2 May 2024

Richard Nguyen
Lead Operations Engineer – Networks West
Sydney Water

Amendment No. 1 to Subsidence Management Plan for Sydney Water Potable infrastructure due to shortening of LW S3A and planned mitigation measures at Teatree Hollow crossing at Caloola Road

Dear Richard,

Please be advised that a minor amendment can be made to the Management Plan, which is titled *MSEC1193-04 SIMEC Mining – Tahmoor South Longwalls S1A to S6A – Management Plan for potential impacts to Sydney Water Potable Water Infrastructure, Revision B*.

Tahmoor Coal has shortened LW S3A by approximately 104 metres at the commencing end, as shown in Drawing No. MSEC1395-01. The effect of the change is to very slightly reduce the amount and extent of subsidence that will be experienced along Sydney Water infrastructure along Remembrance Drive and Great Southern Road, including at the water main crossing beneath the Main Southern Railway, as shown in Drawing No. MSEC1395-07.

Please see attached revised Drawing No. MSEC1193-04-01, Revision C, which shows the location of Sydney Water potable water infrastructure relative to the mine layout, and Drawing No. MSEC1193-01-01, Revision B, which shows the location of subsidence monitoring locations.

The Management Plan documents the commencement of monitoring measures for LW S3A, most of which are defined based on a length of extraction. As LW S3A has been shortened at the commencing end, the commencing lengths of extraction for monitoring activities requires a change.

Based on the above, Tahmoor Coal has reviewed the risk control procedures in Table 4.1 of the Management Plan with respect to LW S3A. It can be seen that the proposed changes effectively bring forward the planned timing of surveys and inspections. The planned change in the commencing length of extraction for Remembrance Drive is greater than 104 metres as, on review, it was considered prudent to commence monitoring earlier than originally planned.

Table 4.1 has also been updated to reflect the selection and installation of risk controls at the Teatree Hollow crossing at Caloola Road, with Gibault expansion joints already installed and being continuously monitored.

As you are aware, Tahmoor Coal and Sydney Water are continuing to consider and select risk controls for the Tributary to Teatree Hollow crossings north of the intersections of Remembrance Drive and Yarran Road and at the Main Southern Railway at 100.425 km, which are planned to be completed prior to start of LW S4A.

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On a separate matter, Tahmoor Coal will soon submit a Modification to the development consent to extract LW S7A to the side of LW S6A. The proposed LW S7A will extract directly beneath a section of Yarran Road but result in very minor additional subsidence along Remembrance Drive. Whilst LW S7A has been included in Drawings Nos. MSEC1193-04-01 and 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 seek approval from Sydney Water to amend the Management Plan to include LW S7A at a later time.

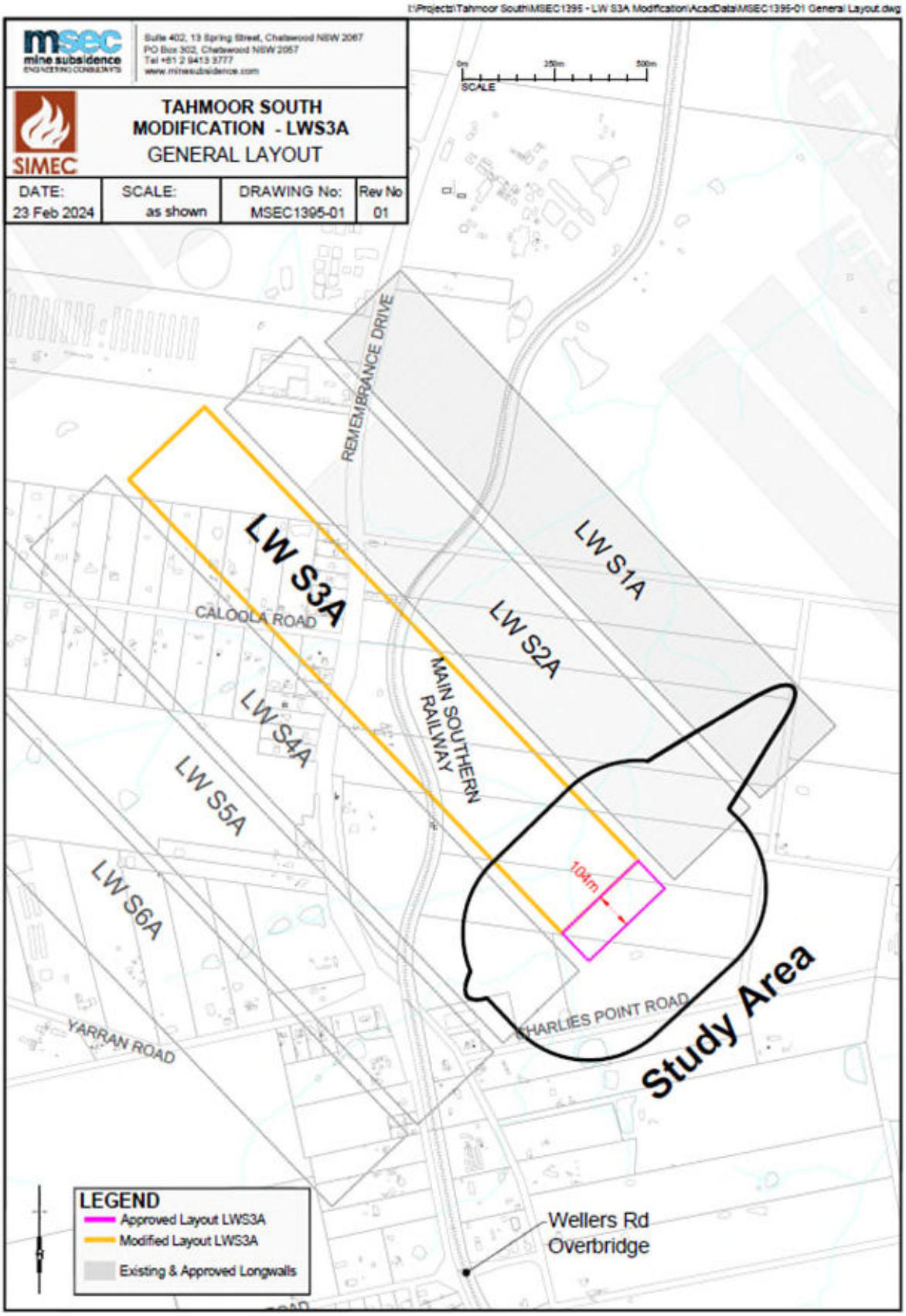
Tahmoor Coal welcomes any feedback from Sydney Water regarding the planned changes relating to the shortening of LW S3A. Please note that LW S3A is planned to commence next week.

Yours Faithfully

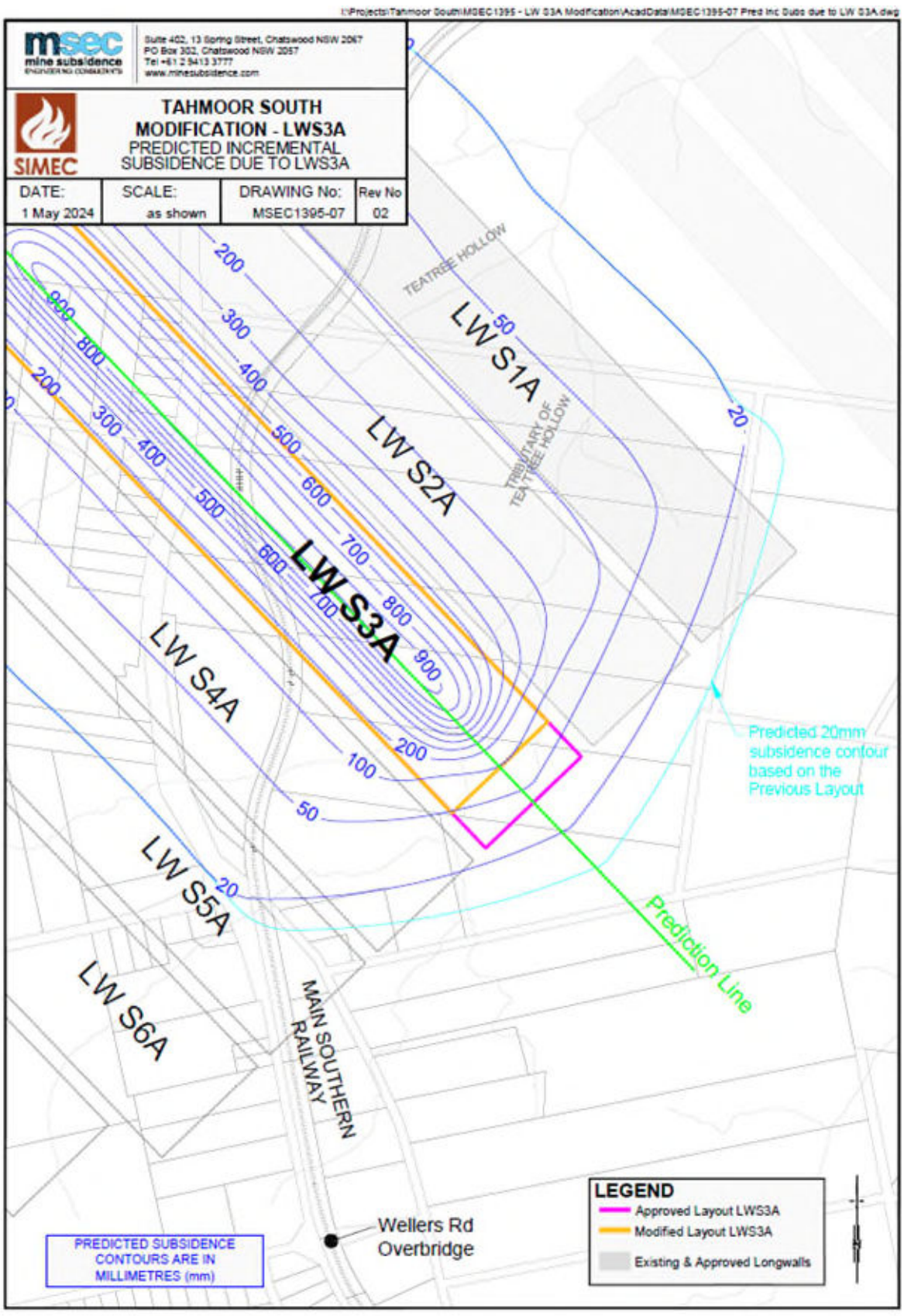
Ross Barber

Ross Barber
Project Manager Subsidence
SIMEC Mining

CC Ray Ramage, Principal Subsidence Engineer, Resource Regulator
Encl
Amended Table 4.1 – Risk Control Procedures (Amended for LW S3A)
Drawing No. MSEC1193-01-01, Revision B, 22 April 2024
Drawing No. MSEC1193-04-01, Revision C, 1 May 2024



Drawing No. MSEC1395-01



Drawing No. MSEC1395-07

Revised Table 4.1: Risk Control Procedures LW S1A-S6A (amended for LW S3A in blue)

INFRASTRUCTURE	HAZARD / IMPACT	RISK	TRIGGER	CONTROL PROCEDURE/S	FREQUENCY	BY WHOM?
Potable water infrastructure	Impacts to Sydney Water potable water infrastructure	Low to High	None	Follow Sydney Water procedures to monitor and respond to high water pressure levels at water reducing valves	Ongoing	Sydney Water
				Mark out locations of stop valves on site prior to the influence of each longwalls	Prior to active LW face approaching within 150 metres of each water main within predicted limit of incremental subsidence of each active LW.	Sydney Water
				Arrange for reservoirs within the network to be more than 90% capacity during periods of active subsidence of the 450 mm diameter CICL water main	LW S1A: start after 1300m extraction LW S2A: start after 900m extraction LW S3A: start after ~~800~~500m extraction LW S4A: start after 200m extraction LW S5A: start after 200m extraction LW S6A: start after 200m extraction	Sydney Water
				Consider and select options and implement additional risk controls at the creek crossing site for the 450 mm diameter CICL water main (most likely to be installation of expansion joints, subject to ongoing investigations) - Gibault expansion joints installed at Teatree Hollow crossing at intersection of Remembrance Drive and Caloola Road	Teatree Hollow crossing at intersection of Remembrance Drive and Caloola Road complete ~~prior to 900m of extraction of LW S2A~~ Tributary to Teatree Hollow crossings north of intersections of Remembrance Drive and Yarran Road and at Main Southern Railway at 100.425 km prior to start of LW S4A	Tahmoor Coal and Sydney Water
				Consider and select options and implement additional risk controls at the crossing beneath Remembrance Drive and beneath the Main Southern Railway at 100.380 km (most likely to be installation of valve tees and connection points across the rail crossing, subject to ongoing investigations)	Prior to start of LW S4A	Tahmoor Coal and Sydney Water
				Continuous monitoring of displacements at Gibault joints	Hourly	Tahmoor Coal (SweetingConsulting)
				Continuous GNSS monitoring as shown in Drawing No. MSEC1193-01-01	GNSS units installed Continuous readings, with data averaged over 24 hours and recorded once per day until end of LW S6A.	Tahmoor Coal (Unit Zero)
				2D survey line along Tahmoor Mine property boundary	Pegs installed. Baseline survey prior to commencement of LW S1A. Monthly survey during LW S1A between 200m and 1300m extraction, and continue if ongoing adverse movements are observed. End of LW S1A.	Tahmoor Coal (SMEC)
				Conduct 2D / Absolute 3D surveys along Main Southern Railway in accordance with Railway Management Plan	Monthly 3D / Weekly 2D surveys for pegs within active subsidence zone during LWs S1A to S6A	Tahmoor Coal (SRS)
				Conduct 2D / Absolute 3D surveys along Remembrance Drive	Pegs installed from northern boundary of Tahmoor Mine site to Caloola Road. Baseline survey prior to 900m extraction of LW S1A. Extend line and baseline survey pegs within predicted limit of incremental subsidence of each active LW, prior to active LW face approaching within 600 metres of survey line. Monthly 3D / Weekly 2D surveys for pegs within active subsidence zone commencing as per below: LW S1A: start after 1300m extraction LW S2A: start after 900m extraction LW S3A: start after ~~800~~500m extraction LW S4A: start after 300m extraction LW S5A: start after 200m extraction LW S6A: start after 200m extraction Continue surveys until outside active subsidence zone or one month after end of LW and continue further if ongoing adverse movements are observed. End of LW S1A-S6A.	Tahmoor Coal (SMEC)
				Conduct 2D surveys along Caloola Road	Pegs installed. Baseline survey prior to 900m extraction of LW S1A.. Survey at end of LW S1A. Weekly 2D surveys for pegs within active subsidence zone commencing as per below: LW S2A: start after 900m extraction LW S3A: start after ~~900~~800m extraction LW S4A: start after 900m extraction LW S5A: start after 900m extraction LW S6A: start after 900m extraction Continue surveys until outside active subsidence zone or one month after end of LW and continue further if ongoing adverse movements are observed. End of LW S2A-S6A.	Tahmoor Coal (SMEC)

INFRASTRUCTURE	HAZARD / IMPACT	RISK	TRIGGER	CONTROL PROCEDURE/S	FREQUENCY	BY WHOM?
Potable water infrastructure	Impacts to Sydney Water potable water infrastructure	Low to High	None	Conduct 2D surveys along Yarran Road	Install and baseline prior to start of LW S3A. Survey at end of LW S3A. Weekly 2D surveys for pegs within active subsidence zone commencing as per below: LW S4A: start after 200m extraction LW S5A: start after 200m extraction LW S6A: start after 200m extraction Continue if ongoing adverse movements are observed. End of LW S4A-S6A.	Tahmoor Coal (SMEC)
				Conduct 2D surveys along Great Southern Road	Install and baseline prior to start of LW S3A. Survey at end of LW S3A. Weekly 2D surveys for pegs within active subsidence zone commencing as per below: LW S4A: start after 200m extraction LW S5A: start after 200m extraction LW S6A: start after 200m extraction Continue if ongoing adverse movements are observed. End of LW S4A-S6A.	Tahmoor Coal (SMEC)
				Conduct Local 3D survey of structure and ground marks on the Main Southern Railway Viaduct over the Bargo River as per Drawing No. MSEC1193-03-02, with one mark on the Viaduct to be surveyed in Absolute 3D.	Install and baseline survey prior to LW S1A. Monthly surveys between 1000m and one month after end of extraction of LWs S1A to S3A and continue if ongoing adverse movements are observed. End of LW S1A-S3A.	Tahmoor Coal (SRS)
				Visual inspection of Main Southern Railway Viaduct over the Bargo River	Baseline inspection prior to LW S1A Monthly inspections between 1000m and one month after end of extraction of LWs S1A to S3A and continue if ongoing adverse movements are observed. End of LW S1A to S3A	Tahmoor Coal
				Conduct Local 3D survey of structure and ground marks on the Bargo River Road Bridge over tributary to Bargo River and Bargo River Road Bridge over Main Southern Railway as per Drawing No. MSEC1193-03-03, with one mark on each Bridge to be surveyed in Absolute 3D	Install and baseline survey prior to LW S1A. Monthly surveys between 1000m and one month after end of extraction of LWs S1A to S3A and continue if ongoing adverse movements are observed. End of LW S1A-S3A.	Tahmoor Coal (SRS)
				Visual inspection of Bargo River Road Bridges	Baseline inspection prior to LW S1A Monthly inspections between 1000m and one month after end of extraction of LWs S1A to S3A and continue if ongoing adverse movements are observed. End of LW S1A to S3A	Tahmoor Coal (BIS)
				Detailed visual inspections of local roads, culverts, embankments and cuttings along the routes of the water mains	Weekly for areas within the active subsidence zone during LWs S1A to S6A and continue if ongoing adverse movements or impacts are observed until one month after the extraction of each LW.	Tahmoor Coal (BIS)
				Inform Sydney Water Call Centre of mining in area and possible issues.	Completed	Sydney Water
				Notify residents of potential mine subsidence impacts and contact numbers.	Completed	Tahmoor Coal
				Analyse and report results to IMG, including information on the position of the longwall face.	Weekly during LW S1A-S6A after the length of the extraction exceeds 200 metres.	Tahmoor Coal
			Non-conventional ground movement detected	Notify Sydney Water	Within 24 hours	Tahmoor Coal
				Infrastructure Management Group (IMG) meets to consider whether any additional management measures should be undertaken, including: - increasing the frequency of surveys and visual inspections in vicinity of the non-conventional movement; - investigating for potential of damage occurring to Sydney Water infrastructure; and/or - relieving stresses on the pipes by locally excavating and exposing the pipes in the affected area.	As agreed between Tahmoor Coal and Sydney Water	IMG
			Leakage of water observed	Notify all stakeholders, including Sydney Water, Tahmoor Coal, Subsidence Advisory NSW and Resources Regulator	Within 24 hours	Tahmoor Coal
				Repair leak.	As per Sydney Water procedures (target within 24 hours for 450 mm dia water main)	Sydney Water
				Provide alternative water supply to customers	As required	Tahmoor Coal
				Consider increasing the frequency of surveys and visual inspections in vicinity of water leak, if appropriate.	As agreed between Tahmoor Coal and Sydney Water	Tahmoor Coal

INFRASTRUCTURE	HAZARD / IMPACT	RISK	TRIGGER	CONTROL PROCEDURE/S	FREQUENCY	BY WHOM?
Potable water infrastructure	Impacts to Sydney Water potable water infrastructure	Low to High	A hazard has been identified that involves potential serious injury or illness to a person or persons on public property or, or in vicinity of potable water infrastructure and cannot be controlled	IMG, Tahmoor Coal and Sydney Water meet to decide whether any additional management measures are required, including: - emergency evacuation of hazardous area - demarcation to prevent people entering hazardous area	Immediately	Tahmoor Coal and Sydney Water
				Notify SRG of trigger exceedance and any management decisions undertaken (incl Subsidence Advisory NSW, Resources Regulator)	Within 24 hours of decision	Tahmoor Coal
			Closure between abutments on Main Southern Rail Viaduct over Bargo River exceeds 7 mm or Closure between GNSS units at ends of Main Southern Rail Viaduct over Bargo River exceeds 7 mm or Closure between abutments Bargo River Road Bridge exceeds 5 mm	Notify Sydney Water	Within one week	MSEC
				Sydney Water and IMG meet and consider whether any additional management measures are required, which may include: - increase monitoring frequency and reporting procedures - install temporary bypass pipeline over creek crossing at Bargo River (Viaduct) or tributary to Bargo River (Bargo River Road Bridge)	Within one week	IMG
				Report trigger exceedance and actions taken to IMG, Sydney Water, SA NSW & MSO in Status Report	Within one week	Tahmoor Coal