

# MLRA Vocabulary

Version 01

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## Approval for Use

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This document is approved for use only when all signatures are present and dated.

# Purpose

The purpose of this MLRA Vocabulary is to provide a consistent, shared baseline of terms relevant to declared mine rehabilitation in Victoria.

Language employed around mine rehabilitation and closure is evolving and varies from region to region. A shared vocabulary is a simple and effective way to facilitate better discussions, decision making and, ultimately, better outcomes.

This vocabulary aims to:

- Be a concise, curated reference of terms relevant to declared mines
- Remain a living document, updated as terms evolve and expand
- Serve as a reference for community, industry and government stakeholders

The vocabulary will be maintained by the Mine Land Rehabilitation Authority (MLRA) and publicly available at <u>www.mineland.vic.gov.au</u>. The vocabulary is not an exhaustive list of technical mining and related terms. Neither is it a definitive list of declared mine or related terms, nor does it replace statutory definitions in any context.

## Usage

The MLRA Vocabulary aims to provide a list of terms and their definitions as a guide only, using accessible language, for use in conversations between stakeholders within community, industry and the public sector.

The Vocabulary is not a statutory document and terms contained within do not replace those defined within respective legislative instruments, for example the Water Act, 1989; Mineral Resources (Sustainable Development) Act, 1990; Environment Protection Act, 2017, that govern various aspects of declared mine rehabilitation and closure.

### Development

The MLRA Vocabulary was developed in collaboration with participation by subject matter experts across industry and government. An initial draft list of terms was derived from reputable, publicly available sources for review. Where terms consistent with usage with Victorian declared mines, they were retained in full.

The MLRA wishes to thank participants from the following organisations for their time and contributions:

| AGL, Loy Yang                | Federation University                           |
|------------------------------|---|
| Alinta, Loy Yang             | Gippsland Water                                 |
| DEECA – Water and Catchments | Latrobe Valley Authority                        |
| Earth Resources Regulation   | Latrobe Valley Regional Rehabilitation Strategy |
| Energy Australia, Yallourn   | Southern Rural Water                            |
| Engie, Hazelwood             |   |

# Review and comment

The MLRA Vocabulary is available on www.mineland.vic.gov.au.. Terms will be reviewed periodically and updated online if required.

If you have any comments, including suggested terms for inclusion, please contact: <u>contactus@mineland.vic.gov.au</u>

## Sources

Where definitions were adopted verbatim (or close to) from an original source, source locations are provided in the definition. All other definitions were either derivatives of those from the sources below or specifically formulated by the MLRA and/or its stakeholders.

The initial list of Draft terms derived from publicly available resources and reviewed with stakeholders, including;

- Environment Protection Act 2017 (legislation.vic.gov.au)
- Mineral Resources (Sustainable Development) Act 1990
- Gippsland Groundwater Atlas, Southern Rural Water
- Water dictionary, Victorian Water Register
- Glossary, Central and Gippsland Region Sustainable Water Strategy
- Mine closure and reclamation Vocabulary, ISO: (Australian Standards, 2021)
- Definitions | Victorian Government (www.vic.gov.au)

#### Note:

Unique reference numbers (Ref.) are provided for each definition. These are either of the form;

- 1) Gen001 = A term used in a general context, typically a term in common usage or from legislation,
- or;
- 2) **Tech001** = A technical term used explicitly in a scientific or engineering context

| Ref.   | Term  | Definition (July 2023)  |
|--------|---|---|
| Gen001 | Advice (MLRA provided)                          | As the statutory authority for declared mine rehabilitation, the<br>MLRA must provide formal advice to the Minister under the Mineral<br>Resources (Sustainable Development) Act 1990. Advice is either<br>provided to inform the Minister on rehabilitation, requested by the<br>Minister to facilitate decision making, or as findings of an<br>investigation |
| Gen002 | Beneficial uses                                 | A use to the environment, or a segment of the environment, that<br>leads to public benefit, welfare, safety, health or aesthetic<br>enjoyment and which requires protection from the effects of waste<br>discharges, emissions or deposits. A beneficial use may be an<br>existing or potential use. A resource may have more than one<br>beneficial use        |
| Gen003 | Care and maintenance/<br>temporary mine closure | Phase following a temporary cessation of operations, when<br>infrastructure, plant and equipment remain intact and are<br>maintained in anticipation of production recommencing. Such a site<br>may be referred to as "inactive"  |

| Gen004           | Climate extreme (extreme<br>weather)          | <ul> <li>When a particular climate or weather event, like a flash flood or a heat wave, is significantly different from the average weather pattern for an area. These extremes can either be weather related or climate related.</li> <li>Weather related extreme events are shorter incidents - like deep freezes or heat waves. Climate related extreme weather events last longer or are caused by a build-up of weather-related events over time. Examples include droughts caused by prolonged dry spells or wildfires caused by an extended drought. Extreme weather events can be caused by natural cycles like La Niña or more immediate influences like high pressure systems</li> <li>(EcoWatch &amp; IPCC Report)</li> </ul> |
|------------------|---|--|
| Gen005           | Climate change                                | Climate change refers to any long-term trends or shifts in climate<br>over many decades. These changes may be due to natural<br>variations (such as changes in the Earth's orbit) or caused by<br>human activities changing the composition of the atmosphere.<br>Climate variability overlays, and sometimes hides, longer-term<br>climate change<br>(CSIRO)  |
| Gen006           | Climate variability                           | Climate variability refers to the year-to-year variations around the average conditions. This means that consecutive summers will not all be the same, with some cooler and some warmer than the long-term average ( <u>CSIRO</u> )  |
| Gen007<br>Gen008 | Closure (mine)<br>Closure criteria (Victoria) | The process of planning and managing the decommissioning of a mine, mitigating mining impacts, undertaking environmental rehabilitation and relinquishing the mining license/lease(s).<br>For recent and new mines this is envisioned as a 'whole of mine life' process<br>Criteria developed during mine closure planning against which   |
| Genuus           | Completion criteria (Victoria)                | mine closure is evaluated  |
| Gen009           | Closure plan                                  | Documentation that details mine closure strategies, design,<br>planning and implementation activities, and performance evaluation<br>to meet approved closure criteria.<br>See also Declared Mine Rehabilitation Plan (or DMRP) for declared<br>mines in Victoria  |
| Gen010           | Closure planning                              | A process spanning the whole of mine life that addresses any social, economic and biophysical aspects of undertaking mine  |

|        |  | closure. Closure planning typically culminates in tenement relinquishment.  |
|--------|--|---|
| Gen011 | Coal mine land   | As defined under the Mineral Resources (Sustainable<br>Development) Act 1990, the land covered by any of the following<br>licences (whether or not those licences are in force) –<br>(a) mining licence No. 5003;<br>(b) mining licence No. 5004;<br>(c) mining licence No. 5189;<br>(d) mining licence No. 5216;<br>(e) mining licence No. 5304;   |
| Gen012 | Community  | A group of people who live in the same geographical area or have<br>a shared background, interest, affiliation or membership<br>(www.vic.gov.au)  |
| Gen013 | Community engagement plan                              | A plan for consulting with the community that demonstrates that the licence holder will use appropriate and effective measures to consult with the community throughout the period of the licence, and is prepared in accordance with the regulations and any guidelines issued by the Minister (Mineral Resources (Sustainable Development) Act)   |
| Gen014 | Consultation   | Seeking and/or providing feedback or advice on a select topic or project  |
| Gen015 | Crown land   | Land belonging to the State of Victoria (the Crown)<br>(Earth Resources Victoria)   |
| Gen016 | Declared Mine Rehabilitation<br>Plan (DMRP) (Victoria) | The closure plan prepared by declared mine licensees in Victoria,<br>in accordance with the Mineral Resources (Sustainable<br>Development) Act 1990 and supporting regulations. DMRPs are<br>required to include proposed closure criteria and a post-closure<br>plan to gain statutory approvals.<br>See also Closure Plan<br>(modified after <u>Mineral Resources (Sustainable Development) Act</u> ) |
| Gen017 | Declared Mine (DM)<br>(Victoria)                       | A mine or quarry in Victoria declared by the Minister to have<br>geotechnical or hydrogeological factors within that pose a<br>significant risk to public safety, the environment or infrastructure<br>(modified after <u>Mineral Resources (Sustainable Development) Act</u> )   |

| Gen018 | Declared Mine Fund (DMF)<br>(Victoria)    | An account established under the Mineral Resources (Sustainable<br>Development) Act 1990, as part of the Public Account trust fund.<br>The Declared Mine Fund is used to pay for the post-closure<br>monitoring, maintenance and rehabilitation of land in the declared<br>mine land register, including costs incurred by unforeseen events<br>(modified after <u>Mineral Resources (Sustainable Development) Act</u> )  |
|--------|---|---|
| Gen019 | Declared Mine Land (DML)<br>(Victoria)    | Per part 1, section 7 of the Mineral Resources (Sustainable<br>Development) Act 1990;<br>(a) the land covered by a mining licence that includes a declared<br>mine (whether or not the licence is in force).<br>(b) the land covered by any of the following licences (whether or<br>not the licence is in force) -<br>(i) the mining licence No. 5216;<br>(ii) the mining licence No. 5304;<br>(Mineral Resources (Sustainable Development) Act)   |
| Gen020 | Declared Mine Land Register<br>(Victoria) | A land register established under the Mineral Resources<br>(Sustainable Development) Act 1990 to manage declared mine<br>land. Land is registered under the direction of the Minister and may<br>be removed from the Register once the Minister is satisfied that<br>significant risk factors are no longer present<br>(modified after <u>Mineral Resources (Sustainable Development) Act</u> )   |
| Gen021 | Declared Mine Licensee<br>(Victoria)      | The holder or the former holder of a licence that covers declared mine land (modified after Mineral Resources (Sustainable Development) Act)  |
| Gen022 | Domain (Rehabilitation)                   | Defined areas within a mine that have similar rehabilitation requirements or that adopt a common closure strategy   |
| Gen023 | Engagement                                | A planned process of communicating with communities and stakeholders with a specific purpose  |
| Gen024 | Environment                               | Per the Environmental Protection and Biodiversity Conservation<br>(EPBC) Act 1999 section 528, environment includes:<br>(a) ecosystems and their constituent parts, including people and<br>communities; and<br>(b) natural and physical resources; and<br>(c) the qualities and characteristics of locations, places and areas;<br>and<br>(d) heritage values of places; and<br>(e) the social, economic and cultural aspects of a thing mentioned<br>in paragraph (a), (b), (c) or (d). |

| Gen025 | Environment Effects Statement<br>(EES) (Victoria) | An environment assessment of the potential environmental impacts<br>or effects of a proposed development deemed by the Minister for<br>Planning in Victoria to be required under the Environment Effects<br>Act 1978.<br>The EES is not an approval process itself, rather it enables<br>statutory decision-makers (Ministers, local government and<br>statutory authorities) to make decisions about whether a project<br>with potentially significant environmental effects should proceed |
|--------|---|--|
| Gen026 | Financial assurance/<br>financial security        | A financial instrument, such as a bond, bank guarantee or levy,<br>imposed on the mine licensee. It is held by Government and used<br>in the event that the licensee fails to perform required mine closure<br>activities  |
| Gen027 | Infrastructure                                    | The basic physical and organizational structures and facilities (e.g. buildings, roads, power supplies) needed for the operation of a society or enterprise  |
| Gen028 | Inherent risk                                     | The level of risk of a particular event or threat, in the absence of controls  |
| Gen029 | Landholder / landowner                            | An owner, occupier, person or body responsible for the management of the land  |
| Gen030 | Latrobe Valley region                             | The region constituted by the municipal districts of the Latrobe City<br>Council, Baw Baw Shire Council and Wellington Shire Council<br>(modified after <u>Mineral Resources (Sustainable Development) Act</u> )   |
| Gen031 | Licensee  | A licensee is the person or entity who holds the licence and may be represented by a company delegate, agent or contractor (Earth Resources Victoria)  |
| Gen032 | Mine rehabilitation (Victoria)                    | Returning land disturbed by mining to a safe, stable, productive<br>and self-sustaining condition that enables beneficial uses of the site<br>and surrounding land. Rehabilitation is considered as complete<br>once closure criteria have been achieved and the mine license is<br>surrendered.<br>(see Closure)  |
| Gen033 | Mining licence                                    | A permit for the licensee to explore for minerals, construct facilities related to the mining operation and undertake mining within a specified area   |
| Gen034 | MLRA  | Mine Land Rehabilitation Authority or the Rehabilitation Authority, per the Mineral Resources (Sustainable Development) Act  |

| Gen035 | Monitoring & Evaluation<br>Framework (MEF) | A monitoring framework that helps assess the implementation (and effectiveness) of rehabilitation planning activities and the rehabilitation strategy (LVRRS). The Monitoring and Evaluation Framework details outcomes to be achieved and allows for the undertaking of strategic audits (modified after Mineral Resources (Sustainable Development) Act)  |
|--------|--|---|
| Gen036 | No regrets (rehabilitation)                | Rehabilitation works that are undertaken without approval and which may require changing  |
| Gen037 | Non-polluting                              | Having no adverse impacts upon the receiving environment ( <u>Law Insider</u> )   |
| Gen038 | Objective                                  | Objectives are specific targets towards achieving an intended outcome   |
| Gen039 | Outcome                                    | Something that follows as a result of or consequence. In rehabilitation this can include the results of implementing a planned design   |
| Gen040 | Pit lake                                   | A body of water established within a mine void that has been<br>intentionally or unintentionally flooded, or that penetrates below the<br>local water table and has been allowed to flood   |
| Gen041 | Pollution, pollutant<br>(environmental)    | The presence or introduction into the environment of a substance which has harmful or poisonous effects   |
| Gen042 | Post-closure (Victoria)                    | Period following the Minister's determination that Closure Criteria<br>have been met. The license is surrendered and the landowner<br>becomes responsible for ongoing monitoring, maintenance and<br>management activities in accordance with the post-closure plan (or<br>PCP).<br>NB. the MLRA is responsible for ensuring implementation of the<br>PCP, either as the independent authority or as the landowner<br>See Post Closure Plan |
| Gen043 | Post Closure Plan (PCP,<br>Victoria)       | A document produced by the declared mine licensee and submitted for approval with the DMRP.   |
|        |  | Per the Mineral Resources (Sustainable Development) Act 1990 section 84AZU(3)(c), the PCP sets out the monitoring and maintenance to be carried out post-closure  |
| Gen044 | Post-mining landform treatment             | Works, measures and methods used to mitigate risks during mine closure and/or help achieve mine closure objectives  |

| Gen045 | Progressive rehabilitation<br>(Victoria)  | Staged and ongoing implementation of mine closure strategies for<br>mine features during the operating life of a mine. These works are<br>often termed as progressive mine closure  |
|--------|---|---|
| Gen046 | Public sector body  | Per the <u>Mineral Resources (Sustainable Development) Act</u> section<br>84AB, one of the following;<br>(a) the Department Head of the Department of Transport;<br>(ab) the Department Head of the Department of Jobs, Precincts<br>and Regions;<br>(b) the Department Head of the Department of Environment, Land,<br>Water and Planning;<br>(c) the Environment Protection Authority under the Environment<br>Protection Act 2017;<br>(d) the Victorian Work Cover Authority under the Workplace Injury<br>Rehabilitation and Compensation Act 2013;<br>(e) a responsible authority within the meaning of the Planning and<br>Environment Act 1987 that performs functions under that Act in the<br>Latrobe Valley region;<br>(f) an Authority within the meaning of the Water Act 1989 that<br>performs functions under that Act in the Latrobe Valley region;<br>(g) the Aboriginal Heritage Council under the Aboriginal Heritage<br>Act 2006;<br>(h) the Victorian Rail Track under the Transport Integration Act<br>2010;<br>(i) the V/Line Corporation under the Transport Integration Act<br>2010;<br>(j) the Head, Transport for Victoria;<br>(k) a public sector body (within the meaning of the Public<br>Administration Act 2004) that is prescribed. |
| Gen047 | Reasonably practicable  | To put in proportionate controls to eliminate or minimise risks of harm. Proportionate means the greater the risk of potential harm, the greater the expectation for you to manage it (EPA Victoria)  |
| Gen048 | Referral investigation (Victoria)   | Under the Mineral Resources (Sustainable Development) Act<br>section 84AQ;<br>The Minister may refer an investigation of any matter to the<br>Rehabilitation Authority that relates to the rehabilitation of declared<br>mine land, the regional rehabilitation strategy or a rehabilitation<br>planning activity   |
| Gen049 | Relinquishment  | See Surrender   |
| Gen050 | Regional rehabilitation strategy<br>(Latrobe Valley Regional<br>Rehabilitation Strategy, or<br>LVRRS) | The document prepared by the Minister setting out a strategy for<br>the safe, stable and sustainable rehabilitation of coal mine land in<br>the Latrobe Valley. The strategy must consider adjacent land and  |

|        |  | relationships between mines, and a plan for managing land after<br>rehabilitation is complete.<br>(modified after <u>Mineral Resources (Sustainable Development) Act</u> )  |
|--------|--|---|
| Gen051 | Rehabilitation and closure planning activities | Activities undertaken to implement the DMRP/closure plan and to effect rehabilitation, in order to achieve closure criteria and facilitate license surrender/relinquishment   |
| Gen052 | Repurpose                                      | Modification of a mine feature, domain or area disturbed by mining to a productive condition corresponding with a post mining land use ( <u>ISO</u> )   |
| Gen053 | Research plans                                 | The MLRA has defined a research plan in consideration of the requirements of the MRSDA as: all documentation associated with the development and implementation of the DMRP and requirements of any other Act   |
| Gen054 | Residual liability (Victoria)                  | Any liability that exists after the determination by the Minister that closure criteria have been met and the mining licence surrendered (post-closure)   |
| Gen055 | Residual risk                                  | Risks remaining after control measures have been implemented  |
| Gen056 | Safe   | Is not likely to cause harm to people or the environment  |
| Gen057 | Stable   | <ul> <li>The rehabilitated post-closure site should remain sufficiently robust<br/>and secure in the long-term to require a minimum of management<br/>and intervention;</li> <li>landscapes should suffer minimal erosion and physical<br/>degradation, and landforms should be free from excessive ground<br/>movements</li> <li>chemical degradation should be minimised to prevent chemical<br/>migration and contamination of the environment</li> <li>ecosystems should be self-sustaining with minimal need for<br/>intervention</li> </ul> |
| Gen058 | Sustainable                                    | Practices that support ecological, human and economic health and vitality. Sustainability presumes that resources are finite and should be used wisely with a view to meeting the needs of the present, without compromising the ability of future generations to meet their own needs (see Sustainable Development)  |
| Gen059 | Stakeholder                                    | Person, group, or organization with the potential to affect, or be affected by, the process or outcome of mine closure ( <u>ISO</u> )   |

| Gen060 | Sustainable development | Meeting the needs of the present without compromising the ability<br>of future generations to meet their own needs   |
|--------|-------------------------|--|
| Gen061 | Strategic audit         | The MLRA's definition of a strategic audit is:<br>A formal examination of any aspect of rehabilitation and closure<br>planning, and implementation by public sector bodies or declared<br>mine licensees, against relevant standard(s), such as legislation,<br>policy and/or guidance |
| Gen062 | Strategy                | A long-range plan for achieving something or reaching a goal   |
| Gen063 | Surrender               | Closed mine or mine feature for which management and monitoring<br>has been completed and tenure has been surrendered, with<br>responsibility transferred to the next landowner, relevant regulating<br>authority or third party (see Relinquished)                                    |
| Gen064 | Тохіс                   | Containing or being poisonous material, especially when capable of<br>causing death or serious debilitation. Extremely harsh, malicious,<br>or harmful<br>( <u>Merriam-Webster</u> )   |

| Tecn001 | Allocation (water, Victoria) | After the Water Act (1989), water allocations define the volume of water that can be accessed under and environmental or bulk water entitlement. Allocations are made on seasonal determinations, or from the water available under the terms of the entitlement in any water season. |
|---------|------------------------------|---|
| Tecn002 | Aquifer                      | A layer of rock or unconsolidated sediments below ground that is<br>porous enough to store groundwater and permeable enough to<br>permit large volumes of groundwater to flow   |
| Tecn003 | Aquitard                     | A low permeability layer of rock or sediment below ground that acts<br>as a barrier to groundwater, impeding flow<br>(Southern Rural Water)   |
| Tecn004 | Batter                       | A wall of an open cut mine or quarry void, which can be in<br>overburden, waste, ore or coal. Batters can have varying slope<br>angles, bench profiles and factors of safety depending on a range of<br>input design considerations   |
| Tecn005 | Bench                        | The flat part of the steps dug at an angle into a mine wall to prevent wall collapse (see 'batter')   |
| Tecn006 | Berm                         | Dirt and rock piled alongside a haulage road or along the edge of a dump point to clearly define safe limits of vehicle passage and dumping   |
| Tecn007 | Bulk entitlement             | A right to use and supply water in a waterway, water in storage<br>facilities of a water corporation, and groundwater.<br>The bulk entitlement sets out the amount of water that can be taken<br>or stored up to a maximum volume, and any specific conditions                        |
| Tecn008 | Block slide                  | A type of landslide in which the moving mass, or block, travels<br>downslope relatively coherently. The block moves along a roughly<br>planar surface, with little rotation or backward tilting. See mass-<br>movement  |
| Tecn009 | Boreholes                    | A hole bored into the ground to extract water or other fluids, such as<br>oil and gas, or for monitoring subsurface conditions, or releasing<br>pressure from behind pit walls.<br>Boreholes can be vertical or horizontal.   |
| Tecn010 | Buttress                     | A mass of earthen fill placed at the base of a mine slope to improve slope stability by providing lateral support.  |
| Tecn011 | Coal                         | A sedimentary deposit composed predominantly of carbon that is<br>readily combustible. Coal grade, or rank, is dependent on carbon<br>content and ranges from lignite (brownish black) up to anthracite   |

|         |                                       | (glossy black). Coal forms over geologic time when plant remains<br>have been compacted, hardened, chemically altered then modified<br>by heat and pressure   |
|---------|---------------------------------------|---|
| Tecn012 | Coal seam                             | Coal occurs in beds, called seams, which are blanket-like coal deposits a few centimetres to metres or hundreds of metres thick.  |
| Tecn013 | Confined aquifer                      | An aquifer that is confined by a layers of impermeable rock or<br>sediment, that cannot equilibrate with regional water pressure.<br>Groundwater in a bore drilled into a confined aquifer, may rise above<br>the top of the aquifer due to increased pressures.  |
| Tecn014 | Engineered Cover                      | Engineered layers of synthetic material or (non-reactive) mine<br>material, often clay-rich, placed over (reactive) mine waste or tailings<br>to control infiltration and precipitation runoff. A cover can be<br>designed and engineered for multiple purposes, including to support<br>vegetation establishment, prevent fire or to absorb and release<br>precipitation (via evaporation/transpiration) |
| Tecn015 | Creep (geology)                       | Slow mass-movement of soil or rock material down slope, driven<br>primarily by gravity or hydrostatic stresses, but facilitated by water<br>saturation or by alternate freezing and thawing.  |
| Tecn016 | Depressurisation                      | To release or reduce pressure within confined aquifers or behind the coal batters. In the Latrobe Valley mines this is to prevent floor heave a batter collapse   |
| Tecn017 | Erosion                               | The removal of materials, including rock fragments, soil, or dissolved matter (sediments) by wind, water, ice, detachment or dissolution. The eventual transport and deposition of these materials is called sedimentation.   |
| Tecn018 | Floor heave                           | When the upwards acting confined aquifer pressures, below the mine<br>floor are larger than the weight / pressure of coal and sediments<br>remaining above. If unmanaged this imbalance can result in the mine<br>floor lifting upwards, or heaving, batters becoming unstable and<br>aquifer waters breaking through into the mine.  |
| Tecn019 | Factor of Safety (slope<br>stability) | Slope stability is controlled by two factors: driving and<br>the resisting forces.<br>The driving forces tend to destabilize a slope, leading to landslide<br>phenomena, and are typically associated with the triggering causes<br>of the landslides (the weight of the ground and the additional loads).  |

|         |                         | Resisting forces depend on the shear strength of the soil/rock materials, as well as any additional forces to increase stability of the slope (e.g., buttressing).   |
|---------|-------------------------|--|
|         |                         | The Factor of Safety (FoS) is defined as the ratio between the aforementioned two components. The FoS is used as design criteria for batter stability, final landforms and other ground engineering designs.   |
| Tecn020 | Fractures / joints      | A break in a rock in response to stress with no offset is a fracture.<br>Many fractures of the same orientation are called a joints. If rocks on<br>one side of a fracture are offset relative to the other side, then the<br>fracture is called a fault.  |
| Tecn021 | Groundwater             | Groundwater is water that is found below the ground surface.   |
|         |                         | (Southern Rural Water)   |
| Tecn022 | Groundwater basin       | Analogous to a river basin, a groundwater basin is made up of one or<br>more aquifers hosted within geological layers below the land surface.<br>They are often defined for administrative purposes and may extend<br>offshore or across state boundaries  |
| Tecn023 | Horizontal bores        | Near-horizontal drains (~1-5°) drilled to decrease the elevation of the water table surface and reduce pore pressures within the effected soil/rock units (dewatering)   |
| Tecn024 | Hydrogeology            | A branch of geology concerned with the occurrence, use and functions of groundwater  |
| Tecn025 | Interseam               | Sedimentary layers, typically comprising sand, silt and clay layers,<br>separating coal seams that vary in thickness and lateral extent.<br>Interseams in the Latrobe Valley are predominantly clay, with sand<br>and gravel lenses  |
| Tecn026 | Leachate                | The solution (or suspension) that forms when liquid travels through a permeable medium and removes some components of the medium with it. Those components may be dissolved or suspended within the liquid.  |
| Tecn027 | Mass movement (geology) | Mass movements (also mass wasting) are abrupt bulk movements of<br>soil and rock downslope in response to gravity, due to sediment<br>loading or in response to an external trigger (e.g. earthquake, flash-<br>flooding). Examples include landslides or slumps, debris flows, and<br>subaqueous sediment flows in lakes or oceans. |

| Tecn028 | Mine dewatering                     | The action of removing water (including surface and ground water) from a mine   |
|---------|-------------------------------------|---|
| Tecn029 | Mine void (mine pit/ open cut)      | Excavation made for the purpose of extracting ore   |
| Tecn030 | Monitoring                          | To observe and check the progress or quality (of something) over a<br>period of time, to keep under systematic review. This includes<br>the periodic tracking of any activity's progress by systematically<br>gathering and analysing data and information                                      |
| Tecn031 | Overburden                          | Near surface materials lying above the ore body that are removed for the mining process   |
| Tecn032 | Post mining landform                | Constructed topographic feature for which reclamation has been<br>completed to support long term stability and post mining land use. It<br>can incorporate one or more mine features or domains.  |
| Tecn033 | Reshaping/ re-sloping/<br>regrading | Modifying the shape, slope or profile of the ground surface during mine rehabilitation to improve long term safety and surface stability.   |
| Tecn034 | Revegetation                        | Establishment of vegetation upon a post mining landform or other disturbed area   |
| Tecn035 | Salinity                            | The amount, or concentration, of salts dissolved in water or soil.<br>Changes in salinity can be naturally occurring, or induced by external<br>factors   |
| Tecn036 | Seepage                             | The slow discharge of a fluid or gas through a permeable material   |
| Tecn037 | Sinkhole                            | A depression or cavity in the ground formed when underlying support<br>is removed and the ground surface collapses. Collapses mostly<br>occur naturally due to erosion or dissolution (e.g. limestone<br>karstification), but can arise from human activities such as<br>groundwater extraction |
| Tecn038 | Spill                               | When water is released from the storage when there the supply of water exceeds the current demand.<br>At worksites, a spill informally describes a loss of containment (including leaks) of any liquid or other substance, irrespective of the substances' potential to cause harm              |
| Tecn039 | Spillway                            | Structure designed and constructed to facilitate release of excess<br>water from a water management or storage facility (e.g. weir or dam)  |

| Tecn040 | Subsidence                   | Sinking of the ground surface over large areas. Subsidence can be<br>natural, driven by geologic processes, or caused by the removal of<br>water, oil, natural gas, or mineral resources out of the ground by<br>pumping, fracking, or mining activities.  |
|---------|------------------------------|--|
| Tecn041 | Surcharge                    | A vertical load acting on the ground surface. A surcharge load placed<br>adjacent to a slope can also apply a lateral load, depending on the<br>slope design and ground surface conditions.  |
| Tecn042 | Unconfined aquifer           | An aquifer whose upper groundwater surface is able to equilibrate<br>(rise and fall) with atmospheric pressure. Groundwater in a bore<br>drilled into an unconfined aquifer will remain at the same level as the<br>top of the aquifer   |
| Tecn043 | Water Act 1989<br>(Victoria) | The legislation that governs the way surface water and groundwater<br>entitlements are issued and allocated in Victoria. It defines water<br>entitlements, establishes the mechanisms for managing Victoria's<br>water resources and relates to the governance and operation of rural<br>and urban water corporations. |
| Tecn044 | Water way                    | A river, creek, stream, watercourse or natural channel where water<br>regularly flows, whether or not the flow is continuous   |
| Tecn045 | Water entitlement            | A right to access water through bulk entitlements, environmental<br>entitlements, water shares and water licenses. Water may also be<br>supplied by agreement, from an entitlement holder to a third party   |