

Our Ref: 2553/BC/KD/160911

16 September 2011

David Kitto  
Director, Major Project Assessment  
Department of Planning and Infrastructure  
GPO Box 39  
SYDNEY NSW 2001

Attn: Sara Wilson

Dear David

**Re: West Wallsend Colliery Continued Operations Project - Proposed Mine Plan Modifications**

As you are aware, the Department of Industry and Investment (DI&I) (now Department of Trade and Investment, Regional Infrastructure and Services (DTIRIS)) provided two submissions on the West Wallsend Continued Operations Project (the Project), dated 7 September 2010 and 7 October 2010. West Wallsend Colliery (WWC) submitted a Response to Submissions Report in November 2010.

Following this process DTIRIS have raised the need for further consideration of their concerns in relation to public visibility of steep slopes and clifflines. DTIRIS were not satisfied that the proposed management strategies can effectively manage the risk of slope stability impacts visible to the public.

WWC have undertaken extensive further consultation with DTIRIS in regards to their concerns regarding steep slope issues. An additional subsidence assessment has been undertaken to identify the likely and credible worst case impact of the proposed operations on steep slopes and clifflines within the continued underground mining areas (refer to attached *Additional Mine Subsidence Impact Assessment of the Steep Slopes and Cliffs above the Proposed Longwall Panels LW38 to 50 at West Wallsend Colliery*, DgS 2011). One small section of cliffline above 20m in height has been identified and is shown on **Figure1**.

The further assessment identified a number of clifflines and steep slopes greater than 10 m within the continued underground mining area, refer to **Figure 1**. Of these, the only clifflines that may be publically visible are located in the northern extents of Longwalls 42 and 43.

In light of the concerns raised by DTIRIS and the further subsidence assessment, WWC are proposing further modifications to the mine plan. The modification will result in reducing the longwall void width within Longwalls 42 and 43 (refer to **Figure 2**) to 115 metres. The reduced panel width will result in reducing the predicted subsidence impacts to the potentially visible clifflines from 'High' to 'Low'.

It is worth noting that based on fieldwork to date, the exiting condition of the clifflines and steep slopes cannot be seen with the naked eye from any residential areas due to the dense tree coverage and vegetation present. It is however acknowledged that the impacts of instability along the upper level cliffs and steep slopes may become visible if large scale slope or tree felling was to occur.

The upper level cliffs and slopes, located in the northern extent of Longwalls 42 and 43, were predicted to be subsided by 0.1 m to 1.4 m after extraction of the proposed mine plan. The tilts were estimated to range from 10 to 30 mm/m and tensile strains likely to range between 5mm/m and 10mm/m. Surface cracking ranging from 100 mm to 350 mm width may develop on the upper slopes.

Following the proposed mine plan modifications, the cliffs and slopes within the northern extent of Longwalls 42 and 43 are predicted to be subsided by up to 0.2 m. The tilts are estimated to range from 4 to 20 mm/m and the tensile strains likely to be up to 4 mm/m. Surface cracking of 40 mm to 200 mm is now predicted within the upper slopes.

The decision to reduce the panel void widths of Longwalls 42 and 43 from approximately 178 to 115 metres in parts of Longwalls 42 and 43 was based on maximising resource recovery and minimising potential subsidence impacts on the identified clifflines. The proposed modifications will sterilise an additional 0.5Mt of coal resource at WWC. The proposed mine plan modifications will enable appropriate subsidence management plans to be implemented without significant risk to public safety, cliffline aesthetics or damage to existing infrastructure. Ongoing monitoring and review of the effectiveness of the management process will be undertaken as mining progresses.

There are additional clifflines greater than 10 metres located in the central portions of Longwalls 41 and 42 (refer to **Figure 1**). The assessment indicates that these clifflines are not publically visible. Additionally, a representative from DTIRIS (Ray Ramage) inspected these clifflines with WWC and confirmed he was comfortable that they are not publically visible. No mine plan modifications are proposed for these clifflines. It is considered the proposed management measures will adequately manage potential subsidence impacts on these clifflines.

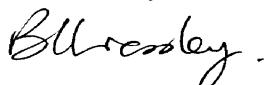
Cliffline rock fall and steep slope impact mitigation and management measures have been outlined in Section 8 of the *Additional Mine Subsidence Impact Assessment of the Steep Slopes and Cliffs above the Proposed Longwall Panels LW38 to 50 at West Wallsend Colliery* (DgS, 2011). WWC are committed to these management measures, including:

- filling of deep, longitudinal cracks above extracted panels with an approved pumpable grout mix with low strength and resistance to erosion;
- warning signs along access roads/walkways with mine site contact numbers to report damage;
- restriction of access to vulnerable locations in recreational areas during mining;
- strategic removal or stabilisation of loose boulders along clifflines and slopes above public access roads and tracks before and after mining impacts or prevent access through the installation of temporary security fencing during mining;
- monitoring of clifflines and steep slopes during mining and a review of subsidence impacts after each panel is extracted beneath a cliff;
- installation of erosion controls and surface/sub-surface slope drainage systems in areas where subsidence has resulted in slope erosion or instability; and
- regular inspections of clifflines and rock overhangs during and after mining.

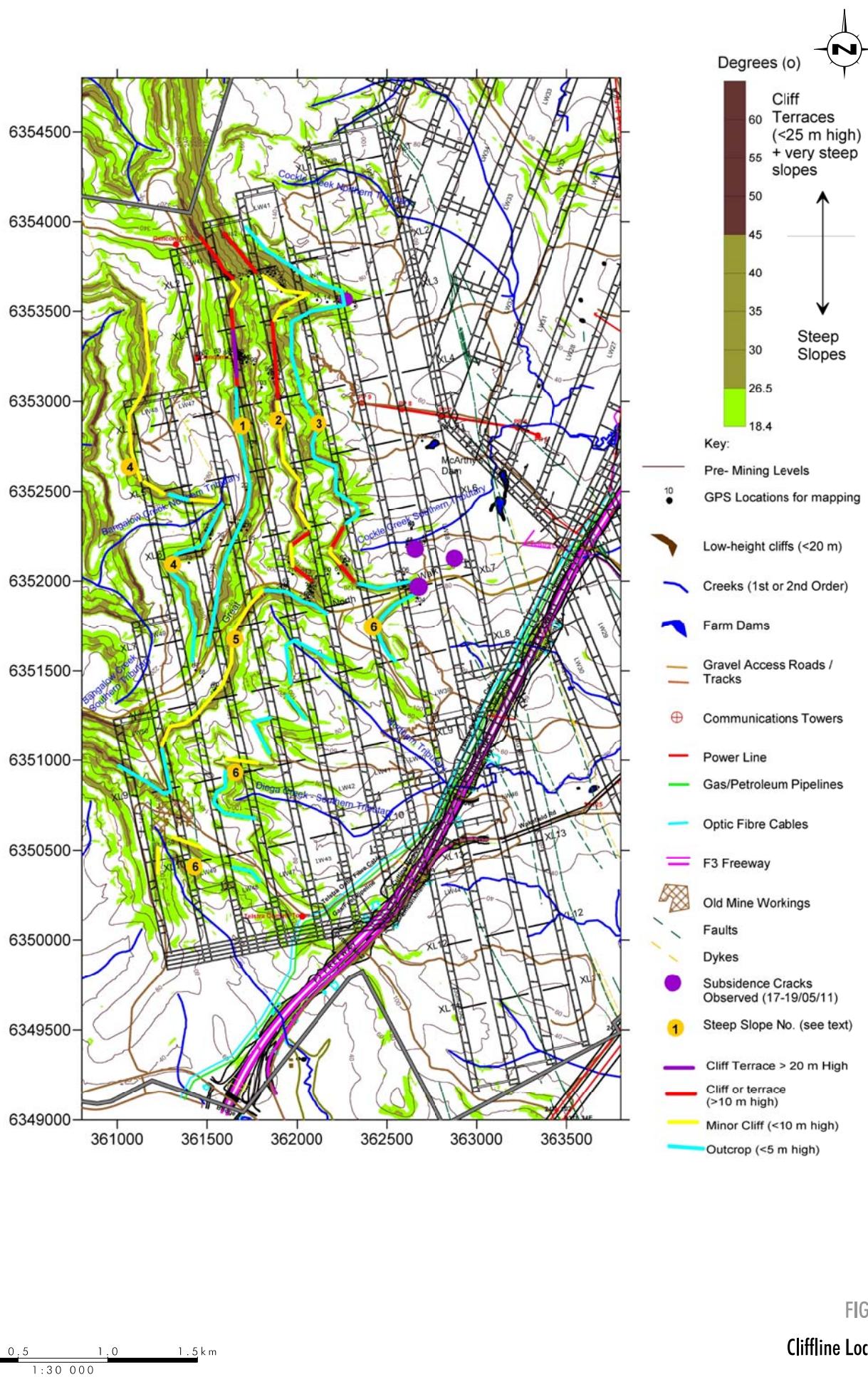
The proposed mine plan modification will reduce the subsidence profile within areas of steep slopes that are publically visible. The proposed additional mine plan modifications have been undertaken with careful consideration of the potential environmental impacts and economic feasibility of the mining operations. WWC believes that the proposed modifications will further ensure that future mining is able to be managed in such a way as to meet community and environmental expectations. Feedback during recent consultation with DTIRIS indicated that they were supportive of this further revision to the mine plan.

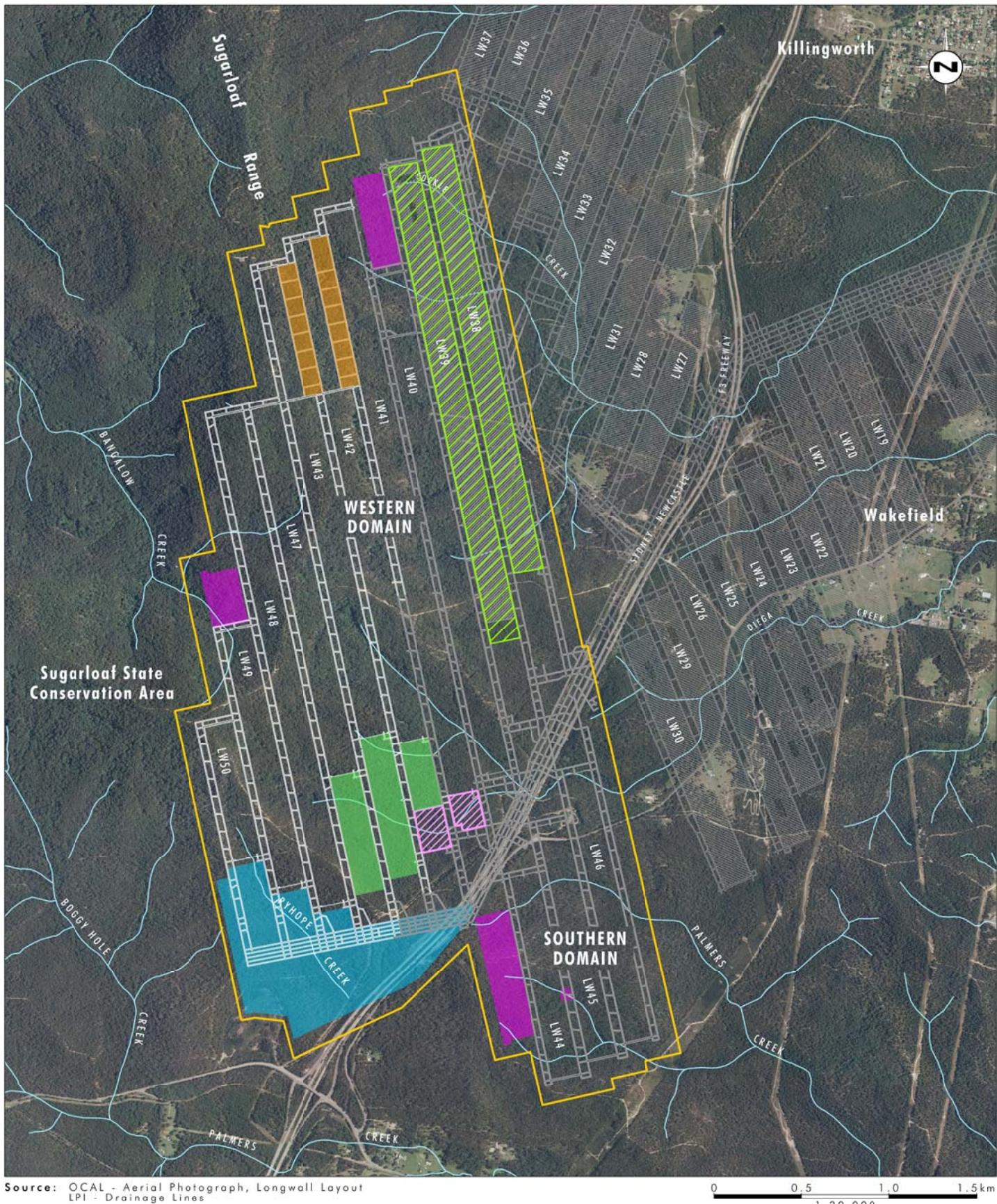
If you have any questions, please do not hesitate to contact Kirsty Davies, or myself, on 02 4950 5322, or Mark Robinson on 0439 131 585.

Yours faithfully



Barbara Crossley  
Director





#### Legend

- Continued Underground Mining Area
- Proposed Underground Working in the West Boilehole Seam
- Longwall Progression as of 5th July 2011
- Former Underground Workings
- Drainage Line
- Previous area removed for Low Depth of Cover (<80m) in Diega Creek
- Previous Revised Layout for Aboriginal Cultural Heritage Constraints
- Proposed Additional Revised layout for Depth of Cover (<80m) in Diega Creek
- Proposed Revised Layout for Steep Slopes

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**FIGURE 2**

#### Proposed Additional Mine Plan Modifications