

# Subsidence Advisory

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Mr Andrew Rode Senior Environmental Assessment Officer Energy, Resources & Compliance Division Department of Planning, Industry & Environment

Email: <u>Andrew.Rode@planning.nsw.gov.au</u>

Dear Mr Rode

## Tahmoor South Coal Project (SSD 8445)

I refer to the email from the Department of Planning, Industry and Environment (**DPIE**) dated 4 March 2020 regarding Tahmoor Coal Pty Ltd's (**Tahmoor Coal**) Tahmoor South Coal Project.

Subsidence Advisory NSW (**SA NSW**) has reviewed the Response to Submissions, additional information supplied by Tahmoor Coal, and project amendments. SA NSW notes that the amended mine plan has reduced the longwall panel width, extraction height and mining footprint, resulting in a reduction in the predicted subsidence impacts, including under the Bargo township, from those reflected in the original plan.

#### Predicted impacts to residential houses

The EIS identified that 571 houses will be mined directly beneath under the proposal. Tahmoor Coal has confirmed that, in addition to the houses mined directly beneath, an additional 762 houses will experience ground movements greater than 20mm. In total there are 1333 houses predicted to be impacted by subsidence.

A breakdown of the predicated damage classification categories of these houses is provided by Tahmoor Coal at Table 1. The number of houses influenced by subsidence increases substantially as mining progresses with Longwalls 105b, 106b, 107b and 108b toward the township of Bargo.

The exclusion of certain longwalls would likely have a significant reduction on the number of houses predicted to be impacted. For example, excluding Longwall 108b from the proposal will reduce the number of houses with damage classifications of R3-4 and R5 by 46 houses or 43%. Excluding both Longwalls 107b and 108b will reduce the number by 75 houses or 71%.

Longwall	Number of houses with predicted total subsidence >20mm for each Longwall	Damage classification Total number of houses with predicted total subsidence >20mm for each Longwall				Reduction in houses impacted (R3-5)
Longhan	Longhan	R0	R1-2	R3-4	R5	%
All Longwalls	1333	993	234	86	20	N/A
All Longwalls except 108b	901	706	135	49	11	46 houses or (43%)
All Longwalls except 108b/107b	505	405	69	25	6	75 houses or (71%)
All Longwalls except 108b/107b/106b	270	215	37	14	4	88 houses or (83%)
All Longwalls except 108b/107b/106b/105b	142	103	26	10	3	93 houses or (90%)

Table 2 provides a breakdown of the number of houses by final tilt category. Under the current proposal, approximately 159 houses will experience final tilt of 7mm/m or greater. The EIS notes 'tilts greater than 7mm/m can result in greater serviceability impacts which may require more substantial remediation measures, including the relevelling of wet areas or, in some cases, the relevelling of the building'. 'Relevelling of a building' is included as one of the repair elements included under Damage Classification R4 Extensive Repair in the EIS.

The number of houses impacted by tilts of 7mm/m or greater is reduced by 76 houses or 48% with the exclusion of Longwall 108b. The exclusion of both Longwalls 107b and 108b further reduces the number of houses impacted by 124 houses or 78% when compared to the current proposal.

Table	2

Table 1

	Number of houses with predicted total subsidence	N	umber hous	es with fina	al tilt	Reduction in houses impacted (Tilt 7mm/m and over)
Longwall	>20mm for each Longwall	Tilt 0-4	Tilt 5-6	Tilt 7-10	Tilt >10	%
Louiding		mm/m	mm/m	mm/m	mm/m	
All Longwalls	1333	1073	101	138	21	N/A
All Longwalls except 108b	901	755	63	83	0	76 houses or (48%)
All Longwalls except 108b/107b	505	434	36	35	0	124 houses or (78%)
All Longwalls except 108b/107b/106b	270	236	24	10	0	149 houses or (94%)
All Longwalls except 108b/107b/106b/105b	142	114	20	8	0	151 houses or (95%)

The data included in Tables 1 and 2 has been provided by Tahmoor Coal. SA NSW has not completed an independent property specific assessment.

The EIS notes Tahmoor Coal has considered the subsidence impacts of mining, including anomalous movements, at Tahmoor North when predicting the impacts for Tahmoor South. The EIS further notes it is not possible to predict the locations and magnitudes of non-conventional anomalous movements.

### Proposed mining sequence and claim timeframes

The owners of homes and improvements damaged by subsidence may claim compensation under the *Coal Mine Subsidence Compensation Act 2017*. To ensure all damage is compensated for, claims are generally not progressed for assessment until after subsidence has ceased.

The approximate proposed mining sequence and timeframes for Tahmoor South are set out at Table 3:

Table 3				
Year commencing	Year ending	Longwalls		
2022	2024	Longwalls 101A to 103A		
2024	2033	Longwalls 101B to 108B		
2033	2034-35	Longwalls 104A to 106A		

Under the proposed mining layout, there are houses that will be impacted by five different longwalls. This will result in active subsidence periods of approximately five years. Therefore, it is likely several homeowners will be living in damaged properties for a number of years. Others may require relocation where their properties require extensive repairs or rebuilding. Tahmoor Coal has acknowledged the stress and anxiety these impacts have on the community.

SA NSW notes there are properties that will be impacted by both Longwalls 103A and 104A. Due to the significant period of time between the extraction of these longwalls, SA NSW would anticipate progressing claims for subsidence damage resulting from Longwall 103A at the completion of this longwall. The owners of properties impacted by subsidence from subsequent longwalls would then be eligible to lodge further claims under the *Coal Mine Subsidence Compensation Act 2017*.

#### Management of subsidence claims

Under the *Coal Mine Subsidence Compensation Act 2017*, Tahmoor is required to pay compensation to affected property owners for subsidence impacts as part of recent changes to the coal mine subsidence compensation framework.

SA NSW manages the claim process, including coordinating independent assessment of claims, to ensure mine proprietors determine claims and pay compensation in accordance with the Act and associated procedures. The SA NSW claims process is designed to ensure property owners are fairly compensated when subsidence damage occurs.

#### Recommended additional protections for homeowners

As noted above, subsidence damage may cause considerable stress and anxiety for homeowners who may be required to live in damaged houses for a number of years before their claims can be resolved. In situations where a house has sustained significant damage, these effects on homeowners are exacerbated. SA NSW recommends consideration be given to including provisions in the Development Consent, similar to those for Tahmoor North, for Tahmoor South to:

1. Offer property acquisition when the house reaches damage category R4 or R5

and/or

2. Offer property acquisition when the house is in tilt of greater than 10mm/m

and/or

3. Offer property acquisition when the house reaches damage category R3 or more and has/will be impacted by more than two longwalls.

Property acquisition should occur in accordance with the provisions of the *Coal Mine Subsidence Compensation Act 2017*.

#### Subsidence impacts to infrastructure

Tahmoor Coal undermined several pieces of infrastructure during the Tahmoor North Project, including local roads, utility infrastructure and services and the Main Southern Railway. During this project, performance measures were applied ensuring infrastructure was safe and that serviceable or serviceability was maintained wherever practicable.

SA NSW recommends the application of these conditions is continued, including maintaining the relevant management groups that have proven successful in the mitigation, identification and responses to mining impacts.

#### Impacts on future surface development

The EIS acknowledges the increased impact the proposal will have on the community, should additional houses be constructed within the proposed mining area.

It is not possible to mitigate the predicted subsidence impacts through practical engineering design. As a result, and to prevent further impact on the community, applications to rezone and subdivide land for urban development within the proposed mining area are likely to be refused, should the Tahmoor Coal project be approved.

SA NSW requests the opportunity to review of the draft development consent conditions prior to finalisation and granting of any development consent.

#### Contact

Please contact me on (02) 4677 6500 or at <u>subsidencetechnical@customerservice.nsw.gov.au</u> if you have any questions or wish to discuss.

Yours sincerely

Matthew Montgomery Manager, Claimant Outcomes - South, Subsidence Advisory NSW

20 May 2020