

Key Terminology: Understanding the language of mine rehabilitation.

Understanding the language used in mine rehabilitation provides the foundation for successful outcomes. It helps everyone involved – from local communities to industry experts and government officials – to communicate more effectively and make informed decisions, ensuring more effective mine rehabilitation practices.

The Mine Land Rehabilitation Authority has created the [MLRA Vocabulary](#) to provide a common baseline from which to work, acknowledging that language in this field is always changing and can vary across different areas. This resource offers a clear, common set of key terms for mine rehabilitation.. The MLRA Vocabulary is a compilation of terms common to the rehabilitation space, but with the addition of terms specific to Victoria's declared mines (no other state uses this term).

Two important terms have been selected for this fact sheet, providing a useful introduction to the language that is used in mine rehabilitation and will help to provide that common baseline

Floor Heave

Definition: the mine floor will heave (buckle upwards) when the pressure exerted by aquifers below the mine floor exceed the weight of overlying material (coal and other sediments). If aquifer pressures are unmanaged, floor heave can result and cause mine batters to become unstable, or even allow aquifer water to break through and inundate the mine floor. If unmanaged this imbalance can result in the mine floor lifting upwards, or heaving, batters becoming unstable and aquifer waters breaking through into the mine.

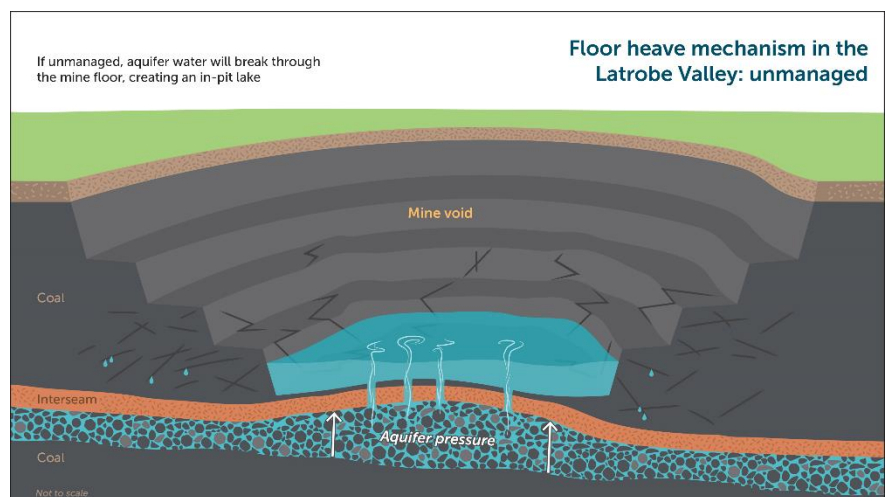


Figure 1: Floor heave

First, to explain **floor heave**, let's take a closer look at how a mine is built. The top layer of material, called **overburden**, is removed and kept handy for other uses. As the exposed coal below is dug out, the walls that are left are known as **batters**, and the flat areas that provide access for dredgers and vehicles, are called **benches**. Underneath the floor of mine naturally occurring underground reserves of water called **aquifers**, these are confined by material / rock which enable the water to become pressurised (**confined aquifers**).

Before mining, aquifer pressures are naturally contained by the weight of the coal sitting in the ground above them. As and the coal has been mined, that weight has been reduced and is now less than the natural pressures in the aquifers. This causes the aquifers to push up and through the mine floor, called 'heaving'. If the floor heaves, it destabilises both the floor and walls of the mine.

Block Slide

Definition: A block slide is type of landslide in which the moving mass, or block, travels downslope relatively coherently. The block moves along a roughly planar surface, with little rotation or backward tilting.

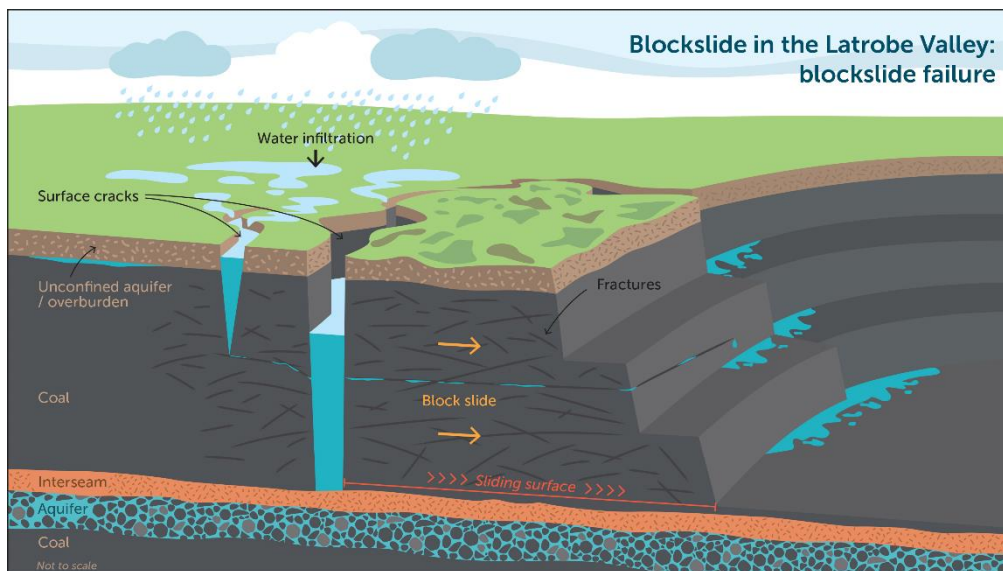


Figure 2: Block Slide

Coal and sediments in their undisturbed state settle and reach a state of balance/equilibrium over thousands of years. When a large amount is suddenly removed, however, the exposed sides are unsupported and naturally want to relax inwards. This relaxation produces large cracks, which segment the light, friable coal into blocks. Water can fill these cracks, exerting a sideways pressure on the already unsupported coal that can cause even large blocks to move. These cracks can undermine roads or other infrastructure. They can also cause mine wall (batter) collapse, with the potential to divert streams and large water volumes into the mine

These examples represent only a portion of the key terminology and language used in mine rehabilitation. You can read the full MLRA Vocabulary [here](#).

How does this affect you?

You may have a vision for Victoria's declared mines. Learning more about the technical, environmental, and social issues around mine rehabilitation can help inform this vision. An informed community is an empowered community.

One way of staying informed about the technical, environmental, and social issues around mine rehabilitation is by watching our videos and following us on social media.

Want to get involved? Want to join the conversation or meet with us? Contact us at 1800 571 966 or contactus@mineland.vic.gov.au

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