



LW26 Wollondilly Shire Council Roads, Bridges and Culverts SSSMP Review

Minutes from Meeting

Date: 22 December 2010

Time: 10:15 am to 11:15 am

Present:

NAME	ATTENDANCE	ORGANISATION
Belinda Clayton (BC)	✓	Xstrata Coal Tahmoor Colliery
Daryl Kay (DK)	✓	MSEC
John Matheson (JM)	✓	John Matheson & Associates
Barry Allen (BA)	✓	Wollondilly Shire Council

Introduction

The purpose of this meeting was to review the current management plan, entitled *Tahmoor Colliery Longwalls 25 to 26, Wollondilly Shire Council Roads, Bridges and Culverts, Surface Safety and Serviceability Management Plan, Revision C*, in light of the experiences observed during the mining of Longwall 25, and consider whether any amendments are required to the measures described for managing the potential for impacts to the Wollondilly Shire Council (WSC) infrastructure during the mining of Longwall 26.



Minutes

1. Review of Longwall 25

- 1.1 A review was undertaken of the subsidence movements and impacts observed during the mining of Longwall 25. The following observations are noted below in the minutes.
- 1.2 While there was generally a good correlation between predicted and observed subsidence, increased vertical subsidence has been observed at the south-eastern ends of Longwalls 24A and 25.
- 1.3 Impacts to road pavement and kerbs were similar to previous experiences during the mining of Longwalls 22 to 24 in frequency and extent. It is noted, however, that the severity of impacts at Abelia Street (hump in pavement) and at the corner of Remembrance Drive and Thirlmere Way (hump in roundabout) were greater than previously experienced.
- 1.4 Valley closure across Castlereagh Street Bridge was greater than predicted. Prior to reaching the Blue trigger for the bridge brackets, adjustments were made to the brackets to reduce the load on the brackets and deck. There is currently a small air gap between the abutment walls and the bracket supports so that there is no pressure on the brackets, abutments or bridge deck.
- 1.5 The management plan was reviewed and it was agreed that the measures in the plan were adequate. The flexibility in the plan allowed the Structures Response Group to consider additional management measures as required.

2. Review of subsidence management measures for Longwall 26

- 2.1 It was agreed that the current management plan (Rev C) is adequate for managing the potential impacts to WSC infrastructure and does not need to be revised. A number of management actions were discussed in detail, and these are described below in the minutes.
- 2.2 It is understood that mining has taken longer than expected and stated in Section 1.6 of the plan, but the management plan remains in force until the end of mining of Longwall 26 and for sufficient time thereafter to allow for completion of subsidence effects.
- 2.3 It is understood that Longwall 26 has been shortened since the management plan was prepared, but this has little effect on the potential movements and impacts on WSC infrastructure, other than reduced subsidence and potential impacts on Greenacre Drive.



- 2.4 Drawings MSEC446-00-01 and 446-00-02 were reviewed, where it was noted that the increased subsidence is expected to develop at the south-eastern (commencing end) of Longwall 26. The precise point at which subsidence transitions from increased subsidence to normal subsidence is not known, though two projections are shown.
- 2.5 As undertaken during the mining of Longwall 25, streets located directly above Longwall 26 in the Tahmoor township from Tahmoor Road to York Street will be monitored on a weekly basis when each line is within the active subsidence area, on account of the increased subsidence observed. Ground surveys will also include the previously impacted areas on Abelia Street and Remembrance Drive. Weekly surveys of streets in the active subsidence area will commence when the length of extraction is approximately 300 metres, where the longwall face will be directly beneath the bend in Tahmoor Road. The weekly survey frequency is **greater** than provided for in the Management Plan.
- 2.6 As undertaken during the mining of Longwall 25, daily visual monitoring will be undertaken in the Tahmoor township from Tahmoor Road to York Street when each street is within the active subsidence area, on account of the increased subsidence observed. Daily inspections in the active subsidence area will commence when the length of extraction is approximately 200 metres, where the mid-point of the longwall face will be directly beneath Tahmoor Road and when the rate of subsidence is expected to increase substantially. The daily inspection frequency is **greater** than provided for in the Management Plan.
- 2.7 Ground surveys and visual inspections of Castlereagh Street Bridge will be conducted as per the Management Plan. It is recognised that daily inspections were conducted during active valley closure during the mining of Longwall 25.

However, at that time, there was concern that the dowels between the top of the abutments and underside of the deck may shear and damage the concrete abutments. Steel brackets were installed to provide additional support to the abutment walls, ensuring that the dowels shear without breaking the concrete that surround them. It was possible, however, that the brackets, after achieving their design purpose of preventing abutment cracking at time of dowel shear, may reach the limit of their bearings and have begun to apply lateral loads onto the abutment walls. It is for this reason that daily inspections were required.



Monitoring of the bridge during the mining Longwall 25 has indicated that the dowels have sheared. Adjustments were therefore made to the brackets so there is currently a small air gap between the abutment walls and the bracket supports so that there is no pressure on the brackets, abutments or bridge deck. The brackets have been left in place to provide some support to the abutments and they can be easily re-adjusted during mining. A sketch showing the adjustment of the brackets is shown below.

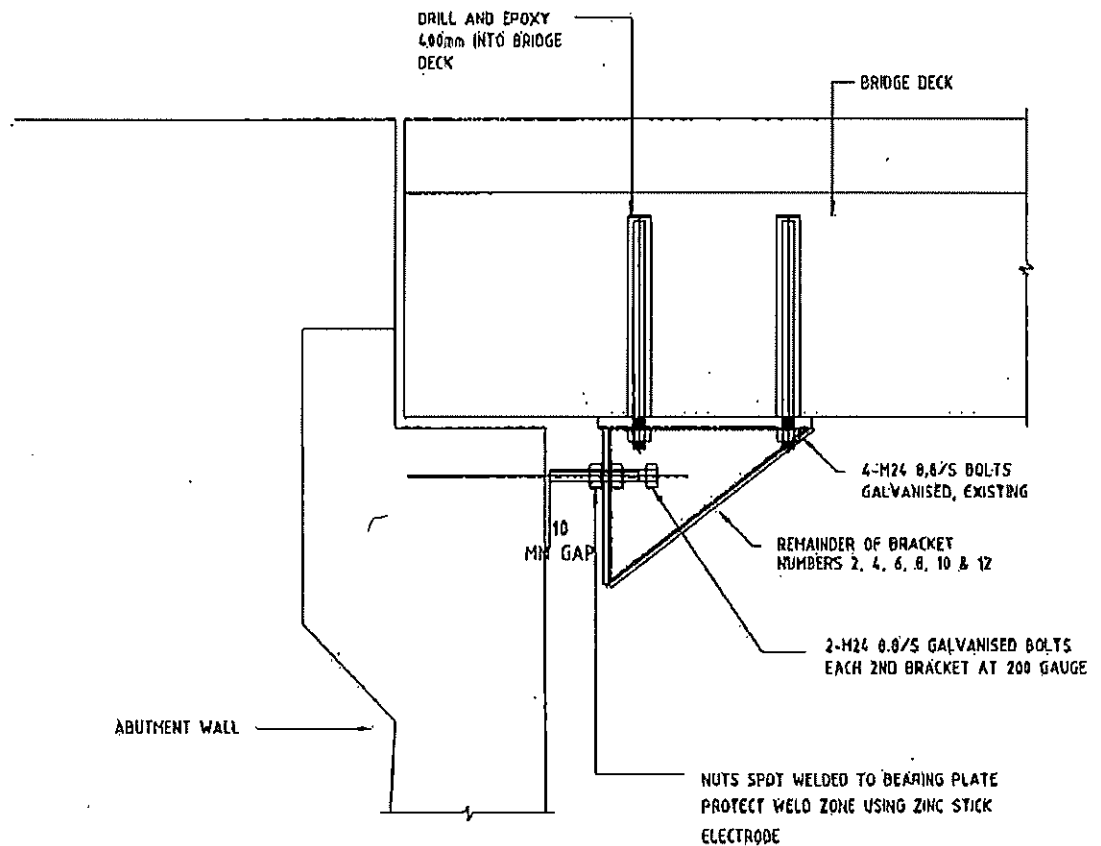


Figure A – Bracket Adjustment Detail (courtesy John Matheson & Associates)

It is for the above reasons that a frequency of weekly visual inspections is considered adequate during the mining of Longwall 26. However, as described in the Management Plan, the Structures Response Group may increase the frequency of visual inspections at any time, based on actual movements observed during the mining of Longwall 26. The Structures Response Group may also decide to undertake additional structural inspections at any time during mining, as were undertaken during the mining of Longwall 25.



2.8 The scaffold beneath the deck at both abutments will be re-erected prior to the longwall approaching Castlereagh Street Bridge to provide access for detailed visual inspections and to allow the gap between the abutment walls and the brackets to be measured.

Please confirm your acceptance of these minutes by signing and returning by to 02 46400 140

A handwritten signature in blue ink, appearing to read 'Ian Sheppard', written over a dotted line.

Ian Sheppard
Environment and Community Manager
Xstrata Coal Tahmoor Colliery

A handwritten signature in black ink, appearing to read 'Justin Nyholm', written over a dotted line.

Justin Nyholm
Manager Works
Wollondilly Shire Council

Wollondilly Shire Council

Fax Message



To: Belinda Clayton	From: Justin Nyholm
Company: Astrate	
Fax No: 0246400140	Fax No: 0246778264 Phone No:
Date: 27/1/11	<input type="checkbox"/> Appreciate response ASAP
No of pages, including this page: 6	<input checked="" type="checkbox"/> No response required

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Signed minutes as requested.