

# TAHMOOR COLLIERY: Longwall 27

Subsidence Management Status Report No. 02  
 Submitted every four months as required by Condition 17 of the  
 Subsidence Management Plan Approval for Longwall 27



Reporting Period	1 March 2013 to 30 June 2013	
Length of extraction	1395 m	as at 30 June
Length of extraction remaining	1647 m	
Distance travelled by LW since previous report	797 m	
Maximum total subsidence since start of LW22 within zone of active subsidence	868 mm	on Struan Street as at 8 April
Maximum incremental subsidence due to LW27 within zone of active subsidence	823 mm	on Myrtle Creek Ave as at 13 May
Maximum increase in subsidence since previous report	548 mm	Main Southern Railway (25 February to 27 June)

## 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 developed. 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 in the vicinity of Hilton Park Road where it crosses above Longwall 27. The township of Tahmoor has already experienced the period of most active subsidence and only small increases in subsidence are being experienced in the town.</p> <p>Non-systematic subsidence movements in the form of increased ground strains and irregular subsidence profiles have been observed at one new site, which is on Myrtle Creek Avenue (Pegs MC13 &amp; MC14). Ground strains have been relatively mild along other streets including Remembrance Drive, York Street and along the Main Southern Railway.</p>
Natural Features
<p><i>Summary of any observed/reported impacts or incidents, exceedence of triggers</i></p> <p>Valley closure and upsidence has been measured in Myrtle Creek along a number of monitoring lines that are located directly above Longwall 27 and downstream above future Longwall 28. Little additional closure has been observed across Myrtle Creek where it crosses previously extracted Longwalls 25 and 26. Very little change has been observed during the last month as the longwall moved away from Myrtle Creek by a distance of more than 600 metres.</p> <p>Visual inspections of Myrtle Creek in March noted cracking in the stream bed and exposed sandstone at several sites over Longwalls 26, 27 and future Longwall 28. Reduced water volume in pools and reduced flow was observed. At times of low flow, some pools have been observed to drain and become dry. The observations are within expectations as stated in the Subsidence Management Plan. The levels of impact on stream flow and water level exceed trigger levels as defined in the Environmental Management Plan. No impacts have been reported on water quality.</p> <p><i>Summary of Management Actions</i></p> <p>Monitoring and inspections are being undertaken as per the Environmental Management Plan. In light of the observed impacts on stream flow and exceedence of triggers, Tahmoor Colliery has informed NOW and DRE Director Environmental Sustainability and Land Use and Principal Subsidence Engineer. A site visit was undertaken with DRE representative. A site mitigation plan / action plan is currently being prepared.</p> <p><i>Summary of Consultation with Stakeholders</i></p> <p>Observations during mining of Longwall 27 reported to NOW, DRE and TCCC. No issues have been raised. A site mitigation plan / action plan is currently being prepared.</p>
Main Southern Railway
<p><i>Summary of any observed/reported impacts or incidents, exceedence of triggers</i></p> <p>The longwall has completed extraction beneath the Main Southern Railway and is moving away. 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 weekly teleconference. Detailed subsidence monitoring reports issued weekly. Please refer to Railway Status Report for further information.</p>

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<b>Local Roads, Bridges and Culverts</b>
<p><i>Summary of any observed/reported impacts or incidents, exceedence of triggers</i></p> <p>Detailed visual inspections are being conducted on a weekly basis for streets within the active subsidence zone. Very minor impacts have been observed to the pavement and kerbs at isolated locations. Compression has been observed in the footpath of Remembrance Drive and this was repaired by 4 March.</p> <p>A small dip in the pavement has developed in the southbound lane of Remembrance Drive, just south of the intersection with Myrtle Creek Ave. A rise has also developed in the eastbound lane at the same location.</p> <p>No impacts have been observed to the local bridges and road culverts.</p> <p><i>Summary of Management Actions</i></p> <p>Monitoring and inspections are being undertaken as per the Wollondilly Shire Council Management Plan. Weekly surveys at the Remembrance Drive Road and Pedestrian Bridge over Myrtle Creek since the commencement of Longwall 27 have measured minor changes. There is a trend of very small closure over time between the footbridge abutments. Visual inspections have not observed any mining induced impacts and only some spalling from concrete cancer.</p> <p>Monitoring and inspections for Castlereagh Street Bridge are being undertaken as per the Management Plan. No additional impacts or valley closure movement have been observed at Castlereagh Street Bridge during the mining of Longwall 27. Work has been undertaken to reintroduce a gap between the support brackets and the abutment wall on the southern side of the bridge, due to additional closure that developed gradually over time between the end of active subsidence of Longwall 26 and the commencement of Longwall 27.</p> <p><i>Summary of Consultation with Stakeholders</i></p> <p>Detailed subsidence monitoring report is issued to Wollondilly Council each week. Council was also notified of increased ground strains and irregular subsidence profiles on Myrtle Creek Avenue. Council has approved a reduction in the frequency of ground surveys along Remembrance Drive, at the Remembrance Drive Road and Pedestrian Bridges and at the Castlereagh Street Bridge.</p>
<b>Potable Water Infrastructure</b>
<p><i>Summary of any observed/reported impacts or incidents, exceedence of triggers</i></p> <p>No impacts observed or reported with respect to potable water infrastructure.</p> <p><i>Summary of Management Actions</i></p> <p>Monitoring and inspections are being undertaken as per the Potable Water Management Plan.</p> <p><i>Summary of Consultation with Stakeholders</i></p> <p>Detailed subsidence monitoring report is issued to Sydney Water each week.</p>
<b>Sewer Infrastructure</b>
<p><i>Summary of any observed/reported impacts or incidents, exceedence of triggers</i></p> <p>No impacts observed or reported with respect to sewer infrastructure. Monitoring of the Tahmoor Carrier Pipe for changes in sewer grade along York St shows grades are currently above trigger levels for low grades.</p> <p><i>Summary of Management Actions</i></p> <p>Monitoring and inspections are being undertaken as per the Sewer Management Plan.</p> <p>Weekly surveys have been undertaken along the Tahmoor Carrier pipe from York Street to Tahmoor House Court. No issues have been identified and pipe grades remain steeper than trigger levels. There has been a marked reduction in the development of mining-induced tilt at the critical grade sections of pipe for the last month. It is considered unlikely that a reversal in grade will occur. Data from a water level sensor installed the Tahmoor Carrier shows that levels are consistent and well below the top of the pipe.</p> <p>A CCTV inspection has been partially undertaken (80% surveyed) at Myrtle Creek Avenue at the location of non-systematic subsidence. Some of the manholes could not be located. No issues were found in sections that were inspected.</p> <p>Surveys and inspections are being undertaken across Myrtle Creek at Castlereagh Street and at the sewage pumping station. Approximately 12 mm of additional valley closure has been measured across Myrtle Creek at Castlereagh Street since the commencement of Longwall 27 with very little change measured since. Surveys at the Castlereagh Street Pumping Station are ongoing with little change observed during the mining of Longwall 27.</p> <p><i>Summary of Consultation with Stakeholders</i></p> <p>Detailed subsidence monitoring report is issued to Sydney Water each week. There is regular ongoing consultation with Sydney Water, who has approved a reduction in the frequency of ground surveys along Remembrance Drive, York Street, the Tahmoor Carrier Pipe, and at the Castlereagh Street Bridge and the Pumping Station.</p>
<b>Gas Infrastructure</b>
<p><i>Summary of any observed/reported impacts or incidents, exceedence of triggers</i></p> <p>No impacts observed or reported with respect to gas pipes.</p> <p><i>Summary of Management Actions</i></p> <p>Monitoring and inspections are being undertaken as per the Jemena Management Plan.</p> <p><i>Summary of Consultation with Stakeholders</i></p> <p>Detailed subsidence monitoring report is issued to Jemena each week, who has approved a reduction in the frequency of ground surveys along Remembrance Drive and at the Remembrance Drive Bridges.</p>

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<b>Electrical Infrastructure</b>
<p><i>Summary of any observed/reported impacts or incidents, exceedence of triggers</i></p> <p>No impacts observed or reported with respect to electrical cables or poles.</p> <p><i>Summary of Management Actions</i></p> <p>Monitoring and inspections are being undertaken as per the Endeavour Management Plan. This includes monthly surveys of critical power poles.</p> <p><i>Summary of Consultation with Stakeholders</i></p> <p>Detailed subsidence monitoring report is issued to Endeavour Energy each week.</p>
<b>Telecommunications Infrastructure</b>
<p><i>Summary of any observed/reported impacts or incidents, exceedence 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. Tiltmeters have been installed on the Telstra Tower above the former Redbank Railway Tunnel and only small changes have been observed to date.</p> <p><i>Summary of Consultation with Stakeholders</i></p> <p>Detailed subsidence monitoring report is issued to Telstra each week.</p>
<b>Items of Heritage Significance</b>
<p><b>Tahmoor House</b></p> <p><i>Summary of any observed/reported impacts or incidents, exceedence 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. The longwall face has mined past the property by approximately 750 metres. Weekly ground surveys and visual inspections were undertaken during active subsidence.</p> <p>Minor impacts have been observed during the active subsidence period. The supports to a carport roof were of concern, but this is not related to mining. Recommendations were made to provide additional structural support and this was completed on 12 March.</p> <p><i>Summary of Consultation with Stakeholders</i></p> <p>Ongoing consultation with owners of Tahmoor House, including cessation of weekly surveys and inspections.</p> <p><b>Remembrance Drive</b></p> <p><i>Summary of any observed/reported impacts or incidents, exceedence of triggers</i></p> <p>No impacts observed. No triggers have been exceeded.</p> <p><i>Summary of Management Actions</i></p> <p>The heritage listed property on Remembrance Drive was inspected from the kerb each week during active subsidence.</p> <p><i>Summary of Consultation with Stakeholders</i></p> <p>The resident has requested not to be consulted and no access is permitted on the property.</p>
<b>Building Structures</b>
<p><i>Summary of any observed/reported impacts or incidents, exceedence 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>

A handwritten signature in black ink, appearing to be 'R. Ross'.

30.06.13

Certified by Tahmoor Colliery:

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

Date: \_\_\_\_\_