

1. Introduction

This document provides an update on the status of Tahmoor Coal's measures to manage potential risks to built structures during the extraction of LWs S1A to S6A. The risk management measures are described in the *Management Plan for potential impacts to Built Structures*, Plan No. MSEC1193-09, Revision B, which will be referred in this document as the "Management Plan".

At the time of drafting the Management Plan and prior to the commencement of LW S1A, site inspections, hazard identifications and risk management measures were documented in detail for managing potential risks to built structures that were expected to experience mine subsidence movements due to the extraction of LWs S1A and S2A.

The Management Plan described Tahmoor Coal's commitment to continue to conduct site inspections, hazard identification inspections and install monitoring and other management measures before each structure would experience mine subsidence movements due to the extraction of LWs S1A to S6A.

Tahmoor Coal also committed to reviewing Table A.1 of the Management Plan, which summarises the findings and recommendations from the hazard identification inspections prior to each structure experiencing mine subsidence. Tahmoor Coal has developed hazard identification inspections and implemented monitoring and management measures for structures that are predicted to experience mine subsidence movements due to the extraction LW S3A and for the great majority of structures that are predicted to experience mine subsidence movements due to the extraction LW S4A.

This document provides an update on the status of Tahmoor Coal's risk management measures, as listed below:

- a) An update on the current mine plan;
- b) An update on the status of pre-mining inspections and hazard identification inspections;
- c) An update to Table A.1 Hazard Identification and Engineering Controls for LWs S1A to S4A;
- d) An update on structures that are planned to be visually inspected during active subsidence; and
- e) An update to the Monitoring Plan.

2. Change to mine layout

Since the Management Plan was developed, Tahmoor Coal has shortened LW S3A by approximately 104 metres and has shortened LW S4A by approximately 104 metres at their commencing ends. The effect of the change is to very slightly reduce the amount and extent of subsidence that will be experienced to built structures that are located near the commencing ends of LWs S3A and S4A. Further information on subsidence predictions is provided in Report No. MSEC1446 (MSEC, 2024).

On a separate matter, Tahmoor Coal has submitted a Modification to the development consent to extract LW S7A to the side of LW S6A. The proposed LW S7A will extract directly beneath some built structures along Yarran Road. Whilst LW S7A has been included in Drawing No. MSEC1193-01 01, Tahmoor Coal cannot extract the longwall until the Department of Planning, Housing and Infrastructure approves the proposed modification to Tahmoor Coal's development consent. Tahmoor Coal proposes to amend the Management Plan to include LW S7A at a later time.

3. Pre-mining hazard identification inspections by structural engineer

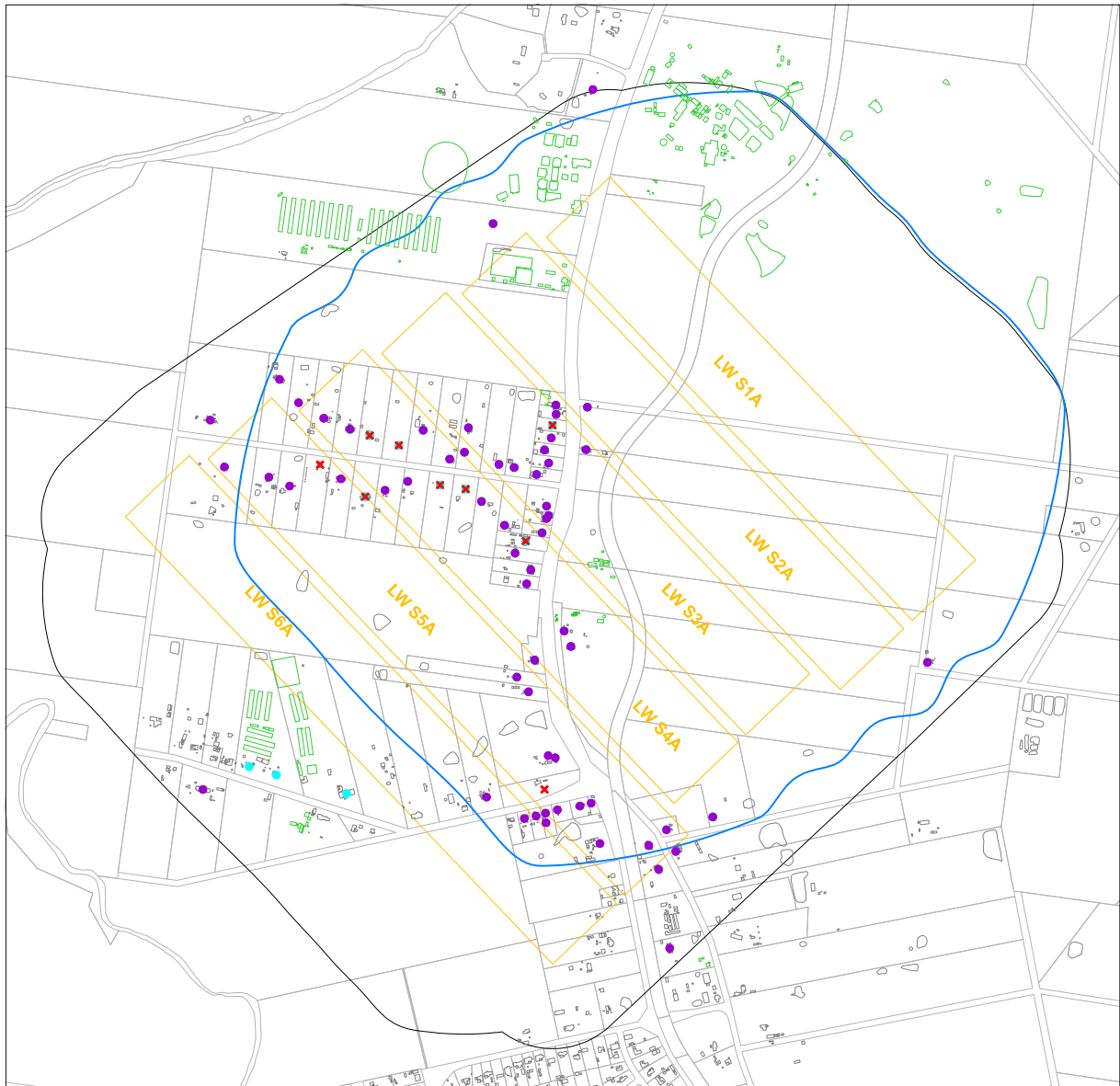
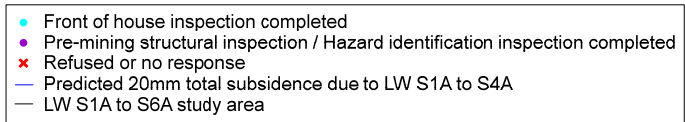
As required in Section 6.6.3 of the Management Plan, Tahmoor Coal appointed structural engineer John Matheson & Associates to conduct pre-mining hazard inspections prior to the influence of subsidence, where access is provided by the landowner. A pre-mining inspection was conducted at the same time.

The locations of residential structures where hazard identification inspections were completed by John Matheson & Associates prior to commencement of extraction of LW S1A were shown in Fig. 6.2 of the Management Plan. An updated map showing the locations of completed hazard identification inspections is provided in Figure 1.

A total of 9 properties have either refused or not responded to Tahmoor Coal's requests to conduct a pre-mining hazard identification inspection. The locations of these properties are also shown in Figure 1.

All properties that required a pre-mining hazard identification inspection prior to the influence of LW S3A have been inspected, with the exception of the properties that have either refused an inspection or not

responded. A pre-mining hazard identification inspection is planned to be conducted at 1 property on Yarran Road prior to the influence of LW S4A, pending approval from the landowner.



Note: all properties that are predicted to experience more than 20 mm of incremental subsidence have been offered a pre-mining hazard identification inspection.

Figure 1 Residential structures where hazard identification inspections have been completed

4. Table A.1 Hazard Identification and Engineering Controls for LWs S1A to S4A

Prior to influence of LW S3A on houses, the Structures Response Group (SRG) met on 29 August 2024 to review the findings from the pre-mining hazard inspections by John Matheson & Associates, using the Pre-Mining Inspection Reports as a record of the inspection.

Table A.1 of the Management Plan, which summarises the findings from the hazard identification inspections and engineering controls was updated based on the review. The updated Table A.1 (Revision B) is attached to this document.

The SRG noted that two residential properties include a retail operation.

- a) As noted in Table A.1, one room in Structure BRE_167_h01 is used for a florist business. The SRG agreed that the mine subsidence risks for this property are similar to the risks for other residential structures in the area. The property will, therefore, be managed under the Management

Plan rather than developing a separate Property Subsidence Management Plan (PSMP) for the florist business.

- b) As noted in Table A.1, a property with reference of BGR_230 includes a weatherboard structure that is used as a hobby train business. The SRG agreed that the mine subsidence risks for this property are similar to the risks for other residential structures in the area. The property will, therefore, be managed under the Management Plan rather than developing a separate Property Subsidence Management Plan (PSMP) for the hobby train business. It was further noted that the weatherboard structure is predicted to experience less than 20 mm of vertical subsidence due to the extraction of LWs S1A to S7A.

5. Structures that are planned to be visually inspected during active subsidence

As required in Section 6.6.6 of the Management Plan, Tahmoor Coal is conducting weekly visual inspections for selected properties when they are located within the active subsidence zone, where access is provided by the landowner.

When conducting its review of the pre-mining hazard inspections, the SRG recommended that weekly visual inspections be conducted at some properties, as summarised in Table A.1. The locations of properties where weekly visual inspections were planned to be conducted prior to the commencement of LW S1A were shown in Figure 6.3 of the Management Plan. An updated map showing the locations of planned weekly visual inspections is provided in Figure 2

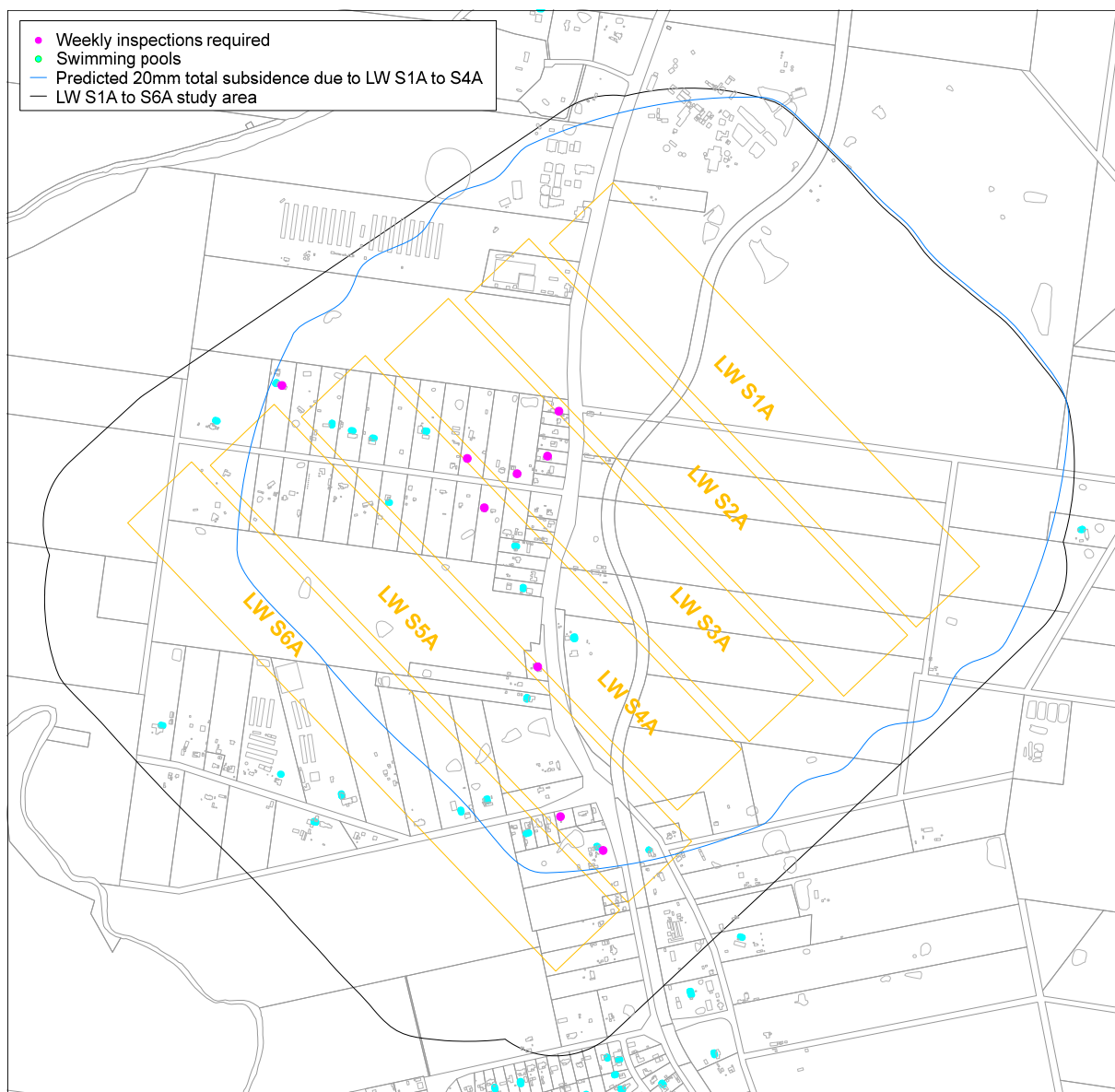


Figure 2 Planned weekly visual inspections during active subsidence

Two pools that were previously identified in Fig. 6.3 of the Management Plan have since been removed and, therefore, no longer require weekly visual inspections.

Geotechnical engineer Douglas Partners have completed dam break analyses for eight farm dams since the Management Plan was developed. The assessments indicated that the dam walls would not be adversely impacted by the proposed longwall mining and no hazard reduction works will be required to protect the farm dams from mine subsidence impacts. In the unlikely event of a failure of the dam walls, it is considered that the impacts downstream would be relatively minor.

In light of the assessment by Douglas Partners, Tahmoor Coal updated in Version 5 of the Land Management Plan (Tahmoor Coal, 2024). The monitoring program in the Land Management Plan included a change to monitoring of farm dams from monthly by a geotechnical engineer and weekly by a building inspector during the period of active subsidence for each dam, to monthly by a geotechnical engineer during the period of active subsidence for each dam only. Additional inspections can be conducted by either the geotechnical engineer or building inspector as required if impacts are observed.

The change in monitoring procedures represents the only change to Table 6.1 Risk control procedures in the Management Plan. The change to monitoring was described in the Land Management Plan, which was approved by the Department of Planning, Housing and Infrastructure on 14 August 2024.

6. Monitoring Plan

A plan showing the locations of survey marks installed or planned above LWs S1A to S6A are shown in Drawing No. MSEC1193-01-01, which has been updated since the Management Plan was developed.

The locations of properties that have agreed to install survey prior to the commencement of extraction of LW S1A were shown in Fig. 6.5 of the Management Plan. An updated map of Fig. 6.5 is provided in Figure 3.

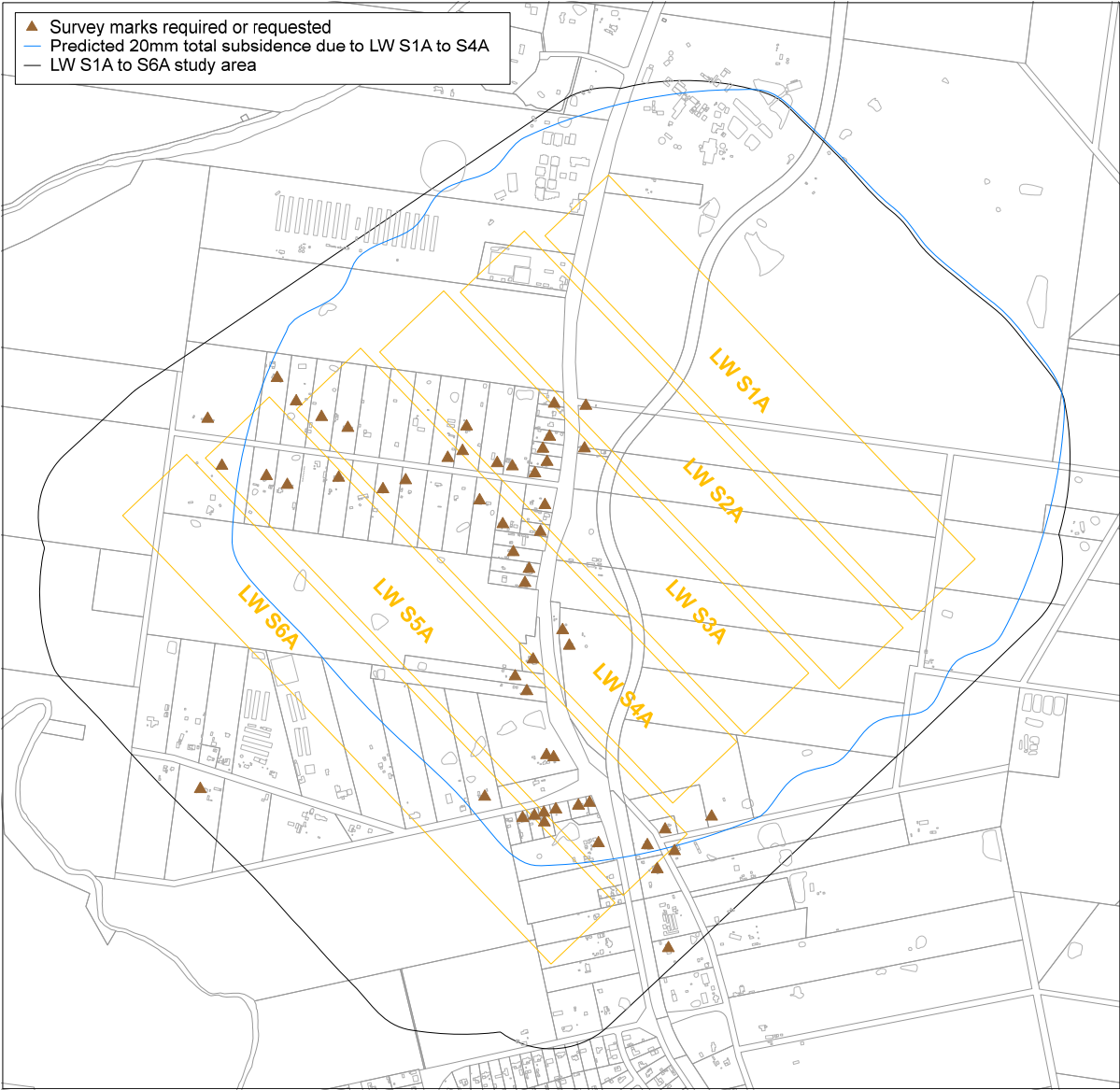


Figure 3 Properties for which survey marks are required or have been requested

References

- MSEC (2022). *Tahmoor Coal Longwalls S1A to S6A – Management Plan for potential impacts to Built Structures*, Mine Subsidence Engineering Consultants, Plan No. MSEC1193-09, Revision B, October 2022.
- MSEC (2024). *Tahmoor Coal – Longwall S4A – The effects of the proposed modification to the commencing end of LW S4A on previous subsidence predictions and impact assessments*, Mine Subsidence Engineering Consultants, Report No. MSEC1446, Revision A, September 2024.
- Tahmoor Coal (2024) *Land Management Plan – Tahmoor South Domain – Longwalls South 1A – South 6A*, Tahmoor Coal, Doc Number TAH-HSEC-00362, Version 5, June 2024.

Attachments

Table A.1	Hazard Identification and Engineering Controls for LWs S1A to S4A	Revision B
MSEC1193-01-01	Subsidence Monitoring Plan	Revision C

**Table A.1 - Hazard Identification and Engineering Controls for LWs S1A to S4A
Revision B**

Structure Reference	Structure Type	Description	Hazard identification and recommendations by structural engineer	Hazard identification and recommendations by geotechnical engineer	Mine operator's management actions in response to engineers' recommendations	Requirement for a Subsidence Hazard Mitigation Plan	Expected active subsidence period affecting property
BCA_010_h01	H	House	No issues identified.	Not required.	No additional management actions required.	No	LW S4A: Oct-25 to Dec-25
BCA_015_h01	H	House	No issues identified.	Not required.	No additional management actions required.	No	LW S4A: Sep-25 to Dec-25
BCA_020_h01	H	House	No response from owner to requests to inspect property to date.	Not required.	Continue to request inspection of property.	No	LW S4A: Sep-25 to Dec-25
BCA_025_h01	H	House	No issues identified.	Not required.	No additional management actions required.	No	LW S4A: Sep-25 to Dec-25
BCA_030_h01	H	House	No response from owner to requests to inspect property to date.	Not required.	Continue to request inspection of property.	No	LW S4A: Aug-25 to Dec-25
BCA_035_h01	H	House	No issues identified. A fenced pool is on the property.	Not required.	No additional management actions required. Inspect pool fence and gates during active subsidence.	No	LW S4A: Aug-25 to Dec-25
BCA_040_h01	H	House	No issues identified.	Not required.	No additional management actions required.	No	LW S4A: Aug-25 to Dec-25
BCA_045_h01	H	House	No response from owner to requests to inspect property to date.	Not required.	Continue to request inspection of property.	No	LW S4A: Aug-25 to Nov-25
BCA_050_h01	H	House	Owner refused PMI	Not required.	Continue to request inspection of property.	No	LW S4A: Jul-25 to Oct-25
BCA_055_h01	H	House	No issues identified. An automatic sliding gate is on the property.	Not required.	Baseline survey sliding entry gate completed. Impacts observed during LW S3A to sliding gate and driveway. Inspect weekly during LW S4A.	No	LW S4A: Jul-25 to Oct-25
BCA_060_h01	H	House	No issues identified.	Not required.	No additional management actions required.	No	LW S4A: Jul-25 to Sep-25
BCA_065_h01	H	House	A free-standing brick wall is located between the main residence and the double garage. It is recommended that the wall be monitored for tilt during periods of active subsidence.	Not required.	Monitor tilt of free-standing brick wall during periods of active subsidence.	No	LW S4A: Jul-25 to Oct-25
BCA_070_h01	H	House	No issues identified.	Not required.	No additional management actions required.	No	LW S4A: Jul-25 to Oct-25
BCA_075_h01	H	House	A timber-framed patio awning is bolted to the brick veneer wall along the eastern elevation of the house.	Not required.	Property owner will not allow further access. Monitor the bolts connecting the patio awning to the brick veneer wall along the eastern elevation of the house.	No	LW S4A: Aug-25 to Nov-25
BCA_075_h02	H	House	No issues identified.	Not required.	No additional management actions required. Property owner will not allow further access.	No	LW S4A: Aug-25 to Dec-25
BCA_080_h01	H	House	No issues identified.	Not required.	No additional management actions required.	No	LW S4A: Aug-25 to Nov-25
BCA_085_h01	H	House	No issues identified.	Not required.	No additional management actions required.	No	LW S4A: Sep-25 to Dec-25
BCA_090_h01	H	House	No response from owner to requests to inspect property to date.	Not required.	Continue to request inspection of property.	No	LW S4A: Sep-25 to Dec-25
BCA_095_h01	H	House	No response from owner to requests to inspect property to date.	Not required.	Continue to request inspection of property.	No	LW S4A: Sep-25 to Dec-25
BCA_100_h01	H	House	No issues identified. A fenced pool is on the property.	Not required.	No additional management actions required. Inspect pool fence and gates during active subsidence.	No	LW S4A: Sep-25 to Dec-25
BCA_105_h01	H	House	No issues identified other some drummy / displaced tiles in the ensuite bathroom. A fenced pool is on the property.	Not required.	No additional management actions required. Inspect pool fence and gates during active subsidence.	No	LW S4A: Oct-25 to Dec-25
BCA_110_h01	H	House	No issues identified. A severely dilapidated above-ground pool is on the property (not in use). An old shed is planned to be demolished by owner. There is a vehicle hoist in one of the sheds.	Not required.	Baseline survey vehicle hoist prior to subsidence.	No	LW S4A: Oct-25 to Dec-25
BCA_115_h01	H	House	No issues identified other some drummy / displaced tiles in the ensuite bathroom. Brick chimney. A fenced pool is on the property.	Not required.	Monitor chimney tilts and inspect pool fence and gates during active subsidence during LW S5A.	No	-
BCA_120_h01	H	House	No issues identified. Small step / trip hazard in pavers into a side walkway. Aviary on property. Cantilevered steel soldier and concrete block retaining wall. A fenced pool is on the property.	Not required.	No additional management actions required for LW S4A.	No	-
BCP_010_h01	H	House	No issues identified.	Not required.	No additional management actions required.	No	LW S4A: Mar-25 to Apr-25
BCP_040_h01	H	House	Significant termite damage to timber framing of three (3) timber-framed, corrugated metal-clad sheds observed. These structures are possibly more at risk because of wind load than subsidence impacts. Access to these sheds should be prevented by enclosing the sheds with orange bunting with suitable notification. Asbestos sheeting on walls and roof of house.	Not required.	House is vacant and is planned to be demolished.		House is predicted to experience less than 20 mm due to LW S4A
BGR_213_h01	H	House	No issues identified for the house.	Not required.	No additional management actions required for the house.	No	LW S4A: Mar-25 to May-25
BGR_218_h01	H	House	No issues identified. Above-ground pool identified without surrounding pool fence.	Not required.	No additional management actions required for the house.	No	LW S4A: Mar-25 to May-25
BGR_221_h01	H	House	No issues identified for the house. Vehicle hoist at rear of property	Not required.	Baseline survey vehicle hoist prior to subsidence.	No	-

Table A.1 - Hazard Identification and Engineering Controls for LWs S1A to S4A
Revision B

Structure Reference	Structure Type	Description	Hazard identification and recommendations by structural engineer	Hazard identification and recommendations by geotechnical engineer	Mine operator's management actions in response to engineers' recommendations	Requirement for a Subsidence Hazard Mitigation Plan	Expected active subsidence period affecting property
BGR_230_h01	H	House	No issues identified for the house. Small weatherboard shop building with external brick chimney.	Not required.	The property is predicted to experience less than 20mm of vertical subsidence due to the extraction of LW S4A. While a weatherboard structure is used for retail hobby train business, the mine subsidence risks are similar to risks for other residential structures. The hobby shop structure is also predicted to experience less than 20mm vertical subsidence due to the mining of LWs S1A to S7A. The property will, therefore, be managed under the Built Structures Management Plan (i.e. no separate PSMP). Monitor cracks and tilt of brick chimney during active subsidence due to extraction of B series longwalls.	No	-
BRE_030_h01	H	House	No issues identified for the house.	Not required.	No additional management actions required for the house.	Separate Property Subsidence Management Plan (Inghams).	House is predicted to experience less than 20 mm due to LW S4A
BRE_055_h01	H	House	The main dwelling is of single-storey clad timber-framed construction and is currently not occupied. The house has been impacted by termite activity and the owner advised that the sewer had blocked and flooded the dwelling, causing it to be evacuated. It is recommended that this structure be rehabilitated by the owner before being re-occupied.	Not required.	Reinspect house after it is re-occupied.	Separate Property Subsidence Management Plan (Tahmoor Garden Centre).	LW S4A: Jul-25 to Oct-25
BRE_057_h01	H	House	Property is currently being renovated and another inspection will be arranged once complete.	Not required.	No additional management actions required for the house.	No	LW S4A: Jul-25 to Oct-25
BRE_059_h01	H	House	No response from owner to requests to inspect property to date.	Not required.	Continue to request inspection of property.	No	LW S4A: Jul-25 to Oct-25
BRE_061_h01	H	House	No issues identified for the house.	Not required.	Confirm use of buried tanks beneath the shed slab.	No	LW S4A: Jul-25 to Oct-25
BRE_063_h01	H	House	Vehicle hoist is located in a shed. The hoist was measured to be level but may be adversely affected during mining. A fenced pool has been removed from the property.	Not required.	Baseline survey vehicle hoist (complete) and monitor tilt of legs during active subsidence.	No	LW S4A: Jul-25 to Oct-25
BRE_065_h01	H	House	No issues identified.	Not required.	No additional management actions required. Notified owner of timber rot on pergola.	No	LW S4A: Jul-25 to Oct-25
BRE_067_h01	H	House	No issues identified.	Not required.	No additional management actions required.	No	LW S4A: Jul-25 to Oct-25
BRE_070_h01	H	House	No issues identified. Property is currently being renovated and another inspection will be arranged once complete.	Not required.	No additional management actions required.	No	LW S4A: Jul-25 to Sep-25
BRE_075_h01	H	House	No issues identified. A fenced pool is on the property but not in use.	Not required.	No additional management actions required. Inspect pool fence and gates during active subsidence if it is in use.	No	LW S4A: Jun-25 to Sep-25
BRE_075_h02	H	House	No issues identified. A fenced pool is on the property.	Not required.	No additional management actions required. Inspect pool fence and gates during active subsidence.	No	LW S4A: Jun-25 to Sep-25
BRE_077_h01	H	House	No issues identified. Very old, dilapidated weatherboard house occupied by elderly resident. Sister has moved into a caravan on property to care for him.	Not required.	No additional management actions required.	No	LW S4A: Jun-25 to Sep-25
BRE_080_h01	H	House	No response from owner to requests to inspect property to date.	Not required.	Continue to request inspection of property.	No	LW S4A: Jun-25 to Sep-25
BRE_083_h01	H	House	No issues identified.	Not required.	No additional management actions required.	No	LW S4A: Jun-25 to Sep-25
BRE_086_h01	H	House	No issues identified.	Not required.	No additional management actions required.	No	LW S4A: Jun-25 to Sep-25
BRE_089_h01	H	House	No issues identified. A fenced pool is on the property.	Not required.	No additional management actions required. Inspect pool fence and gates during active subsidence.	No	LW S4A: Jun-25 to Sep-25
BRE_140_h01	H	House	Restaurant no longer operating on property. Large 17-18mm wide crack in brickwork in female WC.	Not required.	Placed film over window above cracked brickwork to avoid cracking. Installed crack gauges as recommended by structural engineer and will inspect weekly during active subsidence.	No	LW S4A: May-25 to Aug-25
BRE_143_h01	H	House	Very old weatherboard house with external, low height deck partially collapsed and in a dilapidated state. Internal brick chimney.	Not required.	Baseline survey chimney tilt prior to influence of LW S4A.	No	LW S4A: May-25 to Aug-25
BRE_148_h01	H	House	No issues identified. A fenced pool is on the property.	Not required.	No additional management actions required. Inspect pool fence and gates during active subsidence if access is permitted.	No	LW S4A: May-25 to Jul-25
BRE_154_h01	H	House	No issues identified.	Not required.	No additional management actions required.	No	LW S4A: Apr-25 to Jun-25
BRE_154_h02	H	House	No issues identified.	Not required.	No additional management actions required.	No	LW S4A: Apr-25 to Jul-25
BRE_167_h01	H	House	One room used for florist business. Rear brick retaining wall has cracked and tilted outwards. It is recommended that the wall be monitoring during active subsidence. A fenced pool is on the property.	Not required.	As only one room used for retail florist business, the mine subsidence risks are similar to risks for other residential structures. The property will, therefore, be managed under the Built Structures Management Plan (i.e. no separate PSMP). Crack gauges have been installed on the brick retaining wall. The retaining wall and pool will be inspected weekly during active subsidence.	No	LW S4A: Mar-25 to May-25

Table A.1 - Hazard Identification and Engineering Controls for LWs S1A to S4A
Revision B

Structure Reference	Structure Type	Description	Hazard identification and recommendations by structural engineer	Hazard identification and recommendations by geotechnical engineer	Mine operator's management actions in response to engineers' recommendations	Requirement for a Subsidence Hazard Mitigation Plan	Expected active subsidence period affecting property
BRE_515_h01	H	House	No issues identified for the house. A pool is located on the property.	Not required.	No additional management actions required for the house. Inspect pool fence and gates during active subsidence.	Separate Property Subsidence Management Plan (MKD Machinery).	LW S4A: May-25 to Aug-25
BRE_515_h02	H	House	No issues identified for the house. A pool is located on the property.	Not required.	No additional management actions required for the house. Inspect pool fence and gates during active subsidence.	Separate Property Subsidence Management Plan (MKD Machinery).	LW S4A: May-25 to Jul-25
BRE_644_h01	H	House	No issues identified.	Not required.	No additional management actions required.	No	LW S4A: Jul-25 to Sep-25
BRE_665_h01	H	House	The water tank is mounted on a light galvanised steel frame, which could sway sideways in response to mining-induced tilt. It is recommended to install timber packing below each frame to provide supplementary support to the tank.	Not required.	Install timber packing below each frame to provide support to the water tank prior to the influence of LW S1A.	No	LW S4A: Jul-25 to Oct-25
BYR_001_h01	H	House	No response from owner to requests to inspect property to date.	Not required.	Continue to request inspection of property.	No	LW S4A: Mar-25 to Jun-25
BYR_005_h01	H	House	No issues identified for the house. A pool is located on the property.	Not required.	No additional management actions required for the house. Inspect pool fence and gates during active subsidence.	No	LW S4A: Apr-25 to Jul-25
BYR_015_h01	H	House	The house will be inspected prior to the influence of LW S5A.	Not required.	No additional management actions required.	No	House is predicted to experience less than 20
BYR_150_h01	H	House	The house will be inspected prior to the influence of LW S4A.	Not required.	No additional management actions required.	No	LW S4A: Mar-25 to Jun-25
BYR_150_h02	H	House	The house will be inspected prior to the influence of LW S4A.	Not required.	No additional management actions required.	No	LW S4A: Apr-25 to Jun-25
BYR_152_h01	H	House	No issues identified for the house. A pool is located on the property, which is has pre-mining tilt.	Not required.	No additional management actions required for the house. Inspect pool fence and gates during active subsidence.	No	LW S4A: Mar-25 to Jun-25
BYR_154_h01	H	House	No issues identified.	Not required.	No additional management actions required.	No	LW S4A: Mar-25 to Jun-25
BYR_156_h01	H	House	No issues identified.	Not required.	No additional management actions required.	No	LW S4A: Mar-25 to Jun-25
BYR_156_h02	H	House	No issues identified.	Not required.	No additional management actions required.	No	LW S4A: Mar-25 to Jun-25
BYR_158_h01	H	House	Significant tilting of sub-floor piers up to 66 mm/m at the southeast corner of the dwelling. It is recommended to provide supplementary support to the suspended timber floor during periods of active subsidence.	Not required.	Provide supplementary support (props) to the suspended timber floor prior to the influence of subsidence, as recommended by structural engineer. Inspect house during active subsidence.	No	LW S4A: Mar-25 to Jun-25
BYR_160_h01	H	House	House fire on 5 September 2024 has been assessed as a full knock down and rebuild.	Not required.	No additional management actions required. Reinspect once new house has been built.	No	LW S4A: Mar-25 to Jun-25
BYR_162_h01	H	House	Pier in subfloor area tilting generally downhill towards the south by up 33mm/m. Significant tilt of verandah post at the the northwest corner of the bathroom.	Not required.	No additional management actions required during the mining of LW S4A. It is planned to monitor tilts weekly during active subsidence during the mining of LW S5A.	No	LW S4A: Mar-25 to Jun-25

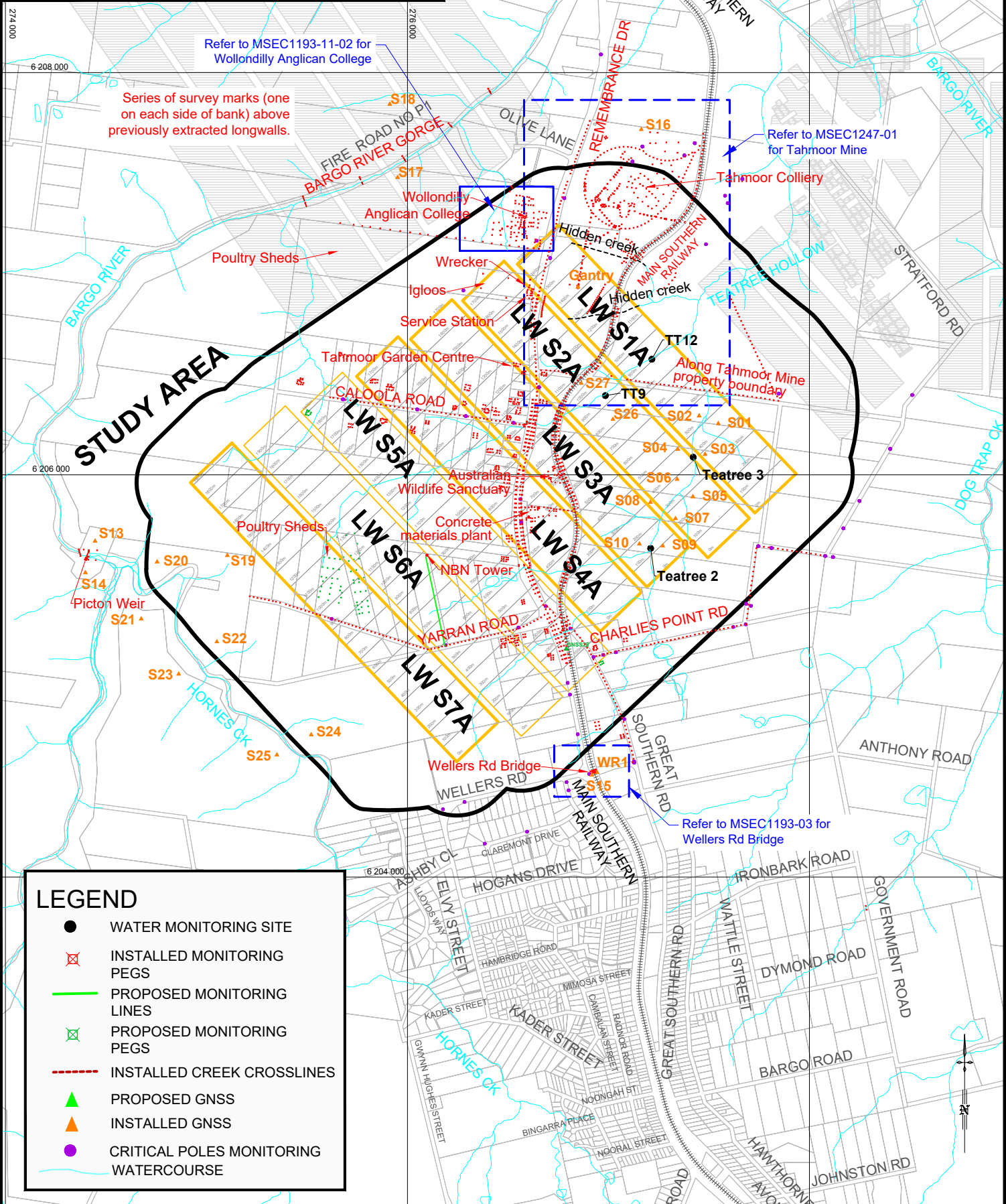


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**TAHMOOR SOUTH PROJECT
 EXTRACTION PLAN
 LW S1A TO LW S6A
 SUBSIDENCE MONITORING**

DATE: 21 Jan 2025	SCALE: 1:25000	DRAWING No: MSEC1193-01-01	Rev No C
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LEGEND

- WATER MONITORING SITE
- ⊠ INSTALLED MONITORING PEGS
- PROPOSED MONITORING LINES
- ⊠ PROPOSED MONITORING PEGS
- - - - - INSTALLED CREEK CROSSLINES
- ▲ PROPOSED GNSS
- ▲ INSTALLED GNSS
- CRITICAL POLES MONITORING WATERCOURSE