



Longwalls 201 to 204

Built Features Management Plan

November 2016



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1 INTRODUCTION

Ashton Coal Operations Pty Ltd (ACOL), a subsidiary of Yancoal Australia Limited (Yancoal), owns the Ashton Coal Project (ACP), an underground coal mine located approximately 14 kilometres north-west of Singleton in the Hunter Valley in NSW.

The ACP was granted consent on 11 October 2002 by the Minister of Planning pursuant to the provisions of the Environmental Planning and Assessment Act 1979 (DA 309-11-2001-i). The Mine is approved to produce up to 5.45 million tonnes per annum (Mtpa) of run of mine (ROM) coal and operate until 2024. The consolidated Development Consent has been modified on ten occasions, with the most recent amendment approved on 20 June 2016.

The underground mine is approved for multiseam longwall extraction, targeting four coal seams in descending order (Pikes Gully (PG), Upper Liddell (ULD), Upper Lower Liddell (ULLD) and Lower Barrett (LB)). Development of the underground mine commenced in December 2005 and is accessed through the southern wall of the Arties Pit under the New England Highway.

ACOL has subsequently prepared an Extraction Plan for longwall mining of LW201 to 204 in the ULLD Seam of the Ashton Underground Coal Mine, varying between 105 metres and 230 metres below the surface. Proposed longwall mining in the Extraction Plan area of 201 to 204 (the **Extraction Plan Area** – refer **Figure 1**) is due to commence in April 2017, and is planned to take place over a three year period.

The location of Ashton’s mining areas, and previous mining is shown with the Ashton Mine Complex in **Figure 1**.

1.1 SCOPE & OBJECTIVE

The objective of this Built Features Management Plan (BFMP) is to identify the framework for management of subsidence induced impacts on built features from secondary extraction of longwall panels LW201 to LW204 within the ULLD at Ashton using conventional longwall mining techniques (the **Extraction Plan Area** see **Figure 1**).

The objective of the Built Features Management Plan will be achieved by:

- Identifying the built features within the Extraction Plan Area and their owner;
- Identifying the predicted subsidence impacts and/or consequences for the Built Features within the Extraction Plan Area in general terms (specific information for each built feature to be included in individual Built Feature Management Plans);
- Identifying the management activities (including consultation, monitoring, and remediation method) prepared to address the predicted subsidence impacts for Built Features; and
- Identifying the review and reporting activities to allow for assessment of the performance of Built Features management measures by Ashton, and identification of areas where either

continual improvement may be achieved, or management of unpredicted subsidence impacts can be managed.

The BFMP has been prepared to address conditions of DA 309-11-2001-i (MOD 5), and structured in general accordance with draft *Guidelines for the Preparation of Extraction Plans* provided to ACOL by the Department of Planning and Environment in 2016. The BFMP is a component plan to the overall Extraction Plan for LW201 to LW204.

The document will focus on the predicted consequences of subsidence, and how these consequences may be managed. Impact assessment information will largely not be presented, though is available within the relevant Subsidence Assessment report prepared by Strata Control Technology (SCT) for the Longwalls 201 to 204 (ASH4552_REV3).

2 PERFORMANCE OBJECTIVES

Performance objectives in relation to subsidence impacts in the LW201-LW204 Extraction Plan Area from DA 309-11-2001-i (MOD 5) are presented in **Table 2.1** and **Table 2.2**.

Table 2.1 Performance Measures from DA 309-11-2001-i

| Domain | Performance Measure |
|----------------|--|
| Built features | Always safe. Serviceability should be maintained wherever practicable. Loss of serviceability must be fully compensated. Damage must be fully repaired or replaced, or else fully compensated. |
| Biodiversity | Negligible impact |

Notes: compensation required under this condition includes any compensation payable under the *Mine Subsidence Compensation Act 1961* and/or the *Mining Act 1992*

Table 2.2 Rehabilitation Objectives from DA 309-11-2001-i

| Domain | Rehabilitation Objective |
|---------------------------------------|--|
| Built features affected by subsidence | Repair to pre-mining condition or equivalent unless: <ul style="list-style-type: none"> • The owner agrees otherwise; or • The damage is fully restored, repaired or compensated under the <i>Mine Subsidence Compensation Act 1961</i>. |

3 BUILT FEATURES MANAGEMENT

3.1 LAND OWNERSHIP

The Extraction Plan Area extends underneath predominately cattle grazing land owned by ACOL with a small area of privately owned land in the south east known as Property 130. Property 130 is a privately owned dairy farm. This property is serviced on a daily basis with access across the ACOL land located above the underground mine provided via a ‘right of way’ agreement. The access road is an unsealed road that traverses the Extraction Plan area from north to south. An alternative access road is available across the central part of the mining area. This alternative access can be used during periods when the primary right of way is being undermined. Land ownership is shown in **Figure 2**.

3.2 IDENTIFICATION OF BUILT FEATURES AND MANAGEMENT

Built features within the Extraction Plan Area and the relevant owners are presented in **Table 3.1** and are shown on **Figure 3**. The proposed manner of specific management for each built feature is also provided. Stakeholder contact details are provided in **Appendix A**.

3.2.1 INDIVIDUAL BUILT FEATURES MANAGEMENT PLANS

As described in **Table 3.1**, ACOL proposes to manage individual owners of built features using an owner specific BFMP. The individual BFMPs will be developed progressively during extraction within the Extraction Plan Area in consultation with the relevant built features owner prior to subsidence effects occurring on the particular Built Feature and will be submitted to the Secretary of DPE. **Table 3.1** also provides the proposed timing for development of the individual BFMPs in relation to longwall extraction.

3.2.2 MANAGEMENT OF PUBLIC SAFETY RELATING TO BUILT FEATURES

Public safety matters relating to Built Features will be identified in individual Built Features Management Plans. Any specific public safety management controls recommended during the development of individual Built Features Management Plans (including from building inspections) shall be incorporated into the Extraction Plan – Public Safety Management Plan LW201 to LW204.

Table 3.1 Built Features Associated within the Extraction Plan Area and Timing for Preparation of Individual BFMPs

| Asset | Description | Ownership & Folio Identifier | Specific Management Plan | Timing for Preparation of BFMP |
|--|---|------------------------------|---|--|
| Public Roads | New England Highway (sealed) | Roads & Maritime Services | Public Safety Management Plan BFMP – RMS | Prior to LW201 impacting |
| Electricity Transmission Lines | 132 kV Transmission Line 11kV Transmission Line | Ausgrid | BFMP – Ausgrid 132kV BFMP – Ausgrid 11kV | Prior to LW201 impacting Prior to LW204 impacting |
| Telecommunications infrastructure | Local Copper Cables | Telstra | BFMP – Telstra | Prior to LW201 impacting |
| Properties without dwelling in EP Area | Features may include: Rural sheds Water tanks Dams Private access roads Fences | Property 130 – 70/1107703 | Individual landholder specific BFMPs | Prior to LW201 impacting |

4 DEVELOPMENT OF BFMP

4.1 AGENCY CONSULTATION

This BFMP forms part of Ashton’s Extraction Plan. The following agencies of relevance to this plan are involved in assessing the Extraction Plan and key component sub-plans of relevance to Built Features:

- Department of Industry, Division of Resources and Energy; and
- Department of Planning and Environment.

Additionally, Ashton has consulted with Mine Subsidence Board (MSB) personnel in relation to the role of the MSB in relation to subsidence impact management to Built Features, and the likely timing of mining beneath those built features. These discussions have been used to frame the management plan and individual infrastructure owner BFMPs.

4.2 PROPERTY OWNER CONSULTATION

ACOL continues to liaise with the Property 130 landholders through the Extraction Plan process. Property 130 have been advised that a Built Features Management Plan will be prepared in consultation with the landholder prior to subsidence impacts occurring. The BFMP also will include details of remediation strategies to land (should they be required). An access agreement with Property 130 is currently being prepared. The benefit of the access arrangements ahead of mining is to streamline any land remediation works to be undertaken by ACOL (that are not covered by the Mine Subsidence Board).

Regular updates on the status of mining progression and environmental performance, including results of subsidence monitoring, and timing for mining will be provided directly to the landholder above the Extraction Plan area, and is presented to the Ashton Community Consultative Committee (CCC), with minutes of these meetings uploaded to the Ashton website (www.ashtoncoal.com.au).

4.3 INFRASTRUCTURE OWNER CONSULTATION

Ashton is in consultation with infrastructure owners to develop individual Built Features Management Plans to manage potential subsidence effects. Owners include:

- Public Roads (Roads & Maritime Services);
- Telstra; and
- Ausgrid.

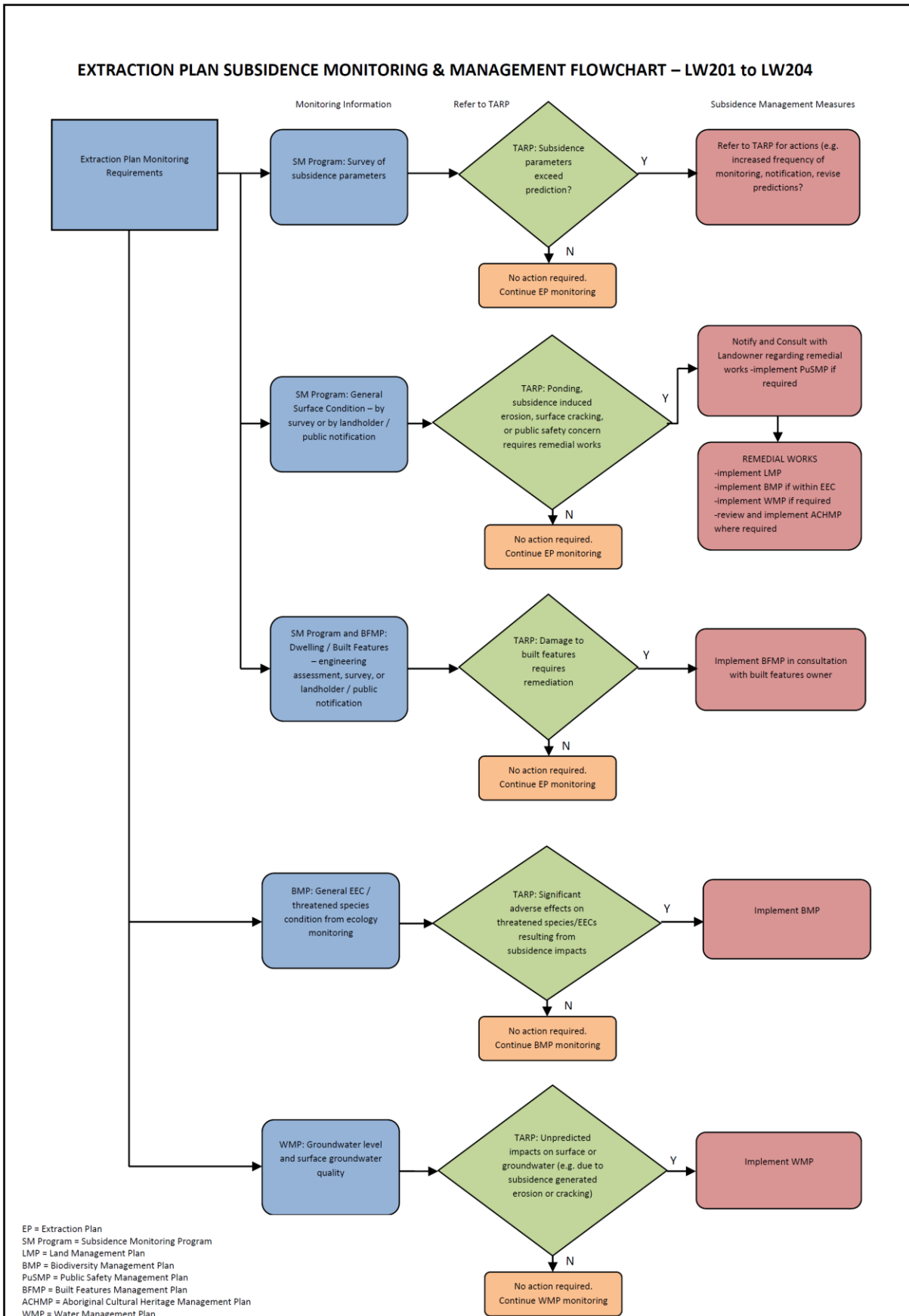
Telstra (Mr Mark Schneider) were contacted in August 2016 in relation to management of Telstra's assets to potential subsidence impacts. Telstra have directed Ashton to their representative in relation to potential subsidence management (Mr Colin Dove). Ashton has engaged Mr Dove to prepare a BFMP - Telstra to manage potential impacts on serviceability to Telstra's communications infrastructure. This plan will be completed prior to subsidence impacts occurring.

A BFMP – Ausgrid 132kV will be prepared in consultation with Ausgrid's Engineering Officer, Upper Hunter, Mr Brendon Osborne to assist the management of serviceability of Ausgrid's assets during subsidence. This plan will be completed prior to subsidence impacts occurring.

A BFMP – New England Highway will be prepared in consultation with Roads & Maritime Services (RMS) to assist in the management and repair of any public safety issue. This plan will be completed prior to any potential subsidence impacts occurring.

5 SUBSIDENCE MONITORING AND MANAGEMENT

The overall framework of subsidence monitoring and management for Built Features and other environmental consequences is described simply by a flowchart which follows (as taken from the **Extraction Plan**).



6 PLAN IMPLEMENTATION

6.1 REPORTING FRAMEWORK

6.1.1 Annual Review / Annual Environmental Management Report (AEMR)

The Annual Review / AEMR is prepared to summarise ACOL's environmental performance for the reporting year and is prepared in accordance with Schedule 5 Condition 10 of DA 309-11-2001-i and to satisfy Mining Lease conditions.

Performance in accordance with this BFMP, as a key component plan of the Extraction Plan, will be reported using timings and protocols as the main Extraction Plan.

6.1.2 Regular Stakeholder Reporting

The results of monitoring undertaken in accordance with individual BMFPs will be provided to the relevant built feature owner at a frequency agreed in the individual BFMP.

6.2 REVIEW OF THE BFMP

Review of the Extraction Plan (including the BFMP), and revision if necessary, shall occur where unpredicted impacts and/or environmental consequences are identified through the monitoring and management strategies proposed in the Extraction Plan.

Review of the Extraction Plan (including the BFMP) is also required following any modification to DA 309-11-2001-i, or if directed by the Secretary of DPE.

Any revision to the Extraction Plan (including the BFMP) must be completed to the satisfaction of the Secretary of DPE.

6.3 EXTRACTION PLAN ROLES AND ACCOUNTABILITIES

Detailed below are key personnel involved with implementing this Extraction Plan to manage subsidence, their roles and responsibilities.

| Role | Responsibilities |
|--|--|
| Operations Manager | <ul style="list-style-type: none"> • Make appropriate resources available for the implementation of this Built Features Management Plan • Conduct underground mining activities in accordance with the Extraction Plan Coal Resource Recovery Plan. • Notify and liaise with DRE Inspectors (if required) |
| Technical Services Manager (TSM) | <ul style="list-style-type: none"> • Owner of BFMP • Liaise with Government Agencies and Community members in relation to subsidence matters and the Extraction Plan subsidence predictions and monitoring program • Incorporate public safety management controls identified during development of individual BFMPs into the Extraction Plan - Public Safety Management Plan. • Liaise with infrastructure owners in preparation of individual Built Features Management Plans • Coordinate Mine Surveyor to ensure subsidence monitoring is undertaken in accordance with the SM Program • Review subsidence monitoring data against predictions and TARPs in order to trigger any actions required on the basis of subsidence results • Manage / implement subsidence management actions required by the Extraction Plan in relation to Built Features and Infrastructure (Ausgrid, Telstra). • Liaise with Mine Subsidence Board in relation to Built Features impacts • Ensuring building structures located within the subsidence affectation area are inspected by a structural engineer prior to and after undermining and appropriate management measures implemented where access is granted • Provide support and guidance in relation to subsidence effects to Environment & Community Manager |
| Environment and Community Manager (ECM) | <ul style="list-style-type: none"> • Ensure that all environmental monitoring and reporting is undertaken in accordance with individual BFMPs • Liaise with Mine Subsidence Board in relation to Built Features impacts • Liaise with Landholders in relation to environmental consequences of subsidence and in relation to access for the BFMP monitoring program • Notify and liaise with neighbours and community in relation to mining timing and monitoring performance; • Review and update the BFMP as required. |

| Role | Responsibilities |
|----------------------|---|
| Mine Surveyor | <ul style="list-style-type: none">• Ensure that all subsidence monitoring is completed to the requirements of the Subsidence Monitoring Program and provided to the TSM for review. |

7 REFERENCES

Strata Control Technology (ASH4552_REV3, 2016). Ashton Coal Operations Pty Ltd: *Subsidence Assessment for the Extraction Plan for Longwalls 201 – 204 in the Upper Lower Liddell Seam*, Report Number ASH4552.

Figures



Figure 1 Extraction Plan Area

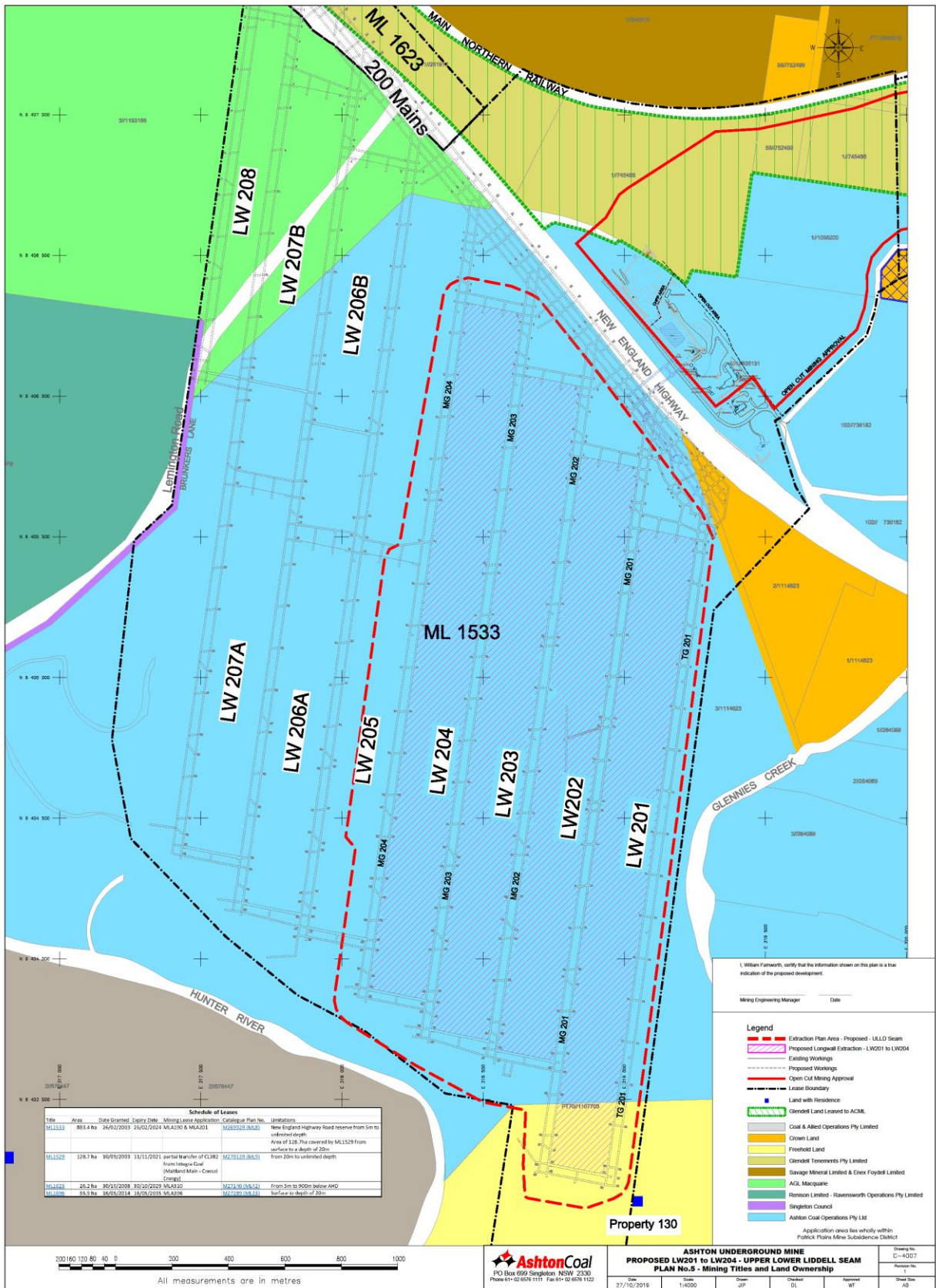


Figure 2 Land Ownership

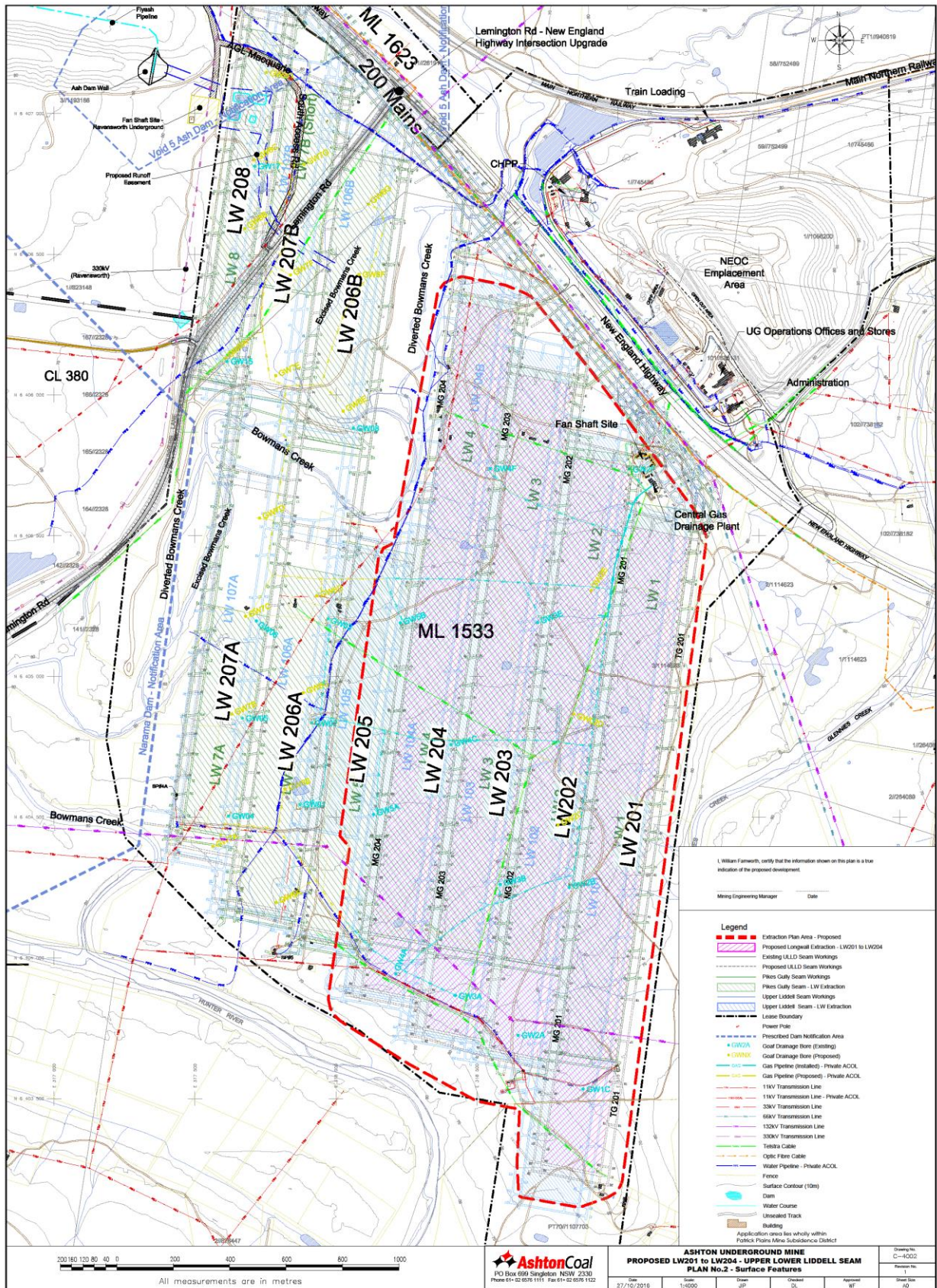


Figure 3 Surface Features

Appendices

Appendix A

Stakeholder Contact Details

LW201 to LW204 Extraction Plan Stakeholder List

| Position | Name | Phone |
|--|--|--------------|
| ASHTON | | |
| Operations Manager | Bill Farnworth | 6570 9104 |
| Technical Services Manager | Tony Sutherland | 4015 1105 |
| Environment and Community Manager | Digby Short | 6570 9219 |
| Mine Surveyor | Jeff Peck | 6570 9125 |
| Mining Engineer | Thomas Kaltschmidt | 6570 9124 |
| After Hours | Control Room | 4993 7220 |
| | | |
| GOVERNMENT | | |
| MSB District Manager | Richard Pickles | 4908 4353 |
| Road & Maritime Service – Asset Manager | Adam McKensie | 4924 0357 |
| Ausgrid – Manager of Customer Supply, Planning and Reliability, Upper Hunter | Ian Hall | 13 15 35 |
| Telstra – Project Specialist | Mark Schneider | 8842 5185 |
| | | |
| LANDHOLDERS | Refer to Ashton internal contacts register | |