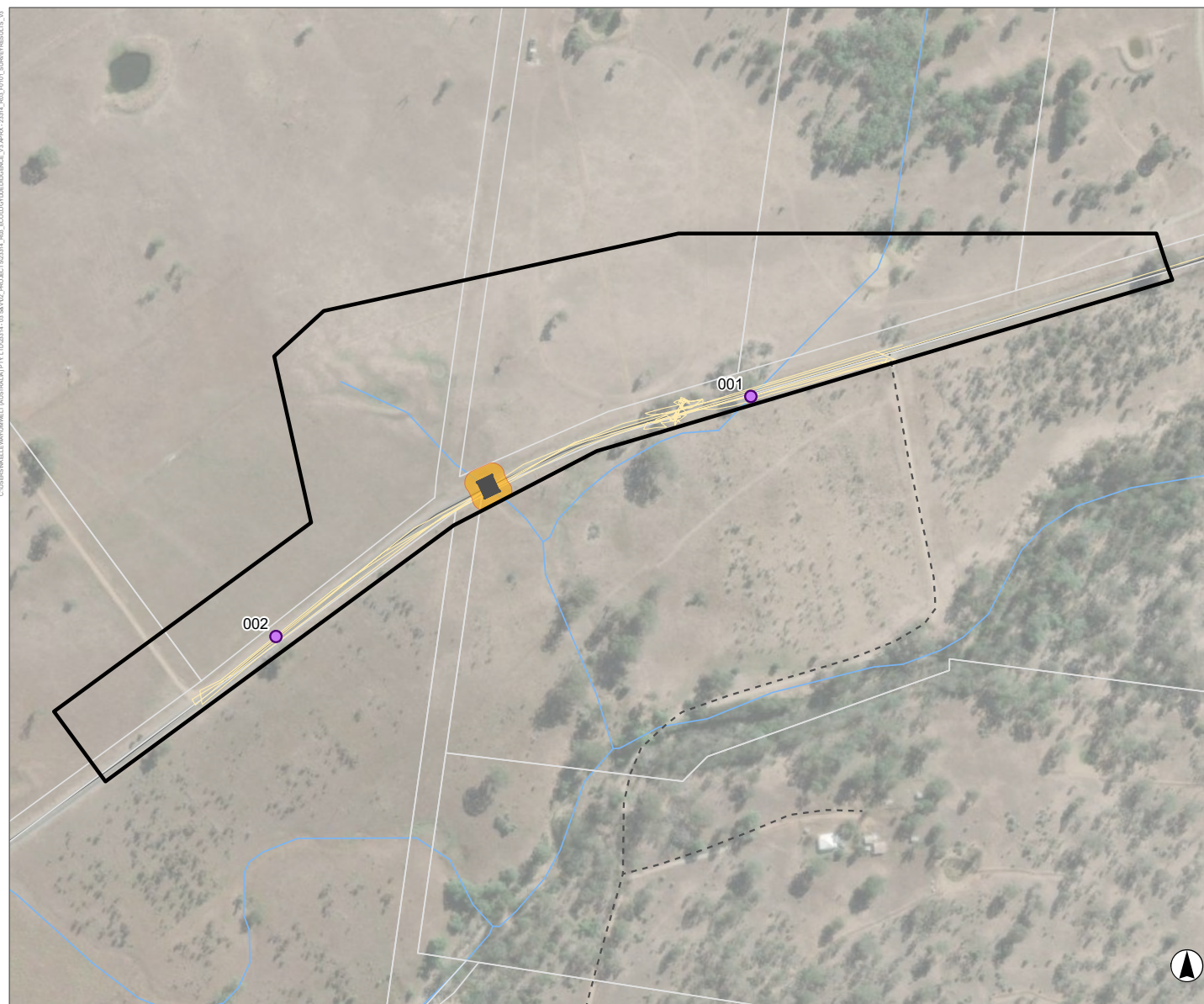
The inspection sought to identify threatened flora and fauna species and threatened ecological communities (and their habitats) occurring in or in proximity to the existing culverts.

FIGURE 1.1

Inspection Area and Survey Results

Legend

- Hollow Bearing Trees
- Survey Tracks
- Proposed Culvert Design
- Watercourse
- Road
- - - Track
- Assessment Area
- Inspection Area
- Cadastre



Scale 1:4,500 at A4
GDA 1994 MGA Zone 56

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APPROVED FOR AND ON BEHALF OF Umwelt

Image Source: ESRI Basemap (2022) Data source: NSW DFSI (2022)

2.0 Results

2.1 Threatened Flora and Fauna

No threatened flora or fauna species listed under the *Biodiversity Conservation Act 2016* (BC Act) or the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) were recorded within the assessment area.

The current culvert structures are not considered to provide habitat for threatened microbat species given the small size and location of culvert entrances. Culverts were found to be in good condition with no signs of defects that are associated with roost habitats for threatened microbat species.

One ephemeral drainage line was observed extending south of existing culvert to flow into Big Flat Creek. A small stagnate pool (less than 2 m in length) were observed at both culvert entrances during the site inspection.

2.2 Vegetation Communities

Vegetation within assessment area comprised an exotic ground layer (Refer to **Photo 2.1 – Photo 2.3**). The exotic ground layer was dominated by paspalum (*Paspalum dilatatum*), Rhodes grass (*Chloris gayana*), and purple top (*Verbena bonariensis*). Exotic species including farmers friends (*Bidens pilosa*), curled dock (*Rumex crispus*) flax-leaf fleabane (*Conyza bonariensis*), fireweed (*Senecio madagascarensis*), coolatai grass (*Hyparrhenia hirta*), African lovegrass (*Eragrostis curvula*), galenia (*Galenia pubescens*), Paddy's lucerne (*Sida rhombifolia*) were commonly observed within the assessment area. The presence of native flora species within the assessment area was limited to common couch (*Cynodon dactylon*).

Vegetation within the assessment area is not considered to conform to any Threatened Ecological Community (TEC) listed under the (BC Act or EPBC Act).



Photo 2.1 Vegetation at the northern culvert entrance (photo direction west)



Photo 2.2 Vegetation at the northern culvert entrance (photo direction east)



Photo 2.3 Vegetation at the southern culvert entrance (photo direction west)



Photo 2.4 Vegetation at the southern culvert entrance (photo direction east)

3.0 Assessment of Significance

Although no threatened species or TECs were identified in the assessment area during the visit, a review of recent project assessments and publicly available datasets was completed to determine if any threatened species or TEC could potentially occur in the assessment area (refer to **Appendix 1**). This process identified a total of 16 TEC's, 21 threatened flora species, 55 threatened fauna species and 13 Migratory species listed under the BC Act and or EPBC Act potentially occurring in proximity to the assessment area.

Assessments of significance, in accordance with the EP&A Act and EPBC Act, were precautionarily completed for potentially occurring threatened species and TEC and included in **Appendix 2**. Based on the outcomes of those assessments, the proposed upgrade of an existing culvert along Wybong Road is unlikely to result in a significant impact to any BC Act and or EPBC Act listed threatened species or communities within or in the proximity of the assessment area.

4.0 Conclusion

This ecological due diligence assessment has considered the impact of works to upgrade the existing culvert along Wybong Road. This assessment considers the impacts of the works are unlikely to have a significant impact on any potentially occurring threatened or migratory species or TEC listed under the BC Act or EPBC Act.

We trust this information meets with your current requirements. Please do not hesitate to contact the undersigned on 1300 793 267 should you require clarification or further information.

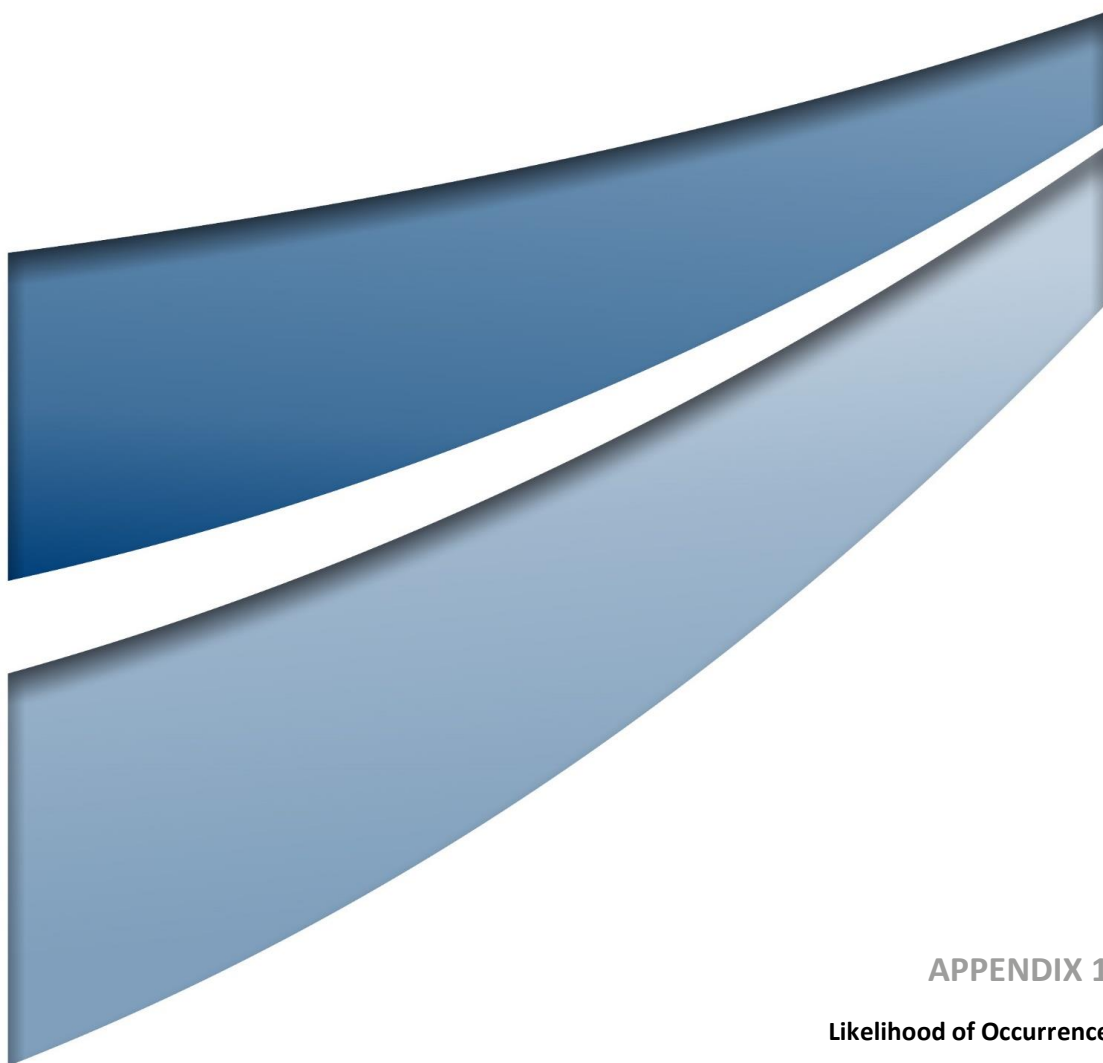
Yours sincerely



Rhys Osborne
Senior Ecologist

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APPENDIX 1

Likelihood of Occurrence

Appendix 1 - Species List and Likelihood Assessment

Threatened and migratory species, endangered populations and threatened ecological communities (TECs) listed under the *Biodiversity Conservation Act* (BC Act) and/or *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) having the potential to occur in the inspection area have been identified based on the results of the searches of the Department of Planning and the Environment (DPE) Atlas of NSW Wildlife Database and Commonwealth Department of Agriculture, Water and the Environment (DAWE) Protected Matters Database and are outlined in **Table A.1**.

Additionally, migratory species listed under international agreements being the Bonn Convention (Bonn), China-Australia Migratory Bird Agreement (CAMBA), Japan-Australia Migratory Bird Agreement (JAMBA) or Republic of Korea-Australia Migratory Bird Agreement (ROKAMBA) with potential to occur in the inspection area have also been identified based on the results of the searches and are outlined in **Table A.2**.

The likelihood of a community/species to occur in the inspection area is noted using the following definitions:

Term	Definition
Recorded	Species/community has been recorded within the inspection area
Likely	Suitable habitat is present for this species/community and/or records of the species are known to occur in the immediate locality
Moderate	Suitable habitat is present for this species/community and/or however records of the species are not known to occur in the immediate locality
Unlikely	Species/community is considered unlikely to occur within the inspection area due to lack of local records and/or lack of suitable habitat
Not present	Species/community was not recorded in the inspection area and is not expected to occur due to its distribution, habitat requirements or lack of local records.

The potential for threatened species/communities to be impacted was determined by the presence of habitat and habitat features recorded within the inspection area during the site inspection. Where the proposed works are not predicted to impact key habitat, features associated with the occurrence of threatened species/communities, they are identified as likely to occur but not likely to be impacted.

Species/communities with a reasonable potential to be impacted by the proposed development were subject to preliminary Five Part Tests of Significance under the BC Act and/or Assessments of Significance under the EPBC Act.

Abbreviations used within **Table A.1** and **Table A.2** include the following:

Abbreviation	Definition
V	Vulnerable
E	Endangered
EEC	Endangered Ecological Community
CE	Critically Endangered
CEEC	Critically Endangered Ecological Community
VEC	Vulnerable Ecological Community
C	CAMBA
J	JAMBA
K	ROKAMBA
B	Bonn

Table A-1 Likelihood of Occurrence of Threatened Species and TECs Recorded or with Potential to Occur within 10 km of the inspection area

Species Name		Status		Likelihood to Occur within the inspection area	BioNet Records within 10 km	Test of Significance Prepared
Scientific Name	Common Name	BC Act	EPBC Act			
Threatened Ecological Communities						
Grey Box (<i>Eucalyptus microcarpa</i>) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia		EEC	EEC	Not likely to be present based on regional mapping and extensive knowledge of the region in which the anticipated impacts occur.	-	No
Coastal Saltmarsh in the New South Wales North Coast, Sydney Basin and South East Corner Bioregions		EEC		Not likely to be present based on regional mapping and extensive knowledge of the region in which the anticipated impacts occur.		No
Coastal Swamp Sclerophyll Forests of NSW and South East Queensland		EEC	EEC	Not likely to be present based on regional mapping and extensive knowledge of the region in which the anticipated impacts occur.	-	No
Coolibah - Black Box Woodlands of the Darling Riverine Plains and the Brigalow Belt South Bioregions		EEC	EEC	Not likely to be present based on regional mapping and extensive knowledge of the region in which the anticipated impacts occur.	-	No
Central Hunter Grey Box—Ironbark Woodland in the New South Wales North Coast and Sydney Basin Bioregions.		EEC	-	Recorded adjacent to road corridor for MCCO Continued Operations Project, though highly disturbed. Roadside vegetation within assessment area dominated by exotic ground layer species. Inspection area not considered to conform to CEEC.	-	No
Central Hunter Ironbark – Spotted Gum – Grey Box Forest in the New South Wales North Coast and Sydney Basin Bioregions		EEC		Not likely to be present based on regional mapping and extensive knowledge of the region in which the anticipated impacts occur.		No
Central Hunter Valley eucalypt forest and woodland		-	CEEC	Not likely to be present based on absence of soil derived from Permian sediment	-	No
Freshwater Wetlands on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and Southeast Corner Bioregions		EEC		Not likely to be present based on regional mapping and extensive knowledge of the region in which the anticipated impacts occur.		No

Species Name		Status		Likelihood to Occur within the inspection area	BioNet Records within 10 km	Test of Significance Prepared
Scientific Name	Common Name	BC Act	EPBC Act			
<i>Weeping Myall Woodlands</i>		EEC	EEC	Not likely to be present based on regional mapping and extensive knowledge of the region in which the anticipated impacts occur.	-	No
<i>White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland</i>		CEEC	CEEC	Not likely to be present based on regional mapping and extensive knowledge of the region in which the anticipated impacts occur.	-	No
<i>Hunter Floodplain Red Gum Woodland in the NSW North Coast and Sydney Basin Bioregions</i>		EEC		Not likely to be present based on regional mapping and extensive knowledge of the region in which the anticipated impacts occur.		No
<i>Hunter Lowland Redgum Forest in the Sydney Basin and New South Wales North Coast Bioregions</i>		EEC		Not likely to be present based on regional mapping and extensive knowledge of the region in which the anticipated impacts occur.		No
<i>Hunter Valley Footslopes Slaty Gum Woodland in the Sydney Basin Bioregion</i>		VEC		Not likely to be present based on regional mapping and extensive knowledge of the region in which the anticipated impacts occur.		No
<i>Hunter Valley Weeping Myall (Acacia pendula) Woodland</i>		CEEC	CEEC	Not likely to be present based on regional mapping and extensive knowledge of the region in which the anticipated impacts occur.	-	No
<i>River-flat eucalypt forest on coastal floodplains of southern New South Wales and eastern Victoria</i>		EEC	CEEC	Not likely to be present based on regional mapping and extensive knowledge of the region in which the anticipated impacts occur.	-	No
<i>Swamp Oak Floodplain Forest of the New South Wales North Coast, Sydney Basin and Southeast Corner Bioregions</i>		EEC		Not likely to be present based on regional mapping and extensive knowledge of the region in which the anticipated impacts occur.		No
Threatened Flora Species						
<i>Acacia pendula</i> population in the Hunter Catchment		E	-	Unlikely. Suitable habitat not present based on regional mapping.	234	No

Species Name		Status		Likelihood to Occur within the inspection area	BioNet Records within 10 km	Test of Significance Prepared
Scientific Name	Common Name	BC Act	EPBC Act			
<i>Cymbidium canaliculatum</i> population in the Hunter Catchment		E	-	Unlikely. Suitable habitat not present.	48	No
<i>Commersonia rosea</i>		E	E	Unlikely. Suitable habitat not present based on regional mapping and roadside location of disturbance.	1	No
<i>Androcalva rosea</i>	Sandy Hollow	-	E	Unlikely. Suitable habitat not present.		No
<i>Euphrasia arguta</i>	-	-	CE	Unlikely. Suitable habitat not present.		No
<i>Eucalyptus pumila</i>	Pokolbin Mallee	-	V	Unlikely. Suitable habitat not present.		No
<i>Lepidium aschersonii</i>	Spiny Peppergrass	-	V	Unlikely. Suitable habitat not present.		No
<i>Dichanthium setosum</i>	Bluegrass	-	V	Unlikely. Suitable habitat not present.		No
<i>Pomaderris brunnea</i>	Rufous Pomaderris, Brown Pomaderris	-	V	Unlikely. Suitable habitat not present.		No
<i>Homoranthus darwinioides</i>		-	V	Unlikely. Suitable habitat not present.		No
<i>Androcalva procumbens</i>		-	V	Unlikely. Suitable habitat not present.		No
<i>Thesium australe</i>	Austral Toadflax, Toadflax	-	V	Unlikely. Suitable habitat not present.		No
<i>Prostanthera cryptandroides</i> subsp. <i>cryptandroides</i>	Wollemi Mint-bush	-	V	Unlikely. Suitable habitat not present.		No
<i>Ozothamnus tessellatus</i>		-	V	Unlikely. Suitable habitat not present.		No
<i>Diuris tricolor</i>	Pine donkey orchid	V	-	Potential. Degraded grassland habitat may support this species however previous studies have failed to detect this species in this specific locality.	3094	Yes
<i>Lasiopetalum longistamineum</i>	-	V	V	Unlikely. Suitable habitat not present based on regional mapping and roadside location of disturbance.	17	No

Species Name		Status		Likelihood to Occur within the inspection area	BioNet Records within 10 km	Test of Significance Prepared
Scientific Name	Common Name	BC Act	EPBC Act			
<i>Ozothamnus tessellatus</i>	-	V	V	Unlikely. Suitable habitat not present based on regional mapping and roadside location of disturbance.	3	No
<i>Pomaderris queenslandica</i>	Scant Pomaderris	E	-	Unlikely. Suitable habitat not present based on regional mapping and roadside location of disturbance.	14	No
<i>Pomaderris reperta</i>	Denman Pomaderris	E	CE	Unlikely. Suitable habitat not present based on regional mapping and roadside location of disturbance.	52	No
<i>Prasophyllum petilum</i>	A leek-orchid	E		Potential. Degraded grassland habitat may support this species however previous studies have failed to detect this species in this locality.	269	Yes
<i>Prasophyllum sp. Wybong</i>	-		CE	Potential. Degraded grassland habitat may support this species however previous studies have failed to detect this species in this locality.	76	Yes
Threatened Fauna Species						
Amphibians						
<i>Litoria booroolongensis</i>	Booroolong Frog	E	E	Unlikely. Suitable habitat not present (no wet areas to be impacted) and no records within 10 km.	-	No
<i>Heleioporus australiacus</i>	Giant Burrowing Frog	-	V	Unlikely. Suitable habitat not present (no wet areas to be impacted) and no records within 10 km.	-	
Reptiles						
<i>Delma impar</i>	Striped Legless Lizard, Striped Snake-lizard	V	V	Unlikely. Suitable habitat not present (roadside verges to be impacted) and no records within 10 km.	-	No
<i>Aprasia parapulchella</i>	Pink-tailed Worm-lizard, Pink-tailed Legless Lizard	V	V	Unlikely. Suitable habitat not present (roadside verges to be impacted) and no records within 10 km.	-	No

Species Name		Status		Likelihood to Occur within the inspection area	BioNet Records within 10 km	Test of Significance Prepared
Scientific Name	Common Name	BC Act	EPBC Act			
Birds						
<i>Lathamus discolor</i>	Swift Parrot	E	CE	Unlikely. Marginal habitat present (roadside verges to be impacted). No records within 10 km.	-	No
<i>Anthochaera phrygia</i>	Regent Honeyeater	CE	CE	Unlikely. Marginal habitat present (roadside verges to be impacted). No records within 10 km.	-	No
<i>Numenius madagascariensis</i>	Eastern Curlew	E	CE	Unlikely. Suitable habitat not present (roadside verges to be impacted) and no records within 10 km.	-	No
<i>Calidris ferruginea</i>	Curlew Sandpiper	V	CE	Unlikely. Suitable habitat not present (roadside verges to be impacted) and no records within 10 km.	-	No
<i>Botaurus poiciloptilus</i>	Australasian Bittern	V	E	Unlikely. Suitable habitat not present (roadside verges to be impacted) and no records within 10 km.	-	No
<i>Rostratula australis</i>	Australian Painted Snipe	V	E	Unlikely. Suitable habitat not present (roadside verges to be impacted) and no records within 10 km.	-	No
<i>Grantiella picta</i>	Painted Honeyeater	E	V	Unlikely. Marginal habitat present (roadside verges to be impacted).	2	No
<i>Hirundapus caudacutus</i>	White-throated Needletail	V	-	Unlikely. No suitable habitat present (roadside verges to be impacted).	1	No
<i>Botaurus poiciloptilus</i>	Australasian Bittern	E	-	Unlikely. Suitable habitat not present (roadside verges to be impacted) and no records within 10 km.	-	No
<i>Circus assimilis</i>	Spotted Harrier	V	-	Unlikely. No suitable habitat present (roadside verges to be impacted).	8	No
<i>Haliaeetus leucogaster</i>	White-bellied Sea-Eagle	V	-	Unlikely. No suitable habitat present (roadside verges to be impacted).	2	No
<i>Hieraaetus morphnoides</i>	Little Eagle	V	-	Unlikely. No suitable habitat present (roadside verges to be impacted).	3	No

Species Name		Status		Likelihood to Occur within the inspection area	BioNet Records within 10 km	Test of Significance Prepared
Scientific Name	Common Name	BC Act	EPBC Act			
<i>Falco subniger</i>	Black Falcon	V	-	Unlikely. No suitable habitat present (roadside verges to be impacted).	2	No
<i>Falco hypoleucos</i>	Grey Falcon		V	Unlikely. No suitable habitat present (roadside verges to be impacted).	-	No
<i>Aphelocephala leucopsis</i>	Southern Whiteface		V	Unlikely. No suitable habitat present (roadside verges to be impacted).	-	No
<i>Polytelis swainsonii</i>	Superb parrot	V	V	Unlikely. No suitable habitat present (roadside verges to be impacted).	-	No
<i>Neophema pulchella</i>	Turquoise Parrot	V	-	Unlikely. No suitable habitat present (roadside verges to be impacted).	2	No
<i>Erythrorhynchus radiatus</i>	Red Goshawk	E	E	Unlikely. No suitable habitat present (roadside verges to be impacted).	-	No
<i>Callocephalon fimbriatum</i>	Gang-gang Cockatoo	V	E	Unlikely. No suitable habitat present (roadside verges to be impacted).	4	No
<i>Calyptorhynchus lathami</i>	Glossy Black-Cockatoo	V	V	Unlikely. No suitable habitat present (roadside verges to be impacted).	17	No
<i>Glossopsitta pusilla</i>	Little Lorikeet	V	-	Unlikely. Marginal habitat present (roadside verges to be impacted).	6	No
<i>Ninox connivens</i>	Barking Owl	V	-	Potential impacts to foraging habitat, particularly over grasslands.	3	No
<i>Ninox strenua</i>	Powerful Owl	V	-	Potential impacts to foraging habitat, particularly over grasslands.	2	No
<i>Tyto novaehollandiae</i>	Masked Owl	V	-	Potential impacts to foraging habitat, particularly over grasslands.	4	No

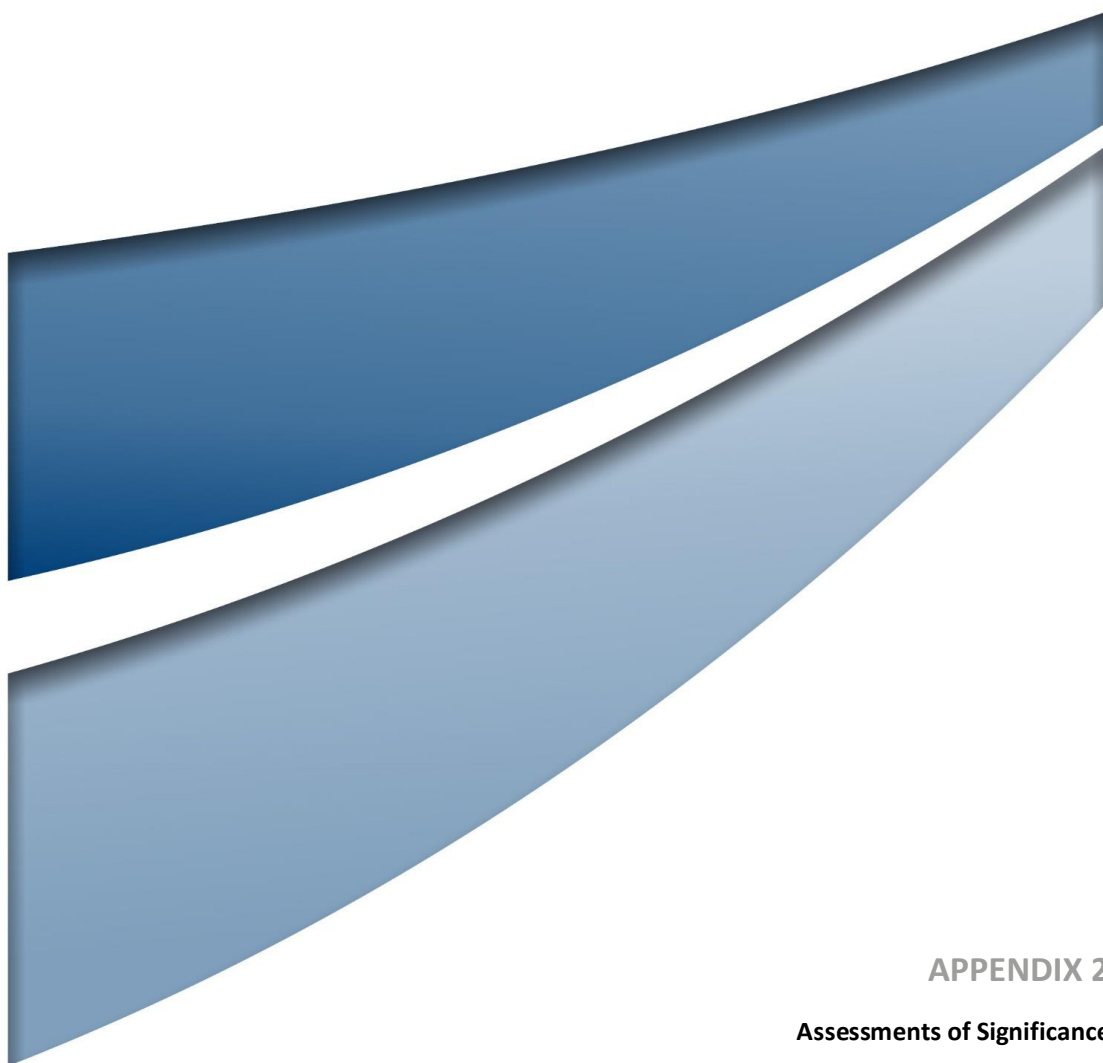
Species Name		Status		Likelihood to Occur within the inspection area	BioNet Records within 10 km	Test of Significance Prepared
Scientific Name	Common Name	BC Act	EPBC Act			
<i>Chthonicola sagittata</i>	Speckled Warbler	V	-	Potential. Common species in open woodlands Habitat is marginal in inspection area due to disturbed nature and proximity to major roadways (roadside verges to be impacted).	82	Yes
<i>Climacteris picumnus victoriae</i>	Brown Treecreeper	V	V	Potential. Common species in open woodlands Habitat is marginal in inspection area Inspection Area assessment area due to disturbed nature and proximity to major roadways (roadside verges to be impacted).	52	Yes
<i>Neophema chrysostoma</i>	Blue-winged Parrot		V	Unlikely. No suitable habitat present (roadside verges to be impacted).	-	No
<i>Pomatostomus temporalis temporalis</i>	Grey-crowned Babbler	V	-	Potential. Common species in open woodlands Habitat is marginal in inspection area due to disturbed nature and proximity to major roadways (roadside verges to be impacted).	69	Yes
<i>Artamus cyanopterus cyanopterus</i>	Dusky Woodswallow	V	-	Unlikely. No suitable habitat in inspection area Inspection Area assessment area due to disturbed nature and proximity to major roadways (roadside verges to be impacted).	10	No
<i>Daphoenositta chrysoptera</i>	Varied Sittella	V	-	Unlikely. No suitable habitat in inspection area Area assessment area due to disturbed nature and proximity to major roadways (roadside verges to be impacted).	13	No
<i>Petroica boodang</i>	Scarlet Robin	V	-	Unlikely. No suitable habitat in inspection area Inspection Area assessment area due to disturbed nature and proximity to major roadways (roadside verges to be impacted).	4	No

Species Name		Status		Likelihood to Occur within the inspection area	BioNet Records within 10 km	Test of Significance Prepared
Scientific Name	Common Name	BC Act	EPBC Act			
<i>Melanodryas cucullata cucullata</i>	Hooded Robin	V	E	Unlikely. No suitable habitat in inspection areaassessment areaInspection Area due to disturbed nature and proximity to major roadways (roadside verges to be impacted).	20	No
<i>Stagonopleura guttata</i>	Diamond Firetail	V	V	Unlikely. No suitable habitat in inspection areaassessment area in Inspection Area due to disturbed nature and proximity to major roadways (roadside verges to be impacted).	7	No
Mammals						
<i>Dasyurus maculatus</i>	Spotted-tail quoll	V	E	Unlikely. No suitable habitat in inspection areaassessment areaInspection Area due to disturbed nature and proximity to major roadways (roadside verges to be impacted).	2	No
<i>Phascolarctos cinereus</i>	Koala	V	E	Unlikely. No suitable habitat in inspection areaassessment areaInspection Area due to disturbed nature and proximity to major roadways (roadside verges to be impacted).	1	No
<i>Petaurus norfolcensis</i>	Squirrel glider	V	-	Unlikely. No suitable habitat in inspection areaassessment areaInspection Area due to disturbed nature and proximity to major roadways (roadside verges to be impacted).	16	No
<i>Petaurus australis australis</i>	Yellow-bellied Glider (south-eastern)	-	V	Unlikely. No suitable habitat present (roadside verges to be impacted).	-	No
<i>Petrogale penicillata</i>	Brush- tailed rock wallaby	E	V	Unlikely. No suitable habitat present (roadside verges to be impacted).	2	No
<i>Pteropus poliocephalus</i>	Grey-headed flying-fox	V	V	Unlikely. Closest known camps at Mudgee and Muswellbrook greater than 50km away. Species typically forages up to 40 km in a night.	2	No

Species Name		Status		Likelihood to Occur within the inspection area	BioNet Records within 10 km	Test of Significance Prepared
Scientific Name	Common Name	BC Act	EPBC Act			
<i>Saccolaimus flaviventris</i>	Yellow-bellied sheath-tail-bat	V	-	Unlikely. Potential foraging habitat present.	6	No
<i>Nyctophilus corbeni</i>	Corben's Long-eared Bat, South-eastern Long-eared Bat		V	Unlikely. Potential foraging habitat present.	-	No
<i>Micronomus norfolkensis</i>	Eastern coastal free-tailed bat	V	-	Unlikely. Potential foraging habitat present.	6	No
<i>Falsistrellus tasmaniensis</i>	Eastern false pipistrelle	V	-	Unlikely. Potential foraging habitat present.	3	No
<i>Myotis Macropus</i>	Southern myotis	V	-	Unlikely. No permanent water resource in proximity to the assessment area. Absence of hollow bearing trees or suitable microhabitat structures in built environment.	6	No
<i>Scoteanax rueppelli</i>	Greater broad-nosed bat	V	-	Unlikely. No suitable habitat present as it is typically found in tall wet forest (roadside verges to be impacted).	1	No
<i>Pseudomys novaehollandiae</i>	New Holland mouse	-	V	Unlikely. Suitable habitat not present (roadside verges to be impacted) and no records within 10 km.	-	No
<i>Miniopterus australis</i>	Little bent-winged bat	V	-	Unlikely. Potential foraging habitat present.	3	No
<i>Miniopterus orianae oceanensis</i>	Large bent-winged bat	V	-	Unlikely. Potential foraging habitat present.	29	No
<i>Chalinolobus dwyeri</i>	Large-eared pied-bat	V	V	Unlikely. No suitable habitat present (roadside verges to be impacted) due to the absence of sandstone cliffs and caves.	35	No
<i>Vespadelus troughtoni</i>	Eastern cave bat	V	-	Unlikely. No suitable habitat present (roadside verges to be impacted) due to the absence of sandstone cliffs and caves.	13	No

Table A-2 Migratory Species Recorded or with Potential to Occur within 10 km of the inspection area Inspection Assessment Area

Scientific Name	Common Name	International Convention	Likelihood to Occur within inspection area Inspection Assessment Area	Reasonable Potential to be Impacted by the Proposal
<i>Myiagra cyanoleuca</i>	Satin Flycatcher	C,J,K	Unlikely. No suitable habitat.	No
<i>Hirundapus caudacutus</i>	White-throated Needletail	J	Unlikely. No suitable habitat.	No
<i>Gallinago hardwickii</i>	Latham's Snipe, Japanese Snipe	C,J,K	Unlikely. No suitable habitat.	No
<i>Monarcha melanopsis</i>	Black-faced Monarch	C,J,K	Unlikely. No suitable habitat.	No
<i>Calidris acuminata</i>	Sharp-tailed Sandpiper	C,J,K	Unlikely. No suitable habitat.	No
<i>Rhipidura rufifrons</i>	Rufous Fantail	C,J,K	Unlikely. No suitable habitat.	No
<i>Apus pacificus</i>	Fork-tailed Swift	C,J,K	Unlikely. No suitable habitat.	No
<i>Motacilla flava</i>	Yellow Wagtail	C,J,K	Unlikely. No suitable habitat.	No
<i>Tringa nebularia</i>	Common Greenshank, Greenshank	C	Unlikely. No suitable habitat.	No
<i>Actitis hypoleucos</i>	Common Sandpiper	C,J,K	Unlikely. No suitable habitat.	No
<i>Numenius madagascariensis</i>	Eastern Curlew, Far Eastern Curlew	C,J,K	Unlikely. No suitable habitat.	No
<i>Calidris melanotos</i>	Pectoral Sandpiper	C,J,K	Unlikely. No suitable habitat.	No
<i>Calidris ferruginea</i>	Curlew Sandpiper	C,J,K	Unlikely. No suitable habitat.	No



APPENDIX 2

Assessments of Significance

Appendix 2 – Assessment of Significance

Five-part test of significance for entities listed under the BC Act

A Five-Part Test under Section 7.3 of the BC Act was undertaken for threatened species, populations and communities that have the potential occur in the vicinity of the inspection area with reasonable potential to be impacted based on the likelihood of occurrence assessment provided in **Appendix 1**.

The Five-Part Test concludes that a significant impact upon these threatened species is unlikely to occur, due to the very small area of potential impact and the nature of the potential impact (removal/disturbance of an already disturbed and modified area).

Table 2-1 Five Part Test of Significance in Accordance with the Requirements of Section 7.3 of the BC Act

Matters for Consideration	Comment
In the case of a threatened species, whether the proposed development or activity is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction.	The potential of threatened species occurring within the inspection area is unlikely and as such the proposed works will have no adverse effect on the threatened species such that a viable local population of species is likely to be placed at risk of extinction.
In the case of an endangered ecological community or critically endangered ecological community, whether the proposed development or activity: Is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction; or Is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction.	The proposed works are not expected to adversely affect the extent of the ecological community or modify its condition and composition such that its local occurrence will be placed at risk of extinction.
In relation to the habitat of a threatened species or ecological community: The extent to which habitat is likely to be removed or modified as a result of the proposed development or activity. Whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed development or activity. The importance of the habitat to be removed, modified, fragmented, or isolated to the long-term survival of the species or ecological community in the locality.	No areas of TEC or potential threatened species habitat is likely to become fragmented as no TEC's were recorded within the inspection area to be fragmented by the proposed works. The proposed works are unlikely to impact any habitat for long-term survival of surrounding species given the small impact area.
Whether the action proposed is likely to have an adverse effect on any declared area of outstanding biodiversity value (either directly or indirectly).	There are no declared areas of outstanding biodiversity value in the vicinity of the inspection area. The proposed works will not result in a direct or indirect impact on any declared areas of outstanding biodiversity value.
Whether the action proposed constitutes or is part of a key threatening process or is likely to increase the impact of a key threatening process.	The proposed works could contribute to the operation of the following key threatening processes: <ul style="list-style-type: none"> • Clearing of native vegetation • Invasion of native plant communities by exotic perennial grasses.

Conclusion:

Based on the information provided above, the proposed upgrade of an existing culvert along Wybong Road is unlikely to result in a significant impact to any BC Act listed threatened species or communities within the inspection area.

Assessment of Significance for entities listed under the EPBC Act

Under the Commonwealth EPBC Act, the approval of the Commonwealth Minister for the Environment is required for any action that may have a significant impact on MNES. Threatened species, populations, communities, and migratory species listed under the EPBC Act that have the potential to occur within the inspection area have been identified in the likelihood of occurrence assessment in **Appendix 1**.

The site inspection did not identify any threatened or migratory species, endangered populations or threatened ecological communities. No threatened or migratory species, endangered populations or threatened ecological communities were considered to have the potential to occur within the inspection area. Therefore, one assessment of significance was complete for all threatened entities listed under the EPBC Act.

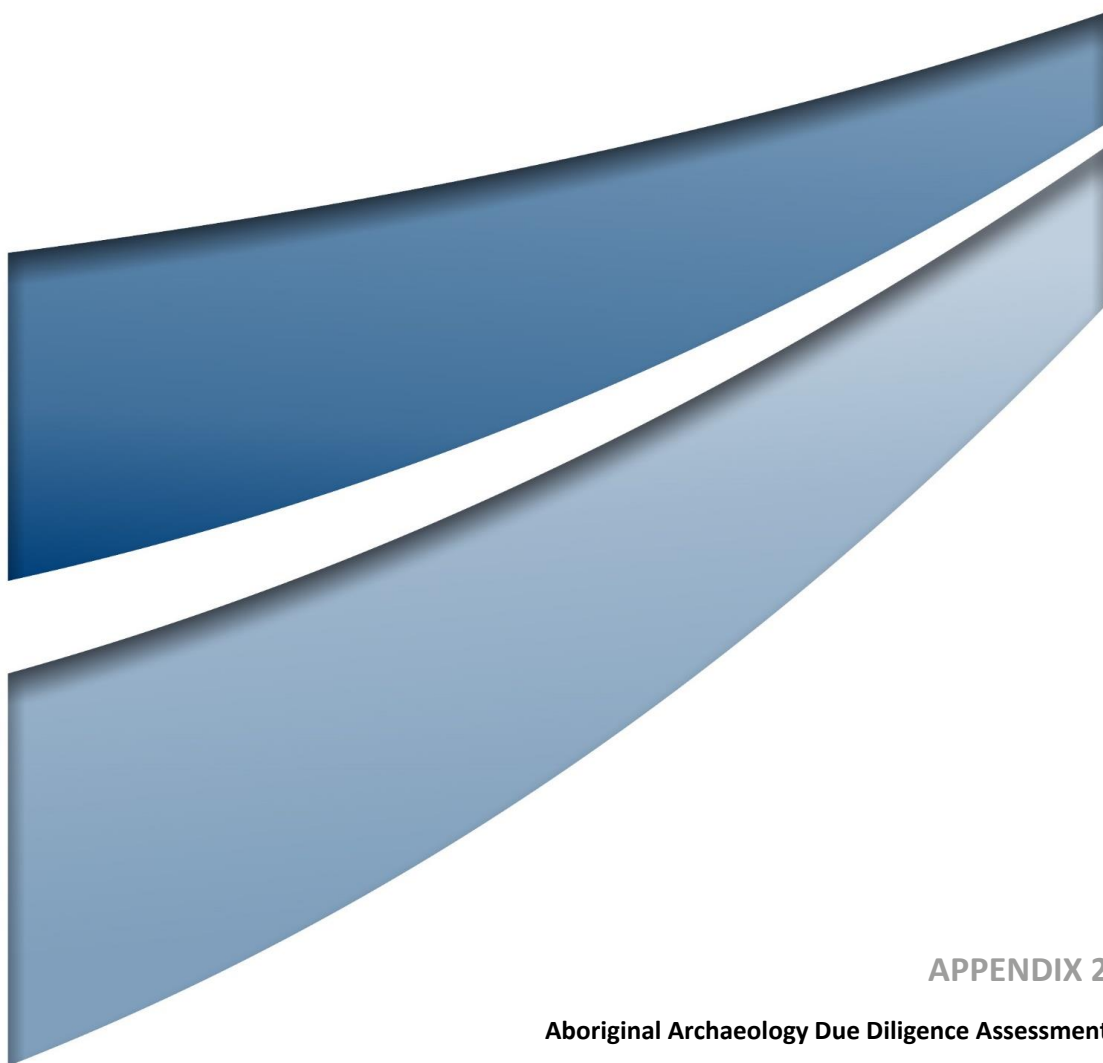
Table B1.1 Assessment of Significance in Accordance with the Requirements of the EPBC Act

Matters for Consideration	Comment
An action is likely to have a significant impact on a critically endangered, endangered, or vulnerable species or ecological community if there is a real chance or possibility that it will:	
<p>lead to a long-term decrease in the size of a population of a critically endangered or endangered species or an important population of a vulnerable species</p> <p>or</p> <p>reduce the extent of an ecological community;</p>	<p>Extensive searches for this species have been completed across this area for the MCCO Project (Umwelt 2019) as well as ongoing monitoring completed by Mangoola. No threatened flora or fauna species have been recorded within the current inspection area. This is due to the inspection area being far too small to provide suitable habitat area and as such represented poor-quality habitat for any threatened flora or fauna species.</p> <p>As such, the removal of the small area of poor-quality habitat within the Inspected Area is unlikely to lead to a long-term decline in the size of a population of this species.</p>
<p>Reduce the area of occupancy of a population of critically endangered or endangered species</p>	<p>The inspection area provides minimal potential habitat for any threatened flora or fauna species; thus it is unlikely to represent an area of occupancy.</p> <p>As such, the removal of a small area of potential habitat for this species is unlikely to lead to a significant reduction in the occupancy of a population of this species in the locality or the wider region.</p>
<p>Fragment an existing population of critically endangered, or endangered species into two or more populations</p> <p>Or</p> <p>fragment or increase fragmentation of an ecological community;</p>	<p>The removal of a small area of potential habitat for any threatened flora or fauna species, in this locality, is unlikely to fragment any populations into two or more populations.</p>
<p>Adversely affect habitat critical to the survival of a species</p> <p>Or</p> <p>adversely affect habitat critical to the survival of an ecological community;</p>	<p>The inspection area does not represent habitat critical to the survival of any threatened flora or fauna species. It is considered unlikely that the disturbance of potential habitat will adversely affect habitat critical to the survival any threatened flora or fauna species.</p>
<p>Disrupt the breeding cycle of a population of a critically endangered or endangered species</p>	<p>The proposed activity is unlikely to disrupt the breeding cycle of a population of any threatened flora or fauna species.</p>
<p>Modify, destroy, remove, isolate, or decrease the availability or quality of habitat to the extent that the species is likely to decline</p> <p>Or</p> <p>modify or destroy abiotic factors necessary for an ecological</p>	<p>The area of habitat to be modified is incremental in relation to the extent of similar quality (poor) habitat in the locality and will not modify or destroy abiotic factors necessary for an ecological survival, such as reduction of ground water levels and alteration of surface water draining patterns.</p> <p>Thus, the proposed activity is unlikely to modify, destroy, remove, isolate, or decrease the availability or quality of habitat for this species to the extent that any threatened flora and fauna</p>

Matters for Consideration	Comment
community's survival, including reduction of groundwater levels, or substantial alteration of surface water drainage patterns;	species is likely to decline.
Result in invasive species that are harmful to a critically endangered or endangered species becoming established in the critically endangered or endangered species' habitat	The inspection area already exists within a disturbed and fragmented landscape subject to edge effects and weed invasion, and therefore the potential encroachment of additional invasive species as a result of the proposed activity is considered to be negligible. The proposed activity is unlikely to result in invasive species that are harmful to a critically endangered or endangered species becoming established in the critically endangered or endangered species' habitat
For TECs: <ul style="list-style-type: none"> • cause substantial change in the species composition of an occurrence of an ecological community, including causing a decline or loss of functionally important species; or • cause a substantial reduction in the quality or integrity of an occurrence of an ecological community, including, but not limited to: <ul style="list-style-type: none"> ○ assisting invasive species that are harmful to the listed ecological community to become established, or ○ causing regular mobilisation of fertilisers, herbicides or other chemicals or pollutants into the ecological community which kill or inhibit the growth of species in the ecological community, or 	No TEC's where located within the inspection area and as such no cause of substantial change in species composition of an occurrence of an ecological community or substantial reduction in the quality or integrity of an occurrence of an ecological
Introduce disease that may cause a species to decline, or	No diseases are directly attributed to the decline of TEC's and threatened flora and fauna. The proposed activity is not expected to introduce any disease that may cause any TEC's or threatened flora and fauna to decline.
Interfere with the recovery of a critically endangered or endangered species, or ecological community.	The removal of the small area of poor-quality habitat within the Inspected Area is unlikely to interfere with the recovery of any TEC's and threatened flora and fauna species.

Conclusion

Based on the information provided above, the proposed upgrade of an existing culvert along Wybong Road is unlikely to result in a significant impact to any EPBC Act listed threatened species or communities within the inspection area.



APPENDIX 2

Aboriginal Archaeology Due Diligence Assessment



Our Ref: 23314_Wybong Road Arch DD_20230505_ltr

10 May 2023

Liam Richards
Environment and Community Coordinator
Mangoola – Glencore Coal Assets Australia

E| Liam.Richards@glencore.com.au

Dear Liam

**RE: Aboriginal Archaeological Due Diligence Assessment of Proposed
Wybong Road Culvert Upgrade, Muswellbrook NSW**

Mangoola Coal Mine is an existing open cut coal mine located approximately 20 kilometres (km) west of Muswellbrook and 10 km north of Denman in the Upper Hunter Valley of NSW. Mangoola Coal Operations Pty Limited (Mangoola), which is owned by Glencore Coal Pty Ltd (Glencore), has operated the Mangoola Coal Mine in accordance with NSW Project Approval (PA) 06_0014 since mining commenced at the site in September 2010.

The Mangoola Coal Continued Operations (MCCO) Project (SSD 8642) was approved by the NSW Independent Planning Commission on 26 April 2021 in accordance with Part 4 of the *Environmental Planning and Assessment Act 1979* (EPA Act). Commonwealth approval EPBC 2018/8280 under the *Environment Protection & Biodiversity Conservation Act 1999* (EPBC Act) was received from the Federal Minister for the Environment on 1 October 2021.

The MCCO Project has been approved to extend mining to a new area north of Wybong Road to provide access to approximately 52 million tonnes of run-of-mine (ROM) coal. The approval covers undertaking various construction activities associated with establishing the new mining area as described in the MCCO Project Environmental Impact Statement (EIS). This includes establishing Clean Water Diversion Drains to service the new mining area, one to the north and one to the west. Construction of the MCCO Project commenced in accordance with SSD 8642 in December 2021 and the Project execution is nearing completion.

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Following the recent construction of the western Clean Water Diversion Drain (herein referred to as Clean Water Drain 1 (CWD1) and following additional engineering investigations a need for additional culvert capacity on Wybong Road has been identified. Following engagement with Muswellbrook Shire Council (Council), Mangoola has agreed to further investigate, seek approval and construct the upgrade of the existing Wybong Road culverts to accommodate high-rainfall events herein described as the proposed activity.

This report documents the results of Aboriginal archaeological due diligence assessments undertaken for the proposed activities and will be used to support the Review of Environmental Factors (REF) prepared by Umwelt (Australia) Pty Limited (Umwelt) on behalf of Mangoola to allow MSC to fulfill their duty under Part 5 of the EP&A Act and consider the environmental impacts of the proposed activity applied for under Section 138 of the *Roads Act 1993*.

This assessment was undertaken in accordance with the requirements of Heritage NSW (formerly the Office of Environment and Heritage (OEH)) *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (Due Diligence Code – OEH 2010). This report was prepared by Alison Fenwick (Archaeologist) of Umwelt (Australia) Pty Limited (Umwelt).

1.0 Description of the Activity

The proposed activity is to replace the existing triple (3 cell) 600mm diameter culverts with a revised installation to increase hydraulic conductivity under Wybong Road. Provisional concept design drawings to improve the hydraulic conductivity of this specific culvert set will be submitted with this REF to MSC. However, the final design of the culverts will be submitted and approved through the MSC Roads and Drainage Team.

The proposed activity will require the diversion of traffic to allow the existing culverts below Wybong Road to be excavated and replaced. The required works are proposed to be undertaken during standard construction hours being:

- Monday to Friday 7 am to 6 pm
- Saturday 8 am to 1 pm
- No work on Sundays or public holidays.

2.0 Legislative and Regulatory Context

The OEH is primarily responsible for regulating the management of Aboriginal cultural heritage in New South Wales under the *National Parks and Wildlife Act 1974* (NPW Act). Supporting the NPW Act is the National Parks and Wildlife Regulation 2009 (the Regulation) and other codes of practice and guidelines including the due diligence code.

The NPW Act defines an Aboriginal object as:

any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales

In accordance with Section 86(1) of the NPW Act, it is an offence to harm or desecrate a known Aboriginal object, whilst it is also an offence to harm an Aboriginal object under Section 86(2). Harm is defined any act or omission that:

- a. destroys, defaces or damages an object or place, or
- b. in relation to an object – moves the object from the land on which it had been situated, or
- c. is specified by the regulations, or
- d. causes or permits the object or place to be harmed in a manner referred to in paragraph (a), (b) or (c),

but does not include any act or omission that:

- e. desecrates the object or place (noting that desecration constitutes an offence separate to harm), or
- f. is trivial or negligible, or
- g. is excluded from this definition by the regulations.

Section 87 (2,4) establishes that it is a defence to prosecution under Section 86 (2) (the strict liability offence) if due diligence was exercised to reasonably determine that the activity or omission would not result in harm to an Aboriginal object or if the activity or omission constituting the offence is a low impact act or omission (in accordance with Section 80B of the Regulation). The Regulation identifies that compliance with the due diligence code is taken to constitute due diligence in determining whether a proposed activity will harm an Aboriginal object.

Consultation with Aboriginal people is key to identifying and assessing the significance of Aboriginal objects and/or places as well as determining and carrying out appropriate strategies to mitigate impacts to Aboriginal heritage. The proposed activities fall within the boundaries of the registered Native Title claim NC2013/006 (Scott Franks and Anor on behalf of the Plains Clans of the Wonnarua People) and the registered Native Title claim NC2011/006 (Gomerioi People). The proposed activities are located within the boundaries of the Wonnarua Local Aboriginal Land Council (WLALC).

This assessment was not conducted in consultation with the WLALC or any other Aboriginal parties and therefore does not provide any information with regard to Aboriginal cultural significance or value.

2.1 Archaeological Context

A search of the Heritage NSW administered Aboriginal Heritage Information Management System (AHIMS) database conducted on the 17 April 2023 returned 51 results for Aboriginal sites within the designated search area (Lat, Long From : -32.2854, 150.6413 - Lat, Long To : -32.2716, 150.6722.). There are no previously recorded sites within the immediate vicinity of the proposed activity.

The previous archaeological investigations undertaken for the Mangoola Coal Mine provide a significant body of data with which to consider the likelihood that Aboriginal objects will be present within particular environmental contexts. These investigations have identified over 100 sites in the Big Flat Creek catchment, within which the proposed activity is located in. With the exception of one rockshelter, all of the sites within the Big Flat Creek catchment consisted of artefact scatters and isolated finds (e.g. BFC70, BFC98 and BFC101). The majority of these sites were located in close proximity to the main channel of Big Flat Creek and may represent different exposures of archaeological evidence associated with this landform. However, it is noted that sites may occur within all landforms in the Big Flat Creek catchment (Umwelt 2010), albeit with varying frequency and density of artefacts.

The AHIMS search results are shown in Figure 3.1 and provided in **Appendix 1**.

2.1.1 Implications for the Assessment Area

The proposed activity is located in an area that has been subject to disturbance as a result of land clearance and agricultural activities and is located on an unnamed first order stream that drains in a south easterly direction under Wybong Road and the into a second order unnamed tributary of Big Flat Creek. These are landforms that are not typically associated with high numbers of Aboriginal archaeological sites or high densities of Aboriginal objects and similarly are not likely to comprise significant threatened species or ecological community habitat.

3.0 Due Diligence Inspection

A pedestrian survey of the proposed activity was undertaken on the 31 March 2023 by Alison Fenwick.

The archaeological surveys comprised inspection of the area to identify surface artefacts and consideration of the potential that additional artefacts may be present but not visible due to vegetation coverage and/or lack of exposure.

3.1 Results of Inspection

The proposed area of works was inspected for previously unidentified Aboriginal sites and/or objects, however, due to extensive vegetation growth and the prevalence of introduced gravels and foreign materials associated with prior infrastructure works, visibility was greatly reduced. Due to the construction of Wybong Road and the extant culvert, the proposed areas of works, in addition to surrounding landscape, were highly disturbed and have been extensively modified.

The landform upon which the proposed works is situated can be described as a flat to gentle inclination slope. Multiple watercourses are located in the wider environs, with Big Flat Creek ~230 m south and Wybong Creek 250 m southwest. A minor tributary of Big Flat Creek runs directly underneath Wybong Road and through the extant culvert. As a result, the landscape to the north and south of Wybong Road consists of swampland (or similar).

Although sources of fresh water, these minor tributaries are unlikely to represent a reliable source of water and are unlikely to have been utilised by the Aboriginal community. In addition, the flat to gently sloping landforms are not representative of an attractive camping location, nor would they be a suitable for short term occupation.

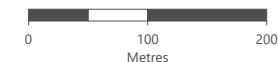
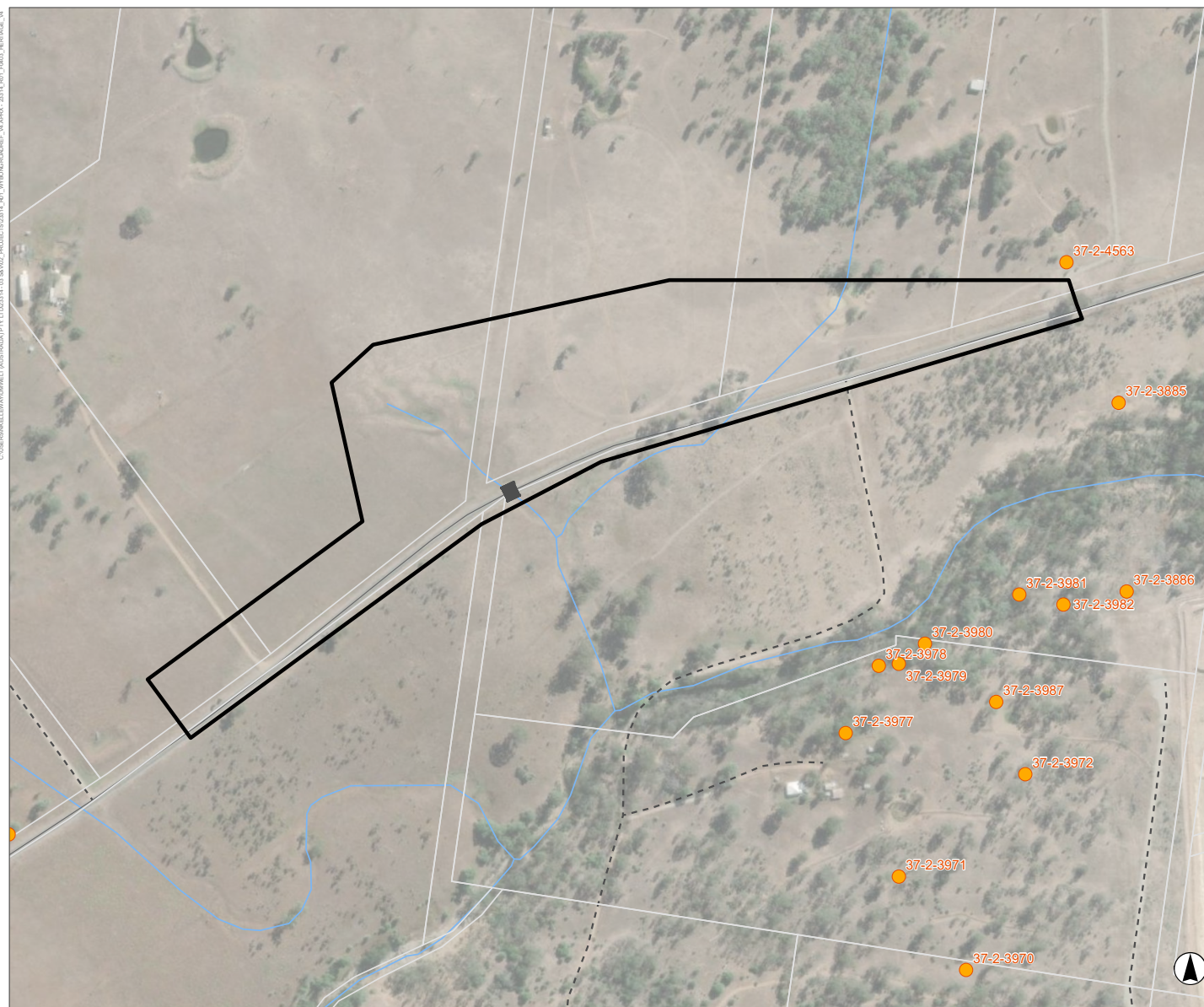
No Aboriginal sites and/or objects were identified during the course of the visual inspection.

FIGURE 3.1

Recorded Aboriginal Archaeological Sites

Legend

- AHIMS Site
- Proposed Culvert Design
- Road
- - - Track
- Watercourse
- ▭ Assessment Area
- ▭ Cadastre



Scale 1:5,400 at A4
GDA 1994 MGA Zone 56

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Image Source: ESRI Basemap (2022) Data source: NSW DFSI (2022)

3.2 Discussion

The assessment of archaeological potential was undertaken with reference to the landform context, proximity to water, proximity to known archaeological evidence and level of disturbance at the proposed area of works. The proposed activity is situated in an area of cleared grasslands that have been used for pastoral purposes over an extended period. There is also evidence that the minor drainage lines within the area have been substantially modified through the construction of dams and establishment of contour banks.

No Aboriginal objects or sites have been previously identified within 50 m of the assessment area, and due to the extensive disturbance resulting from site development, it is unlikely that any Aboriginal archaeological sites and/or objects would remain *in situ*. Overall, the archaeological potential of the area is assessed as low. Based on the limited access to reliable fresh water, lack of suitable elevated landforms and the nature of disturbance within the area, it is unlikely that Aboriginal people utilised the area for long term or short-term occupation. Due to the presence of multiple water courses in the wider environs, it is possible that Aboriginal people did travel across the landscape, in a transient manner. However, no Aboriginal objects were identified and due to the extensive disturbance of the area, it is unlikely that the artifactual evidence of their occupation would be identified in a surface or subsurface context within the proposed works area. It is therefore unlikely that the proposed works will result in harm to Aboriginal objects.

4.0 Recommendations

The following recommendations are provided with reference to the provisions of the *National Parks and Wildlife Act 1974* (NPW Act), the NPW Regulation, the due diligence code and the information outlined in the preceding sections of this letter.

The following recommendations are provided with reference to the provisions of the NPW Act, the NPW Regulation, the due diligence code and the information outlined in the preceding sections of this report.

1. All staff and contractors involved in the proposed activity should be made aware that it is an offence under Section 86 of the NPW Act to harm or desecrate an Aboriginal object unless that harm or desecration is the subject of an Aboriginal Heritage Impact Permit or an approved Aboriginal Cultural Heritage Management Plan approved in relation to a State Significant Development.
2. The proposed works may proceed with caution without requiring further archaeological assessment.
3. In the event that an Aboriginal object or objects are uncovered during the proposed works, ground disturbance works should cease within 20 m of the object and management of the find should be undertaken generally in accordance with the process for the identification of new sites.
4. In the unlikely event that human skeletal material is uncovered during the proposed works, all works should cease immediately and management of the find should be undertaken generally in accordance with the procedure for the management of potential human skeletal remains.



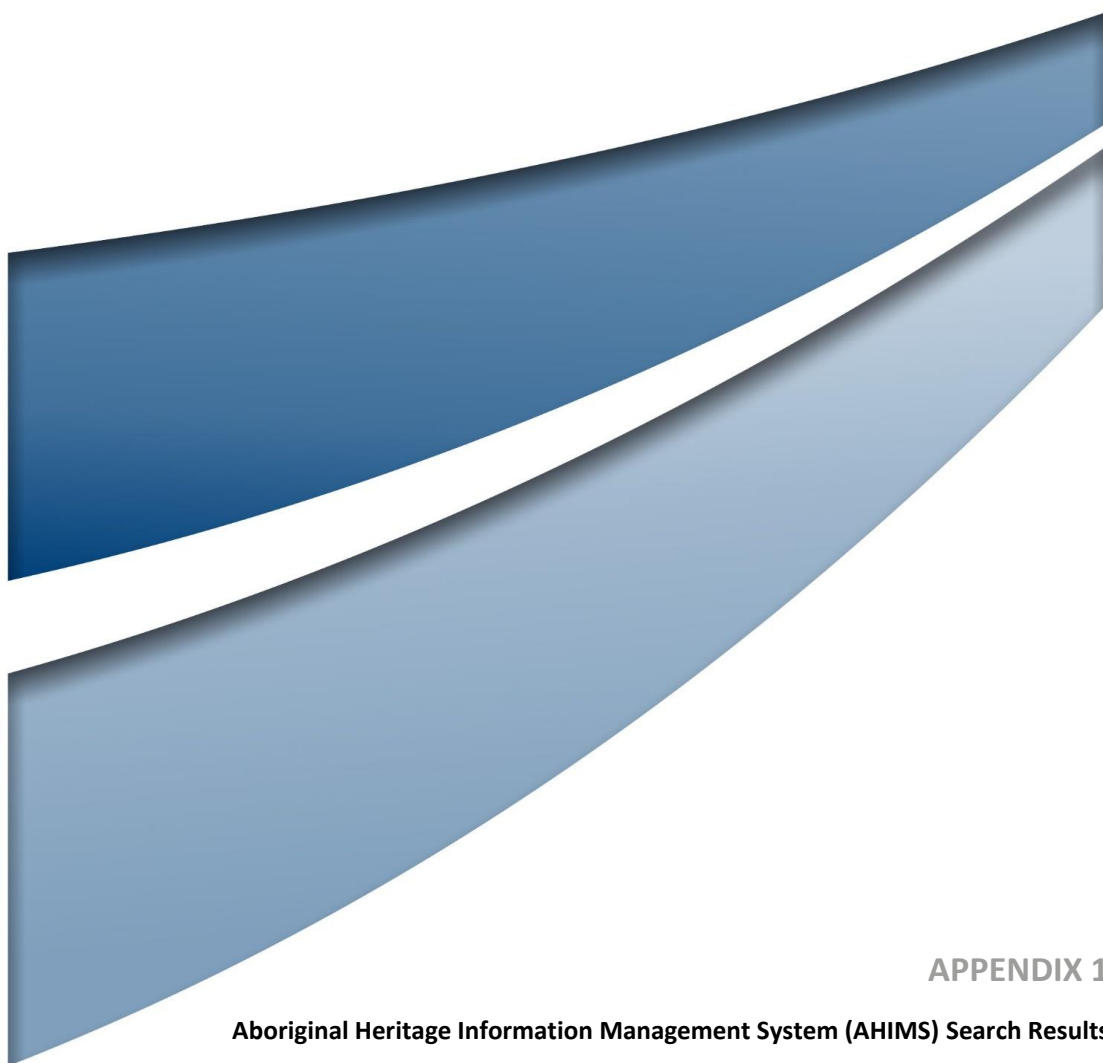
Please do not hesitate to contact the undersigned on 1300 793 267 should you require clarification or further information.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Alison Fenwick', with a stylized flourish at the end.

Alison Fenwick
Archaeologist

E | afenwick@umwelt.com.au
M| 0412 350 780



APPENDIX 1

Aboriginal Heritage Information Management System (AHIMS) Search Results



Umwelt (Australia) Pty Limited - Individual users

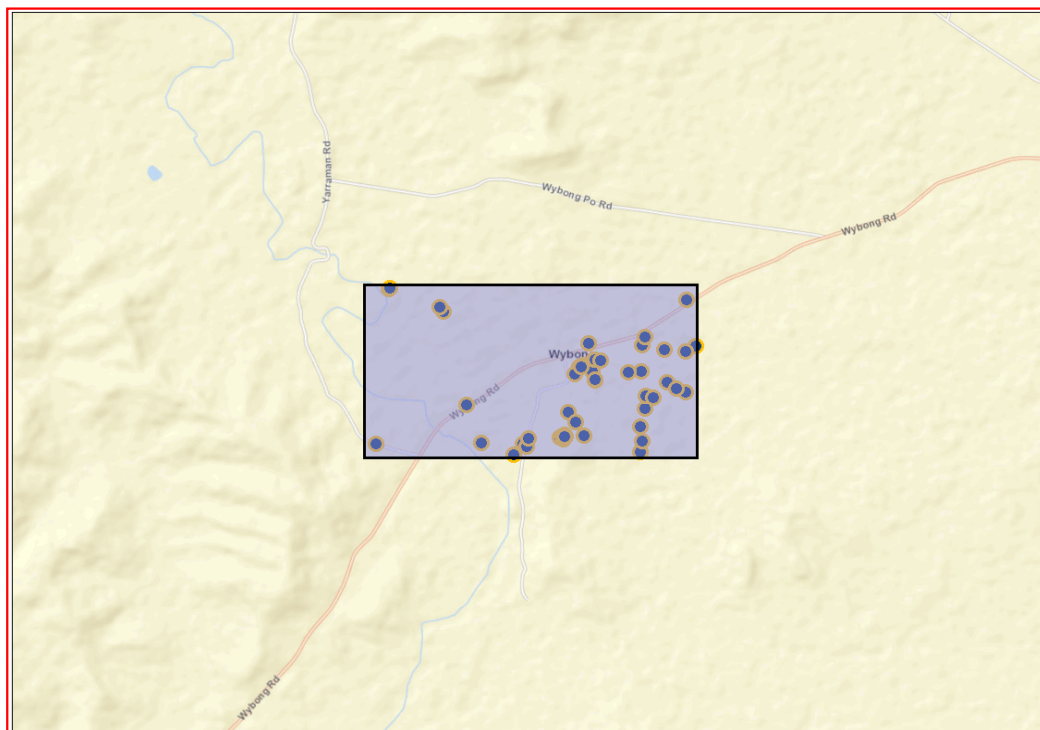
Date: 17 April 2023

75 York Street
Teralba New South Wales 2284
Attention: Alison Fenwick
Email: afenwick@umwelt.com.au

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lat, Long From : -32.2854, 150.6413 - Lat, Long To : -32.2716, 150.6722, conducted by Alison Fenwick on 17 April 2023.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of Heritage NSW AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

51	Aboriginal sites are recorded in or near the above location.
0	Aboriginal places have been declared in or near the above location. *

If your search shows Aboriginal sites or places what should you do?

- You must do an extensive search if AHIMS has shown that there are Aboriginal sites or places recorded in the search area.
- If you are checking AHIMS as a part of your due diligence, refer to the next steps of the Due Diligence Code of practice.
- You can get further information about Aboriginal places by looking at the gazettal notice that declared it. Aboriginal places gazetted after 2001 are available on the [NSW Government Gazette](https://www.legislation.nsw.gov.au/gazette) (<https://www.legislation.nsw.gov.au/gazette>) website. Gazettal notices published prior to 2001 can be obtained from Heritage NSW upon request

Important information about your AHIMS search

- The information derived from the AHIMS search is only to be used for the purpose for which it was requested. It is not to be made available to the public.
- AHIMS records information about Aboriginal sites that have been provided to Heritage NSW and Aboriginal places that have been declared by the Minister;
- Information recorded on AHIMS may vary in its accuracy and may not be up to date. Location details are recorded as grid references and it is important to note that there may be errors or omissions in these recordings,
- Some parts of New South Wales have not been investigated in detail and there may be fewer records of Aboriginal sites in those areas. These areas may contain Aboriginal sites which are not recorded on AHIMS.
- Aboriginal objects are protected under the National Parks and Wildlife Act 1974 even if they are not recorded as a site on AHIMS.
- This search can form part of your due diligence and remains valid for 12 months.



AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : 23314

Client Service ID : 773649

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
37-2-3885	BFC72	GDA	56	279871	6426399	Open site	Valid	Artefact : 1		
	<u>Contact</u> Mr.Brett Nudd	<u>Recorders</u>	Umwelt (Australia) Pty Limited - Individual users					<u>Permits</u>		
37-2-3886	BFC73	GDA	56	279879	6426211	Open site	Valid	Artefact : 1		
	<u>Contact</u> Mr.Brett Nudd	<u>Recorders</u>	Umwelt (Australia) Pty Limited - Individual users					<u>Permits</u>		
37-2-4005	AC49	GDA	56	280283	6425810	Open site	Destroyed	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>	Umwelt (Australia) Pty Limited - Individual users,Ms.Mary-Jean Sutton					<u>Permits</u>		
37-2-2173	BFC10	AGD	56	279521	6425534	Open site	Valid	Artefact : 10		
	<u>Contact</u> Searle	<u>Recorders</u>	Ms.Mary-Jean Sutton,Hunter Valley Aboriginal Corporation					<u>Permits</u>		
37-2-2176	BFC13	AGD	56	279527	6425519	Open site	Valid	Artefact : 1		102131
	<u>Contact</u> Searle	<u>Recorders</u>	Ms.Mary-Jean Sutton,Hunter Valley Aboriginal Corporation					<u>Permits</u>		
37-2-2172	BFC07	AGD	56	279686	6425526	Open site	Valid	Artefact : 1		
	<u>Contact</u> Searle	<u>Recorders</u>	Ms.Mary-Jean Sutton					<u>Permits</u>		
37-2-3980	BFC60	AGD	56	279678	6426159	Open site	Valid	Artefact : 24		
	<u>Contact</u>	<u>Recorders</u>	Umwelt (Australia) Pty Limited - Individual users					<u>Permits</u>		
37-2-4585	WC71	GDA	56	278058	6426984	Open site	Valid	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>	Mr.Ryan Desic					<u>Permits</u>		
37-2-6039	WC85	GDA	56	278765	6425969	Open site	Valid	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>	OzArk Environmental and Heritage Management - Dubbo, Miss.Stephanie Rusden					<u>Permits</u>		
37-2-3983	BFC63	AGD	56	280179	6426343	Open site	Valid	Artefact : 27		
	<u>Contact</u>	<u>Recorders</u>	Umwelt (Australia) Pty Limited - Individual users					<u>Permits</u>		
37-2-2204	BFC12	AGD	56	279482	6425508	Closed site	Valid	Potential Archaeological Deposit (PAD) : -, Artefact : 20		
	<u>Contact</u> Searle	<u>Recorders</u>	Ms.Mary-Jean Sutton,Hunter Valley Aboriginal Corporation					<u>Permits</u>		
37-2-2175	BFC11	AGD	56	279505	6425523	Open site	Valid	Artefact : 14		102131
	<u>Contact</u> Searle	<u>Recorders</u>	Ms.Mary-Jean Sutton,Hunter Valley Aboriginal Corporation					<u>Permits</u>		
37-2-3987	BFC67	AGD	56	279749	6426101	Open site	Valid	Artefact : 1		
	<u>Contact</u>	<u>Recorders</u>	Umwelt (Australia) Pty Limited - Individual users					<u>Permits</u>		
37-2-5462	BFC_147	GDA	56	278540	6426791	Closed site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : 1		
	<u>Contact</u>	<u>Recorders</u>	EMGAMM-St Leonards (previously EMGA),Mr.Ryan Desic					<u>Permits</u>		
37-2-2170	BFC05	AGD	56	279159	6425448	Open site	Valid	Artefact : 1		102131
	<u>Contact</u> Searle	<u>Recorders</u>	Ms.Mary-Jean Sutton					<u>Permits</u>		
37-2-2169	BFC04	AGD	56	279186	6425424	Open site	Valid	Artefact : 1		102131
	<u>Contact</u> Searle	<u>Recorders</u>	Ms.Mary-Jean Sutton					<u>Permits</u>		

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Page 1 of 4



AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : 23314

Client Service ID : 773649

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
37-2-2314	AC20	GDA	56	280319	6425968	Open site	Destroyed	Artefact : -		
	Contact Searle	Recorders	OzArk Environmental and Heritage Management - Dubbo,Ms.Jillian Ford,Miss.Step1							
37-2-3978	BFC58	AGD	56	279632	6426137	Open site	Valid	Artefact : 4		
	Contact	Recorders	Umwelt (Australia) Pty Limited - Individual users							
37-2-3986	BFC66	AGD	56	280174	6426114	Open site	Valid	Artefact : 51		
	Contact	Recorders	Umwelt (Australia) Pty Limited - Individual users							
37-2-3984	BFC64	AGD	56	280374	6426309	Open site	Valid	Artefact : 10		
	Contact	Recorders	Umwelt (Australia) Pty Limited - Individual users							
37-2-3977	BFC57	AGD	56	279599	6426070	Open site	Valid	Artefact : 8		
	Contact	Recorders	Umwelt (Australia) Pty Limited - Individual users							
37-2-4562	MGP3 duplicate of WC70	GDA	56	278062	6426987	Open site	Valid	Artefact : -		
	Contact	Recorders	Mr.Ryan Desic							
37-2-2171	BFC06	AGD	56	279204	6425490	Open site	Valid	Artefact : 1		102131
	Contact Searle	Recorders	Ms.Mary-Jean Sutton							
37-2-4008	AC52	GDA	56	280507	6426210	Open site	Destroyed	Artefact : -		
	Contact	Recorders	Umwelt (Australia) Pty Limited - Individual users,Ms.Mary-Jean Sutton							
37-2-2195	BFC33	AGD	56	280648	6426345	Open site	Valid	Artefact : 2		
	Contact Searle	Recorders	Umwelt (Australia) Pty Limited - Individual users,Ms.Mary-Jean Sutton,Ms.Margar							
37-2-2174	BFC08	AGD	56	279510	6425495	Open site	Valid	Artefact : 3		102131
	Contact Searle	Recorders	Ms.Mary-Jean Sutton							
37-2-5422	BFC 147 (Duplicate of 37-2-5462)	GDA	56	278540	6426791	Open site	Not a Site	Artefact : 1, Potential Archaeological Deposit (PAD) : 1		
	Contact	Recorders	Mr.Ryan Desic,EMGA Mitchell McLennan							
37-2-5553	Wybong Creek-2	GDA	56	277973	6425605	Open site	Valid	Artefact : -		
	Contact	Recorders	OzArk Environmental and Heritage Management - Dubbo,Miss.Philippa Sokol							
37-2-2292	AC41	AGD	56	280062	6426104	Open site	Valid	Artefact : 19		102131
	Contact Searle	Recorders	Ms.Jillian Ford							
37-2-2242	AC01	AGD	56	280182	6425392	Open site	Destroyed	Artefact : 2		
	Contact Searle	Recorders	Ms.Mary-Jean Sutton							
37-2-2245	AC04	GDA	56	280306	6425684	Open site	Destroyed	Artefact : 1		
	Contact Searle	Recorders	OzArk Environmental and Heritage Management - Dubbo,Ms.Mary-Jean Sutton,Ms.							
37-2-2246	AC05	GDA	56	280326	6426082	Open site	Destroyed	Artefact : 26		
	Contact Searle	Recorders	OzArk Environmental and Heritage Management - Dubbo,Ms.Mary-Jean Sutton,Mis							
37-2-3971	BFC51	GDA	56	279652	6425927	Open site	Destroyed	Artefact : 1		
	Contact	Recorders	Umwelt (Australia) Pty Limited - Individual users							
37-2-3981	BFC61	AGD	56	279772	6426208	Open site	Valid	Artefact : 6		

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Page 2 of 4



AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : 23314

Client Service ID : 773649

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
	<u>Contact</u>	<u>Recorders</u>	Umwelt (Australia) Pty Limited - Individual users					<u>Permits</u>		
37-2-5421	BFC 146 (Duplicate of 37-2-5461)	GDA	56	278512	6426833	Open site	Not a Site	Artefact : 1, Potential Archaeological Deposit (PAD) : 1		
	<u>Contact</u>	<u>Recorders</u>	Mr.Ryan Desic,EMGA Mitchell McLennan					<u>Permits</u>		
37-2-2150	WC21	AGD	56	278790	6425444	Open site	Valid	Artefact : 190		102131
	<u>Contact</u> Searle	<u>Recorders</u>	Ms.Mary-Jean Sutton					<u>Permits</u>		
37-2-2197	BFC35	AGD	56	279082	6425345	Open site	Valid	Artefact : 1		102131
	<u>Contact</u> Searle	<u>Recorders</u>	Ms.Jillian Ford					<u>Permits</u>		
37-2-2295	AC44	GDA	56	280676	6426123	Open site	Destroyed	Artefact : 1		
	<u>Contact</u> Searle	<u>Recorders</u>	Ms.Jillian Ford					<u>Permits</u>		
37-2-2166	BFC09	AGD	56	279520	6425518	Open site	Valid	Artefact : 8		102131
	<u>Contact</u> Searle	<u>Recorders</u>	Ms.Mary-Jean Sutton					<u>Permits</u>		
37-2-3979	BFC59	AGD	56	279652	6426139	Open site	Valid	Artefact : 4		
	<u>Contact</u>	<u>Recorders</u>	Umwelt (Australia) Pty Limited - Individual users					<u>Permits</u>		
37-2-3982	BFC62	AGD	56	279816	6426198	Open site	Valid	Artefact : 2		
	<u>Contact</u>	<u>Recorders</u>	Umwelt (Australia) Pty Limited - Individual users					<u>Permits</u>		
37-2-4584	WC69	GDA	56	278067	6426992	Open site	Valid	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>	Mr.Ryan Desic					<u>Permits</u>		
37-2-5461	BFC_146	GDA	56	278512	6426833	Closed site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : 1		
	<u>Contact</u>	<u>Recorders</u>	EMGAMM-St Leonards (previously EMGA),Mr.Ryan Desic					<u>Permits</u>		
37-2-3985	BFC65	AGD	56	280207	6426421	Open site	Valid	Artefact : 1		
	<u>Contact</u>	<u>Recorders</u>	Umwelt (Australia) Pty Limited - Individual users					<u>Permits</u>		
37-2-2294	AC43	GDA	56	280595	6426156	Open site	Destroyed	Artefact : 2		
	<u>Contact</u> Searle	<u>Recorders</u>	OzArk Environmental and Heritage Management - Dubbo,Ms.Jillian Ford,Miss.Steph					<u>Permits</u>		
37-2-2196	BFC34	AGD	56	280565	6426294	Open site	Valid	Artefact : 2		
	<u>Contact</u> Searle	<u>Recorders</u>	Umwelt (Australia) Pty Limited - Individual users,Ms.Mary-Jean Sutton,Ms.Margar					<u>Permits</u>		
37-2-5810	Mangoola North OS9	GDA	56	280665	6426947	Open site	Destroyed	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>	OzArk Environmental and Heritage Management - Dubbo,OzArk Environmental an					<u>Permits</u>		
37-2-3970	BFC50	GDA	56	279719	6425834	Open site	Destroyed	Artefact : 2		
	<u>Contact</u>	<u>Recorders</u>	Umwelt (Australia) Pty Limited - Individual users					<u>Permits</u>		
37-2-4563	BFC102	GDA	56	279819	6426539	Open site	Destroyed	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>	OzArk Environmental and Heritage Management - Dubbo,Miss.Steph Howden,Mr.B					<u>Permits</u>		
37-2-3972	BFC52	AGD	56	279778	6426029	Open site	Valid	Artefact : 1		
	<u>Contact</u>	<u>Recorders</u>	Umwelt (Australia) Pty Limited - Individual users					<u>Permits</u>		

Report generated by AHIMS Web Service on 17/04/2023 for Alison Fenwick for the following area at Lat, Long From : -32.2854, 150.6413 - Lat, Long To : -32.2716, 150.6722. Number of Aboriginal sites and Aboriginal objects found is 51

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Page 3 of 4



AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : 23314

Client Service ID : 773649

<u>SiteID</u>	<u>SiteName</u>	<u>Datum</u>	<u>Zone</u>	<u>Easting</u>	<u>Northing</u>	<u>Context</u>	<u>Site Status **</u>	<u>SiteFeatures</u>	<u>SiteTypes</u>	<u>Reports</u>
37-2-2266	AC06	GDA	56	280392	6426069	Open site	Destroyed	Artefact : 5		
	<u>Contact</u>									
	Searle	<u>Recorders</u>		Ms.Mary-Jean Sutton					<u>Permits</u>	

**** Site Status**

Valid - The site has been recorded and accepted onto the system as valid

Destroyed - The site has been completely impacted or harmed usually as consequence of permit activity but sometimes also after natural events. There is nothing left of the site on the ground but proponents should proceed with caution.

Partially Destroyed - The site has been only partially impacted or harmed usually as consequence of permit activity but sometimes also after natural events. There might be parts or sections of the original site still present on the ground

Not a site - The site has been originally entered and accepted onto AHIMS as a valid site but after further investigations it was decided it is NOT an aboriginal site. Impact of this type of site does not require permit but Heritage NSW should be notified

Report generated by AHIMS Web Service on 17/04/2023 for Alison Fenwick for the following area at Lat, Long From : -32.2854, 150.6413 - Lat, Long To : -32.2716, 150.6722. Number of Aboriginal sites and Aboriginal objects found is 51

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Page 4 of 4



Umwelt (Australia) Pty Limited

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www.umwelt.com.au

Schedule of Details

1. The Works	The works are the replacement of the culverts within the Road Reserve of Wybong Road (chainage approx. 22.895) as shown on the attached plans to the report.
2. The Site	Wybong Road chainage approximately 22.895
3. Estimated Cost of the Works	Not provided
4. Estimated Council Costs	<p>Plan Approval \$3,300.00 exc. GST</p> <p>Construction Observation</p> <p>Traffic Control Plans \$10,843.56 exc. GST</p> <p>Final Acceptance (WAE review etc.) \$1,100.00 exc GST</p> <p>TOTAL \$15,243.56.00</p> <p>Exc. GST</p>
5. Construction Bond	<p>Estimated cost to reinstate road 20m x 10m = 250m² @\$390/m²</p> <p>\$97,500 Exc. GST</p> <p>50% to be returned on Practical Completion</p> <p>50% to be returned at 12months from Practical Completion</p>
5. Defects Liability Period	12 Months
6. Consent Holder's Representative	<p>Name: Grant Harrison</p> <p>Position: Project Manager– Glencore</p> <p>Mobile Phone: 0427 124 071</p> <p>Email: grant.harrison@glencore.com.au</p>
7. Council's Representative	<p>Name: Kellie Scholes</p> <p>Position: Manager Roads, Drainage and Technical Services</p>

	<p>Mobile Phone: 0407 252 142</p> <p>Office Phone: (02) 6549 3756</p> <p>Email: kellie.scholes@muswellbrook.nsw.gov.au</p>
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Special Conditions

1. This s.138 Roads Act 1993 Consent is not valid until all relevant Consent conditions have been complied with and the fees as outlined in the Schedule have been received by Council.
2. The drawings attached to the application are considered to be preliminary and NOT Issued for Construction. The Consent Holder must design and construct the Wybong Road Culvert replacement in accordance with the Austroad Guide to Road Design, Austroad Guide to Bridge Technology, and any other applicable standards to ensure that the structure has the required capacity for servicing OSOM loadings to MSC satisfaction.
3. The design criteria specified is in accordance with MSC road classification RS3M including specification for select fill Aus-Spec 1112 Earthworks or better with total seal width 10.2m (to include sealed shoulder and verge under guardrail)
4. The culvert design is to be certified by an independent suitably qualified structural engineer acceptable to MSC. Written certification that the infrastructure works have been designed to all applicable standards is to accompany the design for Council acceptance.
5. Construction is to be undertaken in accordance with Aus-Spec specifications with the exception of flexible pavement base and subbase. For flexible pavement and sub base RMS 3051- Granular Base and Sub Base materials with a minimum edition 6 is the specification to be applied.
6. The construction of the culvert is to be certified by an independent suitably qualified structural engineer acceptable to MSC. Written certification that the infrastructure works have been constructed to all applicable standards is to accompany the request for practical completion.
7. A construction Traffic Management (and Vehicle Movement Plan) MTP is to be developed in consultation with Council. The CTMP is to be developed to specifically address each stage of construction and the management of traffic on Wybong Road. The Consent Holder is to discuss details of Traffic Management, including construction traffic volumes, staging, timing and Traffic Guidance Schemes with Council's Technical Officer, Works, prior and during the construction. The information is to be provided and accepted by Council prior to commencement of construction and during the period of construction.
8. All works impacting public roads will require a Traffic Guidance Scheme (TGS). All TGS plans are to be developed as per TfNSW "Traffic Control at Worksites Conditions" and are to be accepted by Council prior to use. Any changes to the TGS's will require submission to Council prior to the implementation of the changes.
9. A dilapidation report which records the condition of the road pavement, drainage structures and other road related infrastructure must be compiled in consultation with Council Manager Roads Drainage & Technical Services for the section of Wybong Road for a distance of 100m either side of the work zone. On Practical Completion of the Project, the dilapidation report must be undertaken again and all defects identified. The Consent Holder must rehabilitate and/or make good construction related damage (excluding fair wear and tear and general maintenance associated with the road use) identified in the post-dilapidation

survey prepared under this section 138 consent.

- 10.** A schedule of works will be provided to Council in the form of a Gant chart detailing individual key work activities associated with the overall work project and completed work stages. Specifically, where this works impact Council's road reserve. This is to be updated every 4 weeks and made available to Council. A liaison meeting should be schedule as required.
- 11.** The proposed location and design of the access for the contractors site office is to be provided to Council for approval prior to construction.
- 12.** Prior to commencement of any construction activity on Wybong Road all proposed temporary construction and permanent accesses are to be located, designed and constructed to meet the minimum requirements of Muswellbrook Shire Council's Rural Property Access Drawing 0041/1 Revision A dated 16/07/2012. Approved accesses are to be in accordance are to be located in consultation with Council and to Council's satisfaction.
- 13.** All constructed temporary accesses are to be removed and decommissioned upon completion of construction and boundary fencing reinstated and all areas of disturbances within the road reserve are to be reestablished to Aus-Spec standards including top soiling, grass seeding, reshaping of table drains and scour protection where required to Council's satisfaction.
- 14.** The Consent Holder is to advise Council's Technical Officer, Works on 0418 110 010 ten (10) days prior to commencing work to confirm inspections.
- 15.** The occupation of the Road should be undertaken in a safe manner, with adequate dust control.
- 16.** The Consent Holder must ensure that mud and dust from the Works is not carried onto the Road. It is recommended that a device (from the Soil Management book) be used to remove such materials prior to entering the roads.
- 17.** The Consent holder shall check for other services, have these services located and is responsible for any damage to services and Council infrastructure. Dial before you dig 1100.
- 18.** This Consent does not constitute approval of any environmental impacts and the Consent Holder is responsible for any such impacts. The Consent Holder is required to apply such measures as outlined in the Review of Environmental Factors.
- 19.** The consent holder must provide the following documents at the completion of the project for Council consideration to determine Practical Completion:
 - Works as Executed Plans;
 - Supporting quality documents including hold point documentation;
 - Completed Asset Data Sheet; and
 - Road Safety Audit and Close outs
- 20.** Fencing of the road reserve is to be undertaken to TfNSW standards and undertaken in consultation with Council. Any property accesses are to meet the

minimum requirements of Muswellbrook Shire Council's Rural Property Access Drawing 0041/1 Revision A dated 16/07/2012.

- 21.** Council as the road authority reserves the right to automatically suspend or decrease the construction activity in the event of heavy or prolonged rain affecting public roads. Construction traffic movements are not permitted on public roads when fog conditions prevail, and sight distances are compromised.
- 22.** Council as roads authority reserves the right to reconsider and review the special conditions relating to the movement of construction vehicles on public roads.

**10.2.4. Merton Street Denman Road Upgrade Funding**

Attachments:	Nil
Responsible Officer:	Derek Finnigan - General Manager
Author:	Kellie Scholes (Manager - Roads, Drainage & Technical Services)
Community Plan Issue:	5 - Community Infrastructure
Community Plan Goal:	Effective and efficient infrastructure that is appropriate to the needs of our community.
Community Plan Strategy:	5.1.4 - Maintain and continually improve community infrastructure across the Shire. 5.1.4.1 - Capital works programmes prioritised to demonstrate continual improvement in community infrastructure.

PURPOSE

The report requests Council's consideration of allocating a budget to the Merton Street drainage improvement project to rehabilitate and upgrade stormwater drainage in Merton Street, Denman (Paxton to Palace St), to enable construction of the project and to suggest sources of available funding.

OFFICER'S RECOMMENDATION

Council endorses the provision of a budget of \$2,589,582 to rehabilitate the road and upgrade stormwater drainage in Merton St, Denman, allocating funding from the following sources pending notification of an unsuccessful application for \$1,177,000 from Disaster Ready Funding.

Resources for Regions Round 9	\$1,412,582
Roads to Recovery 2023-24	\$ 577,000
Special Rate Variation Drainage Denman	\$ 600,000

Moved: _____ **Seconded:** _____

BACKGROUND

At the 25 October 2022 Ordinary Council Meeting, Council endorsed a concept design for the rehabilitation and upgrade of stormwater drainage in Merton Street, Denman. The detailed concept design endorsed by Council was for part reconstruction of the section of Merton Street, from Palace Street to Paxton Street, and provided the following general scope of work:

- Reconstruction of half road pavement where geo-tech testing will inform the pavement design;



- Full road bitumen seal upon completion;
- Kerb and gutter replacement on the northern side on a new alignment;
- Reconstruction of all existing driveways and laybacks;
- Construction of an overland flow path for major events within the footpath, including a concrete footpath;
- Planting of sixteen (16) Pyrus Calleryana 'Captial' Ornamental Pear trees;
- Construction of piped stormwater drainage consisting of twin 750mm diameter Reinforced Concrete Pipe installed between Paxton Street to Palace Street then extending down Palace Street to the south (433.6m) and associated pits;
- Creation of an easement to drain water across properties along Palace Street;
- Construction of swale drainage along Palace St to drain to Denman Creek; and
- Modifications to utilities including sewer.

At the time of reporting the concept, Council was informed that the project was unfunded and that sources of funding to undertake future construction were actively being sought.

CONSULTATION

Finance Team

Project Manager – Roads, Drainage and Technical Services

Grants Officer

REPORT

Council's endorsement of the concept design for the upgrading of Merton Street, Denman (Palace Street to Paxton Street), has allowed the design to be finalised and construction drawings prepared. Based on this design, an estimate of cost using current unit rates has been prepared. The estimated cost of construction is \$2,589,582. The report requests Council's consideration of allocating a budget to allow construction of the project, and suggests sources of available funding.

In terms of funding the construction of this project, an amount of \$1,412,582 from Resources for Regions Round 9 is confirmed and can be allocated to the project. This leaves a deficit in funding of \$1,177,000 needed to be sought to allow construction of the project. Council has applied for \$1,177,000 in funding from the Australian Government through the Disaster Ready Fund (DRF) Round 1 2023-24 programme. The Government has announced up to \$200 million per financial year for the DRF over five years, from 1 July 2023 to 30 June 2028 (up to \$1 billion total). The DRF is the Australian Government's flagship disaster resilience and risk reduction initiative, which will fund a diverse set of projects in partnership with Australian state, territory, and local governments to deliver medium-term and long-term outcomes that support Australians to manage the physical, social, and economic impacts of disasters caused by climate change and other natural hazards.

The Disaster Ready Fund aims to invest in disaster mitigation infrastructure and systemic disaster risk reduction projects, to address any, or multiple, natural hazards including extreme weather events and geological hazards. Council has been advised that its application has been elevated to the next stage of assessment, however, is waiting for confirmation of the success of its application. Announcements are expected to be made prior to 30 June 2023. Due to this funding opportunity and the significance of the amount of funding, it is recommended that the tendering of this project not commence until confirmation of DRF funding has been received. DRF funding is not retrospective.

In the case of Council's application not being successful, there are two (2) other sources of



funding available. Council could consider allocating the Roads to Recovery allocation for 2023-24 and Special Rate Variation Allocation for Denman Drainage to the project which, if combined, would provide adequate funding to complete the full scope of works.

OPTIONS

The optimal outcome would be that Council's application from the DRF source for additional funding to support the project is successful.

Option 1– allocate funding from the following sources if the application for funding through the Disaster Ready Fund Round 1 is successful.

Resources for Regions Round 9	\$1,412,582
Disaster Ready Fund Round 1 2023-24 programme	\$1,177,000

or

Option 2 – allocate funding from the following sources if the application for Disaster ready funding is unsuccessful.

Resources for Regions Round 9	\$1,412,582
Roads to Recovery 2023-24	\$ 577,000
Special Rate Variation Drainage Denman	\$ 600,000

CONCLUSION

Residents in the affected section of Merton Street are currently having difficulty accessing their properties due to the poor condition of the kerb and gutter and failure of the road pavement caused by inadequate drainage. Undertaking this project will not only provide residents with safe and acceptable access to their properties but build resilience within the stormwater management system of Denman. Therefore, it is recommended that Council provides a budget to construct new drainage and road rehabilitation works in Merton Street. The confirmed funding from resources for regions will provide 57% of the required allocation to complete the project. The provision of a budget will allow the project to progress to the construction stage.

SOCIAL IMPLICATIONS

The renewal of the road and upgrading of stormwater assets will have long-term positive benefits to the town.

FINANCIAL IMPLICATIONS

Ongoing Operational and Maintenance Costs Implications Associated with Capital Project

The estimated cost to construct the scope of work is \$2,589,582.

This project is currently partly funded through a committed amount of \$1,412,582 from Round 9 of Resources for Regions. Council is actively seeking a source of funding from the Disaster Ready Fund for the remaining amount needed to complete the identified scope of work. In the event that Council's application for funding through the Disaster Ready Fund is unsuccessful, Council could allocate funding as detailed below.

1. Financial Implications – Capital

Total budget allocation required to complete the work	\$2,589,582
Allocate amount from R4R R9	\$1,412,582



SRV Denman Drainage	\$ 600,000
Roads to Recovery 2023-24	\$ 577,000

2. Financial Implications – Operational

Undertaking renewal of the road assets through reconstruction will decrease maintenance costs. Currently, due to the poor road condition, operational cost is being incurred, as frequent maintenance of the road surface is being undertaken.

POLICY IMPLICATIONS

Tendering for the construction could not commence until a budget has been allocated.

STATUTORY IMPLICATIONS

Council is the roads authority and is acting within its powers.

LEGAL IMPLICATIONS

External funding sources such as Resources for regions are conditional, and Council is required to undertake the works in accordance with the deed conditions.

OPERATIONAL PLAN IMPLICATIONS

Satisfies 5.1.4 Maintain and continually improve community infrastructure across the Shire.

RISK MANAGEMENT IMPLICATIONS

Not applicable.

WASTE MANAGEMENT IMPLICATIONS

Nil known.

COMMUNITY CONSULTATION/MEDIA IMPLICATIONS

Consultation with the Community and directly impacted properties is ongoing.

**10.2.5. CBD Stage 7 - Concept Pocket Park**

Attachments:	1. Muswellbrook Town Centre - Overall Development Strategy [10.2.5.1 - 1 page] 2. CBD Stage 7 - MSC - Final Concept Design [10.2.5.2 - 5 pages]
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Responsible Officer: Derek Finnigan - General Manager

Author: Kellie Scholes – Manager Roads, Drainage and Technical Services

Community Plan Issue: 5 - Community Infrastructure

Community Plan Goal: Effective and efficient infrastructure that is appropriate to the needs of our community.

Community Plan Strategy: 1.4.1 - Complete current infrastructure projects and identify future opportunities for the Shire.
1.2.4.1 - Commence enabling works for Muswellbrook Town Centre.

PURPOSE

To inform Council of the preparation of a Concept Plan for Streetscape works referred to as Muswellbrook CBD Stage 7, including a Pocket Park, and to request Council's endorsement of the Concept Plan.

OFFICER'S RECOMMENDATION

Council ENDORSES:

1. The Concept Drawings for CBD Stage 7 for streetscape improvements in Bridge St, Muswellbrook, and a Pocket Park, with the inclusion of the additional items as outlined in Option 1, and
2. To undertake consultation with the adjoining property owners, including property owners of 77–85 and 87 Bridge St Muswellbrook, with regard to the concepts proposed for this area.

Moved: _____ **Seconded:** _____

BACKGROUND

The Muswellbrook Town Centre Strategy was finalised in December 2016, and adopted by Council in 2017. It was prepared to guide and assist Council to continue to develop the Muswellbrook Town Centre as the Regional Centre for the Upper Hunter.

The document's purpose was to establish a land use strategy to ensure key urban design principles are incorporated into the future development opportunities within the Muswellbrook Town Centre. The document continues to inform the discrete projects which are proposed to be undertaken to develop the precinct. Attached to this report is the Overall Development Strategy.

One key design principle and example of how the Town Centre strategy is informing future



design within the precinct is through permeability of access throughout the precinct. Providing safe and equitable access for all is key to the 'Campus Concept' of the precinct. Existing pedestrian access routes are mainly restricted to footpaths along Bridge Street and the rear main vehicular thoroughfare parallel to the rail corridor. Improving permeability of access, across and through the area aims to establish safe, connected, and accessible pedestrian links throughout the site and to neighbouring precincts such as the Muswellbrook Marketplace.

The second key design principle is to improve the Public Domain. The 'Campus' style public domain relies on developing key zones of public activity linked to pedestrian networks and proposed areas of education, and cultural and commercial activity. The encouragement of activity from new development opportunities will create safe, successful public spaces.

The development of CBD Stage 7 will be a staged implementation. Part of the upcoming development work includes the demolition of existing buildings on the site. Buildings occupying 88-96, 100-106, and 108 Bridge Street, have been identified for demolition.

Any Development Application for the demolition of these existing buildings is required to be supported by information pertaining to the future use of the site. Therefore, amongst other opportunities, the demolition of buildings in Bridge Street will facilitate the development of a 'Pocket Park' and the future construction of the Regional Entertainment Centre, and other commercial buildings at the site.

The proposed streetscape work that is the subject of this Concept Plan and report is part of a package of works funded through Resources for Regions Round 7, and includes the rehabilitation of Hill Street, improvements to the Hill Street Carpark, streetscape upgrades in Bridge Street (Hill Street to median crossing) and drainage upgrades in the laneway between 85 and 87 Bridge Street.

Muswellbrook Shire Council supports the NSW Public Spaces Charter. The charter identifies 10 principles for quality public space, to support all those who advocate on behalf of, provide advice on, or make decisions about, or plan, design, manage, and activate public spaces in NSW. These principles have guided the development of the concept plans.

CONSULTATION

Councillors Town Centre Workshop – May 2023

Regional Entertainment Centre Development Advisory Committee – March and May 2023

Director Property and Place

Community and Partnership Officers

REPORT

Concept designs have been prepared for streetscape improvements in the areas of public domain referred to as CBD Stage 7. This area encompasses the western side footpath of Bridge Street, Muswellbrook, between Hill Street and Brook Street, the pedestrian median crossing in Bridge Street, the laneway between 85 and 87 Bridge Street, and the footpath on the eastern side Bridge Street, either side of the laneway, to enable a compliant transition to existing levels. A concept has also been prepared for the future development of a pocket park and small car park off Brook Street, on land known as 98 to 108 Bridge Street. The concept drawings are attached to this report.

Council engaged consultants Complete Urban to prepare Civil and Landscape designs and associated drawings, to enable the future construction of hard and soft landscaping in Public Domain areas of Bridge Street, Muswellbrook, for the project referred to as CBD Stage 7.



The streetscape concepts for the identified areas of Bridge Street are guided by the Muswellbrook Shire Council Public Domain Manual, and, as a result, the landscaping, finishes and street furniture proposed are consistent with those used in other new footpath areas along Bridge Street.

The Concept includes a proposed new site for the relocation of the 'big' Blue Heeler bronze statue and recommends that it be relocated from its existing site on the corner of Hill and Bridge Streets to the site in Bridge Street adjacent to the library and the new Visitor Information Center (VIC) at Weidmann Cottage.

The popularity of the statue currently draws attention from the public to photograph it and walk around it. The current location is considered to be constrained and does not provide optimal presentation of the statue, nor does it facilitate easy and safe public access for viewing. The proposed new site will provide the statue with a background including the Anglican Church steeple, and position it so that it forms part of the wayfinding elements within the town, to assist to locate the VIC.

The Concept also covers the proposed upgrading of stormwater drainage which drains the public carpark adjacent to the Muswellbrook Market Place, down through the area of private land (laneway) between 77-85 and 87 Bridge Street, to connect to the existing stormwater drainage in Bridge Street.

An easement for stormwater in favour of Council exists over this land. The concept outlines how the laneway surface can be reinstated with coloured banded asphalt following the stormwater construction. However, it also provides additional improvements which could be implemented with the landowner's consent. These include relocatable planters with Crepe Myrtle trees, uplighting, seats, a green wall, and mural.

The development of a small car park and pocket park located on land identified as 88-96 Bridge Street, 100-106 Bridge Street, and 108 Bridge Street, is proposed. The vision is for the public space referred to as a Pocket Park (Possum Place), to contribute meaningfully to the physical, social, "heart" of the Community. It will be designed as a place of community identity, value, pride, and social interaction.

It is proposed that this would be achieved through the creation of an attractive, safe and engaging public space which can facilitate a range of experiences for gathering, community markets, pop up food vans /services, and passive recreation.

It is intended that the Pocket Park will play an important role in the formation of a public space network within the Muswellbrook Town Centre, which includes Simpson Park and riparian areas along Muscle Creek and the Hunter River. The smaller park will allow for "pauses" in a landscaped setting along the route between these larger open spaces within the town. The Pocket Park will be particularly important, as it is located within an area where commercial and educational activities are taking place.

Being in a highly visible and accessible location, the outdoor space will allow workers, the travelling public, visitors, the Community doing business /shopping, and/or students to take a lunch or coffee break while enjoying a contemplative environment with pedestrians strolling by. It will provide a meeting place to facilitate connection and belonging, seating to relax, areas to eat, a small play area for children, and provision of a casual grassed lawn and game area for interaction able to be accessed and used by people of all ages and abilities.

Research has suggested that smaller breaks during the work schedule increases productivity and health, especially mental health, and connection with others has positive benefits for wellbeing. Due to its small scale, the space will be highly visible from Bridge Street, providing passive surveillance. The space will also provide permeability to facilitate improved connection within the precinct. It will also include access to sunlight, important view corridors, and protection from the wind, traffic, and noise where possible.



A workshop was held with Council on 4 May 2023, where the Concept for the Pocket Park was discussed, and the following comments made regarding the concept presented:

- The building occupying 100-106 Bridge Street is NOT to be retained;
- Extend the rock gabion wall and hedged landscaping over land 100-106 Bridge Street to provide a barrier between the park and the footpath on Bridge Street;
- Safety for children using the play space is critical to the design. The provision of compliant barriers and/or fencing is to be considered in the design to separate children from traffic;
- Planting palate and Indigenous garden to include Native Hibiscus and Native Frangipani;
- Water play areas are not to be referenced as creek beds;
- The public space would benefit from the addition of toilet amenities, and these should include accessible toilets with consideration given to the provision of a changing places facility;
- Consideration should be given to the provision of structures such as toilets which are relocatable if required to be moved at a later date;
- Park amenities are to include the provision of either a permanent or semi -permanent food van similar to 'Harry's Café d'Wheels' or a coffee caravan or similar.

OPTIONS

Option 1

The concept drawings to be amended to include the following:

- a. The building occupying 100-106 Bridge St to be demolished;
- b. Extend the rock gabion wall and hedged landscaping over land 100-106 Bridge Street;
- c. Inclusion of a compliant barrier and/or fencing in the design to separate children from traffic;
- d. Include Native Hibiscus and Native Frangipani in the planting palate;
- e. Remove any reference to creek beds from water play areas;
- f. Indicate the location of toilet amenities, including accessible toilets, with consideration given to the provision of a changing places facility and provision of a structure, such as toilets which are relocatable if required to be moved at a later date;
- g. Park amenities are to include a facilitated location for the provision of either a permanent or semi -permanent food van similar to 'Harry's Café d'Wheels' or a coffee caravan or similar.
- h. Remove provision of trees, planters, and bollards from the rear lot 51 (87) Bridge St.

Option 2

Endorse the concept drawings without amendments, with the exception to remove the provision of trees, planters, and bollards from the rear lot 51 (87) Bridge St.

CONCLUSION

The endorsement of the Concept for CBD Stage 7 and the Pocket Park will enable final design to be undertaken and construction drawings prepared. The design will enable the works to be fully costed so that the budget needs can be fully assessed. However, the works can be implemented in a staged manner pending funding availability. Once construction drawings have been received, tendering for works can proceed as funding permits.

SOCIAL IMPLICATIONS

By turning 'spaces' into 'places', Council aims to take a step towards providing the



community with access to interesting, equitable and attractive settings to meet various needs, and to facilitate more social interaction in the urban life of Muswellbrook.

FINANCIAL IMPLICATIONS

Ongoing Operational and Maintenance Costs Implications Associated with Capital Project

1. Financial Implications – Capital

The 2023-24 Capital Budget includes amounts to implement several projects, including the streetscape works in Bridge Street and the laneway between 85 and 87 Bridge Street, funded through Resources for Regions Round 7 GL 3500.4590-93.

Bridge Street Footpath (Western Side - median crossing to Hill St)	\$500,000
--------------------------------------------------------------------	-----------

Median Safety Improvement Bridge Street	\$ 50,000
-----------------------------------------	-----------

Hill Street Carpark and Laneway Improvement	\$493,461
---------------------------------------------	-----------

Council has been successful in securing funding of the amount of \$250,000 from Stronger County Communities Round 5 for play equipment which supports accessible and inclusive interaction within the Muswellbrook Civic Precinct Pocket Green. However, there is currently no discrete project budget for the construction of the Pocket Park.

The preparation of design drawings will allow an estimation of the full cost to implement the pocket park design. High level estimates indicate that a minimum budget of \$1.8M would be required to construct the full scope of work.

2. Financial Implications – Operational

Although the construction of the approved works will decrease operational budget needs in the short term, due to the provision of new footpath pavement assets which will negate the need for maintenance of brick pavers, it will add to the area of public domain requiring overall maintenance. Therefore, the implementation of any new works will require additional funding within the operational budget for the ongoing maintenance of the new assets.

POLICY IMPLICATIONS

Footpaths works proposed would be guided by MSC Footpath Policy F-10.

STATUTORY IMPLICATIONS

Council is the roads authority under the Roads Act and is acting within its power.

LEGAL IMPLICATIONS

The land referred to as laneway between 85 and 87 Bridge Street, Muswellbrook, is under private ownership.

OPERATIONAL PLAN IMPLICATIONS

The report supports the Community Strategic Plan Goal 5: Effective and efficient infrastructure that is appropriate to the needs of our community.

RISK MANAGEMENT IMPLICATIONS

Nil known.

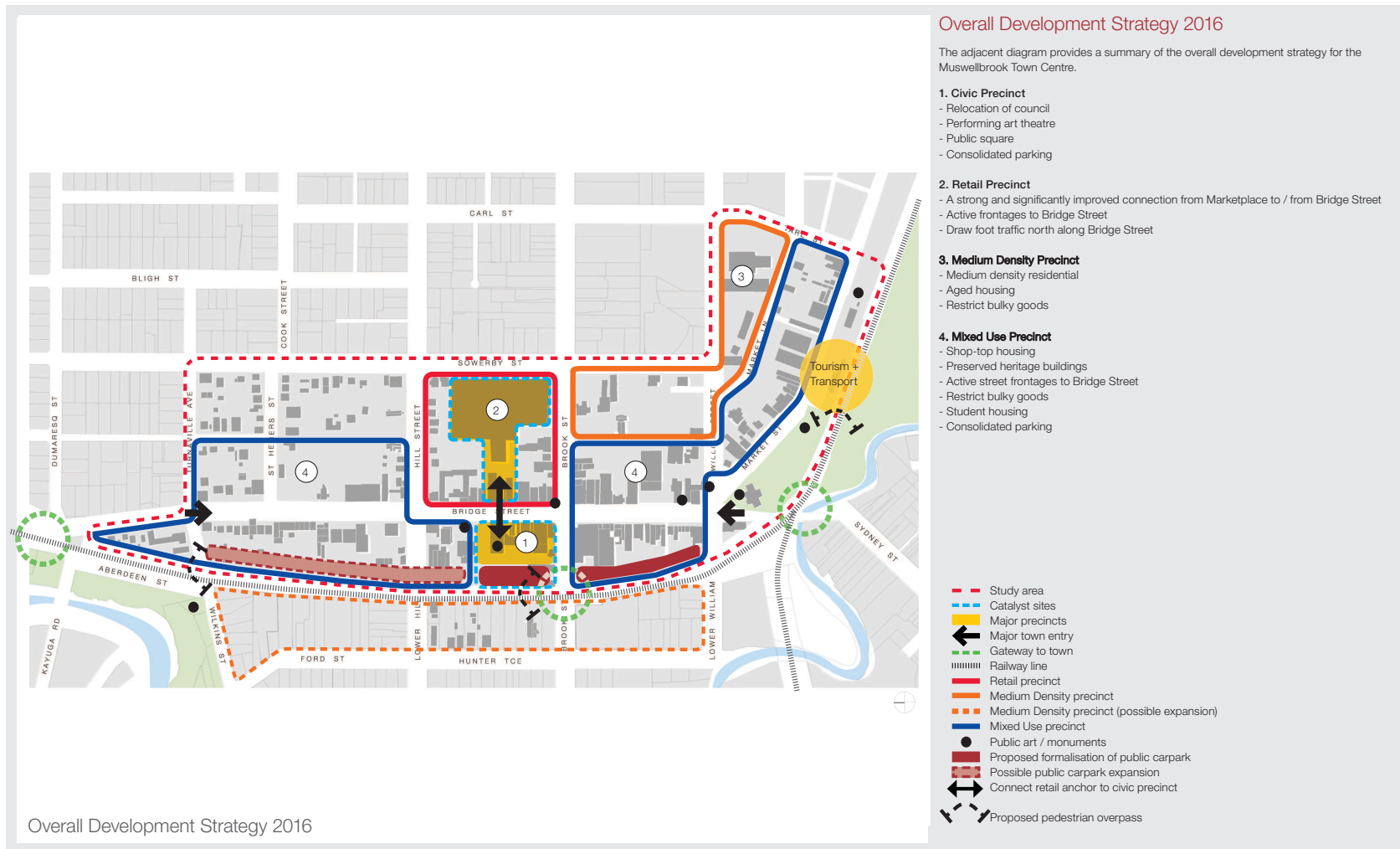


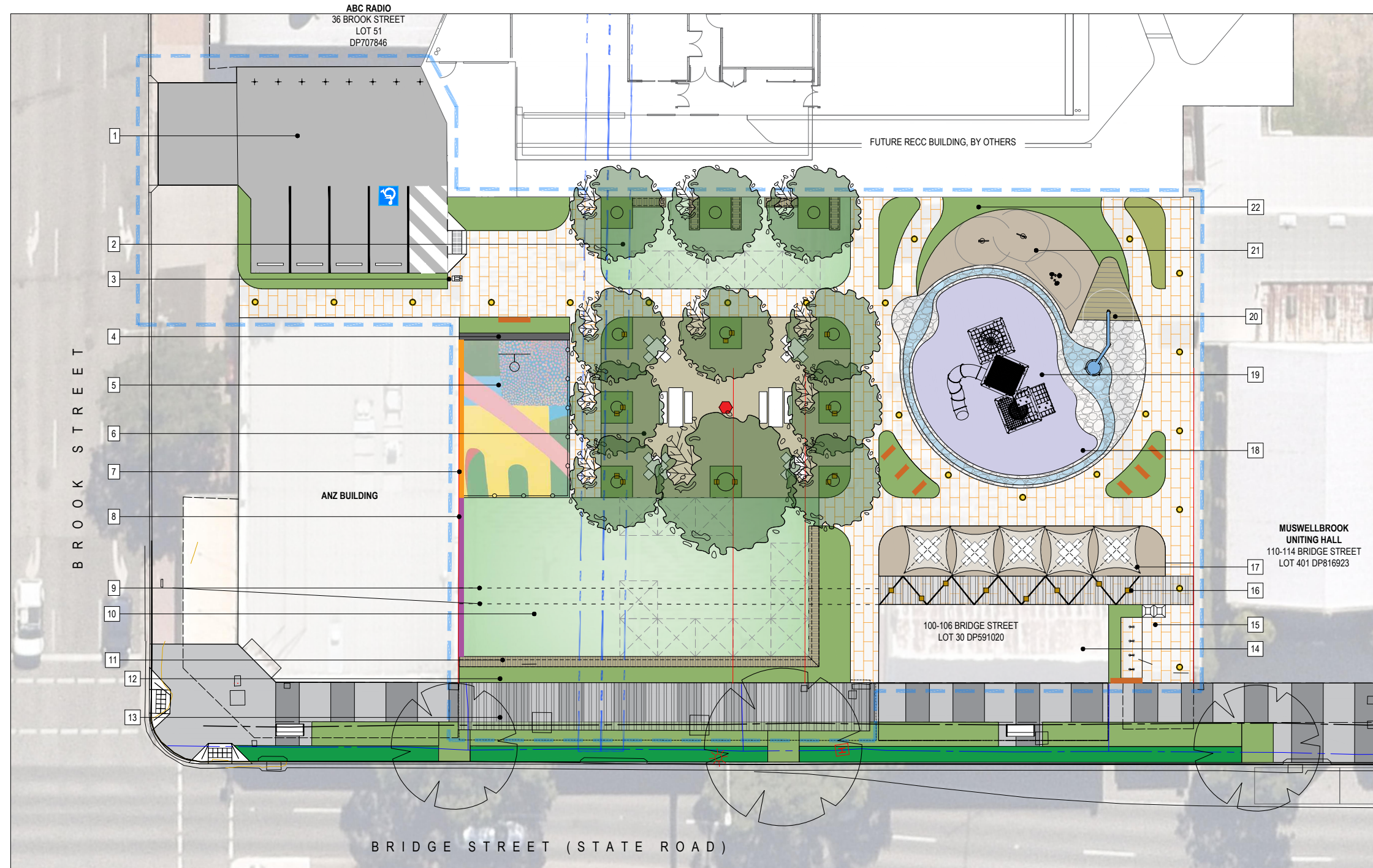
WASTE MANAGEMENT IMPLICATIONS

All designs aim to minimise waste.

COMMUNITY CONSULTATION/MEDIA IMPLICATIONS

A communications plan will be developed as part of the project and town centre development.

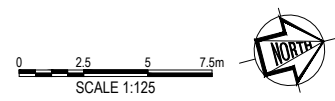




- 1 **FORMALISED CARPARK**
 - New vehicular crossing
 - (3) normal parking spaces & (1) disabled parking with wheelstops
 - Building protection with impact-resistant bollards
- 2 **OPEN TURF AREA**
 - Seating area under canopy trees
 - Weekend market / event space
- 3 **WATER STATION WITH DOG DRINK BOWL**
- 4 **GABION FEATURE WALL**
 - Park Signage
- 5 **SMALL BASKETBALL COURT**
 - 7x10m fenced court with acrylic surface finishes
- 6 **GRAVELLED TREE PLAZA**
 - Canopy trees for weather protection
 - Sensory public art piece (chimes)
 - Possum nesting box fixed on trees
 - Picnic tables & loose furniture
- 7 **MURAL**
 - Possum mural image to the back of ANZ bank building wall facing the park
- 8 **PROJECTION WALL**
 - For art / film projection
 - To include electrical connections to project images onto existing ANZ bank building wall
- 9 **ALTERNATE OPTION TO EXISTING BUILDING ON BRIDGE STREET**
 - Retain existing building facade and continue rock gabion wall with hedging
- 10 **OPEN TURF AREA**
 - Passive use
 - Outdoor cinema / weekend market / event
- 11 **SEATING WALL**
 - Low rock gabion wall with timber top seating
- 12 **LANDSCAPE BUFFER**
 - Demolish existing building & provide low hedging for passive surveillance
- 13 **SHELTERED FOOTPATH**
 - New cantilever awning along footpath for weather protection
- 14 **RETAIN EXISTING BUILDING**
 - For commercial use
 - Subject to structural assessment
- 15 **PARK AMENITIES**
 - Bin & bicycle parking area
- 16 **EATERIES STREET**
 - New cantilever awning along pathway for weather protection
 - Catenary lighting / art (possum nesting boxes)
- 17 **SEATING AREA**
 - Loose furniture and umbrellas
- 18 **EDUCATIONAL SIGNAGE**
 - Vertical corten panels with laser cut of possum's indigenous name (Bagu/Garrawir/Mudhey/Wilay)
- 19 **THE 'POSSUM GULLY' PLAYGROUND**
 - Possum theme sculptural play (climbing)
 - Gravelled creek bed defining possum silhouette
- 20 **WATER PLAY**
 - Water pump play equipment on decking area
 - Shape of decking represent head of possum
- 21 **SOUND PLAY**
 - Musical garden with sound play
- 22 **INDIGENOUS GARDEN**
 - Native herbs & bush food garden

LEGENDS

SITE BOUNDARY - POCKET PARK	ARTIFICIAL TURF	GRAVELLED AREA	MURAL WALL	POTENTIAL MARKET STALL LOT	SEATING	EDUCATIONAL SIGNAGE / PARK NAMING SIGN
EXISTING BUILDING	PLAYGROUND RUBBERISED SOFTFALL	WATER PLAY CREEK BED	PROJECTION WALL	OUTDOOR UMBRELLA	BOLLARD	IN-GROUND SOLAR LIGHTING
PROPOSED TREE	PAVED FOOTPATH (PUBLIC DOMAIN SPECIFICATIONS)	CANTILEVER AWNING	FEATURE GABION WALL	CATENARY PUBLIC ART	BIN	NOM. PUBLIC ART LOCATION
PLANTING	ASPHALT	STORMWATER REPLACEMENT	GABION SEATING WALL WITH TIMBER TOP	POSSUM BOX	BIKE RACKS	



CIVIL & LANDSCAPE DESIGN - CBD STAGE 7 - POCKET PARK FINAL CONCEPT DESIGN

PROJECT NO. 3448 | REVISION C | 24-04-2023 | SHEET 1 OF 5

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THE EATERIES STREET



100-106 Bridge Street Building Facade



Cantilever awning



Outdoor seating area under umbrella



Catenary public art



Catenary lighting

THE 'POSSUM GULLY' PLAYGROUND



Water play creek bed



Water play creek bed



Musical garden with sound play



Educational signages

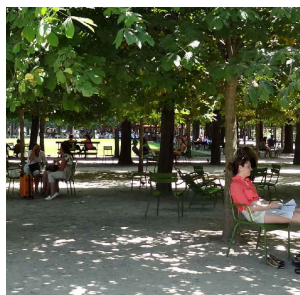


Possum theme sculptural play

GRAVELLED TREE PLAZA



Sensory public art piece (chime)



Outdoor seating under canopy trees



Possum nesting box fixed on tree



PASSIVE AREA



Art projection onto wall



Weekend market stalls



Mural

ACTIVE AREA



Fenced basketball court

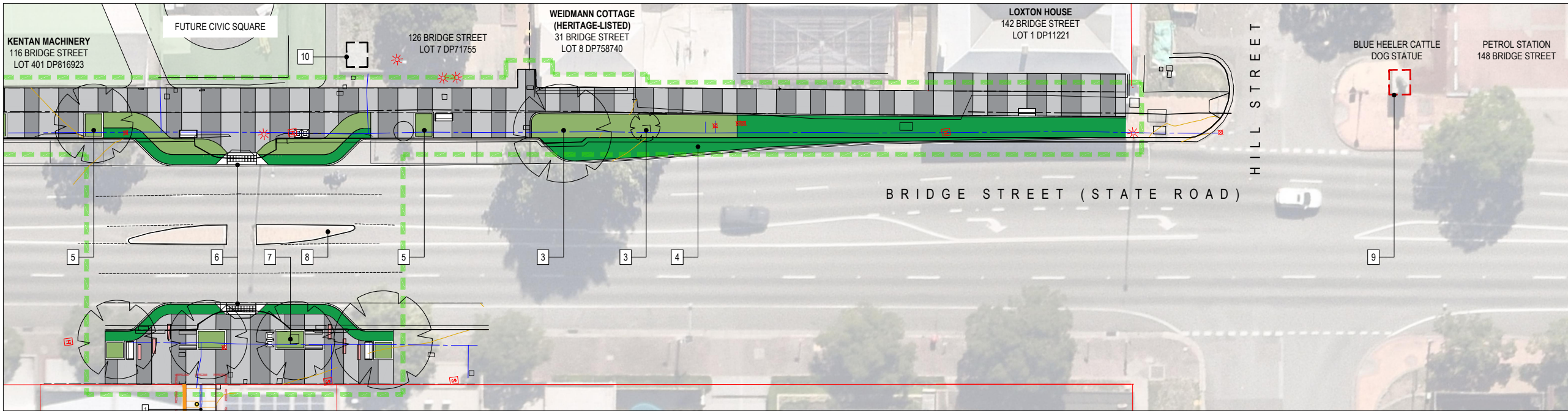
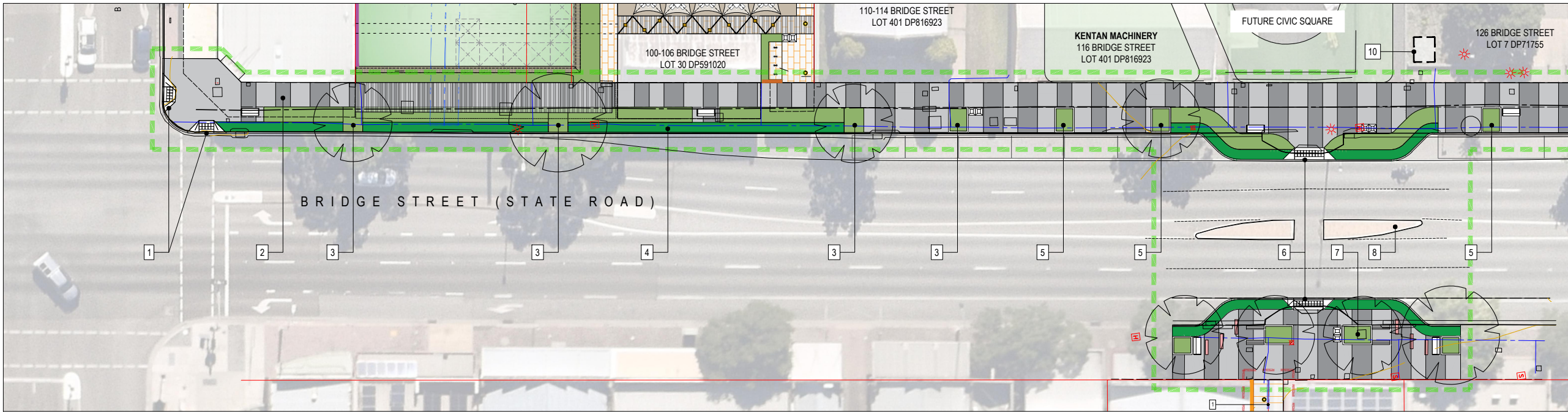


Park naming signage & feature wall

CIVIL & LANDSCAPE DESIGN - CBD STAGE 7 - POCKET PARK FINAL CONCEPT DESIGN

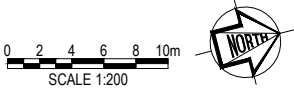
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LEGENDS

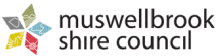
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| <p>1 COMPLIANT CROSSING
- Provide new pram ramp to crossing</p> <p>2 UPGRADE FOOTPATH
- Continue footpath treatment from CBD</p> <p>3 PROTECT AND RETAIN TREE
- Retain tree in mass planting area</p> | <p>4 HEDGE PLANTING
- Provide Buxus hedge planting strip to match CBD planting style</p> <p>5 NEW PLANTING POCKET
- Provide new planting pocket with concrete/stone edging and low shrub planting to match CBD planting style</p> <p>6 PEDESTRIAN CROSSING
- Construct new kerb build out with compliant crossing ramps</p> | <p>7 AMENITIES AT KERB BUILT OUT
- Improve pedestrian visibility, safety and amenity at crossing with new seating and planting area</p> <p>8 REFUGE ISLAND WORKS
- Upgrade or alter refuge island along New England Hwy/Bridge Street</p> <p>9 RELOCATE BLUE HEELER STATUE</p> | <p>10 PROPOSED LOCATION FOR BLUE HEELER STATUE</p> | <p> SITE BOUNDARY - FOOTPATH UPGRADE</p> <p> EXISTING TREE</p> <p> MASS PLANTING AREA</p> <p> BUXUS HEDGE</p> | <p> FOOTPATH UPGRADE (PUBLIC DOMAIN SPECIFICATIONS)</p> <p> STONE/CONCRETE EDGING TO PLANTING POCKET</p> <p> BENCH SEAT</p> <p> SEAT WITH BACKREST</p> | <p> BIN</p> <p> STREET INSET</p> |
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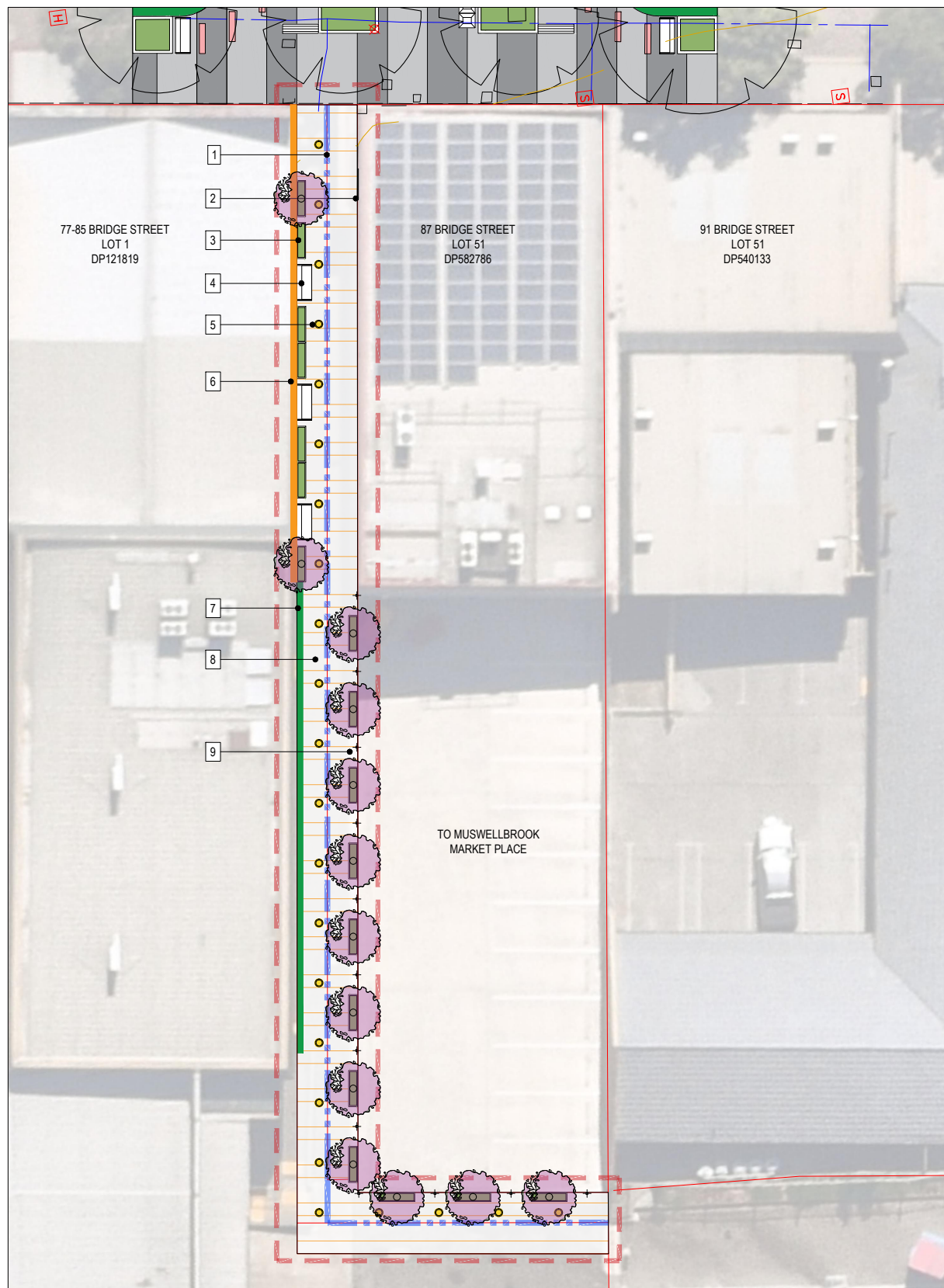
CIVIL & LANDSCAPE DESIGN - CBD STAGE 7 - FOOTPATH UPGRADE FINAL CONCEPT DESIGN

PROJECT NO. 3448 | REVISION C | 24-04-2023 | SHEET 3 OF 5

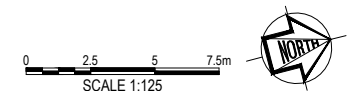
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COMPLETE



LEGENDS	
1	STORMWATER UPGRADE - Upgrade of stormwater drainage pipes to include centrally placed grated trench.
2	EXISTING MURAL - Retain existing mural on the northern side of laneway
3	VISUAL AMENITY - Provide planter with Crepe Myrtle (<i>Lagerstroemia indica</i>)
4	SEATING OPPORTUNITIES - Provide seating looking towards mural
5	NIGHT TIME SAFETY - Provide in-ground solar lighting for night time safe walking experience
6	MURAL - Cattle dog image to the back of southern side wall
7	GREEN WALL - Install green wall on exposed side of southern wall, adjacent to existing carpark area
8	LANEWAY UPGRADE - New coloured banded asphalt surface - Band colour equivalent to Pascal Heritage 'Red Brown', off white and 'Manor Red'
9	PEDESTRIAN SAFETY - Provide continuous bollards and planters for pedestrian safety
- - -	SITE BOUNDARY - LANEWAY UPGRADE
○	EXISTING TREE
●	NEW TREE
	FOOTPATH UPGRADE (COLOURED ASPHALT CONCRETE)
---	STORMWATER UPGRADE
—	MURAL WALL
—	GREEN WALL
■	PLANTER
□	SEAT WITH BACKREST
□	BIN
+	BOLLARD



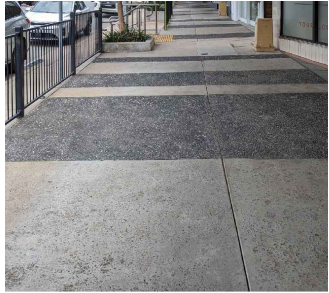
CIVIL & LANDSCAPE DESIGN - CBD STAGE 7 - LANEWAY STORMWATER UPGRADE FINAL CONCEPT DESIGN

PROJECT NO. 3448 | REVISION C | 24-04-2023 | SHEET 4 OF 5



COMPLETE

FOOTPATH
UPGRADE



Footpath treatment to match existing CBD footpath



Hedging to match existing CBD planting style: Buxus microphylla, Lomandra hystrix

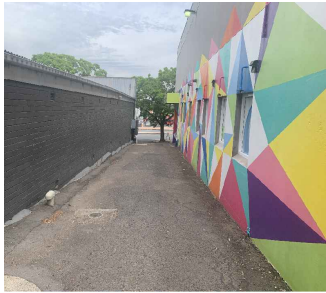


Street furniture with footpath insets



Planting pocket with concrete kerb

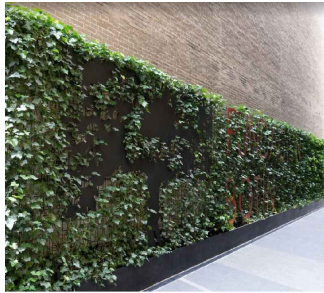
LANEWAY
UPGRADE



Existing northern wall mural



Cattle dog mural



Green wall



Planter with seats

MATERIALS
AND
FINISHES



Pocket Park: Earth wall



Pocket Park: Gabion feature wall



Laneway Upgrade: Colour banded asphalt

FURNITURE
AND
FIXTURES



Pocket Park: Gabion seating wall with timber top



In-ground solar lighting



Laneway Upgrade: Grated Trench

NOTE:
ALL STREET FURNISHINGS TO BE IN
ACCORDANCE WITH COUNCIL PUBLIC DOMAIN
MANUAL SPECIFICATIONS (STREET FURNITURE
AUSTRALIA - TRADITIONAL).

TREE
PLANTING
PALETTE



Pocket Park: Jacaranda (*Jacaranda mimosifolia*)



Pocket Park: Callery Pear (*Pyrus 'Bradford'*)



Pocket Park: Flowering Gum (*Eucalyptus ficifolia*)



Pocket Park: Australian Willow (*Geijera parvifolia*)



Laneway: Crepe Myrtle (*Lagerstroemia indica*)

CIVIL & LANDSCAPE DESIGN - CBD STAGE 7 FINAL CONCEPT DESIGN

PROJECT NO. 3448 | REVISION C | 24-04-2023 | SHEET 5 OF 5

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10.3. Property and Place

10.3.1. Requested reallocation of Small Capital Grant Funding

Attachments:	1. Letter from DSHJRLFC 20230330 [10.3.1.1 - 1 page]
Responsible Officer:	Matthew Lysaught - Director Property & Place
Author:	Paul Chandler (Recreation & Property Officer)
Community Plan Issue:	5 - Community Infrastructure
Community Plan Goal:	Effective and efficient infrastructure that is appropriate to the needs of our community.
Community Plan Strategy:	Not Applicable
	2.1.2.2 - Continue matched funding Sport and Recreation Grants Programmes.

PURPOSE

To report for Council's consideration a written request from the Denman Sandy Hollow Junior Rugby League Football Club to reallocate Council grant funding from the awarded project to another nominated project.

OFFICER'S RECOMMENDATION

Council APPROVES the request from the Denman Sandy Hollow Junior Rugby League Football Club to reallocate Council grant funding under the Sport and Recreation Small Capital Grants Programme – Round 7 to the nominated alternate project.

Moved: _____ **Seconded:** _____

BACKGROUND

Each year Council's Small and Large Capital Grants Programme are applied for and awarded to sport and recreation community user groups located within Muswellbrook Shire.

In Council's 2021-22 Small Capital Grants Programme, the Denman Sandy Hollow Junior Rugby League Football Club (DSHJRLFC) was awarded \$2,000 to provide power and lights to their mini-fields storage container.

CONSULTATION

Property Officer - Community

Director Property and Place

REPORT

The DSHJRLFC has been successful in receiving Council funding from the Large Capital Grants Programme, Round 3, in 2018-2019, to install field lighting at the mini-fields. Due to aligning multiple funding sources and the scale of the project, the project took the club several years to deliver, however the project is now complete.

On 30 March 2023, the club sent a letter to Council, a copy of which is attached to this



report, requesting a change to reallocate funds from Round 7, the 2021-22 Small Capital Grants Programme from 'power and lights to their mini-fields storage container' project to the purchase of a slushie machine for use in the Denman Recreation Area canteen.

The change is requested because the club was able to include the connection of power and lights to their mini-fields storage container in the works for the field lighting.

OPTIONS

Council could approve or reject the reallocation request and ask the club to return the funds.

CONCLUSION

It is recommended that Council approves the request from the Denman Sandy Hollow Junior Rugby League Football Club to reallocate grant funding to the nominated alternate project.

SOCIAL IMPLICATIONS

The part funding of the slushie machine by Council adds to the provision of equipment in the Denman Recreation Area canteen in a similar fashion to a pie warmer increasing the food and drink offering and the ability of the club to generate revenue.

FINANCIAL IMPLICATIONS

The grant funding has previously been provided to the club but remains unspent.

POLICY IMPLICATIONS

Nil known.

The request is consistent with the grant programme guidelines.

'15. The grant may only be used for the purpose specified in the funding agreement, unless written approval is received from Council.'

STATUTORY IMPLICATIONS

Nil known.

LEGAL IMPLICATIONS

Nil known.

OPERATIONAL PLAN IMPLICATIONS

'2.1.2.2 Continue matched funding Sport and Recreation Grants Programmes',
Muswellbrook Shire 2022 – 2023 Operational Plan.

RISK MANAGEMENT IMPLICATIONS

Nil known.

WASTE MANAGEMENT IMPLICATIONS

Nil known.

COMMUNITY CONSULTATION/MEDIA IMPLICATIONS

Nil known.

**DENMAN SANDY HOLLOW JUNIOR RUGBY LEAGUE
FOOTBALL CLUB**

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PO Box 106

DENMAN NSW 2328

To: Paul Chandler

Technical Officer

Recreation & Property

On behalf of Denman Sandy Hollow Junior Rugby League Football Club Inc. I wish to request that the \$2000.00 we received from the Muswellbrook Shire Council Small Capital Grant round 7 be reallocated to the purchase of a slushie machine. The cost of the slushie machine is \$4295.00.

The Round 7 grant was originally to be used to provide Lights and Power to the Mini Fields Storage Container. The funds were not required to provide Lights and Power to the Mini Fields Storage Container as that work was able to be funded within the Mini Field Lights Project. Surplus funds became available in the Mini Field Lights Project as there was a reduction in the cost of purchasing the LED lights.

Regards,

Peter Barry

Grants Officer

Denman SHJRLFC

**10.3.2. Establishment of Easement for ARTC Access to Rail Corridor from Wilkinson Avenue**

Attachments:	Nil
Responsible Officer:	Derek Finnigan - General Manager
Author:	Sarah Medcalf (Technical Officer - Property & Building Services)
Community Plan Issue:	5 - Community Infrastructure
Community Plan Goal:	Effective and efficient infrastructure that is appropriate to the needs of our community.
Community Plan Strategy:	5.1.4 - Maintain and continually improve community infrastructure across the Shire.
	Not applicable

PURPOSE

To request Council's in principle support to establish an easement for the Australian Rail Track Corporation (ARTC) to access the rail corridor through Fitzgerald Park, Olympic Park, from Wilkinson Avenue, Muswellbrook.

OFFICER'S RECOMMENDATION

Council:

1. Supports in principle the creation of an easement for the Australian Rail Track Corporation (ARTC) to access the rail corridor through Fitzgerald Park from Wilkinson Avenue, Muswellbrook.
2. Provides a letter of support for the easement to NSW Crown Lands - Department of Planning and Environment.
3. Address in the proposed easement the maintenance of passive and landscaped areas and provide access for Council purposes.

Moved: _____ **Seconded:** _____

BACKGROUND

With Council's consent as Crown Land manager Australian Rail Track Corporation Limited ARTC have accessed the rail corridor through Fitzgerald Park for the purposes of replacing three overhead rail bridges.

This occupation of land has been managed under a licence agreement. As a condition of this licence ARTC constructed an access road and landscaped the passive area.

CONSULTATION

Australian Rail Track Corporation

The proposed easement would be captured in the Draft Olympic Park Plan of Management.

REPORT

Access to the rail corridor is constrained by the urban environment around the area but access is needed to maintain the infrastructure and it is best that this is controlled and managed for the safety of community and workers. This was the intention in requiring ARTC to construct an access road, provide locked gate access, bollards, and landscaping under the licence.

ARTC are seeking to formalise this arrangement through the creation of an easement for access. The land subject to the proposed easement Lot 7010 DP 93327 is owned by The State of New South Wales and granting of any acquisition will be administered through Crown Lands - Department of Planning and Environment.

It is proposed for ARTC to acquire the easement under the Crowns Land Management Act 2016.

The proposed easement footprint is shown on the below plan; however, the final dimensions will be subject to a formal plan of survey.



Plan showing approximate location of proposed easement
Fitzgerald Park, Muswellbrook – Lot 7010 DP 93327 Reserve No: 570025

As part of the Department's requirements ARTC is seeking written formal consent from MSC (in its capacity as Reserve Manager) for the creation of an easement. This is best provided as a formal Council resolution.

Easement arrangements though should address for Council the maintenance of passive and



landscaped areas and ensure access for Council purposes, for example, there is stormwater drainage that Council requires access to through this access road.

OPTIONS

Council can support the granting of a permanent easement or continue to grant a licence to ARTC for access over this area, to be renewed annually.

CONCLUSION

Council supports the granting of an easement to ARTC.

SOCIAL IMPLICATIONS

Nil known.

FINANCIAL IMPLICATIONS

Council currently occurs operational costs for the maintenance of this passive area.

The cost of maintaining this area have been estimated at approximately \$3,600 per year.

POLICY IMPLICATIONS

Nil known.

STATUTORY IMPLICATIONS

Crowns Land Management Act 2016

LEGAL IMPLICATIONS

Nil known.

OPERATIONAL PLAN IMPLICATIONS

Nil known.

RISK MANAGEMENT IMPLICATIONS

A formal access to rail corridor manages access safely for the community and workers.

WASTE MANAGEMENT IMPLICATIONS

Nil known.

COMMUNITY CONSULTATION/MEDIA IMPLICATIONS

Nil known.

**10.3.3. Major Projects Status Report**

Attachments:	1. Major Project Spreadsheet 20230517 [10.3.3.1 - 7 pages]
Responsible Officer:	Derek Finnigan - General Manager
Author:	Matthew Lysaught (Director Property & Place)
Community Plan Issue:	5 - <i>Community Infrastructure</i>
Community Plan Goal:	Effective and efficient infrastructure that is appropriate to the needs of our community.
Community Plan Strategy:	1.4.1 - Complete current infrastructure projects and identify future opportunities for the Shire. Not applicable

PURPOSE

To provide Council with the monthly Major Projects Status Report.

OFFICER'S RECOMMENDATION

Council NOTES the report.

Moved: _____ **Seconded:** _____

BACKGROUND

A monthly tabular report is provided with status updates and information on major projects for areas of community infrastructure.

CONSULTATION

Respective project managers.

REPORT

The Major Projects Status Report is attached for the information of Councillors as at 16 May 2023.

Each iteration of the report is reviewed to improve the communication of status updates against Council's Delivery Program and 2022 – 2023 Operational Plan.

The spreadsheet is a working document with new projects added and updated as details are confirmed.

OPTIONS

Council may request further information on respective projects.

CONCLUSION

It is recommended that the information contained in the report be noted.



SOCIAL IMPLICATIONS

To provide infrastructure that is well-planned and appropriate for the needs of our community.

FINANCIAL IMPLICATIONS

Nil known.

POLICY IMPLICATIONS

Nil known.

STATUTORY IMPLICATIONS

Nil known.

LEGAL IMPLICATIONS

Nil known.

OPERATIONAL PLAN IMPLICATIONS

'1.4.1 Complete current infrastructure projects and identify future opportunities for the Shire',
Muswellbrook Shire 2022 – 2023 Operational Plan

RISK MANAGEMENT IMPLICATIONS

Risk implications are considered and assessed for major projects.

WASTE MANAGEMENT IMPLICATIONS

Project plans require discrete waste management plans.

COMMUNITY CONSULTATION/MEDIA IMPLICATIONS

Subject to the type and scale of the project, Council consults and provides communication and media updates to the community.

PROJECT NUMBER	PROJECT	PROJECT STAGE INVESTIGATION (I) DESIGN (D) CONSTRUCTION (C)	GL Number	BUDGET ESTIMATE	FY BUDGET ALLOCATION	WORKS INSURANCE	PLANNED START	PLANNED COMPLETION	START	COMPLETION	STATUS AS AT 17 MAY 2023
MULTIPLE YEAR PROJECTS											
2019 Special Rate Variation											
TBA	Stormwater Drainage Projects	C	3540.1404.504	\$300,000	\$615,188	TBA					Drainage in Denman is considered to be a high priority project and may be considered for this funding.
Olympic Park											
2019-2020-0417	Olympic Park Amenities and Grandstand	D & C	3710.7824.504	\$8,150,000	\$2,248,033	Existing Cover to \$2M	Jan-21	Dec-24	Jan-21		2022-23 Operational Plan Action: 1.4.1.2 Seek development approval for grandstand and amenities design for Olympic Park . Development Application has been submitted with the Regional Planning Panel. Approval will extend beyond April 2023. Planned completion date has been amended to reflect anticipated approval. Funding for Stage 2 Grandstand \$5.5m confirmed and awaiting Funding Agreement. The Olympic Park Development Advisory Committee is meeting monthly. Event management plan being arranged to address outstanding planning issues in responding to the Regional Planning Panel.
2021-2022-0520	Olympic Park Field Improvements	D & C	3710.1405.504	\$1,500,000	\$990,316	Existing Cover to \$2M	Jul-22	Dec-24	Jul-22		2022-23 Operational Plan Action:1.4.1.1 Commence Olympic Park field improvements. Draft drainage and irrigation designs have been completed. Council to give consideration to request alignment of multiple grant funding sources for Olympic Park Projects from funding bodies. Discussion has been held with NSW Sport regarding funding alignment and the Development Advisory Committee has supported funding alignment. Council has written to the new NSW Minister for Sport and Office of Sport Infrastructure Grants.
TBA	Olympic Park Projects	D	3710.1405.504	TBD	\$171,301	Existing Cover to \$2M	Jul-22				Design for Olympic Park Funds to be allocated for investigation and design of other precinct stages including precinct landscape design.
Regional Entertainment and Conference Centre											
2020-2021-0463	Regional Entertainment and Conference Centre - ENABLING WORKS	D & C	3690.5433.504	TBD	TBD	TBA	Oct-21	Jun-26	Oct-21		2022-23 Operational Plan Action: 4.2.1.1 Begin precinct enabling works, and 4.2.1.2 Review design value management options for theatre and community hall. The project was reported to the 28 September 2021 Ordinary Council Meeting. Tender negotiations with preferred tenderer, as resolved at 28 September 2021 Ordinary Council meeting, did not result in award of tender. The development application was withdrawn in October to address planning issues raised for resubmission. Engaging consultant to prepare alternative concept design for Possum Gully Culvert relocation to cater for the Civic Precinct. It is planned that the concept will be communicated with ARTC to seek feedback. Development Application is being prepared for demolition of Bridge Street buildings to be lodged following concept design of pocket park being endorsed by Council at the May 2023 Ordinary Council meeting.
2020-2021-0463	Regional Entertainment and Conference Centre	D & C	3690.5433.504	TBD	\$6,208,018	TBA	Oct-21	Dec-26	Oct-21		2022-23 Operational Plan Action: 4.2.1.1 Begin precinct enabling works, and 4.2.1.2 Review design value management options for theatre and community hall. The project was reported to the 28 September 2021 Ordinary Council Meeting. Tender negotiations with preferred tenderer, as resolved at 28 September 2021 Ordinary Council meeting, did not result in award of tender. The development application was withdrawn in October 2022 to address planning issues raised for resubmission. The Regional Entertainment Centre Development Advisory Committee are meeting monthly. They have considered a preliminary proposal on the location of the Regional Entertainment Centre in the centre of the CBD town block. Staff have commenced discussions with the Principal Design Consulting regarding changes in design and relodgement of the development application. The architect is preparing a return brief.
Other											
TBA	Civic Precinct (Town Square)	D & C	3690.5498.504	\$14,500,000	\$3,404,981	Council insured	Oct-21	Jun-26	Oct-21		2022-23 Operational Plan Action: 1.4.1.3 Develop Pocket Park design for the Muswellbrook Town Centre. Planning for demolition and scoping of the Pocket Park has commenced. Funding of \$10.5m confirmed a waiting Funding Agreement. Development Application is being prepared for demolition of Bridge Street buildings to be lodged following concept design of pocket park being endorsed by Council. It is anticipate this will be reported to 23 May Ordinary Council meeting.
2021-2022-0500	Denman Heritage Village	D & C	3590.4222.504	\$1,830,871	\$1,809,525	Existing Cover to \$2M	Sep-21	Jul-23	Sep-21		Deed for Heritage items executed. Design and Construction tender awarded. Strutural work is all completed, fit out of services is nearing completion with painting also underway. earthworks for concreting is done with concreting of the external areas scheduled for end of May. Completion of project June. A further report was provided to the 27 April 2023 Ordinary Council meeting and was endorsed by Council for variations.
2019-2020-0404	Hunter Beach	D & C	3920.5904.504	\$3,173,029	\$3,128,232	Contractor insured	Jul-22	Feb-22	Aug-22	Apr-23	Power connection for lights and BBQ facilities complete.
2020-2021-0443	MSC Depot Construction	D & C	3910.5939.504	\$200,000	\$200,000	Council insured	Jul-21	Dec-23	Jul-21		2022-23 Operational Plan Action: 6.3.1.1 New Works Depot – tender for works called . Preliminary budget estimate has being prepared for the new proposed location at the Waste Management Facility. Architect and civil engineer coordinating designs to finalise concept and costs estimate. Concept and cost estimate reported to December 2022 Ordinary Council Meeting. Resources for Regions Round 9 funding announced of \$4.8M. Review of civil design is underway.

2020-2021-0452	Muswellbrook Animal Shelter	C	3910.5887.504	\$3,191,041	\$1,206,134	Council Insured	Feb-21	Mar-23	May-21		Building works materially complete. Additional Air conditioning for Cat and Dog rooms completed and sprinkler system added to cool the kennels. Internal painting works completed. Currently, the construction of the community garden (sustainability hub), car parks, landscaping, external painting and rendering along with other finishing works are progressing.
2019-2020-0413	Muswellbrook Indoor Sport Centre	D & C	3910.5844.504	\$1,242,452	\$1,205,944	Existing Cover to \$2M	Oct-19	Jun-23	Oct-19		Upper Hunter Youth Services was awarded Stronger Country Community grant funding of \$500k. Stakeholder consultation and preliminary design complete and Development Application approved. Call for Tenders for a detailed design early 2023 and concurrent land acquisition with Crown Land. RFQ for Principal Design Consultant with Procurement being finalised.
2020-2021-0448	Tertiary Education Centre - Stage 2 (Donald Horne Building) incl. Upper Hunter Innovation Hub and Weidmann Café	D & C	3690.5438.504	\$6,930,061	\$580,613	Council insured	Jul-19	Oct-23	Jul-19		Donald Horne Building works completed. Staged OC process is underway. Loxton House works were placed on hold following structural works for design and tender review. The café design is progressing to accommodate the Blue Flame Restaurant. Facade Fixing testing at the Donald Horne building being arranged to attain structural certification required to finalise OC.
FUTURE FUND											
TBA	Loxton House	D & C	3665.4910.504	\$950,000	\$872,335	Council insured	Dec-22	Dec-23	Dec-22		Design with future tenants being refined for development application modification.
TBA	Marketplace Asset Renewal (incl. Lift)	D & C	3690.5540.504	\$331,194	\$331,194	Existing Cover to \$2M	Jul-22	Jun-23	Jul-22		Heavy goods lift specification drafted for tender issue. Major tenant reviewing specification for advice in assisting in meeting needs of centre. Council is undertaking an independent review of transportation services.
N/A	Renewal of Existing Assets	D & C	3690.5421.504	\$326,805	\$326,805	Existing Cover to \$2M	Jul-22	Jun-23	Jul-22		Combination of commercial building renewal projects and capital works for new tenancies. Major works to date included the warm shell to attract Best & Less tenancy to the Marketplace. Future significant works include the relocation of Blue Flame restaurant to the Donald Horne Building.
PLANNING, COMMUNITY AND CORPORATE SERVICES											
N/A	General Building Renewal Programme	C	3910.5819.504	\$250,000	\$250,000	Existing Cover to \$2M	Oct-22	Jun-23			Report endorsed September 2022 Ordinary Council Meeting. Request for Quote are out and activation of some projects contingent on grant funding will now commence.
TBA	General Design Programme	D	3910.5855.504	\$49,452	\$37,656	Existing Cover to \$2M	Jul-21	Dec-22	Jul-21		Architect has consulted with heritage advisor to inform design development and draft concepts received for the Arts Centre. Design being progressed relies on glazing existing structure. Advice sought on planning pathway. Heritage architect has provided finishes recommendations. Planning Consultant to be engaged to progress design to Development Application within available budget.
TBA	Reactivation of Campbells Corner Retail for Muswellbrook	D & C	TBA	\$974,686	\$974,686	Existing Cover to \$2M	Jan-23	Jul-24			Resources for Regions Round 9 funding announced of \$974,686. Development Application (DA) has been lodged.
TBA	Outdoor Pool Plant Upgrades	D	3700.5453.504	\$150,000	\$150,000	Existing Cover to \$2M	Sep-21	Mar-22	Sep-21	Mar-22	Tender Package completed. Tender subject to capital funding.
TBA	CBD Stage 7 (Town Centre)	D & C	3690.5479.504	\$1,685,796	\$1,630,345	Existing Cover to \$2M	Jan-22	Nov-22	Jan-22		A part funding allocation towards providing universally accessible pathways (including soft and hard landscaping) in accordance with NSW heritage requirements in the education precinct connecting Tertiary Education Centre 1, Loxton House, Donald Horne Building, Muswellbrook Library, and precinct car parking. Soft and hard landscaping are progressing. Reallocation of Resources for Regions Round 7, \$2,850,318. Includes Public Domain Works, Loxton House Refurbishment, Hill St Construction, Part Bridge Street Footpath, Bridge Street Median, Marketplace Public Car Park, and Marketplace laneway. Loxton House Development Application (DA) modification package being finalised. Architectural plans being modified to suit changes to occupy a commercial real estate tenant in Loxton House and returning tenants.
2021-2022-0509	Denman Children Centre	D & C	3920.5658.504	\$1,229,714	\$1,229,714	Existing Cover to \$2M	Jun-18	Aug-23	Mar-21		Council auspicing project. DA 99/2018 approved May 2019. Denman Children's Centre Memorandum of Understanding was developed March 2021. Both parties signed MOU to progress project in FY 21/22. Project manager awarded. Contracts for detailed design awarded. Building design being amended in line with flood risk assessment, the main impact is the requirement for an entry ramp into the new building. Civil design being finalised to facilitate S68 Permit. Construct-only tender documentation drafted and subject of report to May 2023 Ordinary Council meeting
TBA	Denman Netball Courts	D & C	3710.7825.504	\$311,451	\$311,451	Existing Cover to \$2M	Oct-21	Jul-22	Sep-22		Project start dates delayed due to additional funding required. Denman Recreation Area user group consultation complete. Geotechnical investigations and tender documents preparation underway. Tenders closed 3 March 2023 and is expected to be reported to the 23 May 2023 Ordinary Council meeting. Tender received over budget, staff assessing options for reporting to Council.
TBA	Denman Recreation Reserve Works	D & C	TBA	\$2,249,301			Jan-23	Apr-24			Resources for Regions Round 9 funding announced of \$2,249,301.
2019-2020-0406	Muswellbrook Aquatic Centre Upgrade	C	3700.5442.504	\$6,500,000	\$1,515,153	Contractor insured	Mar-20	Mar-21	Mar-20	Aug-22	Aquatic Centre officially opened Saturday 17 September 2022. Incomplete works being undertaken and defects being addressed.
2020-2021-0481	Karoola Park Plan of Management	I	3710.5532.504	\$30,000	\$30,000	Existing Cover to \$2M	Jul-21	Dec-22	Oct-21		Request For Quote for Plan of Management awarded. The inclusion of a Citizen Walk to be considered as part of draft Plan of Management.

TBA	Adventure Playground - Wollombi Rd (Pump Track)	I, D & C	3710.7831.504	\$480,000	\$480,000	TBA	Jan-23	Jun-23			Tenders to be called for design and construct contract early 2023. Tender being prepared.
TBA	Kayuga Rural Fire Station	D & C	3860.5415.504	\$650,000	\$591,293	Existing Cover to \$2M	Dec-21	Mar-23	Dec-21		External project manager engaged. Development approval received. Tender called for design and construction closing 27 June 2022. Direct negotiations with preferred tenderer to include cost savings identified. Additional funding being considered by RFS. An amendment to Development Approval submitted to reduce setback and include RFS supplied water tank. Revised tender amount to be reported to Ordinary Council Meeting subject to funding becoming available.
TBA	Lighting for Weeraman and Highbrook	D & C	TBA	\$939,800	\$939,800	Existing Cover to \$2M	Apr-23				Recently awarded grant funding under Female Friendly Community Sport Facilities and Lighting Upgrades Program 2022/23. Tender documentation being prepared.
TBA	Major Landcare Projects	I, D & C	3920.5617.504	\$171,286	\$171,286	Existing Cover to \$2M	Sep-22	Jun-23			Report endorsed September 2022 Ordinary Council Meeting.
TBA	Denman Indoor Sports Centre Upgrade	C	3910.5949.504	\$151,200	\$140,969	Existing Cover to \$2M	Jul-21	Dec-22			Works being delivered by Council's Building team. Delays have been experienced due to trade shortages and the nature of works.
TBA	Muswellbrook Indoor Sports Centre Upgrade	C	3910.5950.504	\$148,050	\$120,493	Existing Cover to \$2M	Jul-21	Dec-22			Works being delivered by Council's Building team. Delays have been experienced due to trade shortages and the nature of works. Insulation works completed.
TBA	Muscle Creek Nature Trail (AGL Macq Project)	C	3920.5946.504	\$237,500	\$140,238	Existing Cover to \$2M	Oct-21	Jun-22		Mar-23	Track connected to Olympic Park Bridge and complete.
N/A	General Recreation Programme	C	3710.5293.504	\$150,000	\$150,000	Existing Cover to \$2M	Sep-22	Jun-23	Sep-22		Report endorsed September 2022 Ordinary Council Meeting. Request for Quote are out and activation of some projects contingent on grant funding can now commence. General Recreation projects are underway. Guttering at Highbrook is complete, CCTV is being installed. Recreation Needs Study Draft nearing finalisation. Denman Tennis Courts Lighting complete.
N/A	Landscaping and Tree Management Programme	C	3710.5311.504	\$90,000	\$90,000	Existing Cover to \$2M	Jul-22	Jun-23	Jul-22		Street tree applications have been received and programmed for planting during Autumn.
N/A	Major Large Capital Grants Programme (Dollar for Dollar Grant Programme)	C	3710.5494.504	\$90,000	\$90,000	Existing Cover to \$2M	Oct-22	Feb-23	Jan-23		Applications have closed and were reported January 2023 Council meeting. Successful applicants have been advised and payments have been advised.
N/A	Cemetery General Programme	C	3722.5297.504	\$90,000	\$90,000	Existing Cover to \$2M	Jul-22	Sep-22			First stage of concrete path works complete. Stage 2 works awarded.
N/A	Sport and Recreation Small Capital Grants	C	3710.5482.504	\$25,000	\$25,000	Existing Cover to \$2M	Oct-22	Feb-23			Applications closed and reported January 2023 Council meeting. Letters advising successful applicants have been sent, awaiting acceptance from clubs.
ROADS AND DRAINAGE											
TBA	Bridges Renewal Program	I	3530.4131.504	\$95,000	\$42,281	Existing Cover to \$2M	Aug-21	Jun-23	Jul-22	Mar-23	This project is complete. Following the level 3 assessment of Bell St Bridge over Muscle Creek a prioritised program of works has been prepared. Works will be undertaken in accordance with this program to the limit of the available budget. The programmed works have included geotechnical testing and assessment of the abutments, and monitoring of the movement of the bearings. The geotechnical testing and assessment have been completed and a report issued. The baseline system has been installed to monitor the bridge movement.
TBA	Bell Street Bridge	I	Not assigned		\$679,000	Existing Cover to \$2M					Council was successful in receiving funding for the 'betterment' component to repair abutments of Muscle Creek Bridge on Bell St Muswellbrook which have been damaged in the recent natural disaster events. Additional funding for an amount of \$168,000 to complete the project is currently being sought through the Natural Disaster Relief Funding sources.
TBA	CPTIGS - Bus Shelter Program	I and D	3500.2781.504	\$343,527	\$343,527	Existing Cover to \$2M	Mar-22	Jun-23	Aug-22		An in-kind source of funding for the upgrade of the Bus Stop in Tindale St has been provided through development in the street. Tenders were received by Council and reported to 27 April 2023 Council meeting where Council determined to not accept any Tender. A tender will be readvertised calling for the design and manufacture of the shelters.
TBA	Footpath & Cycleway Renewals	C	3500.4072.504	\$150,000	\$150,000	Existing Cover to \$2M	Aug-22	Jun-23	Aug-22		A prioritised program was reported and endorsed by Council July 2022. This program of work will centre on the replacement of western footpath in Maitland St (from Thompson St to TAFE) Muswellbrook. A design was received and work will commence late May 2023. The directly affected residents will be notified.
TBA	Heavy Patching Programme	C	3500.4035.504	\$500,000	\$500,000	Existing Cover to \$2M	Aug-22	Apr-22	Aug-22	May-23	A prioritised program was reported and endorsed by Council July 2022 with nominated sites now being constructed to the limit of funding available. The remaining Heavy Patching is programmed to commence in Sowerby St 22 May 2023.
TBA	Kerb & Gutter Replacement	C	3560.4065.504	\$150,000	\$150,000	Existing Cover to \$2M	Aug-22	Dec-22	Aug-22	Oct-22	A prioritised program was reported and endorsed by Council July 2022 with 100% of works now complete to the limit of available funding.
TBA	Large Plant Items	D	3985.5870.504	\$1,680,000	\$1,680,000	Contractor/ Council insured	Oct-21	Jun-23	Mar-22		The plant replacement programme priorities were endorsed by Council at the March 2022 Ordinary Council Meeting. The truck has been ordered for the Waste Management Facility, the Motor Grader was reported to the September Ordinary Council meeting, and the new tractor tender reported to the November 2022 Ordinary Council Meeting. These items of plant have been ordered and Council is awaiting delivery.

TBA	Merton Street Drainage for Denman	C	TBA		\$1,412,582	Council & Contractor insured	Jul-23	Oct-24			Resources for Regions Round 9 funding announced \$1,412,582. The design was endorsed by Council at the October 2022 meeting. The estimated cost to construct based on this design is \$2,589,582. Council has applied for additional funding under the Disaster Recovery Fund R1. Once the sources of funding to supplement the R4R R9 funding are confirmed this project will be reported to Council. Tender Documents are being prepared and will be advertised when funding is confirmed. tender.
TBA	New Footpath & Cycleway	C	3500.4073.504	\$250,000	\$250,000	Existing Cover to \$2M	Feb-23	Jun-23	Nov-22		Prioritised program reported to Council for endorsement July 2022 with footpath priorities Maitland St and Turtle St Denman. Work has commenced to link the path to the new Signals at Thompson St and will be connected to the traffic signals once TfNSW approval has been provided. A grant application was submitted to the Active Transport program for the Turtle St footpath project. Work on this project will be put on hold until confirmation on the success of this application has been provided by Transport for NSW.
TBA	Purchase of vehicles	I	3900.5660.504	\$342,558	\$342,558	Council & Contractor insured	Jul-22	Jun-23	Jul-22		Light fleet programme prepared. Difficulty sourcing vehicles as per requirements and long delays in delivery of vehicles.
2022-2023-0555	Regional Road Renewal Programme	C	3502.4135.504	\$614,000	\$614,000	Council & Contractor insured	Nov-22	Apr-23	May-23		Design for the rehabilitation of a section of Bylong Valley Way 5.9km to 6.6km has been prepared. A tender for the construction was advertised and Tenders received. Work will be programmed pending Council acceptance of Tender. This matter reported to the March meeting of Council and works to commence in May.
TBA	Oakleigh Bridge Replacement	C	3530.4434.504	\$543,988	\$543,588	Council & Contractor insured	Dec-22	Apr-23	Dec-22	Mar-23	The Tender was awarded at the November 2022 meeting of Council. The works are 95% complete.
	Resources for Regions - Round 5			\$8,542,556	\$8,143,687						
TBA	Edderton Road Safety Upgrade	C	3500.4257.504	\$2,508,232	\$2,427,544	Council & Contractor insured	Nov-20	Apr-22	Feb-21	Dec-21	Construction is complete.
TBA	Thompson St signalisation	D	3500.4277.504	\$2,100,845	\$2,825,395	Council & Contractor insured	Feb-22	Jan-23	May-22		Works on this project have suspended due to Contractual issues. Final asphaltting was undertaken late January. The contractor demobilised from the site in late January. A post construction inspection has occurred and defects and outstanding works identified. Although the electrical works have not been completed energising and commissioning of the lights has occurred through a generator.
TBA	UHSC - Murulla St causeway	I	3500.4282.504	\$1,192,578		Council & Contractor insured					This is an Upper Hunter Shire Council project. Murulla Street is located in Murrurundi. This project has not commenced.
TBA	Wilkinson St Bridge	C	3530.5888.504	\$2,740,901		Council & Contractor insured	44166	44682	44494	44986	Project is complete.
	Resources for Regions - Round 6			\$1,108,627							
TBA	Ridgelands Road	C	3500.4303.504	\$388,385		Council & Contractor insured	Oct-22	Jan-23	Oct-22	Dec-22	The works are now complete. Council is currently acquitting this grant.
TBA	Heavy Patching Programme	C	3500.4306.504	\$66,352		Council & Contractor insured	Aug-21	Mar-22	Aug-21	Oct-21	Project Complete. Council is currently acquitting this grant.
TBA	Nandowra / Dartbrook Rd	D&C	3500.4421.504	\$403,732		Council & Contractor insured					This is an Upper Hunter Shire Council project. Project is complete.
TBA	Bylong Valley Way	D&C	3500.4422.504	\$250,158		Council & Contractor insured	Jul-21	Jun-22	Jul-21	Aug-21	Project Complete.
	Resources for Regions - Round 7										
2022-2023-0548	Carpark Renewal Program - Hill St Laneway drainage upgrade	C	3500.4593.504		\$493,461	Existing Cover to \$2M	Feb-23	Jun-23	Feb-23		Construction of the Council Carpark off Hill St Muswellbrook commenced 20 March 2023. The works will involve earthworks to reduce the grades within the carpark where possible, construction of retaining walls, new kerb and gutter and improved access from pedestrians and vehicles. Council are investigating suppliers for the installation of an EV charging station within the carpark. Concrete works complete and EV provisions installed. Asphalt is booked for 22 May. Landscaping is being undertaken.
2022-2023-0552	Hill St Road Reconstruction	C	3500.4590.504	\$600,000	\$600,000	Council & Contractor insured	Apr-23	Aug-23			Tenders for the construction have been finalised and reported to the February meeting of Council. The accepted contractor is currently undertaking project preliminaries and will establish on site early April. Works have commenced on site with clearing and profiling of pavement and utility adjustments being undertaken.

TBA	Road Resealing Program	C	3500.4030.504	\$892,655	\$892,655	Existing Cover to \$2M	Dec-22	Apr-23	Sep-22	Mar-23	Road Sealing Program is complete.
TBA	Roads to Recovery Programme	I	3500.2068.504	\$577,898	\$577,898	TBA	Jan-22	Dec-22			This funding is currently not allocated. Projects are to be prioritised and reported to Council. Merton St Denman is considered to be a high priority project for the consideration of Council in relation to this funding.
2021-2022-0494	Rosebrook Bridge Replacement	C	3530.4429.504	\$1,633,500	\$1,633,500	TBA	Jan-23	Jun-23	Jul-22		Project preliminaries such as geotechnical investigation, site survey and completion of a review of environmental factors for the project were completed. The design and construct tender was awarded to Waeger Constructions. The design of the bridge is complete. The submitted program has construction on site commencing site establishment 20 March 2023 and completion July 2023. The existing bridge removed 27 March 2023. Pile driving completed with works to construct substructure is continuing.
TBA	Rural Roads Regravelling	C	3500.4055.504	\$300,628	\$300,628	Existing Cover to \$2M	Aug-22	Jun-23	Aug-22	Mar-23	The annual program is now complete.
TBA	Safety Audit Ridglands Road	I	3500.4270.504	\$47,272	\$47,272	Council insured					Works completed.
TBA	Safety Device Renewal	C	3590.4145.504	\$135,000	\$135,000	Existing Cover to \$2M	Jan-23	Jun-23	Oct-22		A prioritised program was endorsed by Council at the July 2022 Ordinary Council meeting. This program is ongoing. Safety fencing was installed in Rutherford Road and Guardrail replacement is programmed for Carl st Muswellbrook, Bylong Valley Way, and Sandy Creek Road.
TBA	Sandy Creek Rd Curve Improvements	C	3500.2066.504	\$246,506	\$246,506	Contractor insured	Jun-21	Dec-21	Jun-21	Sep-21	Works completed. This grant is being acquitted.
	Victoria Street	I		\$721,433	\$721,433		Oct-23	Dec-23			Grant funding accepted from Fixing Local Roads Round 4. Project preliminaries will be undertaken to prepare for this work.
TBA	Widden Valley Rd pavement rehabilitation	C	3500.4424.504	\$553,397	\$553,397	Existing Cover to \$2M	Aug-21	Oct-21	Aug-21	Jun-22	Works completed.
	Wybong Road - Betterment	I			\$1,633,500						Council was successful in receiving funding for the 'betterment' component to widen and improve Wybong Road in three (3) nominated sections at the western end. Which have been damaged in the recent natural disaster events. Additional funding for an amount of \$1,045,000 to complete the project is currently being sought through the Natural Disaster Relief Funding sources.
TBA	Yarrawa Rd (Fixing Local Roads)	I	3500.2780.504	\$4,931,278	\$4,931,278	Council & Contractor Insured	September	Jun-22	Oct-21	Nov-22	This project is complete. The Grant is currently being acquitted.
SEWER CAPITAL BUDGET											
TBA	Access and Security Improvements	D&C	6340.4475.504	\$155,000	\$155,000	TBA	Jul-22	Sep-22	Jul-22	Sep-22	Security improvements across Council's assets. Fencing upgrade works carried out at a number of pumping station sites. PS- 5 fencing was completed and handed over to the operations team.
TBA	Mains Renewal And Replacement	I,D&C	6310.4340.504	\$589,431	\$589,431	TBA	Jan-23	Jun-23	Jul-22	Apr-22	Aberdeen Sewer Main replacement is in design stage. Lining of Wilson,oyal and George streets projects were completed in April 2023. construction of new main holes turanville,wilson and forbes Streets Are in progress and planned completion July2023.
TBA	Solar Array	I	6310.4493.504	\$1,800,000	\$1,800,000	Existing Cover to \$2M	Jul-22	Jun-23	Jul-22		Sustainability initiatives associated with operation of the Raw Water Treatment Works. RFQ has been called and awarded for project management consultant to run the design and construct tender process including preparation of tender documentation. Tender documents are under review and tenders will be invited in the fourth quarter of 2022-23. Tender evaluation is completed and in process of presenting to May Ordinary council meeting for approval which will be followed by award of contract. Planned start is in Septemeber 2023.
TBA	Sewer Operational Contingency	I,D&C	6340.4494.504	\$150,000	\$150,000	Existing Cover to \$2M	Jul-22	Jun-23	Jul-22	Apr-23	Contingency budget available to replace equipment and improve systems that have been impacted by the floods over the past year. Purchase orders were committed for the following equipment: a spare critical pneumatic valve positioner for the RWTW, a replacement motor and spare critical motor for the extraction fan for MSPS4 odour control system and a new control panel for the odour control system for MSPS4 (critical replacement since replacement parts are obsolete). In addition to the above purchases, final payment claim was made to Aurecon Australasia Pty Ltd for the RWTW project and critical proximity sensors were purchased and replaced for the damaged sensors on the RWTW grit bins. UPS upgrade at the RWTW, replacement of pump at MSPS10, purchase of butterfly valve wafers (100mm, 150mm, 200 mm) and spare valve for RWTW. Upgraded variable speed drive for the decanter in the bioreactor - Denman Sewer Treatment. Purchased two sets of pre-filter screens for the odour control systems at MSPS 4 and MSPS 5. Purchased two spare valve wafers for the RWTW as part of the critical spares inventory. Upgraded UPS for the RWTW server. Chlorine storage Level transmitter upgrade works at the RWTW. Replaced Denman decanter shower reuse pump. Replacement of proximity sensor at the RWTW dewatering sludge press. Upgrade to Denman Bio Reactor Aeration Infrastructure. Major overhaul of two return-activated sludge pumps at the RWTW. Supply and Install Dry Weather Ultra- Violet lamps (part payment)

TBA	System Plant Asset Renewals	I, D & C	6340.4488.504	\$650,000	\$650,000	Existing Cover to \$2M	Jul-22	Jun-23	Jul-22		The construction of a septage receival facility at the Muswellbrook recycled water treatment works is completed. Smoke testing of sewer main and manholes is at investigation stage to stop ingress of storm water in sewer system. Muswellbrook Sewer Pump station 8 pipe works and valves are replaced . The works were awarded in July 2022 and completed in Aug 22. The electric panel is in the process of design and execution is likely to commence in May 23. Aerator at Denman Sewer treatment plant is design and in in process of procurement and fabrication, project completion is by June 2023. Denman Sewer Treatment plant Aerator required replacement, the contract for which is awarded in November 2022 and In process of fabrication. Likely completion including testing commissioning is by June 2023. Electrical control board at Pumping stations 7 & 10 is in investogation and design stage and is likely to start next financial year 2023/24. Supply and Install Dry Weather Ultra- Violet lamps (part payment)
TBA	Transportation System Improvements	I, D & C	6340.4485.504	\$81,939	\$81,939	Existing Cover to \$2M	Jan-23	Feb-23	Jan-23	Apr-23	Project valve installation to cater for emergency break of recycle water main from dam in ARTC corridor (near railway line) was completed in start Feb2023. Also valve, manhole and collapsed sewer has been completed.
WATER CAPITAL BUDGET											
N/R	Asbestos Removal, Earth Work and Security	C	5310.4575.504	\$155,000	\$155,000	Existing Cover to \$2M	Jul-22	Jun-23	Jul-22	Apr-23	Funding is used to carry out earthwork asbestos removal for water main projects. The projects include Bligh Street East earth removal, Turanville, Forbes and Lorne Streets. Bligh Street works are completed.
TBA	Denman to Sandy Hollow Pipeline	D & C		\$28,473,519				Jul-24			Funding Deed executed. Land aquisition, preparation of tender documentation and review of environmental factors are in process. Geo technical investigation contract was awarded and and is in progress which will likely to be comepleted by June 2023. Also land acquisition in progress, Valuer is in process of preparing the report, which will allow council to put up offer for land to the landowners. Section 60 approval was sought in April, which was reviewed by DPIE and requested more information from council to proceed further. Tenders likely to be opened for tenderers in July 2023.
TBA	Mains Renewal And Replacement	I, D & C	5320.4340.504	\$748,278	\$748,278	Council & Contractor insured	Jul-22	Mar-23	Jul-22	Mar-23	Contract for the water main replacement program has been awarded. Under this program, water mains in Lorne St., Forbes St. and Turanville Ave were completed in September 2022. Bligh Street West/ East water main replacement were completed in Dec 2022 . Replacement of the Bligh Lane water main was completed in March 2023. Common reservior Valves required to be replaced for which the project was designed . project is at investigation and design stage follwed by the risk assesment approval, which is already carried out. The project execution is likely to commence in July 2023. It is planned to replace three critical valves in first stage which will allow contingency in the system.
TBA	Replacement of Water Meters	C	5320.4376.504	\$78,000	\$78,000	Council insured	Jul-22	Jun-23	Jul-22		Ongoing ageing water meter replacement programme.
TBA	System Plant Asset Renewals	I, D & C	5340.4400.504	\$891,376	\$700,000	Council & Contractor insured	Jul-22	Jun-23	Jul-22	Apr-23	The following projects were undertaken: 1. Bligh Street upgrade work- completed Dec 2022 ; GLE Denman to Sandy Hollow pipe line design and investigations. 3. polymer dosing system design and installation at Muswellbrook water treatment plant. 4. Design of Muswellbrook water treatment plant capacity and design upgrades. A critical spare mono pump was purchased for the lime dosing plant at MBK WTP. Replaced bearing Assembly in the lime auger. Upgrade of Lime Mixer Greasing system
TBA	Upgrade Fluoride Dosing System	I, D & C	5310.4577.504	\$346,461	\$346,461	TBA	Oct-22	Jun-23	Jul-22		A report has been submitted to April 2023 Closed Council Meeting for Councillors approval of selected tenderer and was approved. The contract will be awarded this week together with the letter of offer. The project is expected to extend into Q1 FY 2023-2024.
TBA	Vehicle Replacement	C	5330.4370.504	\$100,000	\$100,000	Existing Cover to \$2M	Jul-22	Jun-23	Jul-22		Difficulty in sourcing vehicles as per requirements and long delays in delivery of vehicles.
TBA	Vehicle - Equipment Replacement	C	5330.4378.504	\$117,394	\$117,394	Existing Cover to \$2M	Jul-22	Jun-23	Jul-22		Programme being prepared.

TBA	Water Operations Contingency Project	I	5340.4406.504	\$117,686	\$117,686	Existing Cover to \$2M	Jul-22	Jun-23	Jul-22	Apr-23	Contingency budget available to replace equipment and improve systems that have been impacted by the floods over the past year. Replacement of the electrical cables for the Denman River Pump1, a higher dose rate coagulant pump for the MWTP, a portable UVA laboratory meter (to test for dissolve organics in the raw water), four filter differential pressure transmitters for MWTP and a replacement Watson-Marlow coagulant dosing for DWTP were purchased in this quarter. Further to the above purchases, a new UF membrane module was purchased to replace a damaged module at the Denman Water Treatment Plan, a macrolite media recirculating pump was purchased to replaced a failing, existing pump at the Sandy Hollow Water Treatment Plant and a critical spare helical gearmotor was purchased for the lime auger at the Muswellbrook Water Treatment Plant. Denman River Pump required a new motor and refurbishment after flood damage. A spare transfer pump was purchased for polymer dosing at the MBK WTP. Replacement of critical differential pressure transmitters were purchased for MBK WTP. Damaged UPS was replaced for the Ford Street Raw water pumping station, MBK Water Treatment. Critical spares were purchased for the clarifier de-sludging valves. A platform was fabricated for access to the Denman Raw Water Screen when river levels impeded access to clean the Denman River Screens during heavy rain events. A new isolation valve was installed for the clarifier sludge drain line into evaporation pond 1 at MBK WTP. Replaced the lime dosing lines in the MBK WTP. Funded the Denman River Intake Assessment Report for the Betterment Infrastructure Grant Application. Replaced the non-return valve at Bimbadeen Drinking Water Booster Pump Station. Purchased critical spare rotors and stators for the lime dosing pumps
TBA	Water Stop Valve Replacement Programme	I, D & C	5320.4379.504	\$285,627	\$250,000	Existing Cover to \$2M	Oct-22	Jun-23	Oct-22	Dec-22	The funds were utilised for water main and valves replacement projects in Bligh Street east and Flanders Avenue. The project was completed in Dec 2022.
WASTE											
TBA	Waste & Recycling Centre Leachate Dam	D	3653.4530.504	\$498,212	\$498,212	Existing Cover to \$2M	Feb-23	Jul-23			Design and Construction Cost Estimates complete (\$500,000). Biodiversity Assessment RFQ issued and required prior to Development Application. Geotechnical report for project area received, triggered dam design revision due to lack of winnable clay on site. Revised design received late March '23. Test pits dug late January determined rock can be ripped to design depth. Preparing for DA lodgement.
TBA	FOGO Infrastructure	I		N/A		TBA					Preliminary Design and EIS complete. DA 2021/58 lodged June 2021. Further information on odour impacts as requested by NSW EPA was lodged in April 2022. DA 2021/58 submitted to March Council meeting for decision. Expression of Interest for FOGO processing were called and review committee report and reported to April Council meeting.



10.4. Corporate Services

10.4.1. Corporate Card Policy MSC28E for ADOPTION

Attachments:	1. Corporate Card Policy MSC28E [10.4.1.1 - 7 pages]
Responsible Officer:	Derek Finnigan - General Manager
Author:	Josh Hogan (Finance Manager), Chloe Wuiske (Business Improvement Officer), Madeleine St John (Business Improvement Officer)
Community Plan Issue:	6 - <i>Community Leadership</i>
Community Plan Goal:	Collaborative and responsive leadership that meets the expectations and anticipates the needs of the community.
Community Plan Strategy:	<p>6.2.1 - Maintain a strong focus on financial discipline to enable Council to properly respond to the needs of the communities it serves.</p> <p>6.2.5 - Implement a comprehensive and targeted business improvement program.</p> <p>6.2.1.1 - Provide transparent reporting to the community about Council's finances.</p> <p>6.2.5.2 - Review the policy management framework.</p>

PURPOSE

To submit the *Corporate Card Policy* to Council for adoption, following a 28 day period of public exhibition.

OFFICER'S RECOMMENDATION

Council ADOPTS the *Corporate Card Policy*.

Moved: _____ **Seconded:** _____

BACKGROUND

The *Corporate Card Policy* (the Policy) (Attachment 1) is a new policy that aims to reduce the risk of fraud and misuse of corporate cards and was developed to align with the NSW Office of Local Government's *Guideline on the Use and Management of Credit Cards*.

CONSULTATION

MANEX

Financial Controller

Finance Officers

Business Improvement Officer(s)

Audit, Risk and Improvement Committee



REPORT

At the 28 February 2023 Ordinary Council Meeting, Council endorsed the draft *Corporate Card Policy* for Public Exhibition via Council's website for a period of 28 days.

The Policy was exhibited on Council's website from 2 March 2023 to 29 March 2023.

No submissions were received by Council during the submission period.

Council's Audit, Risk and Improvement Committee reviewed the policy on 6 April 2023 and, based on the Committee's recommendations, the following has been added to the policy in Section 5.3:

- A quarterly report verifying the appropriate reconciliation of all Corporate Cards will be provided to MANEX.

Other minor amendments to the policy include:

- Section 5.1, Company Procurement Card has been amended to Company Purchasing Card.
- Section 6, title change in Program Administrator responsibilities from Finance Manager to Financial Controller.

OPTIONS

Council may:

1. Resolve to adopt the *Corporate Card Policy*. This is the preferred option to ensure alignment with the NSW Office of Local Government's *Guideline on the Use and Management of Credit Cards*.
2. Request amendments to the *Corporate Card Policy* and a further report be submitted to Council for consideration.

CONCLUSION

It is recommended that Council adopts the *Corporate Card Policy* to ensure alignment with the NSW Office of Local Government Guidelines.

SOCIAL IMPLICATIONS

Nil known.

FINANCIAL IMPLICATIONS

Nil known.

POLICY IMPLICATIONS

The policy was developed to align with the NSW Office of Local Government's *Guideline on the use and management of credit cards* 2021.

STATUTORY IMPLICATIONS

Local Government Act 1993;

Local Government (General) Regulations 2021;

Independent Commission against Corruption Act 1988;

Public Interest Disclosures Act 1994;

Crimes Act 1900;



*A New Tax System (Goods and Services Tax) Act 1999;
NSW State Records Act 1998;
Government Information (Public Access) Act 2009; and
Privacy and Personal Information Protection Act 1998.*

LEGAL IMPLICATIONS

The Local Government Act 1993 (section 8B) and the Local Government (General) Regulation 2021 (clause 209) require all councils to establish effective internal control mechanisms for financial management, expenditure and accounting records.

OPERATIONAL PLAN IMPLICATIONS

6.2.5.2 - Review the policy management framework.

RISK MANAGEMENT IMPLICATIONS

The Policy minimises the risk of fraud and misuse of the corporate card.

WASTE MANAGEMENT IMPLICATIONS

Nil known.

COMMUNITY CONSULTATION/MEDIA IMPLICATIONS

Public exhibition of the Policy on Council's website from 2 March 2023 to 29 March 2023 provided the Community with an opportunity to make submissions. No submissions were received by Council during the submission period.



Corporate Card Policy

MSC28E

Authorisation Details

Authorised by:		Internal/External:	External
Date:		Minute No:	
Review timeframe:	4 years	Review due date:	
Department:	Corporate Services		
Document Owner:	Finance Manager		

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Table of Contents

1. Policy Objective	3
2. Risks being addressed	3
3. Scope	3
4. Definitions	3
5. Policy Statement.....	4
5.1 Eligibility to hold or use a Corporate Card	4
5.2 Appropriate uses of a Corporate Card	4
5.3 Transaction Review	5
5.4 Misuse of Corporate Card	5
6. Roles, responsibilities and delegations	6
7. Dispute Resolution	7
8. Associated Documentation	7
8.1 Legislation and guidelines.....	7
8.2 Policies, procedures and forms.....	7
Details History	7

1. Policy Objective

The aim of this Policy is to ensure that effective controls are in place with respect to the use of Corporate Cards and to align with the Office of Local Government's Guideline on the Use and Management of Credit Cards. *The Local Government Act 1993* (section 8B) and the *Local Government (General) Regulation 2021* (clause 209) require all councils to establish effective internal control mechanisms for financial management, expenditure and accounting records.

2. Risks being addressed

This policy aims to reduce the risk of fraud and misuse of corporate cards.

3. Scope

Muswellbrook Shire Council's corporate cards come in various forms such as corporate credit cards, the virtual credit card, debit cards and company procurement cards; they are all referred to as 'corporate cards' in this Policy and this policy is applicable to anyone that uses a corporate card.

The application of this policy is to be in conjunction with the Muswellbrook Shire Council Code of Conduct and any legislative requirements of the *Local Government Act 1993* that may be enforced.

4. Definitions

Corporate Credit Card	Credit cards issued to Council Officers which are used by Cardholders to engage in transactions relating to the purchase of goods and services on behalf of Council. Referred to as 'Corporate Card' throughout this policy.
Council Officer	An employee of Council, including the General Manager for this policy.
Purchasing Cards	Refers to a debit card issued by the Card Issuer which is used by Cardholders to engage in transactions relating to the purchase of goods and services on behalf of Council. Purchasing cards are also known as Debit Cards and Company Procurement Cards. Referred to as 'Corporate Card' throughout this policy.
The Cardholder	the Council Officer or Councillor using the Corporate Card, including the General Manager and Mayor.
Vitual Credit Card	A credit card that is not issued as a physical card, rather a 16-digit number provided to Council for use in card-not-present transactions. The Virtual Credit Card card is not linked to a Cardholder but is established in Council's name. Referred to as 'Corporate Card' throughout this policy.

Note: **Fuel Cards** are covered under Council's Motor Vehicle Fleet Policy

5. Policy Statement

Corporate cards provide an alternate procurement channel to approved Council Officers and Councillors to allow them to efficiently procure low value items.

Corporate cards provide access to Council funds. For this reason, the safety and security of the card and its details are paramount to ensuring that Council's resources are not misused or misappropriated.

Responsibility of usage, safekeeping and record keeping of any corporate card lies with the cardholder. This Policy and the associated procedures of Council are designed to ensure the use of corporate cards achieves the stated objectives while allowing the Council to remain diligent in ensuring all related expenditure is legitimate.

Corporate Cards do not have a cash advance facility.

5.1 Eligibility to hold or use a Corporate Card

Corporate Cards are only available on approval to a Council Officer who:

- Has the appropriate financial and operational delegations to incur expenditure on behalf of Council
- Has approval from their Manager and their Director
- Is an ongoing or fixed term employee of the Council
- Occupies a position that has a regular and demonstrated need to purchase goods/services that would benefit from being a corporate card process rather than the traditional purchasing process
- Is willing to abide by this policy, the associated Council documentation and procedures and the conditions of use as stated in the Council application forms, the corporate card providers terms and conditions and Council's Procurement Policy and Procedures

Corporate cards are not issued to staff contracted through an employment agency.

Credit cards are not issued to Councillors, however a purchasing card may be issued based on application of the Councillor and approval of the General Manager.

The General Manager is eligible to hold a Corporate Card.

The use of Corporate Cards is restricted to circumstances where the application of Council's standard accounts payable process is unsuitable.

Company Purchasing Card allocated to Admin Building is used with approval of Manager or Director.

5.2 Appropriate uses of a Corporate Card

Corporate cards are solely for business purposes and are only used in a manner compliant with this policy and the associated procedures.

Appropriate uses of a corporate card include:

- ✓ Payment for goods/services in full;
- ✓ Deposits;
- ✓ Corporate subscriptions for Council;
- ✓ Approved training/conference fees;
- ✓ Approved travel, accommodation, parking expenses, food and beverage while away on work related activities;
- ✓ Food and beverage for work related events approved by Director or General Manager;
- ✓ General consumables other than stationery and office supplies; and

Equipment or services, other than information technology hardware or services, with a value less than \$1,000. (Please refer to the Procurement Policy and adhere to any required procedures prior to the purchase transaction). Inappropriate uses of a Corporate Card include:

- ✖ Any private or personal expenditure;
- ✖ The purchase of gifts, food and related items in relation to non-business activities such as birthday celebrations, gifts, staff farewell's, staff social events, celebratory lunches/dinners
- ✖ Cash advances;
- ✖ Fuel, except in an emergency (fuel card is the first point of use);
- ✖ For the purchase of any item that is available from Council's Store unless urgently required and outside of Store opening hours;
- ✖ Unofficial entertainment;
- ✖ Information technology hardware or services (other than if purchased by the IT Team) unless approved by the ICT Manager prior to purchase;
- ✖ Donations of any form;
- ✖ Purchase of Alcohol (unless approved by the General Manager through the Purchase of Alcohol Exemption Form appropriate form);
- ✖ Any link to any form of reward programs or award points or any personal cards or memberships; and
- ✖ Split purchases to avoid credit card limits and procurement policy requirements.

5.3 Transaction Review

An up-to-date record of all authorised Cardholders is recorded and stored by Finance in a Corporate Card Register.

All Corporate Credit Card, Purchasing Card, Company Procurement Card and Virtual Credit Card transactions are reviewed, reconciled and approved on a monthly basis, in accordance with the associated procedures.

A quarterly report verifying the appropriate reconciliation of all Corporate Cards will be provided to MANEX.

5.4 Misuse of Corporate Card

Corporate credit and purchasing cards are issued to Council Officers and Councillors that are in a position of trust in regard to the use of public funds. Periodic analysis of credit card expenditure is undertaken by Finance to identify any potential misuse of a corporate card and/or non-compliance with this policy and associated procedures. Any alleged misuse is reported to the cardholder's Director, who is responsible for investigating the alleged misuse through the course of a formal investigation, in accordance with existing council procedures and the Code of Conduct. Where a breach of Council policy or procedures is identified, the employee may be subject to disciplinary action in accordance with the *Local Government (State) Award 2020* and/or referral to an external agency where appropriate.

6. Roles, responsibilities and delegations

The General Manager is ultimately responsible for the proper management and administration of credit cards within Council. This policy will be monitored by the Finance Manager to ensure compliance.

Role	Responsibilities
Cardholders	<ul style="list-style-type: none"> Responsible for all charges placed against a corporate card. Attach a copy of invoice to transaction and allocate GL Number or PO number at time of purchase. Keep track of expenses made on the corporate card. Not exceed the corporate card limit. Report any misuse or any loss of a corporate card immediately 24/7. Report any fraudulent transactions immediately Ensure all purchases are made in accordance with Council's Procurement Policy and related procedures. Always keep the corporate card secure. Not allow the corporate cards to be used by other Council Officer or Councillor or anyone else. Reconcile monthly statements and submit to Finance for review.
Directors	<ul style="list-style-type: none"> Approve and/or reject Corporate Card applications Investigate breaches of this policy
Finance	<ul style="list-style-type: none"> Reconcile monthly Virtual Credit Card statements. Review Corporate Card reconciliations from individual Corporate Card holders Maintain records once received. Maintain the Corporate Card Register. Apply to the financial institution for new corporate credit cards and for any updates, changes, replacement or cancellation of cards. Provide the General Manager with an accessible record of the council's credit card program borrowing limit and aggregate credit limit of individual credit cards currently issued.
General Manager	<ul style="list-style-type: none"> Act as Approval Officer for the Mayor, Councillors and Directors Ensure Council is not exceeding its total borrowing limit or budget limits
Human Resources	<ul style="list-style-type: none"> Notify Finance immediately of staff departures
Program Administrator	<ul style="list-style-type: none"> Council's Senior Financial Accountant will act as the Program Administrator for the Corporate Credit Card facility. Council's Financial Controller will act as the backup Program Administrator for the Corporate Credit Card facility. To allow appropriate segregation of duties, neither of these roles is to hold a Corporate Credit Card.
Managers	<ul style="list-style-type: none"> Determine and approve Council Officers within their department who require a corporate card. Ensure credit limit is within the card holder's financial delegation Review and approve all corporate card transactions within their Department
Records	<ul style="list-style-type: none"> Action monthly corporate credit card statements to cardholders.

7. Dispute Resolution

Any breaches of this Policy will be referred to the General Manager for appropriate action. Or in the case of a breach by the General Manager, this will be referred to the Mayor.

8. Associated Documentation

8.1 Legislation and guidelines

The following Legislation impacts the use and control of corporate credit cards:

- *Local Government Act 1993*;
- *Local Government (General) Regulations 2021*;
- *Independent Commission against Corruption Act 1988*;
- *Public Interest Disclosures Act 1994*;
- *Crimes Act 1900*;
- *A New Tax System (Goods and Services Tax) Act 1999*;
- *NSW State Records Act 1998*;
- *Government Information (Public Access) Act 2009*; and
- *Privacy and Personal Information Protection Act 1998*.
- Office of Local Government Guideline on the Use and Management of Credit Cards (Doc ID: 1472450)

8.2 Policies, procedures and forms

- [Model Code of Conduct](#) (Doc ID:1436817)
- [Fraud and Corruption Control Policy](#) (Doc ID: 1240663)
- [Councillor Expenses and Facilities Policy](#) (Doc ID: 919536)
- Motor Vehicle Fleet Policy (Doc ID: 919542)
- Purchase of Alcohol Exemption Form (Doc ID: 1464980)
- Corporate Credit Card Cardholder Procedure and Application Form (Pending)
- Company Procurement Card Cardholder Procedure and Application Form (Pending)
- Debit Card Cardholder Procedure and Application Form (Pending)
- Virtual Credit Card Cardholder Procedure and Application Form (Pending)
- Corporate Credit Card Administration Procedure (Pending)
- Company Procurement Card Administration Procedure (Pending)
- Debit Card Administration Procedure (Pending)
- Virtual Credit Card Administration Procedure (Pending)
- Disciplinary Procedure (Doc ID: 1285893)

Details History

Version No.	Date changed	Modified by	Amendments made



10.4.2. Policy on Policy Making MSC25E for ADOPTION

Attachments:	1. Policy on Policy Making MSC25E [10.4.2.1 - 7 pages]
Responsible Officer:	Derek Finnigan - General Manager
Author:	Madeleine St John (Business Improvement Officer), Chloe Wuiske (Business Improvement Officer)
Community Plan Issue:	6 - Community Leadership
Community Plan Goal:	Collaborative and responsive leadership that meets the expectations and anticipates the needs of the community.
Community Plan Strategy:	6.2.5 - Implement a comprehensive and targeted business improvement program. 6.2.5.2 - Review the policy management framework.

PURPOSE

To submit the attached *Policy on Policy Making* for adoption, following a 28 day period of public exhibition.

OFFICER'S RECOMMENDATION

Council ADOPTS the *Policy on Policy Making*.

Moved: _____ **Seconded:** _____

BACKGROUND

The *Policy on Policy Making MSC25E* (the Policy) was originally developed in 2018 to support Council's Policy Framework, however records indicate that it was not submitted to Council for public exhibition or adoption. Therefore, the Policy is a new policy that has been redrafted in line with the review of Council's Policy Management Framework.

The Policy describes Council's objectives and principles for policy development and review to ensure high quality, consistent policy documents that comply with legislative requirements, ensure document control, reduce risk and which are readily accessible and understood by Council Officers and the community.

The Policy applies to all Councillors, Council Staff and the development, authorisation, management, and review of all Council policies.

CONSULTATION

Manex

Manager Governance

Business Improvement Officer(s)

Audit, Risk & Improvement Committee

Community via public exhibition on Council's website 31 March 2023 to 28 April 2023



REPORT

At the 28 March 2023 Ordinary Council Meeting, Council endorsed the draft *Policy on Policy Making* for Public Exhibition via Council's website for a period of 28 days.

The Policy was exhibited on Council's website from 31 March 2023 to 28 April 2023.

No submissions were received by Council during the submission period.

The Policy was also reviewed by Council's Audit, Risk and Improvement Committee.

OPTIONS

Council may:

1. Resolve to adopt the *Policy on Policy Making*; or
2. Adopt the *Policy on Policy Making* with amendments.

CONCLUSION

It is recommended that Council adopts the attached *Policy on Policy Making*.

SOCIAL IMPLICATIONS

Nil known.

FINANCIAL IMPLICATIONS

Nil known.

POLICY IMPLICATIONS

This Policy was developed in line with the review of Council's Policy Management Framework.

STATUTORY IMPLICATIONS

Local Government Act 1993

Government Information (Public Access) Act 2009

Privacy and Personal Information Protection Act 1998

LEGAL IMPLICATIONS

Nil known.

OPERATIONAL PLAN IMPLICATIONS

6.2.5.2 - Review the policy management framework.

RISK MANAGEMENT IMPLICATIONS

This policy mitigates the potential risk of Council policies not meeting statutory requirements and/or supporting operational objectives.

WASTE MANAGEMENT IMPLICATIONS

Nil known.



COMMUNITY CONSULTATION/MEDIA IMPLICATIONS

Public exhibition of the Policy on Council's website from 31 March 2023 to 28 April 2023 provided the Community with an opportunity to make submissions. No submissions were received by Council during the submission period.



Policy on Policy Making

MSC25E

Authorisation Details

Authorised by:		Internal/External:	External
Date:		Minute No:	
Review timeframe:	4 years	Review due date:	
Department:	Governance		
Document Owner:	Manager Governance		
Community Strategic Plan Goal	6. Collaborative and responsive leadership that meets the expectations and anticipates the needs of the community		
Community Strategic Plan Strategy	6.2 Ensure Council is well managed, appropriately resourced, effective, efficient, accountable and responsive to its communities and stakeholders		

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Table of Contents

1. Policy Objective	3
2. Risks being addressed	3
3. Scope	3
4. Definitions	3
5. Policy Statement	4
5.1 New policy development	4
5.2 Policy adoption	4
5.3 Policy review	5
5.4 Consultation and communication	5
5.5 Enforcement	5
6. Roles, Responsibilities and Delegations	5
7. Dispute Resolution	7
8. Related Documents	7
8.1 Legislation and Guidelines	7
8.2 Policies and Procedures	7
8.3 Other Supporting Documents	7
Version history	7

1. Policy Objective

This policy describes Muswellbrook Shire Council's objectives and principles for policy development and review to ensure high quality, consistent policy documents that comply with legislative requirements, ensure document control, reduce risk and which are readily accessible and understood by Council Officers and the community.

2. Risks being addressed

This policy mitigates the potential risk of Council Policies not meeting statutory and organisational requirements.

3. Scope

This policy applies to all Councillors, Council Staff and the development, authorisation, management, and review of all policies in Muswellbrook Shire Council.

4. Definitions

<u>Term</u>	<u>Definition</u>
Council	Muswellbrook Shire Council
Council Official	Includes Councillors, members of staff of a Council, administrators, Council committee members and delegates of Council
External Policy	A formal statement of the Elected Council's position covering the principles of its decision making in serving the community and implementing Council's statutory responsibilities. These policies may have a direct impact on the community, Councillors, an individual or a business
Internal Policy	These policies guide how Council operates and do not have a direct impact on the community, Councillors, an individual or a business.
Policies	External and Internal Policies. Policies guide and determine decisions. Policies do not contain procedural information for implementing the policy. Where required, internal procedural information is outlined in a related 'procedure' document. The term 'policy' may also include specific Plans and Codes (e.g. Code of Conduct, Code of Meeting Practice and Privacy Management Plan).
Procedures	A set of instructions for the implementation of Policies
Guidelines	Complementary supporting information, advice or recommended best practice, and may allow some discretion or leeway in its interpretation, implementation or use.
EDRMS	Council's Electronic Document Records Management System
Manex	Council's Executive Management Team

5. Policy Statement

5.1 New policy development

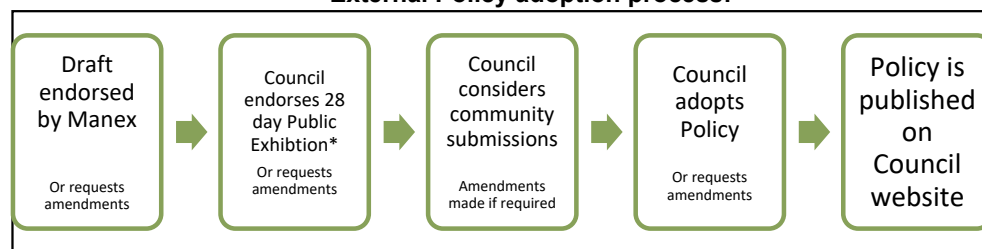
The main purpose of formulating a policy is to establish broad directions to guide Council's decisions, activities, ensure compliance with statutory requirements and support operational objectives. A policy may be developed in response to current or anticipated circumstances and risks. In general terms, policies express Council's position on a particular issue or subject.

Policies that may have a direct impact on the community, Councillors, an individual or a business are classified as an External Policy. Policies that do not have a direct impact on the community, Councillors, an individual or a business are classified as an Internal Policy.

5.2 Policy adoption

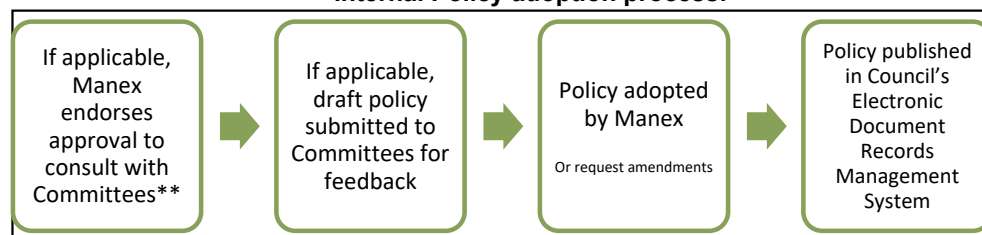
When a new policy is developed or amended, it is approved as below:

External Policy adoption process:



* Public exhibition is for a minimum of 28 days, unless otherwise legislated, via Council's website and in hardcopy at Council's Administration Centre and Library branches.

Internal Policy adoption process:



** Committees include Work Health & Safety Committee and Staff Consultative Committee

5.3 Policy review

Policy reviews are conducted as needed by organisational or legislative needs. All policies are reviewed at least once every four years unless otherwise legislated.

Administrative changes (updating position titles, departments, Related Documents, hyperlinks and re-formatting) are made without re-adoption. All changes are recorded in the Version History table of the policy to ensure a clear audit trail and the policy is republished on Council's website and EDRMS.

All other policy changes require re-adoption of the policy.

When it is determined that a policy is no longer necessary it will be recommended for rescission. External policies are rescinded by Council and internal policies are rescinded by Manex.

5.4 Consultation and communication

As per Council's *Community Participation Plan*, external draft policies are publicly exhibited on Council's website for a minimum of 28 days, unless otherwise legislated, and available in hardcopy at Council's Administration Centre and Library branches.

Public exhibition gives the community an opportunity to provide feedback on the draft policy via a submission. Submissions are accepted until the close of business of the last day of public exhibition and are managed according to Council's *Privacy Management Plan*.

All external adopted policies are available for public viewing on Council's Policy Register:
<https://www.muswellbrook.nsw.gov.au/policies/>

5.5 Enforcement

Clause 3.1(b) of Council's *Model Code of Conduct* provides that Council Officials must not conduct themselves in a manner that is contrary to statutory requirements or Council's administrative requirements or policies. A breach of a policy may also constitute a breach of Council's Code of Conduct.

6. Roles, Responsibilities and Delegations

Roles	Responsibilities
Business Improvement Officer	<ul style="list-style-type: none"> • Implementation of this policy • Development of appropriate templates for policies • Maintain a Policy Register with all policies and their review dates, document owners and adoption details • Maintain the Policy folder in Council's EDRMS • Facilitate policy reviews with document owners • Coordinate project teams for policy reviews as required • Draft Manex and Council reports relating to policies • Coordinate the Public Exhibition of policies • Ensure the Policies Register on Council's website reflects current external policies • Communicate adopted policies to Council employees
Document Owner	<ul style="list-style-type: none"> • Review policy in line with legislative and organisational timeframes and requirements • Ensure policy is updated to current legislation as required • Include Business Improvement Officer in policy review process • Complete business reports to Manex and Council
Manex	<ul style="list-style-type: none"> • Review and provide feedback on external and internal policies • Endorse external policies to be submitted to Council for consideration for adoption • Adopt internal policies • Rescind internal policies and endorse external policies to be recommended for rescission by Council

	<ul style="list-style-type: none"> Advise on new policies required to be developed
Staff Consultative Committee	<ul style="list-style-type: none"> Where applicable, review policies and provide feedback to Manex
Work, Health & Safety Committee	<ul style="list-style-type: none"> Where applicable, review policies and provide feedback to Manex
Councillors	<ul style="list-style-type: none"> Review external policies Endorse public exhibition of draft policies Consider community submissions Adopt external policies Rescind external policies where required Identify new policies required
Digital Media Officer	<ul style="list-style-type: none"> Publish draft policies on Council's website for public exhibition Publish adopted policies on Council's website Update policy documents on Council's website when required
Council's Administration Centre	<ul style="list-style-type: none"> Publicly exhibit external policies at Council's Administration Centre during the exhibition period
Muswellbrook and Denman Libraries	<ul style="list-style-type: none"> Publicly exhibit external policies at the library branches during the exhibition period
Community	<ul style="list-style-type: none"> Provide feedback on policies via submissions
Council Staff	<ul style="list-style-type: none"> Adhere to Council's policies Where applicable provide feedback on policies Assist with reviews as part of project team as required

7. Dispute Resolution

The General Manager is the interpreter of this policy.

8. Related Documents

8.1 Legislation and Guidelines

Local Government Act 1993

Government Information (Public Access) Act 2009

Privacy and Personal Information Protection Act 1998

8.2 Policies and Procedures

Procedure on Policy and Procedure Making (pending)

Model Code of Conduct (Doc ID: 1436817)

Model Code of Conduct Procedures (Doc ID: 429616)

Privacy Management Plan (Doc ID: 433422)

8.3 Other Supporting Documents

N/A

Version history

Version No.	Date changed	Modified by	Amendments made