



APPIN MINE AREAS 7 AND 9 LONGWALLS 709 TO 711 AND 905 PUBLIC SAFETY MANAGEMENT PLAN

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DOCUMENT REVISION LOG

Persons authorising this Plan

Name	Title	Date
Gary Brassington	Manager Approvals	July 2022

Document Revisions

Revision	Description of Changes	Date
ICH Document		
1.0	Original Document	July 2021
1.1	Administrative update	October 2021
1.2	Updated to address IAPUM advice	July 2022

Persons involved in the review of this Plan

Name	Title	Company	Exp (yrs)
Cody Brady	Principal Approvals	South32	5
Gary Brassington	Manager Approvals	South32	25
Richard Walsh	Superintendent Infrastructure Protection	South32	30+
Scott Ellerton	Infrastructure Engineer	South32	7

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1. INTRODUCTION

1.1 Project Background

South32 Illawarra Metallurgical Coal (IMC) operates the Bulli Seam Operations (BSO) 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 Public Safety Management Plan supports the Extraction Plan for mining of coal from Longwalls 709 to 711 in Appin Area (AA) 7 and Longwall 905 in AA9. The relationship between the Public Safety Management Plan and other components of the Extraction Plan is illustrated in Figure 1 of the Extraction Plan.

1.2 Scope

This Public Safety Management Plan has been prepared in accordance with the BSO Approval (MP 08_0150) Condition 5(I), Schedule 3 as follows:

5. 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:
- I) include a Public Safety Management Plan, which has been prepared in consultation with DRE, to ensure public safety in the mining area;

1.3 Objectives

The objectives of this Public Safety Management Plan are to identify risks within the Longwalls 709 to 711 and 905 Study Area and to outline management measures aimed at ensuring public safety with the mining areas.

1.4 Study Area

The Study Area for the Extraction Plan is defined in accordance with MSEC (2021) as the surface area predicted to be affected by the proposed mining of Longwalls 709 to 711 and 905 and encompasses the areas bounded by the following limits:

- A 35° angle of draw line from the maximum depth of cover, which equates to a horizontal distance varying between 530 m and 750 m around the limits of the proposed extraction areas for Longwalls 709 to 711 and 905; and
- The predicted limit of vertical subsidence, taken as the 20 mm subsidence contour, resulting from the extraction of the proposed Longwalls 709 to 711 and 905.

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.

The location of the Longwalls 709 to 711 and 905 Study Area within the BSO is shown in Figure 1.

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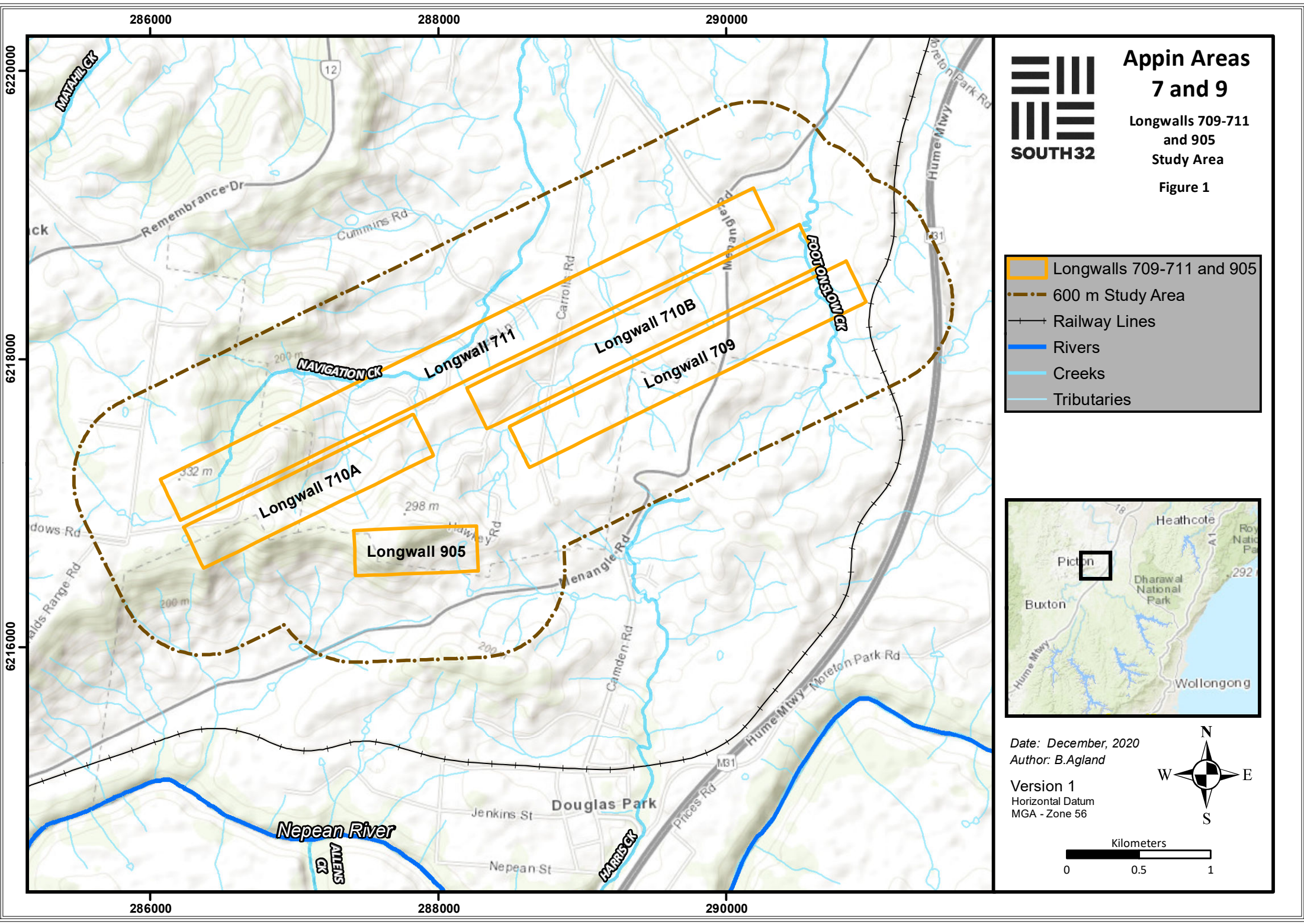
1.5 Consultation

This Public Safety Management Plan will be developed in consultation with the Resources Regulator and relevant stakeholders from the community, relevant authorities and infrastructure owners. The finalised Public Safety Management Plan will be distributed to:

- Department of Planning and Environment (DPE).
- Resources Regulator.
- Wollondilly Shire Council (WSC).
- Transport NSW.
- Australian Rail Track Corporation (ARTC).
- Infrastructure owners (e.g. Endeavour Energy).

IMC will make the Public Safety Management Plan and other relevant environmental documentation publicly available on the South32 website (Condition 11, Schedule 6).

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Appin Areas 7 and 9

Longwalls 709-711
and 905
Study Area

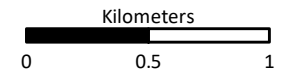
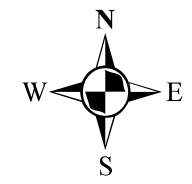
Figure 1

- Longwalls 709-711 and 905
- 600 m Study Area
- Railway Lines
- Rivers
- Creeks
- Tributaries



Date: December, 2020
Author: B.Aglad

Version 1
Horizontal Datum
MGA - Zone 56





2. STATUTORY REQUIREMENTS

Extraction of coal from Longwalls 709 to 711 and 905 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 Public Safety Management Plan to ensure public safety in the mining area (refer Section 1.2). This Public Safety Management Plan 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 MP Section
Condition 6, Schedule 3 The Proponent shall ensure that the management plans required under Condition 5 (g)-(I) above include: <ul style="list-style-type: none"> (a) an assessment of the potential environmental consequences of the Extraction Plan, incorporating any relevant information that has been obtained since this approval; (b) a detailed description of the measures that would be implemented to remediate predicted impacts. 	Section 4 Section 7
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: <ul style="list-style-type: none"> (a) detailed baseline data; (b) a description of: <ul style="list-style-type: none"> - 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: 	Section 3 Section 2 Section 4 Section 4 to 7 Section 5

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<ul style="list-style-type: none"> - 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;	Section 7
(f) a program to investigate and implement ways to improve the environmental performance of the project over time;	Section 9
(g) a protocol for managing and reporting any: <ul style="list-style-type: none"> - incidents; - complaints; - non-compliances with statutory requirements; and - exceedances of the impact assessment criteria and/or performance criteria; and 	Section 8
(h) a protocol for periodic review of the plan.	Section 9

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

2.2 Legislation and Guidelines

This Extraction Plan has been designed to conform to the requirements of the relevant advisory documents and guidelines and any other legislation that is applicable under the EP&A Act. The following Acts may be applicable:

- *Contaminated Land Management Act, 1997.*
- *Dangerous Goods Act, 1975.*
- *Mining Act, 1992.*
- *Biosecurity Act, 2015.*
- *Rail Safety National Law (NSW), 2012.*
- *Roads Act, 1993.*
- *Protection of the Environment Operations Act, 1997.*
- *Biodiversity Conservation Act, 2016.*
- *National Parks and Wildlife Act, 1974.*
- *Environmental Protection Biodiversity and Conservation Act, 1999.*
- *WaterNSW Act, 2014.*
- *Coal Mine Health and Safety Amended Act, 2010.*
- *Crown Lands Management Act, 2016.*
- *Dams Safety Act, 2015.*
- *Energy and Utilities Administration Act, 1987.*

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- *Fisheries Management Act, 1994.*
- *Water Management Act, 2000.*
- *Work Health and Safety Act, 2011.*

Further details of advisory documentation and guidelines can be found in the relevant Management Plans attached to this document.

2.3 Relevant Leases and Licences

The following licences or permits are applicable to IMC's operations in AA7 and 9:

- 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 via the following link <http://www.epa.nsw.gov.au/prpoeo/index.htm>
- BSO Mining Operation Plan (MOP) 1/10/2020 to 30/09/2024 (V1.3).
- 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, Licences and other Reference Documents

Mining Lease - Document Number	Start	Finish
CCL 767	29 Oct 1991	08 Jul 2029
CL 388	22 Jan 1992	22 Jan 2034
ML 1382	20 Dec 1995	20 Dec 2037
ML 1433	24 Jul 1998	23 Jul 2019 ¹
ML 1678	27 Sep 2012	26 Sep 2033

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

¹ Application for the renewal of Mining Lease 1433 which was lodged with the NSW Department of Planning and Environment – Division of Resources and Geoscience (Division) on 18 July 2018.

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3. BASELINE ASSESSMENT

Baseline data in relation to the potential consequences of mining is provided in the Extraction Plan and supporting reports. Reports relevant to public safety include:

- Subsidence Predictions and Impact Assessment Report (Appendix A of the Extraction Plan) which describes the potential subsidence impacts to natural and built features.
- Land Management Plan (LMP) (Appendix E of the Extraction Plan) which describes potential consequences on cliffs, overhangs, steep slopes and land in general.
- Built Features Management Plan (Appendix H of the Extraction Plan) which describes potential consequences for the following surface infrastructure:
 - Main Southern Rail Line;
 - M31 Hume Highway and Nepean Twin Bridges;
 - Public roads;
 - Moreton Park Road Bridge (North) and Moreton Park Road Bridge (South);
 - Electricity assets; and
 - Telecommunications.

3.1 Land Management Plan

3.1.1 Cliffs and Overhangs

A description and location of the cliffs and overhangs within the Study Area are provided by MSEC (2021). The LMP provides a summary of the baseline data compiled by MSEC as well as an assessment of the potential for environmental consequences on cliffs and overhangs from longwall extraction in the Study Area.

A description of the cliffs and overhangs within the Study Area and nearby is summarised below:

- The cliffs and minor cliffs within the Study Area have been identified from the LiDAR surface level contours and from site investigations.
- The locations of the cliffs are shown in Drawing No. MSEC1117-08.
- Cliffs have been identified in the western part of the Study Area along Razorback Range. These cliffs have formed in the sandstone members of the Wianamatta Group.
- The cliffs have overhang depths ranging between 1 m and 3 m. Natural fracturing and dislodged rocks are evident in a number of cliffs. There is also minor water seepage visible on the faces of the cliffs.
- Cliffs have also been identified along the Nepean River and Harris Creek; however, these features are located outside the Study Area and are at distances of more than 1 km from the proposed longwalls.

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- Minor cliffs and rock outcrops have also been identified within the Study Area. These rock features are generally located along Razorback Range and the steeper sections of the streams.

3.1.2 Harris Creek and Nepean River Cliffs

Cliffs have also been identified along the Nepean River and Harris Creek; however, these features are located outside the Study Area and are at distances of more than 1 km from the proposed longwalls.

3.1.3 Steep Slope Stability

Steep slopes within the Study Area were identified by MSEC (2021). Slope instability has historically occurred along Razorback Range and Douglas Park Ridge as part of the natural processes that occur in the region.

A slope stability assessment was therefore undertaken at these locations by GHD (2021) to assess the potential effects of longwall mining on the known hazards at these slopes. The results of these studies are provided in the LMP.

Mass movement of steep slopes is unlikely to be induced by the proposed mining activities. Notwithstanding, IMC will develop and implement ongoing monitoring in consultation with potentially affected landowners through the Property Subsidence Management Plan process. Any mitigation or management measures would also be developed and implemented in consultation with the affected landowner through this process.

3.1.4 General Land – Non Conventional Ground Movements

Longwall mining can result in deformation such as surface cracking, heaving, buckling and stepping at the ground surface. The extent and severity of these deformations are dependent on a number of factors such as mine geometry, depth of cover, overburden geometry, jointing in the bed rock, and the presence of near surface geological structures.

The factors contributing to the extent and severity of ground deformation have been carefully considered and incorporated into the final design of the proposed longwalls.

The depth of cover to the Bulli Seam within the Study Area varies between a minimum of 530 m and a maximum of 750 m. Non-conventional movements result from increased horizontal movements in the downslope direction where longwalls are extracted beneath steep slopes. In these cases, elevated tensile strains develop near the tops and on the sides of the steep slopes and elevated compressive strains develop near the bases of the steep slopes. The potential impacts resulting from the increased horizontal movements include the development of tension cracks at the tops and on the sides of the steep slopes and compression ridges at the bottoms of the steep slopes.

3.2 Built Features Management Plan

The management of private assets and infrastructure items will be addressed in the Built Features Management Plans (BFMPs), PSMPs and associated agreements between IMC and the relevant infrastructure or property owners as shown in Table 3. It is intended that these Plans will be submitted to DPE separately from this application prior to the commencement of mining of the proposed longwalls.

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Table 3 Built Features Monitoring and Reporting

Asset Type	Management Mechanism
Houses, Farm Dams, Other Buildings and Infrastructure	PSMP to be negotiated with property/asset owners
Roads	<p>Longwalls 709-711 & 905 Public Road Management Plan. July 2022.</p> <p>Longwall 905 Built Structures Management Plan. June 2022.</p> <p>Longwall 709 Built Structures Management Plan Revision 3 dated 22 February 2022.</p>
Rail	<p>Longwall 905 Management Plan for the Main Southern Railway. July 2022.</p> <p>Management Plan for Longwalls 706 to 710 mining beneath the Main Southern Railway. Revision D, 23 June 2020.</p> <p>This agreement will also cover other features associated with the rail line such as culverts, level crossings and signalling systems.</p>
Electrical Infrastructure	<p>TransGrid Management Plan, Revision 3. 2012.</p> <p>Longwalls 709-711 & 905 Endeavour Energy. July 2022.</p>
Telecommunication Infrastructure	<p>AAPT Longwalls 707 to 710 Management Plan, Rev 1, August 2016.</p> <p>Nextgen Longwalls 707 to 710 Management Plan, Rev 1, August 2015.</p> <p>Telstra Longwalls 707 to 710 Management Plan, Rev 1, May 2015.</p> <p>Telstra Longwalls 901 to 902 Management Plan, Rev 1, August 2015.</p> <p>Longwalls 709-711 & 905 Axicom Telecommunications Tower. July 2022.</p>
Culverts	<p>Longwall 905 Management Plan for the Main Southern Railway. July 2022.</p> <p>Management Plan for Longwalls 706 to 710 mining beneath the Main Southern Railway. Revision D, 23 June 2020.</p>
Water Mains	Update existing agreements with Sydney Water.



WaterNSW Infrastructure	Subject to visual inspections.
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4. PERFORMANCE MEASURES AND INDICATORS

The BSO Approval provides Subsidence Impact Performance Measures (Condition 3, Schedule 3) for a range of factors that may influence public safety as per Table 4 below.

These include the performance criteria for Land and Built Features. For Public Safety directly, the requirement is for negligible additional risk. “Negligible” is defined within the Project Approval as *“small and unimportant, such as not to be worth considering”*.

Table 4 Subsidence Impact Performance Measures (BSO Approval)

Land (Condition 1 Schedule 3)	
Cliffs of ‘Special Significance’ (i.e. cliffs no longer than 200 m and/or higher than 40 m; and cliff-like rock faces higher than 5 m that constitute waterfalls).	Negligible environmental consequences (that is occasional rock falls, displacement or dislodgement of boulders or slabs, or fracturing, that in total do not impact more than 0.5% of the total face area of such cliffs within any longwall mining domain).
Other cliffs flanking the Nepean River.	Negligible environmental consequences (that is occasional rock falls, displacement or dislodgement of boulders or slabs, or fracturing, that in total do not impact more than 0.5% of the total face area of such cliffs within any longwall mining domain).
Other cliffs.	Minor environmental consequences (that is occasional rock falls, displacement or dislodgement of boulders or slabs, or fracturing, that in total do not impact more than 3% of the total face area of such cliffs within any longwall mining domain).
Built Features (Condition 3 Schedule 3)	
Key public infrastructure: <ul style="list-style-type: none"> • Main Southern Rail Line; • M31 Hume Highway and Nepean Twin Bridges; and • Public roads. 	Always safe and serviceable. Damage that does not affect safety or serviceability must be fully repairable and must be fully repaired.
Other public infrastructure (including water supply pipelines; high pressure gas pipelines and the gas distribution network; electricity transmission and distribution lines;	Always safe. Serviceability should be maintained wherever practicable. Loss of serviceability must be fully compensated.

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telecommunications cables and optical fibre networks; roads trails and associated structures). Houses, industrial premises, swimming pools, farm dams and other built features or improvements.	Damage must be fully repaired or fully compensated, or else the damaged built feature or damaged infrastructure component must be replaced.
Public Safety (Condition 3 Schedule 3)	
Public Safety.	Negligible additional risk.

Not all of the above features are present in the Study Area as the subsidence impact performance measures in Schedule 3 relate to the entire BSO Area.

It is considered that the above factors represent the principal sources of risk to persons and built features within the Study Area and surrounding cliff lines. Management and mitigation strategies in relation to the hazards identified are provided in Section 6.

5. MONITORING AND REPORTING

5.1 Monitoring Program

5.1.1 Cliffs and Overhangs, Steep Slopes and Land

IMC will implement monitoring programs within the Study Area. The monitoring is designed in consideration of surveys undertaken prior to mining, discussions with landholders and infrastructure owners as well as studies by GHD (2021) and in accordance with the Land Management Plan. Monitoring will be undertaken on the Razorback Range and where built features are located near steep slopes that may be susceptible to failure. Monitoring implemented on private property will be undertaken in consultation with and the agreement of the landowner.

The following stages of monitoring will be undertaken:

- Stage 1 – Monitoring prior to mining. Background environment and geotechnical data will be collected to assess the current range of conditions at nominated locations.
- Stage 2 – Monitoring during mining. Including the documentation of environmental conditions such as natural variations based on the weather (temperature, wind, rainfall etc.) and possibly any variations induced by mining.
- Stage 3 – Monitoring of any mitigation and rehabilitation following mining.

A number of monitoring options are available (with the permission of the landholder) for the recording of environmental and geotechnical conditions within the Study Area. These are described below:

Surface Monitoring

- Survey – a series of survey lines or pegs would be established at nominated locations. Survey pegs extend up to 1 m into the ground or to refusal to ensure shrink-swell seasonal type ground displacements are minimised. Survey points are also established on fixed surface features such as buildings, concrete pavements, trees and other stable points.

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- Global Navigation Satellite Systems (GNSS) or Global Positioning System (GPS) monitoring.
- Repeat ALS surveys.
- Installation of piezometers to monitor groundwater level within and/or downhill of identified slopes that present an increased risk to property. The inclinometer casing is installed in boreholes drilled through the soil mass and rock. Groundwater levels would be recorded by data loggers with regular downloads of recorded information, or alternatively by real time monitoring. Groundwater levels would then be plotted against rainfall and mine subsidence to assess whether slope instability is increasing and presenting a risk to property.²
- Monitoring of slope stability by inclinometer at steep slopes. Inclinometers would be monitored at regular intervals before the commencement of mining and during the anticipated period of subsidence. In conjunction with the above monitoring methods this will provide information on the rate of any movement at depth.

Inspections will also be undertaken by IMC (with the approval of the landholder) prior to and during mining at nominated locations. On ground inspections will include recording the following details by an experienced geotechnical engineer familiar with slope behaviour:

- The date of inspection.
- The location of longwall extraction.
- The location of any cliff instability (i.e. freshly exposed rock face and debris scattered around the base of the cliff or overhang) relative to the cliff face or overhang.
- The nature of any cliff instability.
- Other aspects such as water seepage (which can indicate weaknesses in the rock).
- Whether actions are required (e.g. implementation of management measures, initiation of the relevant Contingency Plan, incident notification, implantation of appropriate safety controls, review of public safety, etc.).
- Any other relevant information.

5.1.2 Built Features

Details of monitoring to ensure the performance measure of 'safe' in relation to the infrastructure is detailed in the relevant asset agreements, PSMPs and the BFMPs.

The relevant process for each feature or type of feature within the Study Area is documented in Table 3 with these agreements to be in place prior to the commencement of mining.

With regards to the monitoring and mitigation of impacts to built features, Subsidence Advisory NSW will also be involved as required.

² Note the requirement to use piezometers and slope inclinometers will be assessed on a case by case basis and in consultation with the landowner as part of the PSMP process.

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5.2 Reports

The results of regular monitoring will be provided to infrastructure and asset owners in accordance with the individual agreements between the owners and IMC. In some cases this will include regular reporting to steering and/or technical committees in addition to IMC's regular reporting.

Results from the monitoring program will be reported in the Annual Review. This report will:

- detail the outcomes of monitoring undertaken;
- provide results of visual inspections;
- determine whether performance indicators have been exceeded; and
- whether Corrective Management Actions (CMAs) are required.

Monitoring results will be reviewed monthly by the IMC Subsidence Management Committee. However, if the findings of monitoring are deemed to warrant an immediate response the Principal Approvals will initiate the requirements of the LMP TARP and the actions detailed in the PSMP's and BFMP's.

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

6. MANAGEMENT AND MITIGATION STRATEGIES

Management and mitigation strategies will be undertaken as appropriate or required following the results of monitoring and in consultation with the landowner as provided in Section 5, the LMP and individual BFMPs. These management and mitigation measures will be implemented in conjunction with the following safety controls.

Controls that apply to the safety hazards identified in Section 4 are discussed below:

- Signs will be prominently displayed at any rock, cliff face or steep slope that has been identified as susceptible to failure as a result of the mining. Signposts will warn specifically of the risk. Where they are to be installed on private or public property this will only be done with the agreement of the landholder or relevant authority.
- The location of all signs, fences, and other remedial or warning provisions established will be marked on a Plan. This Plan will be maintained as a record of any remedial measures instituted during mining.

6.1 Limitations

While it is the intention of IMC to maintain safety at all times, there are certain limitations that need to be recognised, despite the fact that mining induced cliff and slope instability is considered to be unlikely within AA7 and 9. Limitations include:

- There is natural instability associated with the cliff faces and edges in the area.
- The interaction of mining induced movements on the natural instability of cliff faces and overhangs cannot be fully quantified.
- Results from inspections, photographing and monitoring cliff faces and steep slopes in more heavily vegetated areas, such as within the Nepean River gorge will not be as precise as non-vegetated areas.

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- In the absence of information to the contrary, it has been assumed that the effects of mining will be similar in nature and magnitude to those associated with previous longwalls located in similar areas and the initial controls implemented will be based on this assumption.
- It is difficult to quantify the risks associated with rock falls and while the probability of resultant injuries may be remote, the potential consequences are severe. Controls will be implemented on this basis.
- At the request of and with the approval of landholders, warning signs will be prominently displayed at areas of risk. Observational monitoring will be undertaken from the Nepean River.

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7. CONTINGENCY RESPONSE PLAN

Contingency and emergency response options are available and will be implemented if it is demonstrated that environmental consequences are greater than those predicted or authorised by the BSO Consent. This would 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 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.

IMC will consult with appropriate specialists and relevant agencies in order to devise 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 and assessment of environmental consequences.

If the contingency measures implemented by IMC fail to remediate the impact or the Secretary determines that it is not reasonable or feasible to remediate the impact, IMC will provide a suitable offset to compensate for the impact to the satisfaction of the Secretary in accordance with the BSO Approval Condition 2 and 4, Schedule 3.

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8. COMPLAINTS AND COMPLIANCE MANAGEMENT

8.1 Incidents

IMC will notify DPE and any other relevant agencies of any incident associated with the BSO as soon as practicable after IMC becomes aware of the incident. IMC will provide DPE and any relevant agencies with a detailed report on the incident within seven days of confirmation of any event.

In relation to impacts to built features the assets owner and Subsidence Advisory NSW will also be notified as soon as practicable so the appropriate mitigation and management can be undertaken.

8.2 Complaints and Dispute Resolution

IMC has a 24 hour, free call community hotline number (1800 102 210) and email address (illawarracommunity@south32.net) through which all complaints and general enquiries regarding environmental or community issues associated with IMC's operations can be reported.

All complaints received in relation to Appin Mine are 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 using information such as activities being undertaken on site at the time or area 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 South32 website at:

<https://www.south32.net/our-business/australia/illawarra-metallurgical-coal/documents>.

8.3 Non-Compliance, Corrective Action and Preventative Action

Events, non-compliances, corrective actions and preventative actions are managed in accordance with the Reporting and Investigation Standard and Environmental Compliance/Conformance Assessment and Reporting Procedure. These procedures, which relate to all IMC operations, detail the processes to be utilised with respect to event and hazard reporting, investigation and corrective action identification. The key elements of the process include:

- identification of events, non-conformances and/or non-compliances;
- recording of the event, non-conformance and/or non-compliance in the event management system G360;
- investigation/evaluation of the event, non-conformance and/or non-compliance to determine specific corrective and preventative actions;
- assigning corrective and preventative actions to responsible persons in G360; and
- review of corrective actions to ensure the status and effectiveness of the actions.

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Exceedances or non-compliances with public safety related criteria will be reported to all relevant agencies via the Annual Review or notified in accordance with Section 7.

For any incident, as defined by the BSO Approval, IMC will notify the Secretary and any other relevant agencies as soon as practicable after IMC identifies or is made aware of the incident.

9. PLAN ADMINISTRATION

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

9.1 Roles and Responsibilities

Statutory obligations applicable to this Plan are identified and managed via an online compliance management system (TICKIT). The online system can be accessed from the link below:

<https://illawarracoal.tod.net.au/login>.

The overall responsibility for the implementation of this Public Safety Management Plan resides with the Manager Approvals who is the Public Safety Management Plan's authorising officer.

Parties responsible for environmental management in AA7 and 9 and the implementation of the Public Safety Management Plan include:

Manager Approvals

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

Principal Approvals

- Document any changes to the Public Safety Management Plan, recognising the potential for those changes to affect other aspects of the Public Safety Management Plan.
- Provide regular updates to IMC on the results of the Public Safety Management Plan.
- Arrange information forums for key stakeholders as required.
- Prepare any report in accordance with the Public Safety Management Plan. Maintain records required by the Public Safety Management Plan.
- 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 Public Safety Management Plan.
- Organise audits and reviews of the Public Safety Management Plan.
- Address any identified non-conformances, assess improvement ideas submitted and implement if considered appropriate.

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- Arrange for the implementation of any agreed actions, responses or remedial measures.
- Ensure surveys required by this Public Safety Management Plan are conducted and record details of instances where circumstances prevent these from taking place.

Environmental Field Team Coordinator

- Instruct suitable person(s) in the required standards for inspections, recording and reporting and be satisfied that these standards are maintained.
- Investigate significant subsidence impacts.
- Identify and report any non-conformances with the Public Safety Management Plan.
- Participate in any other assessment meetings called to review subsidence impacts in the area affected by mining.

Survey Coordinator

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

Technical Experts

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

Person(s) Performing Inspections

- Formally bring to the attention of the Environment Field Team Coordinator any nonconformances identified with the Plan, or ideas aimed at improving the Plan.
- Conduct inspections in a safe manner.

9.2 Resources Required

The Manager Approvals provides resources sufficient to support this Public Safety Management Plan.

Equipment may be needed for this Public Safety Management Plan. 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 Manager Approvals to ensure that personnel and equipment are provided as required to allow the provisions of this Plan to be implemented.

9.3 Training

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

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- 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 Preshift communications.
- On-going job specific training and re-training (where required).

All training records are maintained by the IMC Training Department.

It is the responsibility of the Manager 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 Environment Field Team Coordinator and be trained in observation and reporting. The Environment Field Team Coordinator shall be satisfied that the person(s) performing the inspections are capable of meeting and maintaining this standard.

9.4 Review and Update

In accordance with Condition 5 of Schedule 6 of the BSO Approval, the Extraction Plan 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 Public Safety Management Plan 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.

MSEC 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.

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