Blast management practices
Response given to The Newcastle Herald

Did the department receive complaints about a blast at the Mt Thorley mine at 1.50pm on Friday 24 February, which had a profound impact on nearby residents in Bulga? What is being done to minimise the effects of mine blasting on surrounding residents generally and are there plans to do more? Is the geology of a mine site considered when drawing up blasting guidelines?

Department of Planning and Infrastructure response:

The department did not receive any complaints about a blast occurring on Friday 24 February 2012. However, three complaints were received about a blast fired one week earlier, at 1.51pm on Friday 17 February. The Mount Thorley-Warkworth mine also advised of seven complaints the mine received about this blast.

At seven monitors located near homes and Bulga Village, the blast vibration readings ranged from 0.24mm per second to 2.14mm per second - well within the 10mm per second limit in the mine’s consent and the requirement for 95 per cent of blasts to measure less than 5mm per second. The overpressure readings for this blast ranged from 90.37 decibels to 110.05 decibels at the monitors – also well within the 120 decibel overpressure limit and requirement for 95 per cent of blasts to be less than 115 decibels. The department has received the mine’s report into the blast and will be meeting with the mine to discuss a number of matters, including this blast.

The current blasting limits used by the department in mine approvals are taken from EPA guidelines. These are based on the widely accepted Australian and New Zealand Environment Council’s (ANZEC) technical standards (ANZEC Technical basis for guidelines to minimise annoyance due to blasting overpressure and ground vibration).

The department’s Singleton compliance officers regularly observe blasts at Upper Hunter mines and are working with mines to improve the management of blast fume. In January 2012, the office also began reviewing and approving management plans for the mines, including reviewing blast management plans.

The department is also currently considering how the blast management plans for Hunter coal mines could be strengthened to improve the recording, reporting and management of blast fume.

While geology can influence how vibration from a blast travels underground, the department already monitors the vibration and overpressure readings of each blast at a number of monitors near homes, and well away from the mine sites. Mines are aware of geology when designing their blast and must keep their blasts within the required limits for each of the monitoring points. As such, a geological survey would not assist the department to enforce these vibration and overpressure limits.