

# TAHMOOR COLLIERY: Longwall 27

Subsidence Management Status Report No. 04  
 Submitted every four months as required by Condition 17 of the  
 Subsidence Management Plan Approval for Longwall 27

Reporting Period	1 November 2013 to 5 March 2014	
Length of extraction	3014 m	as at 5 March 2014
Length of extraction remaining	58 m	
Distance travelled by LW since previous report	768 m	
Maximum total subsidence since start of LW22 within zone of active subsidence	1016 mm	on Brundah Rd as at 7 November
Maximum incremental subsidence due to LW27 within zone of active subsidence	493 mm	on Bridge St as at 26 February
Maximum increase in subsidence since previous report	473 mm	Bridge St (29 October to 26 February)

## Summary of Observations, Management Actions and Consultation since start of LW27

Summary of subsidence development
<p>Increased subsidence has developed above the commencing end of LW27, extending up to Remembrance Drive where normal subsidence has continued. The zone of increased subsidence was located where expected based on previous experiences during the mining of Longwalls 24A, 25 and 26. The magnitude of subsidence is slightly reduced compared to previous experiences during the mining of LWs 24A, 25 and 26.</p> <p>The zone of active subsidence is currently north of Bridge Street where it crosses above Longwall 27. Redbank Creek has already experienced the period of most active subsidence and valley closure is slightly reducing from previously observed maximum measurements as the longwall progresses.</p> <p>Ground strains have been relatively mild along Bridge Street during the reporting period.</p>
Natural Features
<p><i>Summary of any observed/reported impacts or incidents, exceedance of triggers</i></p> <p>Very little change has been observed at Myrtle Creek during the reporting period.</p> <p>Visual inspections of Redbank Creek by GeoTerra have found no additional changes above Longwall 26 since the completion of Longwall 26. Additional movement, cracking and delamination has been observed at two sites located directly above Longwall 27. A new small crack area was observed at another site where a water logger was established. The section of creek above Longwalls 26 and 27 is gradually drying up due to lack of rain.</p> <p>Minor rock cracking is observed at one site above future Longwall 28, with no associated change in pool levels, stream, pool holding capacity or ferruginous levels in the water. The pools above Longwall 28 are being maintained by groundwater base flow with a strong ferruginous component.</p> <p>Apart from some minor opening up of previously observed cracks, no new subsidence effects have been observed. The creek is generally dry and it is difficult to see which pools hold water and which do not. A small amount of rain during the last month has partially filled some pools but has not generated stream flow.</p> <p><i>Summary of Management Actions</i></p> <p>Relative 3D ground surveys of Redbank Creek are ongoing. The ability to survey valley closure across the creek has been constrained by refusal by some landowners to provide access. The longwall face has mined directly beneath Redbank Creek and has passed it by approximately 600 metres. The results indicate that valley closure is developing across the Creek, particularly where the longwall face is closest to the creek.</p> <p><i>Summary of Consultation with Stakeholders</i></p> <p>Observations during mining of Longwall 27 reported to NOW, DRE and TCCCC. Ongoing consultation with DRE and TCCCC. A community complaint was received regarding notification prior to a dam inspection on a private property. The resident has been consulted and Tahmoor has implemented changes in inspection program to the satisfaction of the resident. TCCCC has been informed about complaint.</p>
Main Southern Railway
<p><i>Summary of any observed/reported impacts or incidents, exceedance of triggers</i></p> <p>The longwall has completed extraction beneath the Main Southern Railway in the Tahmoor area and has passed the Redbank Creek section. There have been no impacts on the safety or serviceability of the Railway. The railway infrastructure has experienced some impacts as a result of mine subsidence, and these have been successfully managed by ARTC and Tahmoor Colliery.</p> <p><i>Summary of Management Actions</i></p> <p>Monitoring and inspections are being undertaken as per the Railway Management Plan.</p> <p><i>Summary of Consultation with Stakeholders</i></p> <p>Ongoing consultation with ARTC, including monthly teleconference. Detailed subsidence monitoring reports issued monthly. Please refer to Railway Status Report for further information.</p>
Local Roads, Bridges and Culverts
<p><i>Summary of any observed/reported impacts or incidents, exceedance of triggers</i></p> <p>Weekly monitoring of the Bridge Street Overbridge is ongoing with minor measureable change reported.</p>

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No impacts have been observed to the local bridges and road culverts.

#### *Summary of Management Actions*

Monitoring and inspections are being undertaken as per the Wollondilly Shire Council Management Plan.

#### *Summary of Consultation with Stakeholders*

Detailed subsidence monitoring reports are issued to Wollondilly Shire Council.

### **Potable Water Infrastructure**

#### *Summary of any observed/reported impacts or incidents, exceedance of triggers*

No impacts observed or reported with respect to potable water infrastructure.

#### *Summary of Management Actions*

Monitoring and inspections are being undertaken as per the Potable Water Management Plan.

#### *Summary of Consultation with Stakeholders*

Detailed subsidence monitoring reports are issued to Sydney Water.

### **Sewer Infrastructure**

#### *Summary of any observed/reported impacts or incidents, exceedance of triggers*

No impacts observed or reported with respect to sewer infrastructure. There is a short 67 metre section of the Thirlmere Carrier pipe along Bridge Street that has been laid with a relatively low grade of 0.5 % (5 mm/m). The section is located approximately between Pegs BG54 and BG57. Weekly ground surveys along Bridge Street have found that the grade for one 20 metre section (Peg BG55 to BG56) has reduced to 0.07%, below the early warning trigger level of 0.2%. When the survey results between Pegs BG54 and BG57 are used to estimate change over the 67 metre section, the average grade is approximately 0.17% from pit to pit. Weekly changes in tilt are reducing, which is expected as the longwall face has passed the site by approximately 485 metres. It appears unlikely that pipe grades will reverse.

#### *Summary of Management Actions*

Monitoring and inspections are being undertaken as per the Sewer Management Plan, which include weekly ground surveys along Bridge Street.

#### *Summary of Consultation with Stakeholders*

Detailed subsidence monitoring reports are issued to Sydney Water. Tahmoor Colliery has consulted directly with Sydney Water in accordance with the Sewer Management Plan to consider whether any additional management measures are required in relation to the Thirlmere Carrier pipe along Bridge Street. It is agreed to continue monitoring at this stage but Sydney Water are ready to respond if required to ensure the sewer remains serviceable.

### **Gas Infrastructure**

#### *Summary of any observed/reported impacts or incidents, exceedance of triggers*

No impacts observed or reported with respect to gas pipes.

#### *Summary of Management Actions*

Monitoring and inspections are being undertaken as per the Jemena Management Plan.

#### *Summary of Consultation with Stakeholders*

Detailed subsidence monitoring reports are issued to Jemena.

### **Electrical Infrastructure**

#### *Summary of any observed/reported impacts or incidents, exceedance of triggers*

No impacts observed or reported with respect to electrical cables or poles.

#### *Summary of Management Actions*

Monitoring and inspections are being undertaken as per the Endeavour Management Plan. This includes monthly surveys of critical power poles.

#### *Summary of Consultation with Stakeholders*

Detailed subsidence monitoring reports are issued to Endeavour Energy.

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<b>Telecommunications Infrastructure</b>
<p><i>Summary of any observed/reported impacts or incidents, exceedance of triggers</i></p> <p>No impacts observed or reported with respect to telecommunications cables or poles.</p> <p><i>Summary of Management Actions</i></p> <p>Monitoring and inspections are being undertaken as per the Telstra Management Plan. This includes weekly visual inspections within the zone of active subsidence and monitoring of changes in tilts on the Telstra Tower above the former Redbank Railway Tunnel by tilt meters. Only small changes have been observed to date.</p> <p><i>Summary of Consultation with Stakeholders</i></p> <p>Detailed subsidence monitoring reports are issued to Telstra.</p>
<b>Items of Heritage Significance</b>
<p><b>Tahmoor House</b></p> <p><i>Summary of any observed/reported impacts or incidents, exceedance of triggers</i></p> <p>No triggers have been exceeded.</p> <p><i>Summary of Management Actions</i></p> <p>Tahmoor House has experienced subsidence movements and very small differential movements during the extraction of LW27. No management actions have been undertaken during the reporting period as the longwall face has mined past the property by approximately 1500 metres.</p> <p><i>Summary of Consultation with Stakeholders</i></p> <p>None during this reporting period as the longwall face has mined past the property by approximately 1500 metres.</p>
<b>Building Structures</b>
<p><i>Summary of any observed/reported impacts or incidents, exceedance of triggers</i></p> <p>Impacts observed to a number of houses during this reporting period, though all houses have remained safe and serviceable.</p> <p><i>Summary of Management Actions</i></p> <p>Ongoing inspections of properties within the active subsidence area.</p> <p><i>Summary of Consultation with Stakeholders</i></p> <p>Ongoing, extensive consultation has been undertaken with residents in the subsided areas. This includes consultation with residents who have experienced impacts and neighbouring residents who have not reported impacts.</p>
<b>Any additional and/or outstanding management actions</b>
<p>None. The existing management processes are considered to be adequate and effective.</p>

Certified by Tahmoor Colliery:

Signature: \_\_\_\_\_



Date: 05 March 2014