

Appin Mine Area 7

Longwalls 712 to 716

Built Features Management Plan

29 July 2026



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DOCUMENT CONTROL

Applicant: Illawarra Coal Holdings Pty Ltd

Mine: Appin Mine

Name of operator: Gear M Illawarra Met Coal Pty Ltd trading as GM³

Project approval: MP08_0150

Mining leases: Consolidated Coal Lease 767, Mine Lease 1698, Mine Lease 1433, Mine Lease 1832, Mine Lease 1847 and Mine Lease 1874

Document Title: Appin Mine Area 7
Longwalls 712 to 716 Extraction Plan
Built Features Management Plan

NAME OF PERSONS AUTHORISING THIS PLAN

NAME	TITLE	DATE
Bruce Blunden	Manager Approvals	July 2026

DOCUMENT REVISIONS

REVISION	DESCRIPTION OF CHANGES	DATE
1	New document for consultation	December 2025
2	Updated following consultation	February 2026
3	Updated following additional consultation	April 2026
4	Updated following DPHI feedback	July 2026

PERSONS INVOLVED IN PREPARATION OF THIS PLAN

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1. INTRODUCTION

1.1 Project Background

Illawarra Coal Holdings Pty Ltd (ICHPL) operates the Bulli Seam Operations (BSO) Appin Mine extracting hard coking coal used for steel production. On 22 December 2011 the Planning and Assessment Commission (PAC), under delegation of the Minister for Planning, approved BSO (MP 08_0150) under Part 3A of the Environmental Planning and Assessment Act 1979 (EP&A Act) to continue mining operations until 2041.

This Built Features Management Plan (BFMP) supports the Longwalls 712 to 716 Extraction Plan for mining of coal in Appin Area 7 (AA7) mining domain.

1.2 Scope

This scope of this BFMP includes the proposed management of potential impacts and environmental consequences on public infrastructure within the Study Area as a result of the mining of Longwalls 712 to 716.

1.3 Objectives

The objectives of this BFMP are to identify key infrastructure, which may potentially be affected by the proposed mining of Longwalls 712 to 716 and to describe the processes implemented by ICHPL to develop asset specific Infrastructure Management Plans (IMPs) and Property Subsidence Management Plans (PSMP) for these assets. The BFMP will act as a covering document for the updated IMPs and PSMPs.

Agreements with individual asset owners (referred to as IMPs) are currently in place (for AA7) and will be updated in consultation with those owners and the relevant agencies, and submitted to the Resources Regulator prior to the extraction of Longwalls 712 to 716. This BFMP provides an overview the potential impacts to these features from the extraction of these longwalls and documents the arrangements that are currently in place which will be updated for Longwalls 712 to 716.

The aim of these IMPs is to manage the potential subsidence impacts and/or environmental consequences on affected infrastructure and all classes of other built features in consultation with the asset owner. PSMPs will be prepared on an as needs basis with private landowners in relation to assets such as houses, non-residential structures and farm dams. The public infrastructure and other classes of built features identified in the Study Area are shown on the MSEC (2025) figures, Drawing Nos. MSEC1459-10 to MSEC1459-15.

1.4 Study Area

The Study Area for the Extraction Plan is defined in accordance with MSEC (2025) as the surface area predicted to be affected by the mining of Longwalls 712 to 716 and encompasses the areas bounded by the following limits (**Error! Reference source not found.**):

- A 35° angle of draw line from the extents of secondary extraction, which equates to a horizontal distance varying between 390 m and 560 m around the limits of the proposed extraction areas for Longwalls 712 to 716, and
- The predicted limit of vertical subsidence, taken as the 20 mm subsidence contour, resulting from the extraction of Longwalls 712 to 716.

Additionally, features potentially sensitive to far field movements, which includes horizontal, valley closure and upsidence movements that may be outside the 20 mm subsidence zone or 35° angle of draw line have been assessed.

1.5 Distribution

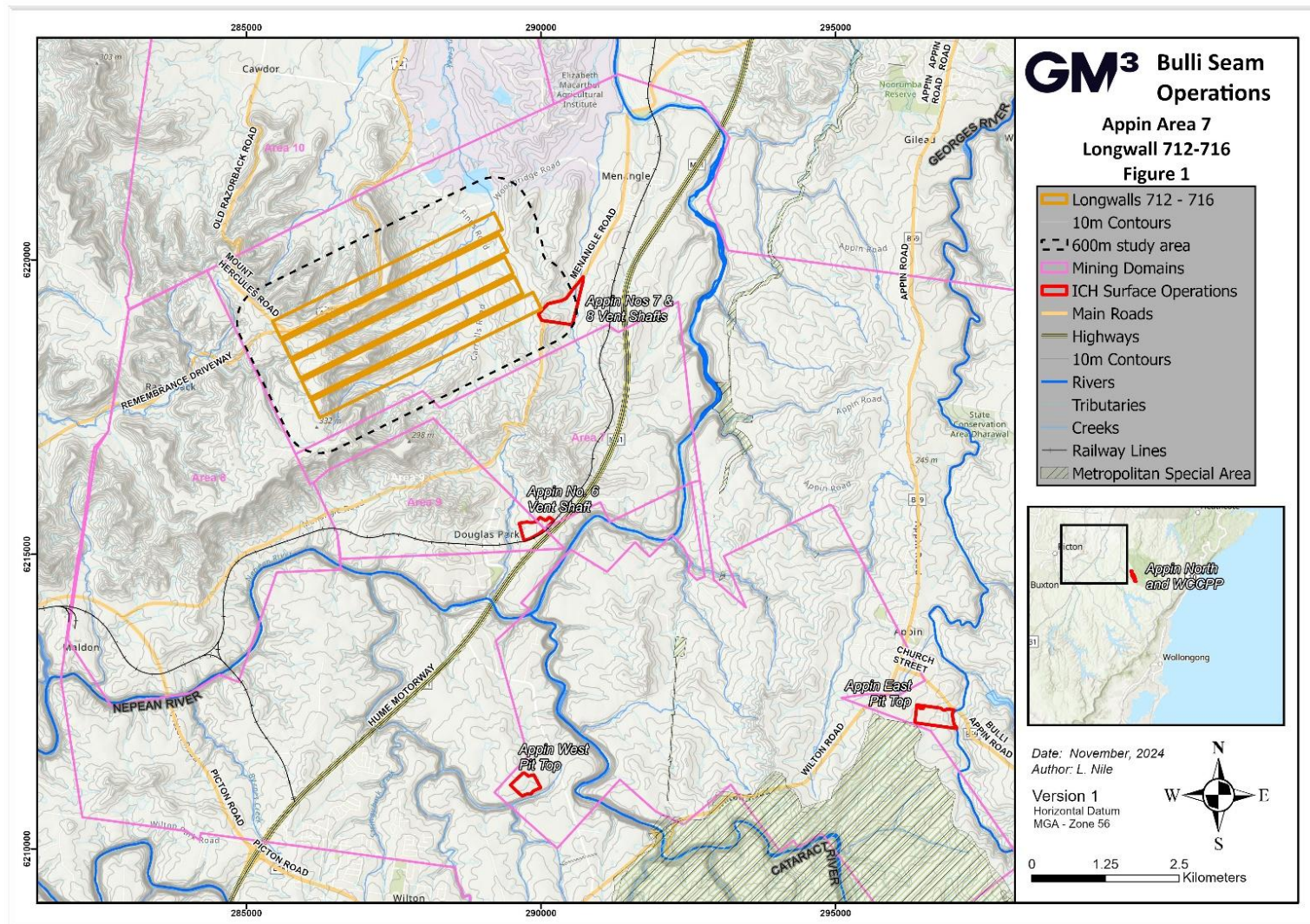
The finalised BFMP (and applicable IMPs) will be developed in consultation with and distributed to:

- Department of Planning, Housing and Infrastructure (DPHI);
- Resources Regulator; and
- Owners of affected infrastructure.

The BSO Project Approval requires that the BFMP be developed in consultation with any potentially affected public authorities. This will be achieved through the consultation methods detailed in Section 7.2 and Section 7.3.

ICHPL will make the BFMP publicly available on the GM³ website (Condition 11, Schedule 6). The PSMPs and the IMPs are the agreements between the asset owners and ICHPL and will not be made public if they include sensitive information. ICHPL will also provide Subsidence Advisory NSW copies of the PSMPs, including any property specific Trigger Action Response Plan (TARP), upon any request by an Authorised Officer (as required under S 47 and S 48 of the CMSC Act).

Figure 1 Appin Area 7 (Longwalls 712 to 716) Layout



2. STATUTORY REQUIREMENTS

Extraction of coal from Longwalls 712 to 716 will be in accordance with the conditions set out in the BSO Approval, applicable legislation as detailed in Section 2.2 and the requirements of relevant licenses and permits (including conditions attached to mining leases).

2.1 BSO Approval

Condition 5 (I), Schedule 3 of the BSO Approval requires the preparation of a BFMP to manage the potential impacts and/or environmental consequences of the proposed second workings on public infrastructure and other built features (refer Section 1.2).

The specific IMPs also addresses the requirements detailed in Condition 6, Schedule 3 and Condition 2, Schedule 6 of the BSO Approval as shown in Table 1.

Table 1 Management Plan Requirements

Project Approval Conditions	Relevant BFMP Section
Condition 5, Schedule 3 The Proponent shall prepare and implement an Extraction Plan for first and second workings within each longwall mining domain to the satisfaction of the Secretary. Each extraction plan must: g) include a Built Features Management Plan, which has been prepared in consultation with DRE and the owners of public infrastructure, to manage the potential subsidence impacts and/or environmental consequences of the proposed second workings, and which: - addresses in appropriate detail all items of key public infrastructure and other public infrastructure and all classes of other built features; - has been prepared following appropriate consultation with the owner/s of potentially affected feature/s; - recommends appropriate pre-mining mitigatory measures to reduce subsidence impacts; - recommends appropriate remedial measures and includes commitments to mitigate, repair, replace or compensate all predicted impacts on potentially affected built features in a timely manner; and - in the case of all key public infrastructure, and other public infrastructure except roads, trails and associated structures, reports external auditing for compliance with ISO 31000 (or alternative standard agreed with the infrastructure owner) and provides for annual auditing of compliance	

Project Approval Conditions	Relevant Section	BFMP
and effectiveness during extraction of longwalls which may impact the infrastructure.		
Condition 6, Schedule 3 The Proponent shall ensure that the management plans required under Condition 5 (g)-(l) above include: a) an assessment of the potential environmental consequences of the Extraction Plan, incorporating any relevant information that has been obtained since this approval; a detailed description of the measures that would be implemented to remediate predicted impacts.	Section 4 Section 6	
Condition 2, Schedule 6 The Proponent shall ensure that the management plans required under this approval are prepared in accordance with any relevant guidelines, and include: (a) detailed baseline data; (b) a description of: - the relevant statutory requirements (including any relevant approval, licence or lease conditions); - any relevant limits or performance measures/criteria; - the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the project or any management measures; (c) a description of the measures that would be implemented to comply with the relevant statutory, limits, requirements or performance measures/criteria; (d) a program to monitor and report on the: - impacts and environmental performance of the project; - effectiveness of any management measures (see c above); (e) a contingency plan to manage any predicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible; (f) a program to investigate and implement ways to improve the environmental performance of the project over time; (g) a protocol for managing and reporting any: - incidents; - complaints; - non-compliances with statutory requirements; and - exceedances of the impact assessment criteria and/or performance criteria; and (h) a protocol for periodic review of the plan.	Section 3 Section 2 Section 4 Section 4 to 6 Section 5 Section 6 Section 8 Section 7 Section 8	

Due consideration has been given to all BSO Approval Conditions in the preparation of this BFMP, including those relating to auditing, rehabilitation and environmental management.

2.2 Legislation and Guidelines

This BFMP conforms to the requirements of the relevant legislation and advisory documents and guidelines.

Details of specific legislation and guidelines applicable to each IMP will be contained within that plan.

With particular reference to built features affected by mining induced subsidence as a result of Bulli Seam Operations, this will be managed in compliance with the requirements established within the Coal Mine Subsidence Compensation Act 2017 (CMSC Act) and Coal Mine Subsidence Compensation Regulation 2017, including any amendments.

2.3 Relevant Leases and Licences

The following licences or permits are applicable to ICHPL's operations in AA7:

- Mining Leases as per Table 2.
- Environment Protection Licence (EPL) 2504 which applies to BSO operations. A copy of the licence can be accessed at the EPA website.
- All relevant Occupational Health, Safety, Environment and Community approvals.
- Any additional leases, licences and approvals resulting from the BSO Approval.

Table 2 Appin Mine Leases

MINING LEASE – DOCUMENT NUMBER	START	FINISH
CCL 767	29 OCT 1991	08 JUL 2029
ML 1433	24 JULY 1998	24 JULY 2043
ML 1698	26 JUN 2014	26 JUN 2035
ML 1832	9 AUG 2022	9 AUG 2043
ML 1874	20 FEB 2020	20 FEB 2045
ML 1892	4 SEP 2025	4 SEP 2046

The BSO Project is located within the mining tenements listed in Table 2.

3. BASELINE ASSESSMENT

Built features within the Longwalls 712 to 716 Study Area were identified and assessed in the MSEC Report (MSEC, 2025), drawing numbers MSEC1459-10 to MSEC1117-15, appended to the Extraction Plan as Appendix A. The built features are listed below in Table 3 and shown in Figure 1.

The assets identified in the Study Area are largely the same as the assets present in the currently mined AA7 and 9. As such there are existing IMPs in place for this infrastructure which detail the management and mitigation measures agreed between ICHPL and the asset owners (refer Table 3). These IMPs will be updated in consultation with asset owners to address the extraction of Longwalls 712 to 716.

Descriptions of these assets, and the potential impacts on them from the extraction of Longwalls 712 to 716, are provided in Section 4.

A summary of potential mitigation and management measures are provided in Section 6, however these will be further developed in consultation with the asset owners and included in the updated IMPs for each item prior to mining.

Table 3 Management Documentation for Built Features in Appin Areas 7 and 9

Public Utilities	Management Plan (to be updated if required)
Roads (local roads)	Longwalls 712 to 716 Public Road Management Plan.
Bridges (associated with local roads (see above) and M31 Hume Highway)	Longwalls 711 to 716 Public Road Management Plan. Longwalls 710 to 718 Management Plan for Moreton Park Road Bridge (North) over the M31 Hume Motorway.
Culverts (associated with local roads)	See above.
Electricity transmission lines or associated plants	Longwalls 712 to 716 Endeavour Energy.
Telecommunications lines or associated plants	Longwalls 711 to 716 Management Plan for Telecommunications Infrastructure.
Houses, farm buildings or sheds, tanks, fences, farm dams, wells or bores,	Specific PSMP will be negotiated with the landowner.
Business or commercial establishments and improvements	Specific PSMP will be negotiated with the landowner.
Areas of heritage or archaeological significance	Heritage Management Plan has been developed.
Permanent Survey Control Marks	Specific PSMP will be negotiated with the Spatial Services NSW. ICHPL will restore any survey marks disrupted by mining in accordance with the <i>Surveying and Spatial Information Act 2002</i> (SSI Act) and Surveying and Spatial Information Regulation 2020.

Public Utilities	Management Plan (to be updated if required)
Associated structures such as workshops, garages, on-site waste water systems, water or gas tanks, swimming pools or tennis courts	Property specific PSMP will be negotiated with the landowner.

4. PREDICTED IMPACTS

4.1 Main Southern Railway

The Main Southern Railway is a key national transport route that carries significant freight and passenger services between Sydney and Melbourne.

The Main Southern Railway is outside the Study Area based on the 600 m boundary. The railway is located more than 1 km east of LW712 at its closest point to the proposed longwalls. The railway is located directly above the existing LW703 to LW708B to the south of the Study Area.

The predicted additional vertical subsidence for the Main Southern Railway due to the mining of the proposed LW712 to LW716 is less than 20 mm. While the railway could experience very low levels of vertical subsidence, it is not predicted to experience measurable tilts, curvatures or strains.

It is not anticipated therefore that the Main Southern Railway or its associated infrastructure would experience adverse impacts due to the mining of Longwalls 712 to 716, even if the predictions were exceeded by a factor of two-times.

Management is anticipated to be undertaken in accordance with the current IMP for AA7 (refer Section 6.4).

4.2 M31 Hume Motorway

The M31 Hume Motorway is outside the Study Area based on the 600 m boundary. The motorway is located more than 1.3 km east Longwall 712 at its closest point to the Longwalls 712 to 716. The motorway is located directly above the existing Longwalls 703 to LW708B to the south of the Study Area.

The predicted additional vertical subsidence for the M31 Hume Motorway due to the mining of the proposed Longwalls 712 to 716 is less than 20 mm. While the motorway could experience very low levels of vertical subsidence, it is not predicted to experience measurable tilts, curvatures or strains.

It is not anticipated therefore that the M31 Hume Motorway would experience adverse impacts due to the mining of the proposed Longwalls 712 to 716, even if the predictions were exceeded by a factor of two-times.

Management is anticipated to be undertaken in accordance with the current IMP, for AA9 (refer Section 6.4).

4.3 Bridges

Table 4 provides an assessment of the potential impacts to bridges located within the Study Area.

Table 4 Impact Assessment for Bridges

Feature	Impact Assessment (MSEC 2021)
Nepean Twin Bridges	The Nepean Twin Bridges are located where the M31 Hume Motorway crosses the Nepean River. These twin bridges are located more than 4 km south of Longwalls 712 to 716. At this distance, the Nepean Twin Bridges are not expected to experience measurable subsidence effects or adverse impacts.
Burrells Bridge	Burrells Bridge is located directly above the approved Longwall 711 and 170 m south of Longwall 712. This bridge will experience conventional subsidence and valley related effects due to the mining of Longwalls 711 and 712 and to lesser extents Longwalls 713 and 714.
Moreton Park Road Bridge (North)	Moreton Park Road Bridge (North) is located at a minimum distance of 1.8 km east of Longwall 712 to 716. The bridge will experience low-level far-field horizontal movements due to the mining of the longwalls.
Moreton Park Road Bridge (South)	Moreton Park Road Bridge (South) is located more than 3 km south of Longwalls 712 to 716. At this distance, the Moreton Park Road Bridge (South) is not expected to experience measurable subsidence effects or adverse impacts.

ICHPL has an approved management plans for Burrells Road Bridge and Moreton Park Road Bridge (North) for Longwalls 709 to 711 and Longwall 905. These management plans will be reviewed and updated in consultation with Wollondilly Shire Council (WSC) and Transport for NSW (TfNSW) prior to mining effects from Longwalls 712 to 716 at these bridges.

4.4 Local Roads

The local roads are shown in Drawing No. MSEC1459-10.

The main local roads within the Study Area are Menangle Road and Remembrance Drive. The minor local roads include Burrells Road, Carrolls Road, Cummins Road, Finns Road, Hawkey Road and Quirkies Lane. Menangle Road is located above the existing and approved Longwall 707A to 711 and it is not located above the proposed Longwalls 712 to 716. This road provides a connection between the township of Campbelltown to the north-east of the Study Area, and Picton Road to the south-west of the Study Area. Remembrance Drive is located above the proposed Longwalls 715 and 716. This road provides a connection between the township of Camden to the north of the Study Area, and Picton to the west of the Study Area.

Local roads may be subjected to the full range of predicted subsidence effects. The predicted subsidence impacts to local roads within the Study Area are expected to be similar to those observed and predicted at the local roads which have been mined directly beneath by previously extracted longwalls in AA7 and elsewhere in the Southern Coalfield. It is expected, therefore, that the local roads can be maintained in a safe and serviceable condition throughout the mining period using normal road maintenance techniques.

Some local roads pass in the locality of cliffs and steep slopes within the Study Area which may be affected by subsidence. As such, due consideration will be given to the potential impacts that these features may have on the serviceability of these local roads as discussed in the Land Management Plan.

Existing management measures are in place for the local roads and these will be reviewed, in consultation with WSC and TfNSW, based on the potential movements resulting from the extraction of the proposed longwalls.

4.4.1 Culverts

Road culverts are located where the local roads cross streams or other topographical depressions. The culverts comprise concrete pipes or concrete box culverts with concrete headwalls.

The road culverts are located across the Study Area and, therefore, are expected to experience the full range of predicted subsidence movements

It is unlikely that the mining induced tilts would result in adverse impacts on the serviceability of the culverts, as the changes in grade are less than 1 %. If the flow of water through the culverts were to be adversely affected, due to the proposed mining, they could be remediated by re-levelling the affected culverts.

The predicted curvatures and strains could be of sufficient magnitudes to result in cracking in the culverts or the headwalls. It is unlikely, however, that these movements would adversely impact on the stabilities or structural integrities of the culverts. The potential impacts on the road culverts could be managed by visual inspection and, where required, the affected culverts can be repaired or replaced.

The road culverts are located along the streams and therefore could experience valley related effects. The culverts are orientated along the alignments of the streams and, therefore, the upsidence and closure movements are orientated perpendicular to the main axes of the culverts and unlikely therefore to result in adverse impacts.

Experience of mining beneath road culverts in AA7 and elsewhere in the Southern Coalfield indicates that the incidence of impacts is low. Impacts have generally been limited to cracking in the concrete headwalls which can be readily remediated. In some cases, however, cracking in the culvert pipes occurred which required the culverts to be replaced.

ICHPL has an approved management plan for the local roads, including the drainage culverts. This management plan will be updated prior to any effects at the culverts from the extraction of Longwalls 712 to 716.

4.5 Water Infrastructure

There is no potable water infrastructure identified within the Study Area. Potable water pipelines are located within Douglas Park to the south of the Study Area. These pipelines are located more than 2 km from Longwalls 712 to 716. At this distance, the potable water pipelines are not predicted to experience measurable conventional subsidence effects. It is not anticipated, therefore, that adverse impacts would occur to these pipelines due to the proposed mining.

4.6 Sewage Infrastructure

There is no sewerage infrastructure identified within the Study Area.

4.7 Gas Infrastructure

There is no gas infrastructure identified within the Study Area. All gas pipelines have been purged with air and have not been operational for more than one year. AGL is in the process of rehabilitating the pipework with some being removed, some being grouted and others being handed over for use by landowners.

4.8 Electrical Infrastructure

The locations of the electrical infrastructure are shown in Drawing No. MSEC1459-11.

The electrical infrastructure within the Study Area comprises 66 kV, 22 kV and 11 kV powerlines, and 415 V powerlines. The 66 kV, 11 kV and 415 V powerlines consist of aerial copper cables supported on timber poles. There are also 40 substations located within the Study Area. The powerlines and substations are owned and operated by Endeavour Energy.

There is one 66 kV powerline located within the Study Area that crosses directly above the proposed Longwalls 712 to 715. The 11 kV and 415 V powerlines are located across the Study Area and the generally follow the alignments of the local roads.

The 66 kV, 22 kV, 11 kV and 415 V powerline will not be directly affected by the ground strains, as the cables are supported by the power poles above ground level. However, the cables may be affected by the changes in bay lengths, i.e. the distances between the poles at the levels of the cables, resulting from the differential subsidence, horizontal movements and tilt at the pole locations. The stabilities of the poles and the cable clearances may also be affected by the mining-induced tilts and the changes in the catenary profiles of the cables.

There is extensive experience of mining directly beneath powerlines in AA7 and elsewhere in the Southern Coalfield. The past experiences demonstrate that there have only been minor impacts on aerial powerlines that have been directly mined beneath by previously extracted longwalls in the Southern Coalfield. Some remedial measures were required, which included adjustments to

cable catenaries, pole tilts and to consumer cables which connect between the powerlines and houses. The incidence of these impacts was very low.

Based on this experience, it is likely that the extraction of Longwalls 712 to 716 would result in only minor impacts on the powerlines within the Study Area. It is expected that the remedial measures would include some adjustments of the cable catenaries, pole tilts and the consumer cables, as has been undertaken in the past, but any other impacts are expected to be relatively infrequent.

Existing management measures are in place for the local power distribution network and will be reviewed, in consultation with Endeavour Energy, based on the potential movements resulting from the extraction of Longwalls 712 to 716 as detailed in Section 6.4.

4.9 Telecommunication Infrastructure

Existing management measures are in place for the communications infrastructure detailed below. It will be reviewed, in consultation with infrastructure owners, based on the potential movements resulting from the extraction of Longwalls 712 to 716.

4.9.1 Optical Fiber Cables

The locations of the telecommunications infrastructure are shown in Drawing No. MSEC1459-12. There are optical fibre cables owned by Telstra and the NBN Co that are located within the Study Area.

The optical fibre cables are direct buried and therefore could potentially be impacted by ground strains. The greatest potential for impacts will occur as the result of localised ground strains due to non-conventional movements or valley-related effects.

The tensile strains in the optical fibre cables could be higher than predicted, where the cables connect to the support structures, which may act as anchor points, preventing any differential movements that may have been allowed to occur with the ground. Tree roots have also been known to anchor cables to the ground. The extent to which the anchor points affect the ability of the cables to tolerate the mine subsidence movements depends on the cable size, type, age, installation method and ground conditions.

In addition to this, optical fibre cables contain additional fibre lengths over the sheath lengths, where the individual fibres are loosely contained within tubes. Compression of the sheaths can transfer to the loose tubes and fibres and result in "micro-bending" of the fibres constrained within the tubes, leading to higher attenuation of the transmitted signal. If the maximum predicted compressive strains were to be fully transferred into the optical fibre cables, the strains could be of sufficient magnitude to result in the reduction in capacities of the cables or transmission loss.

The strains transferred into the optical fibre cables can be monitored using Remote Fibre Monitoring Systems (RFMS) such as Optical Time Domain Reflectometry (OTDR), which can be

used to notify the infrastructure owners of strain concentrations due to non-conventional ground movements or valley-related effects.

There is extensive experience of mining directly beneath optical fibre cables in AA7 and elsewhere in the Southern Coalfield. This experience shows that the potential impacts on optical fibre cables can be managed with the implementation of monitoring and management measures.

4.9.2 Copper Cables

Copper telecommunications cables are also located within the Study Area. These underground cables generally follow the local roads and they service the properties within the Study Area.

The copper telecommunications cables are located across the Study Area. There is extensive experience of mining beneath copper telecommunications cables in AA7 and elsewhere in the Southern Coalfield. There have been no reported impacts on the direct buried copper telecommunications cables in these cases. It is not anticipated, therefore, that the copper telecommunications cables within the Study Area will experience adverse impacts.

4.10 Non-residential Building Structures and Other Assets

There are 817 rural structures that have been identified within the Study Area. These rural structures include sheds, garages, carports and other non-residential building structures. There are also 471 tanks, 70 pools, 7 tennis courts, 1 basketball court, and other assets identified on the private properties

The majority of the rural structures and other assets within the Study Area are of lightweight construction and are expected to tolerate the predicted mining-induced tilt. It has been found from past longwall mining experience, that tilts of the magnitudes predicted for Longwalls 712 to 716 generally do not result in adverse impacts on rural structures. Some minor serviceability impacts could occur at the higher levels of predicted tilt, including door swings and issues with roof and pavement drainage. These serviceability impacts can generally be remediated using normal building maintenance techniques.

Some rural structures could be affected by the mining-induced curvature and strain. It is expected that these structures would remain safe and serviceable conditions. Impacts to the rural structures are expected to be remediated using well established building techniques.

All these features will be managed in accordance with specific PSMPs as described in Section 6.4.

4.11 Houses

There are 217 houses that have been identified within the Study Area, of which, 62 are located above the existing Longwalls 709 to 711, 110 are located directly above Longwalls 712 to 716, and the remaining 45 are located outside the mining area.

The houses within the Study Area consist of single-storey structures with dimensions less than 30 m (96 total), single-storey structures with dimensions greater than 30 m (57 total), two-storey structures (25 total), and the remaining structures (39 total) with unknown number of storeys.

The houses within the Study Area also consist of brick or brick-veneer structures on ground slabs (55 total), 40 brick or brick-veneer structures on strip footings (40 total), timber framed structures (13 total), and the remaining structures (109 total) with unknown construction. Where the type of construction is unknown, the impact assessments have conservatively assumed brick structures on strip footings.

The houses are located across the Study Area and are expected therefore to experience the full range of predicted subsidence effects. The maximum predicted subsidence effects for Longwalls 712 to 716 are similar to or slightly less than the maximum predicted subsidence effects for the existing longwalls in AA7.

It is expected that only minor serviceability impacts would occur for the houses as a result of the mining-induced tilt. It is possible, however, that more substantial serviceability impacts could develop at some houses, as a result of non-conventional ground movements, which could require the relevelling of wet areas or, in some cases, the relevelling of parts of the building structures.

It has been assessed that approximately 56 % to 67 % of the houses within the Study Area will experience Nil or Category R0 impacts, approximately 22 % to 28 % will experience Category R1 or R2 impacts, approximately 9 % to 13 % will experience Category R3 or R4 impacts and approximately 2 % to 3 % will experience Category R5 impacts. The damage categories are described in MSEC (2025), with Categories R1 and R2 representing minor or cosmetic impacts, and Categories R3 to R5 representing more substantial or structural impacts.

All houses within the Study Area are expected to remain safe throughout the mining period, provided that effective monitoring and management measures are adopted during mining. This is based on the experience of mining in AA7 and elsewhere in the Southern Coalfield, where houses have remained safe with the implementation of effective monitoring and management measures.

5. PERFORMANCE MEASURES AND INDICATORS

The BSO Approval provides Subsidence Impact Performance Measures (Condition 3, Schedule 3). Table 5 below details the conditions relevant to built features within the Study Area.

In order to mitigate the potential subsidence impacts and environmental consequences from the mining of Longwalls 712 to 716 monitoring and recording will be undertaken prior to mining, throughout the extraction and at the completion of subsidence (refer Section 0).

In the event a subsidence impact is recorded, consideration will be given to implementing appropriate management, remediation and/or mitigation measures in consultation with relevant stakeholders (refer Section 6).

If the subsidence impact performance measures are exceeded, ICHPL will notify the appropriate stakeholders and implement the Contingency Plan (Section 7).

Table 5 Subsidence Impact Performance Measures

Built Features (Condition 3, Schedule 3)	
Key public infrastructure; • Main Southern Railway • Hume Highway; and • Key WaterNSW Infrastructure (Nepean Tunnel, Cataract Tunnel, Upper Canal, Broughtons Pass Weir and other Weirs)	Always safe and serviceable. Damage that does not affect safety or serviceability must be fully repaired.
Other public infrastructure (including water supply pipelines, high pressure gas pipelines; high pressure gas pipelines and the gas distribution network; electricity transmission and distribution lines; telecommunications cables and optical fibre networks; roads, trails and associated structures).	Always safe. Serviceability should be maintained wherever practicable. Loss of serviceability must be fully compensated.
Houses, industrial premises, swimming pools, farm dams, and other built features or improvements.	Damage must be fully repaired or compensated, or else the damaged built feature or damaged infrastructure component must be replaced.
Public Safety	Negligible additional risk.

Note. Not all of the above mentioned features are present in the Study Area (such as the Main Southern Railway and M31 Hume Motorway) as the subsidence impact performance measures in Schedule 3 relate to the entire BSO Area.

Further to the performance measures and requirements of the BSO Development Consent, coal mine subsidence impact to built features is also managed under a dedicated system established under the

CMSC Act, separate from the EP&A Act under which the Longwalls 712 to 716 Extraction Plan is approved. ICHPL also acknowledges that S 26(A) of the Coal Mine Subsidence Compensation Amendment Act 2024 empowers the Chief Executive of the Act to direct a mine operator to purchase the property at its value as if undamaged and with the owner's consent. ICHPL is committed to ensuring ongoing compliance with its statutory obligations as a mine operator under the CMSC Act, including associated regulations and amendments as well as applicable policies and procedures published by Subsidence Advisory NSW.

Monitoring and Reporting

5.1 Monitoring Program

The aim of monitoring and review programs is to ensure relevant and accurate data is gathered in a timely manner to allow appropriate decision making. Monitoring programs will be developed in consultation with the relevant infrastructure owner and undertaken with their prior consent. Further monitoring detail will be provided in the revised IMPs or PSMPs for each infrastructure item as appropriate.

5.2 Reporting

Monitoring results will be presented and reviewed at the fortnightly Structures Response Group Meetings. However, if the findings of monitoring are deemed to warrant an immediate response the Superintendent Infrastructure will initiate the requirements of the TARP developed as part of the IMPs and PSMPs.

ICHPL will notify Subsidence Advisory NSW of any PSMP TARP triggers that are related to property damage and relevant to Subsidence Advisory NSW administration of the Coal Mine Subsidence Compensation Act 2017.. The notification requirements will be identified in the PSMP TARP.

Monitoring results will be provided to infrastructure owners such as TfNSW, WSC, Australian Rail Track Corporation, Telstra, NBN Co, Sydney Water, Endeavour Energy, SA NSW and relevant government regulators as appropriate. Note, not all infrastructure owners have assets located within the Study Area for Longwalls 712 to 716.

Monitoring results will be made publicly available as required in accordance with BSO Approval Condition 8 & 11, Schedule 6 and will also be included in the Annual Reporting Condition 4, Schedule 6.

Monitoring results, survey data, longwall retreat position, and subsidence predictions for residential properties and steep slopes including razorback ridge will be provided to Subsidence Advisory NSW upon any request by an Authorised Officer where required under section 45 of the CMSC Act. ICHPL will also respond to any further information requests or enquiries made by an Authorised Officer in connection under sections 47 and 48 of the CMSC Act.

6. MANAGEMENT AND MITIGATION STRATEGIES

6.1 Built Features Management Plan Process

The management of subsidence impacts on built features has been successfully undertaken by ICHPL for several decades.

The BFMP process involves frequent consultation with infrastructure owners and key stakeholders, as well as thorough revision and planning. Each IMP is a live document and may be modified at any time (with relevant stakeholder input as required) to reflect monitoring outcomes and lessons learnt.

Each of the key infrastructure owners will be consulted and the existing IMPs for the built features in AA7 will be updated prior to any effects from the extraction of Longwalls 712 to 716. Individual PSMPs will be developed as required. The existing management plans that have been prepared in consultation with asset owners in AA7 are commercially sensitive and have not been attached to the BFMP. These documents can be provided upon request.

6.2 Consultation Process

ICHPL continues to consult with key stakeholders on a regular basis as part of current IMP's with regards to the management of their assets in current and future mining areas.

Each IMP and PSMP is developed in consultation with the relevant owner and will be provided to the infrastructure owner/manager prior to effects from longwall extraction. These Plans will include the following information:

- Background information on ICHPL and the mining operations.
- Specific features identified on the property and where applicable, any proposed additional infrastructure.
- Details of predicted subsidence impacts and associated probabilities of these impacts occurring.
- The expected timing of mine subsidence.
- A monitoring program to be undertaken by ICHPL and the infrastructure owner.
- Performance measures and indicators.
- Appropriate pre-mining mitigatory measures.
- Process for identifying and managing impacts, including the assistance ICHPL and SA NSW would provide to the infrastructure owner.
- A TARP developed in consultation with the infrastructure owners.

- Contact details and any further information from ICHPL for improvements to the process defined above.

6.3 Technical Committee

The current process undertaken at ICHPL for the management of major infrastructure with the potential to be at risk from mining induced subsidence is via the formation of a Technical Committee. The Technical Committee is comprised of asset owners, technical specialists, and ICHPL representatives.

Further development of each IMP will involve input from a Technical Committee developed specifically for each built feature. Meetings facilitated by the Technical Committee may also be attended by a representative from the Resources Regulator.

The Technical Committee will further develop management measures to ensure the safe operation of infrastructure during mining and will review the performance of the management measures following the mining of each longwall.

Modification to existing IMPs for AA7 and 9 will include a review and update of all relevant management measures.

6.4 Mitigation Measures

The BSO Approval Conditions (Condition 5 (g), Schedule 3) require that the BFMP recommends pre-mining mitigatory measures to reduce subsidence impacts where appropriate. The pre-mining mitigatory measures for the infrastructure within the Study Area will be detailed in IMPs. An overview of the proposed management measures for built features within the Study Area is provided below.

6.4.1 Main Southern Rail Line

The Main Southern Railway is located more than 1 km east of Longwalls 712 to 716. At this distance, the railway is not anticipated to experience measurable subsidence effects or adverse impacts.

6.4.2 M31 Hume Motorway

Hume Motorway is located more than 1 km east of Longwalls 712 to 716. At this distance, the motorway is not anticipated to experience measurable subsidence effects or adverse impacts.

6.4.3 Moreton Park Road Bridge (North)

ICHPL has an approved management plan for Moreton Park Road Bridge (North) for Longwalls 706 to 710 and Longwalls 901 to 904. These existing management strategies will be reviewed based on

the potential movements resulting from the extraction of the proposed longwalls. All necessary management measures will be in place before mine subsidence effects occur at the bridges.

6.4.4 Burrells Road Bridge

ICHPL has an approved management plan for Burrells Road Bridge for Longwalls 709 to 711. These existing management strategies will be reviewed based on the potential movements resulting from the extraction of the proposed longwalls. All necessary management measures will be in place before mine subsidence effects occur at the bridge.

6.4.5 Water Infrastructure

Water pipelines are located more than 1.1 km from the proposed Longwalls 712 to 716. At this distance, the potable water pipelines are not predicted to experience measurable conventional subsidence effects. It is not anticipated, therefore, that adverse impacts would occur to these pipelines due to the proposed mining.

The closest key Water NSW infrastructure, as identified in Section 5, to the proposed Longwalls 712 to 716 are the Upper Canal and Cataract Tunnel, which at closest points remain over 3 km from Longwall 712 with greater distances to successive longwalls. This infrastructure is not anticipated to experience subsidence effects, inclusive of far-field movement (within survey tolerances) as detailed in MSEC 2025. All key WaterNSW infrastructure identified in the performance measures (Section 5) are not anticipated to be impacted by the proposed Longwalls 712 to 716.

6.4.6 Electrical Infrastructure

ICHPL has an approved management plan for the powerlines. This existing management plan will be reviewed, in consultation with the infrastructure owner based on the potential movements resulting from the extraction of the proposed longwalls. All necessary management measures will be in place before mine subsidence effects occur on the infrastructure.

6.4.7 Telecommunications Infrastructure

ICHPL has an approved management plan for the telecommunications infrastructure for Longwalls 712 to 716. This existing management plan will be reviewed, in consultation with the infrastructure owner based on the potential movements resulting from the extraction of the proposed longwalls. All necessary management measures will be in place before mine subsidence effects occur on the infrastructure.

6.4.8 Other Assets

ICHPL will prepare PSMPs for all landholders within the Study Area¹. The PSMPs will be based on those prepared for the properties within AA7.

The PSMPs will address the management of all surface infrastructure including rural buildings and other assets on private properties. The PSMPs will be developed in consultation with the individual property and asset owners prior to subsidence effects at the property. Any mitigation measures will also be developed in consultation with the asset owner and SA NSW where required.

¹ Subject to landowner participation in the process.

7. CONTINGENCY RESPONSE PLAN

In the event the subsidence performance measures detailed in Section 5 of this BFMP are considered to have been exceeded, or are likely to be exceeded, ICHPL will implement a Contingency Plan to manage any unpredicted impacts and their consequences.

This will generally involve:

- Capture photographic record.
- Notify relevant stakeholders soon as practicable.
- Notify relevant agencies and specialists soon as practicable.
- Offer site visits with stakeholders.
- Contract specialists to investigate and report on changes identified.
- Provide incident report to relevant agencies.
- Establish weekly monitoring frequency where required until stabilised.
- Updates from specialists on investigation process.
- Inform relevant agencies and stakeholders of results of investigation.
- Develop site CMA in consultation with key stakeholders if required, (pending stakeholder availability) and seek approvals.
- Implement CMA as agreed with stakeholders following approvals.
- Conduct initial follow up monitoring and reporting of CMA completion.
- Review Management Plan.
- Report in regular reporting and Annual Review.

ICHPL will consult with appropriate specialists and relevant agencies to develop an appropriate response in respect to any identified exceedance.

The development and implementation of contingency measures will be specifically designed to address the circumstances of the exceedance.

If the contingency measures implemented by ICHPL fail to remediate the impact or the Secretary determines that it is not reasonable or feasible to remediate the impact, ICHPL will provide a suitable offset to compensate for the impact to the satisfaction of the Secretary in accordance with the BSO Approval Condition 4, Schedule 3.

7.1 Trigger Action Response Plan

A TARP will be developed in consultation with the infrastructure owners and provided in the IMPs.

8. COMPLAINTS AND COMPLIANCE MANAGEMENT

8.1 Incidents

An incident is defined in the BSO Approval as “An occurrence or set of circumstances that causes, or threatens to cause, material harm to the environment, and as a consequence of that environmental harm, may cause harm to the safety of human beings, and which may or may not be or cause a non-compliance”.

The reporting of incidents will be conducted in accordance with Condition 7, Schedule 6 of the BSO Approval. ICHPL will notify the Secretary of the DPHI via the NSW Planning Portal and any other relevant agencies of any incident associated with the BSO within 24 hours after ICHPL becomes aware of the incident. Within seven days of the date of the incident, ICHPL will provide the Secretary of the DPHI and relevant agencies with a detailed report on the incident.

An Incident Report will be prepared in accordance with Appendix 7 (3) of the BSO Approval and will:

- identify how the incident was detected;
- identify when ICHPL became aware of the incident;
- identify any actual or potential non-compliance with conditions of consent;
- details on the nature of the incident (including survey results, photographs and date of the incident);
- results of investigation(s) to identify/evaluate the contributing factors to and the cause of the incident;
- proposed course of action (including proposed timeline for implementation of corrective and preventative actions to address the incident and prevent recurrence) and development of contingency measures;
- details of any communication with other stakeholders regarding the incident; and
- relevant ICHPL contact details to obtain further information on the incident.

8.2 Complaints and Dispute Resolution

ICHPL has a readily accessible contact point through a 24-hour toll-free Community Call Line (1800 102 210) and email address (community@gm3.au). The number is displayed on the GM³ website, prominently on ICHPL Projects and Mine sites in a position visible by the public as well as on publications, letters and other correspondence provided to the local community. The call line is for all complaints and general enquiries regarding environmental or community issues associated with ICHPL operations.

Community complaints and enquiries may also be received in person by any employee of ICHPL, with details to be immediately shared with the Community Team for investigation. All complaints received in relation to Dendrobium Mine will be managed in accordance with the Handling Community Complaints, Enquiries and Disputes Procedure.

Upon receipt of a community complaint, preliminary investigations will commence as soon as practicable to determine the likely cause of the complaint. An initial response will be provided to the complainant within 24 hours of the complaint being made, with a follow up response being provided as soon as practicable once a more detailed investigation is complete.

A summary of all complaints received during the reporting year will be provided as part of the Annual Review. A log of complaints is also maintained on the GM³ website.

8.3 Non-Compliance, Corrective Action and Preventative Action

Non-compliances will be notified and reported in accordance with Condition 7A of Schedule 6 of the BSO Approval. ICHPL will notify the DPHI in writing via the NSW Planning Portal and will include the following information:

- the development including the development application number and name;
- the condition of consent that the development is non-compliant with and why it does not comply;
- the reasons for the non-compliance (if known);
- what actions have been undertaken or will be undertaken to address the non-compliance.

The BSO Approval states that “a non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.

9. PLAN ADMINISTRATION

This BFMP will be administered in accordance with the requirements of the Appin Mine Environmental Management Strategy (EMS) and the BSO Approval Conditions. A summary of the administrative requirements is provided below.

Roles and Responsibilities

Statutory obligations applicable to this Plan are identified and managed via an online compliance management system (TICKIT).

The overall responsibility for the implementation of this BFMP resides with the Manager Approvals who is the BFMP's authorising officer.

Parties responsible for environmental management in AA7 and the implementation of the BFMP include:

Director Sustainability and Government

- Ensure that the requisite personnel and equipment are provided to enable this BFMP to be implemented effectively.
- Authorise the BFMP and any amendments thereto.

Superintendent Infrastructure Protection

- Document any changes to the BFMP, recognising the potential for those changes to affect other aspects of the BFMP.
- Provide regular updates to ICHPL on the results of the BFMP.
- Arrange information forums for key stakeholders as required.
- Prepare any report in accordance with the BFMP. Maintain records required by the BFMP.
- Organise and participate in assessment meetings called to review mining impacts.
- Within 24 hours, respond to any queries or complaints made by members of the public in relation to aspects of this BFMP.
- Organise audits and reviews of the BFMP.
- Address any identified non-conformances, assess improvement ideas submitted and implement if considered appropriate.
- Arrange for the implementation of any agreed actions, responses or remedial measures.
- Ensure surveys required by this BFMP are conducted and record details of instances where circumstances prevent these from taking place.

Survey Coordinator

- Collate survey data and present in an acceptable form for review at assessment meetings.
- Bring to the attention of the Superintendent Infrastructure Protection any findings indicating an immediate response may be warranted.
- Bring to the attention of the Superintendent Infrastructure Protection any non-conformances identified with the Plan provisions or ideas aimed at improving the BFMP.

Technical Experts

- Conduct the roles assigned to them in a competent and timely manner to the satisfaction of the Superintendent Infrastructure Protection and formally provide expert opinion as requested.

Person(s) Performing Inspections

- Formally bring to the attention of the Superintendent Infrastructure Protection any nonconformances identified with the Plan, or ideas aimed at improving the Plan.
- Conduct inspections in a safe manner.

9.1 Resources Required

The Director Sustainability and Government provides resources sufficient to support this BFMP.

Equipment may be needed for this BFMP. Where this equipment is of a specialised nature, it will be provided by the supplier of the relevant service. All equipment is to be appropriately maintained, calibrated and serviced as required in operation manuals.

It is the responsibility of the Director Approvals and Government to ensure that personnel and equipment are provided as required to allow the provisions of this Plan to be implemented.

9.2 Training

All staff and contractors working on ICHPL sites are required to complete the ICHPL training program which includes:

- An initial site induction (including all relevant aspects of heritage, environment, safety and community).
- Safe Work Methods Statements and Job Safety Analyses, Toolbox Talks and Pre-shift communications.
- On-going job specific training and re-training (where required).

All training records are maintained by the ICHPL Training Department.

It is the responsibility of the General Manager Sustainability and Approvals to ensure that all persons and organisations having responsibilities under this Plan are trained and understand their responsibilities.

The person(s) performing regular inspections will be under the supervision of the Superintendent Infrastructure Protection and be trained in observation and reporting. The Superintendent Infrastructure Protection shall be satisfied that the person(s) performing the inspections are capable of meeting and maintaining this standard.

9.3 Review and Update

In accordance with Condition 5 of Schedule 6 of the BSO Approval, the BFMP will be reviewed, and if necessary revised, within three months, of:

- the submission of an Annual Review;
- the submission of an incident report;
- the submission of an Independent Environmental Audit (IEA) report; or
- any modification to the conditions of the BSO Approval (unless the conditions require otherwise).

If significant deficiencies in this BFMP are identified in the interim period, the Plan will be modified as required. This process has been designed to ensure that documentation continues to meet current requirements, including changes in technology and operational practice, and expectations of stakeholders.

10. REFERENCES

GHD, 2021. *Appin Area 7 and 9 Proposed Longwalls Landslide Risk Assessment relating to Mine Subsidence Influences*, March 2021. Report for South32 Illawarra Metallurgical Coal.

Mine Subsidence Engineering Consultants, 2009, *Bulli Seam Operations Subsidence Assessment*. Report for BHP Billiton Illawarra Coal.

Mine Subsidence Engineering Consultants 2021, *Appin Longwalls 709 to 711 and 905: Subsidence Predictions and Impact Assessments for the Natural and Built Features due to the Extraction of the Proposed Longwalls 709 to 711 and 905 at Appin Colliery*. Report for South32 IMC.

Mine Subsidence Engineering Consultants 2025, *Appin Longwalls 712 to 716: Subsidence Predictions and Impact Assessments for the Natural and Built Features due to the Extraction of the Proposed Longwalls 712 to 716 at Appin Mine*. Report for GM3.

SLR (2025) *Appin Area 7 Longwalls 712 to 716 Landslide Risk Assessment*. August 2025. Report for ICHPL.