

# ABEL UNDERGROUND MINE EXISTING SUBSIDENCE COMMITMENTS

Abel Upgrade Modification  
Environmental Assessment

ATTACHMENT 3

**Subsidence Specific Commitments by the Company**

<p>A. Principal Residences</p>	<p>The Company commits to producing and implementing a plan of management for each Principal Residence existing at the date of approval of this project. A Principal Residence is defined as an existing building capable of being occupied as a separate domicile and used for such purpose. The plan of management will be produced and implemented as follows:</p> <p>A1. Each Principal Residence will be individually assessed by the Mines Subsidence Board /structural engineer who will determine tolerable levels for individual subsidence parameters. Tolerable limits are those limits which will result in no mitigation works being required to the Principal Residence due to subsidence impacts from the Abel Underground Mine.</p> <p>A2. Each Principal Residence will have a pre-mining survey to identify and record pre-existing imperfections that will not be covered by the Mines Subsidence Board.</p> <p>A3. Such assessments will be done as and when the progression of the mining process dictates – i.e. mining may have commenced in other areas prior to the individual Principal Residence assessment being undertaken.</p> <p>A4. Tolerable levels will be set according to such factors as dwelling construction (e.g. brick veneer, clad), type (single, double storey), size (length and width), footings (slab, strip footings, piers), surface conditions (sand, rock, clay, steep slope) etc, with reference to the MSB Graduated Guidelines (compatible with AS 2870 and the Building Code of Australia).</p> <p>A5. The mine plan in proximity to each Principal Residence will be modified by the Company to maintain subsidence parameters within the tolerable levels determined above for each Principal Residence.</p> <p>A6. The mine plan will be reviewed by the MSB and the DPI prior to any Subsidence Management Plan being approved under the relevant lease.</p> <p>A7. Each Principal Residence will have a specific subsidence monitoring plan to monitor subsidence impacts before and after mining at the Principal Residence and to ensure that tolerable limits are achieved in practice.</p> <p>A8. The Mines Subsidence Board has the responsibility to rectify any impacts to structures that may occur as a result of mining.</p> <p>In cases where the owner of the Principal Residence and the Company can agree to terms which permit second workings under the Principal Residence greater than those permitted above, the Company agrees to negotiate a plan of management similar to that</p>
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	proposed in the section of this Statement of Commitments titled "All Other Surface Structures"..
B. Future Principal Residence	<p>If there is no existing residence on a landholding and a residence is planned to be built, the site for this Future Principal Residence will be protected in the same way as that proposed above for Principal Residences. This commitment applies to a maximum of one Future Principal Residence per landholding.</p> <p>NOTE: Once the Mine Subsidence District is declared for the area all Future Principal Residences will require approval from the Mine Subsidence Board and must comply with the <i>Mine Subsidence Compensation Act 1961</i>.</p>
C. Black Hill School	All buildings and structures located at Black Hill School will be managed as if they were a Principal Residence.
D. Black Hill Church and Cemetery	The Black Hill Church and cemetery will be managed as if they were a Principal Residence.
E. All Other Surface Structures	<p>"All Other Surface Structures" is defined as any building or structure impacted by mining-induced subsidence from the Abel Underground Mine Project which is not categorised as a Principal Residence, Future Principal Residence, Black Hill Church and Cemetery or Black Hill School.</p> <p>The Company shall prepare and implement plans of management for the mitigation and remediation of any damage to All Other Surface Structures prior to any mining occurring that would impact on them.</p> <p>The plan of management will include:</p> <ul style="list-style-type: none"> <li>(a) pre-mining audit of the structure;</li> <li>(b) the provision of a plan of management as part of the SMP approval process which requires the Company to mitigate/remediate any damage to improvements associated with the structure in conjunction with the Mines Subsidence Board;</li> <li>(c) post-mining monitoring of the improvements associated with the Structure.</li> </ul> <p>The mitigation/remediation measures to be undertaken will be related to the extent of damage experienced – see Schedule 1 for details.</p>
F. Dams	<p>A Dam Monitoring and Management Strategy (DMMS) will be formulated for all dams prior to any mining occurring which will impact on the dams. The DMMS will provide for:</p> <p>F1. The individual inspection of each dam by a qualified engineer for:</p> <ul style="list-style-type: none"> <li>• current water storage level;</li> <li>• current water quality (EC and pH);</li> </ul>

	<ul style="list-style-type: none"> <li>• wall orientation relative to the potential cracking;</li> <li>• wall size (length, width and thickness);</li> <li>• construction method and soil / fill materials;</li> <li>• wall status (presence of rilling / piping / erosion / vegetation cover);</li> <li>• potential for safety risk to people or animals;</li> <li>• downstream receptors, such as minor or major streams, roads, tracks or other farm infrastructure; and</li> <li>• potential outwash effects.</li> </ul> <p>F2. Photographs of each dam will be taken prior to and after undermining, when the majority of predicted subsidence has occurred.</p> <p>F3. Dam water levels, pH and EC will be monitored prior to and after undermining to assess the baseline and post mining dam water level and water quality in order to determine whether rehabilitation is required.</p> <p>F4. In the event that subsidence / crack development monitoring indicates a significant potential for dam wall failure, dam water will be managed in one of the following manners:</p> <ul style="list-style-type: none"> <li>• pumped to an adjacent dam to lower the water level to a manageable height that reduces the risk of dam wall failure,</li> <li>• discharged to a lower dam via existing channels if the water can not be transferred, or</li> <li>• not transferred if the dam water level is sufficiently low to pose a minor risk.</li> </ul> <p>An alternate water supply will be provided to the dam owner until the dam can be reinstated.</p> <p>F5. In the event of subsidence damage to any dams the Company shall remediate the damage and reinstate the dam in conjunction with the Mine Subsidence Board.</p>
G. Public Roads	The Company shall prepare and implement a plan of management as part of the SMP process implemented under the mining lease for the Abel Underground Mine. This plan of management will ensure the safety and serviceability of public roads and 4WD tracks and existing fire fighting access tracks.
H. Powerlines	The Company shall prepare and implement a plan of management as part of the SMP process which will ensure the safety and serviceability of powerlines.
I. Gas Pipeline	The Company shall prepare and implement a plan of management as part of the SMP process which will ensure the safety and serviceability of the gas pipeline.

J. Survey Marks	At the completion of subsidence or otherwise as required by Government Authorities, the functionalities of any survey marks affected by subsidence will be fully restored to the satisfaction of the Government Authorities.
K. Cliffs	<p>Trigger-action response plans (TARPs) will be developed by the Company based on consultation with DEC and Local Councils to ensure the general public and employees working in the vicinity of the cliffs are not exposed to rock falls caused by mine subsidence damage.</p> <p>Appropriate rock fall hazard controls may include such items as rock fall catch ditches, barrier fencing, earth mounds and warning signs installed at appropriate locations to promote awareness that a rock fall hazard could exist along the top and bottom of cliff lines that will be undermined.</p>
L. Water Supply	In the event of interruptions to water supplies due to subsidence impacts on farm dams, water tank pipelines, water mains and irrigation systems within the application area, the Company commits to providing water supplies of equivalent quality and quantity to locations convenient to those affected until such time that the affected farm dams, water tanks, pipelines, water mains and irrigation systems are restored.
M. General Surface Water Flow	<p>The Company shall prepare and implement a plan of management to maintain the surface drainage of areas surrounding any dwellings and other structures or infrastructure, where required. This plan shall include but not be limited to monitoring, mitigation or remediation of mining-induced ponding, drainage pattern changes and any resulting serviceability difficulties and/or hazards to the public.</p> <p>NOTE: Also see Water Supply.</p>
N. Public Safety	The Company shall prepare and implement a surface safety management program to ensure public safety in any surface areas that may be affected by subsidence arising from the proposed underground mining. This program shall include, but not be limited to, regular monitoring of areas posing safety risks, erection of warning signs, entry restrictions, backfilling of dangerous surface cracks and securing of unstable man-made structures or rockmass, where required and appropriate, and the provision of timely notification of mining progress to the community and any other relevant Stakeholders where management of public safety is required.
O. Landowner Agreements	The Company will enter into separate arrangements with Coal and Allied for its Black Hill land and with the Catholic Diocese of Maitland and Newcastle with regard to an agreed mining schedule underneath these respective lands. These arrangements will set timeframes for the completion of mining beneath these areas.