

Land

Cliffs and Overhangs

Five cliffs and overhangs have been identified within 600 metres (m) of Longwalls 20-22 secondary extraction and are shown on Figure 1, namely, sites COH1, COH2, COH3, COH4 and COH14.

Visual inspections are conducted monthly for the period of time that longwall extraction is within 400 m of the cliffs and overhangs. Inspections of sites COH1 and COH2 were conducted in November 2011 and monthly from January to May 2012.

Specific details that are noted and/or photographed during the inspections include:

- the date of the inspection;
- the location of longwall extraction (i.e. the longwall chainage);
- the location of the cliff instability (i.e. freshly exposed rock face and debris scattered around the base of the cliff or overhang) relative to the cliff face or overhang;
- the nature and extent of the cliff instability (including an estimate of volume);
- the length of the cliff instability;
- other relevant aspects such as water seepage (which can indicate weaknesses in the rock);
- whether any actions are required (e.g. implementation of management measures, initiation of the Contingency Plan, incident notification, implementation of appropriate safety controls, review of public safety, etc.); and
- any other relevant information.

No cliff instabilities (i.e. freshly exposed rock face and debris scattered around the base of the cliff or overhang) or areas of water seepage in excess of that expected to result from rainfall conditions were evident.

The monitoring results are used to assess the Project against the land subsidence impact performance measure:

Less than 3% of the total length of cliffs (and associated overhangs) within the mining area experience mining-induced rock fall.

The land subsidence impact performance measure was not exceeded during the reporting period.

Steep Slopes and Land in General

Opportunistic visual inspections for subsidence impacts on steep slopes and land in general within 600 m of Longwalls 20-22 secondary extraction are conducted by Metropolitan Coal and its contractors as part of routine works conducted in the catchment.

Specific details that are noted and/or photographed during the inspections include:

- the location, approximate dimensions (length, width and depth), and orientation of surface tension cracks;
- the location of the surface tension crack in relation to fire trails;
- the location and approximate dimensions of rock falls (e.g. rock ledges that occur along the Waratah Rivulet);
- whether any actions are required (for example – implementation of management measures, initiation of the Contingency Plan, incident notification, implementation of appropriate safety controls, review of public safety, etc.); and
- any other relevant information.

The date of the observation, details of the observer and the location of longwall extraction are also documented.

A surface tension crack on Fire Road 9C was recorded by Metropolitan Coal surveyors in February 2012. The tension crack is approximately 10 m long, with a maximum width of 20 mm. The tension crack is situated adjacent to the ribline of Longwall 20 (between survey pegs C20 and C21) and is consistent with predictions of surface tension in this area. Subsequent inspections have noted no increase in crack development. A fallen rock ledge on the Unnamed Tributary was noted during the aquatic ecology surveys in September 2011.

Neither of the subsidence impacts were considered to represent a safety or environmental hazard. Due to the narrow dimension of the surface tension crack, manual remediation was not considered warranted.

METROPOLITAN COAL - ENVIRONMENTAL MONITORING SUMMARY

