

TAHMOOR COLLIERY: Longwall 27

Subsidence Management Status Report No. 03
 Submitted every four months as required by Condition 17 of the
 Subsidence Management Plan Approval for Longwall 27



Reporting Period	1 July 2013 to 31 October 2013	
Length of extraction	2215 m	as at 31 October
Length of extraction remaining	826 m	
Distance travelled by LW since previous report	820 m	
Maximum total subsidence since start of LW27 within zone of active subsidence	1000 mm	on Brundah Rd as at 30 September
Maximum incremental subsidence due to LW27 within zone of active subsidence	559 mm	on Hilton Park Rd as at 7 August
Maximum increase in subsidence since previous report	414 mm	Brundah Rd (7 August to 30 September)

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 in the vicinity of Redbank Creek and Bridge Street 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 township.</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 & 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, exceedance 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 four months as the longwall has moved away from Myrtle Creek by a distance of approximately 1500 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 (EMP). In light of the observed impacts on stream flow and exceedance 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. Relative 3D ground surveys of Redbank Creek have commenced. The ability to survey valley closure across the creek has been constrained by refusal by some landowners to provide access. The longwall face is approaching Redbank Creek and will mine directly beneath it within the next week. The results indicate that valley closure is developing across the Creek, particularly where the longwall face is closest to the creek.</p> <p>As per EMP and agreed by DRE after a site inspection, ongoing monitoring while in active subsidence zone and preparation of site restoration program if required on completion of mining to be prepared in consultation with DRE.</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 residents adjoining Myrtle Creek to discuss management actions.</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 is approaching 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 weekly teleconference. Detailed subsidence monitoring reports issued weekly. Please refer to Railway Status Report for further information.</p>

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Local Roads, Bridges and Culverts

Summary of any observed/reported impacts or incidents, exceedence of triggers

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.

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.

Weekly monitoring of the Bridge Street Overbridge has commenced with no measureable change reported.

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. Surveys at the Remembrance Drive Road and Pedestrian Bridges over Myrtle Creek during Longwall 27 measured minor changes. There was 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.

Monitoring and inspections for Castlereagh Street Bridge were 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.

Summary of Consultation with Stakeholders

Detailed subsidence monitoring report is issued to Wollondilly Council. 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.

Potable Water Infrastructure

Summary of any observed/reported impacts or incidents, exceedence 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 report is issued to Sydney Water each week.

Sewer Infrastructure

Summary of any observed/reported impacts or incidents, exceedence of triggers

No impacts observed or reported with respect to sewer infrastructure. Monitoring of the Tahmoor Carrier Pipe for changes in sewer grade along York Street shows grades are currently above trigger levels for low grades.

Summary of Management Actions

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

Weekly surveys were undertaken along the Tahmoor Carrier pipe from York Street to Tahmoor House Court. No issues were identified and pipe grades remain steeper than trigger levels.

Surveys at the Castlereagh Street Pumping Station are complete with little change observed during the mining of Longwall 27.

Summary of Consultation with Stakeholders

Detailed subsidence monitoring report is issued to Sydney Water. 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.

Gas Infrastructure

Summary of any observed/reported impacts or incidents, exceedence 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 report is issued to Jemena, and they have approved a reduction in the frequency of ground surveys along Remembrance Drive and at the Remembrance Drive Bridges.

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Electrical Infrastructure
<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.</p>
Telecommunications Infrastructure
<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.</p>
Items of Heritage Significance
<p>Tahmoor House</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 1500 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>Remembrance Drive</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>
Building Structures
<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>
Any additional and/or outstanding management actions
<p>None. The existing management processes are considered to be adequate and effective.</p>

Certified by Tahmoor Colliery:

Belinda Clayton
Community Coordinator
Tahmoor Colliery

Date: 8 November 2013