CHAPTER 10

Framework for Closure Criteria

1. Criteria Framework

The execution of the Hazelwood DMRP is subject to a series of closure criteria that directly reflect the core principles and rehabilitation objectives set out in the DMRP, including to ensure the site is rehabilitated and left in a safe, stable, sustainable, non-polluting and socially responsible manner.

Closure criteria are a tool used for measuring and demonstrating closure performance and to support the eventual relinquishment of all obligations associated with MIN5004. The closure criteria will provide a way for objectively and transparently measuring the success in progressively achieving and conforming to, the rehabilitation objectives and the post closure land uses nominated for MIN5004.

Victoria's *Mineral Resources (Sustainable Development) (Mineral Industries) Regulations 2019* [Declared Mine Regulations] prescribe, in regulation 64C (a) to (n), the closure criteria required in a DMRP. The prescribed criteria are presented in the context of all objectives and criteria relevant to the Hazelwood mine rehabilitation project, in table 10.1 below.

Where relevant key performance indicators have been established to measure progress toward eventual attainment of closure criteria, these KPIs are used as a guide to assess the trajectory of a measure toward eventual attainment.

Closure criteria can be based on performance, compliance or completion of a task with a range of measures suitable to demonstrate attainment of the criteria.

Some KPIs serve to demonstrate whether agreed milestone actions have been implemented. Such actions may result in the enhanced technical understanding or knowledge base, after which SMART closure criteria can be set.

The closure approach at Hazelwood will promote progressive rehabilitation of the site and enable incremental introduction of post closure repurposing as discrete parcels of land achieve closure criteria. In circumstances where not all criteria are met, transitional arrangements can be made for reuse where and risks associated with reuse have been adequately mitigated (e.g. leasing portions of land for agricultural reuse ahead of relinquishment and sale).

This section outlines the criteria that will be used to assess rehabilitation success, and the evidence required to achieve bond return and relinquish obligations under the MRSD Act. Final release of the rehabilitation bond shall be at the determination of the Minister once she/he is satisfied that the site has been rehabilitated as required under Section 78 of the MRSD Act and the closure criteria within the DMRP have been met. ENGIE Hazelwood will engage an appropriately qualified expert to undertake assessments for the purposes of bond relinquishment.

Closure criteria are demonstrable and measurable to enable effective reporting and auditing, and to delineate an endpoint for rehabilitation activities. Guidelines published by ANZMEC/MCA (2000) state that closure criteria should be:

- Specific enough to reflect the unique set of environmental, social and economic circumstances relevant to the mine being closed;
- Flexible enough to adapt to changing circumstances without compromising objectives;
- Include environmental indicators suitable for demonstrating that rehabilitation trends are heading in the right direction;
- Have an agreed process for the periodic review and modification of completion criteria in light of improved knowledge or changed circumstance; and
- Developed in consultation with stakeholders.

Closure criteria have been generated to measure the successful mitigation of each risk identified in Chapter 13. The SMART approach (specific, measurable, achievable, relevant, time-bound) has been adopted when developing and assessing closure criteria.

Specific: Criteria have a direct relationship to an objective.

Measurable: The quantitative or qualitative measurement against a criterion (numerical or narrative form such as task completion or submission of documentation).

Achievable: Well defined criteria are realistic and can be achieved.

Relevant: Criteria are aligned with objectives and the social, environmental and statutory context of the site.

Time-bound: Explicit or implicit time component to each criterion.

Establishment of closure criteria is an iterative process, and criteria must adapt to change in knowledge based on the review cycle of management. Closure criteria will be continually refined over time and updated in subsequent iterations of the DMRP. Examples of triggers for change to closure criteria include: a change to background environmental conditions; changes to the agreed post closure land use; new technical information; revised modelling based on verification with monitoring data; maintenance activities and stakeholder expectations.

2. Closure Criteria

The closure criteria relevant to DMRP objectives and defined for each site domain is presented in table 10.1 below.

In the context of the Hazelwood DMRP the following definitions have been adopted.

Rehabilitation Objective: A qualitative description of what is to be achieved through the implementation of the closure activities. The objectives are site specific and may be specific to individual mine domains, or aspects of closure. Rehabilitation objectives are derived from the overall closure vision and closure principles (ICMM).

Closure Criteria: Specifications/measurements/ requirements that, if met, denote the success of the closure activities in meeting rehabilitation objectives. Closure criteria may be numerical or narrative. They may have a time component and may also be linked to specific management or monitoring activities (ICMM).

Table 10-1 Hazelwood Closure Criteria

REHABILITATION OBJECTIVE	CLOSURE CRITERIA	MEASURE	DOMAIN	ID
SAFE: IS NOT LIKELY TO CAUSE INJURY OR ILLNESS				
The landforms are safe for the intended land use and not likely to cause injury to humans or animals	Areas identified for public use are of appropriate grades and surface	Vehicular access 1:10 and pedestrian access 1:7, measured prior to closure determination application	1 – Mine void 2 – Mine surrounds	1
	Areas identified for grazing and conservation are of appropriate grades and surfaces	Final slopes are less than or equal to 1V:3H (excluding drains and engineered structures), measured prior to closure determination application	1 – Mine void 2 – Mine surrounds	2
	Final landform erodes within tolerable threshold levels (<5 t/ha/y) and maintains an effective cover over problematic materials where required, measured at regular intervals during active and passive rehabilitation phases.	Absence of active rill or gully erosion features (>200mm deep) on all landforms.	1 – Mine void 2 – Mine surrounds	3
		No tunnel erosion present on benches. No active rill erosion (>200mm deep) within drainage structures.		
		Appropriate vegetation cover levels established on landforms reliant on vegetation for erosion protection. Vegetation cover levels >70% on 1V:3H slopes, and 70% on 1V:6H slopes.		
	Final landform is tolerable of localised superficial geotechnical hazards	Monitoring of local and regional subsidence in response to filling and establishment of pit lake indicates that subsidence and rebound rates are within modelled ranges – with monitoring frequency to be consistent with GCMP	1 – Mine void 2 – Mine surrounds	4
		Monitoring and geotechnical inspections confirm that no material sinkholes have formed, and conditions which may encourage their future formation are being effectively managed – with monitoring frequency to be consistent with GCMP		
		Ground movement monitoring (i.e. mine void and batter conditions) confirms no material landslips, and conditions which may encourage their future formation are being actively managed – with monitoring frequency to be consistent with GCMP		
	Landforms are suitable to allow access for maintenance, monitoring and emergency access	Specified roads are maintained in accordance with agreed Standard (Engie), to be assessed as required	All	5
		Landform batter slopes – 1V:3H or flatter, measured prior to closure determination application		
	Designated areas of access to mine void lake are appropriately designed and constructed, measured prior to closure determination application	Pit lake public access areas no steeper than 1:6 or 1:7 where pedestrian access is permitted	1 – Mine void	6
		Slope of pit lake public access areas is designed and constructed to retain surface cover medium (i.e. sand, gravel, soil)		
		Boat access meets Australian Standard for design and construction		
	Public are discouraged from accessing steep slopes and shoreline protection areas	Allocation of land use provides a minimum agreed buffer, between shoreline and public land, to be in place prior to closure determination application	1 – Mine void	7
	Areas of predetermined use or special management requirements have appropriate management plans and controls (Landfills, HAPs, Industrial areas and retained infrastructure)	Areas are clearly identified, risk assessed and protected (fencing, land use plans, monitoring and maintenance), prior to closure determination application	2 – Mine surrounds	8
The site does not pose an unacceptable risk from the perspective of the future land uses ultimately adopted	All hazardous structures removed from the area and retained structures made safe to the extent practicable, and to be measured prior to closure determination application.	Wherever reasonably practicable (and unless other final arrangements are approved): Submerged hazards >3m below surface Pipelines and services within 1m of surface removed Pit and pipe entry sealed Inventory / plans of active services maintained	2 – Mine surrounds	9
	No excavations, tanks or structures remain on site after closure that are not required to achieve the outcomes of the rehabilitation concept	Confined spaces removed (or made safe and inaccessible if remaining in service such as for drainage pits), prior to closure determination application	2 – Mine surrounds	10
	All chemicals, reagents and consumables removed from site so far as is reasonably practicable	Implementation of Clean Up Plan or Detailed Site Investigations prior to closure determination application	2 – Mine surrounds	11
Pit lake water quality is suitable for discharge to the external environment	Measured pit lake water quality sits within the minimum and maximum probabilistic modelled water quality and is trending toward long term model predictions over consecutive years	Modelled suite of water quality parameters Monitoring plan to be developed (with agreed frequencies & reporting mechanisms).	1 – Mine void	12
	Pit lake water quality parameters sit within the minimum and maximum probabilistic requirements for recreational, drinking water and livestock guidelines.	Modelled suite of water quality parameters. Monitoring plan to be developed (with agreed frequencies & reporting mechanisms)		
	TARPs are in place for water quality exceedance outside of minimum and maximum probabilistic requirements for recreational, drinking water and livestock guidelines.	Modelled suite of water quality parameters. Monitoring plan to be developed (with agreed frequencies & reporting mechanisms)		

REHABILITATION OBJECTIVE	CLOSURE CRITERIA	MEASURE	DOMAIN	ID
SAFE: IS NOT LIKELY TO CAUSE INJURY OR ILLNESS				
The quality of water in the pit lake does not have an unacceptable impact on human health or existing environmental values	Pit Lake interconnection: Quality of water at any pit lake outlet structure does not exceed background levels in the receiving environment, measured by pH, TDS and turbidity	Receiving water pH, TDS and turbidity immediately upstream of outlet structure. Monitoring plan to be developed (with agreed frequencies & reporting mechanisms)	1 – Mine void	13
The quality of surface water runoff does not have an unacceptable impact on human health or existing environmental values	Eel Hole Creek restoration: Inflows to Eel Hole Creek are comparable with outflow	Volumes of flows to be monitored along Eel Hole Creek at agreed locations (to be determined).	3 - Waterways	14
	Surface water runoff: EPA's Construction Techniques for Sediment Pollution Control (1991) are applied and quality of surface water leaving site is within tolerable limits with reference to key parameters in background levels (e.g. TDS) in the receiving environment.	Ecological risk assessments show risks to downstream receptors as being in compliance with the GED, prior to closure determination application	3 - Waterways	15
The rehabilitated landform doesn't present a fire risk greater than the surrounding environment	The rehabilitated landform adequately covers (or submerges) coal so as to passively mitigate risks of combustion or ignition resulting in fire	Minimum agreed cover of silty clay over coal (where not submerged by pit lake), prior to closure determination application	1 – Mine void	16
	The rehabilitated landform adequately covers (or submerges) fire holes so as to passively mitigate risks of combustion or ignition resulting in fire	Minimum 25cm cover of silty clay over fire holes (where not submerged by pit lake), prior to closure determination application	1 – Mine void	17
	Higher risk land use / activities are risk assessed for appropriateness	Risk assessment in consultation with relevant future land manager(s), undertaken prior to closure determination application	1 – Mine void 2 – Mine surrounds	18
	Fire risk to be consistent with surrounding landscape	CFA/FRV or ERR assessment of extent of covered and/or submerged coal, undertaken prior to closure determination application	1 – Mine void	20
	A public safety assessment of the rehabilitated landform (having regard to any relevant restrictions, controls or management measures in specified areas of the site) indicates no unacceptable risks to public safety	Public safety assessment undertaken, demonstrating acceptable outcomes, prior to closure determination application	2 – Mine surrounds	21
The repurposed landform materially reduces fire risk, through passive measures post relinquishment	The post closure monitoring and maintenance plan does not require inclusion of active fire suppression and risk mitigation system post relinquishment	Minimal active risk management measures required following the completion of the rehabilitation works, to be documented in the post closure monitoring and maintenance plan	1 – Mine void	22
	The active fire suppression system is capable of being decommissioned ahead of reaching the end of the passive rehabilitation phase	Decommissioning audit prior to closure determination application	1 – Mine void	23
Rehabilitation activities comply with a plan to mitigate unacceptable impacts on amenity, and environmental values (all domains)	Annual reporting demonstrates that the post closure risk management plan is regularly reviewed and updated	DMRP annual report (or alternative agreed reporting mechanism)	1 – Mine void 2 – Mine surrounds	24
	Impacts from any environmental incidents are remediated within any relevant statutory timeframes	DMRP annual report (or alternative agreed reporting mechanism)	1 – Mine void 2 – Mine surrounds	25
The DMRP sets out the actions and milestones required to achieve the agreed rehabilitated landform concept (all domains)	Annual reporting demonstrates rehabilitation milestones set out in the DMRP are achieved within the scheduled timeframe	DMRP annual report (or alternative agreed reporting mechanism)	All	26
STABLE: STRUCTURALLY, GEOTECHNICALLY AND HYDROGEOLOGICALLY SOUND				
The rehabilitated landform is designed and constructed to achieve the agreed design acceptance criteria that achieves an acceptable level of risk to people, property, the environment and/or infrastructure in the post relinquishment phase	Rehabilitated landform achieves design acceptance criteria The constructed landform meets the stability design requirements which were derived in the batter stability assessments	FoS of 2.0 and PoF of 0.5% achieved in all domains except Westfield and Southeast field southern batters, prior to closure determination application	1 – Mine void	27
		Westfield and Southeast field southern batters to achieve agreed alternative FoS based on CSIRO recommendation with alternative management controls in place to suit conditions, prior to closure determination application	1 – Mine void	28
The hydrologic regime of the mine void accounts for natural fluctuation without compromise to stability of the rehabilitated landform	Observed recovery is in line with modelled projections and within tolerance of uncertainty analysis based on published groundwater model guidelines	Observed recovery of the M1 and M2 aquifers in response to filling and establishment of pit lake is within the upper and lower bounds of the numerical groundwater modelling for the Hazelwood site (i.e. calibrated version of the LVRGM), with monitoring frequency to be consistent with the GCMP	1 – Mine void	29
The DMRP includes a plan for monitoring and maintenance of the rehabilitated landform in the post relinquishment phase (all domains)	Annual reporting demonstrates the post closure monitoring and maintenance plan is continually updated to reflect new knowledge	DMRP annual report	All	30
The rehabilitated landform minimises to the extent reasonably practicable post relinquishment monitoring and maintenance	Costs associated with post closure monitoring and maintenance activities, and possible adverse events during post-closure phase, are adequately estimated in post-closure plan prior to closure determination application	Adequate information available to be provided to Minister at the time of ENGIE Hazelwood's closure determination application, in order to determine appropriate amount for a contribution from ENGIE Hazelwood to Declared Mine Fund	All	31

REHABILITATION OBJECTIVE	CLOSURE CRITERIA	MEASURE	DOMAIN	ID
STABLE: STRUCTURALLY, GEOTECHNICALLY AND HYDROGEOLOGICALLY SOUND				
Rehabilitated landforms and waterways stable and resilient to erosional forces and fluctuations in climatic conditions so as to minimise erosion of batters and slopes	Rehabilitated landforms are resilient to erosional forces and are constructed to account for predicted water regime, to be measured prior to closure determination application	Surficial erosion gullies and cracks in capping at a rate to be determined	All	32
		No significant tunnelling on benches		
		Final landform erodes within tolerable threshold levels (<5 t/ha/y) and maintains an effective cover over problematic materials where required		
	Landforms are resilient to erosional forces over time (200-year horizon), with trend to be measured prior to closure determination application	Coal or ash not exposed, due to being submerged with water or capped with an earthen material. Water management structures designed to withstand anticipated conditions, subject to reasonable monitoring and management arrangements.	All	33
Mine void filled to design height and level maintained to manage the risk of floor heave over a 200-year recovery horizon with agreed protocols for managing evaporation (with as minimal ongoing depressurisation as possible)	Mine void water level sits within the operational range to manage weight balance (in accordance with Lake Level Management Plan)	45mRL lake level +/- 2m, to be monitored and managed on an ongoing basis. Aquifer pressures remain within upper and lower bounds of the relevant groundwater modelling.	1 – Mine void	34
Batter movements and hydraulic rebound remain consistent with the modelled ranges for the duration of mine lake fill and five years thereafter	Damage risk is within the assessed range (i.e. low or very low)	Automated horizontal strain and tilt measurements and lidar measurements for vertical movement, to be measured as required.	1 – Mine void	35
Surface water inlet control structures are designed and constructed to support modelled scenarios	As-built drawings to verify water inlet construction completed and commissioned to design specifications	Water inlet structures function as per design intention without evidence of destabilisation to batter embankments, measured throughout the active and passive rehabilitation stages	1 – Mine void 3 - Waterways	36
Intended future land uses of rehabilitated site to be compatible with land use and the provisions of the Latrobe planning scheme	Rehabilitated landforms are suitable for use as identified by the nominated zoning published in the Latrobe Planning Scheme, or relevant re-zonings are identified	Comparison of any specific intended future land uses against Latrobe Planning Scheme, prior to closure determination application	All	37
The natural alignment of Eel Hole Creek is re-established, and all watercourse diversion structures constructed to approved designs	As-built drawings to verify water inlet construction completed and commissioned to design specifications	Water inlet structures to function consistently with engineering designs without evidence of unacceptable erosion and destabilisation to batter embankments, informed by observations throughout the active and passive rehabilitation stages	3 - Waterways	38
The hydrologic regime of the surrounding/external catchment accounts for natural fluctuation without compromise to stability of the external waterways	Site catchment model (rainfall runoff) for the EOD based on capacity and volume accounts for natural fluctuation	Condition or capacity of Bennetts Creek and Eel Hole Creek, with precise monitoring frequency to be determined	3 - Waterways	39
Integrity of foreshore remains in place at shoreline	Lake foreshore constructed as per design criteria Maintain tolerable erosion / erosion-free lake foreshore (foreshore integrity)	Quantify acceptable erosional losses from lake foreshore, based upon Alluvium 2019 foreshore erosion modelling, to be measured as required	1 – Mine void	41
SUSTAINABLE: ALIGNS WITH THE PRINCIPLES OF SUSTAINABLE DEVELOPMENT, INCLUDING THROUGH THE RESPONSIBLE AND EFFICIENT USE OF WATER FROM A COMBINATION OF WATER RESOURCES				
Pit water quality is compatible with targeted parameters, and is capable of supporting relevant post relinquishment land uses	Pit lake water quality within specified parameters. Where required to support specific intended land use(s), values to comply with requirements for recreational, drinking water and livestock guidelines.	Pit water quality monitoring plan to be developed (with agreed frequencies & reporting mechanisms).	1 – Mine void	42
The quality of water in any interconnected waterways does not have an unacceptable impact on existing environmental values	Pit water quality at discharge point does not have an unacceptable impact on the environmental values of receiving environment Pit Lake interconnection: Quality of water at any pit lake outlet structure does not exceed background levels in the receiving environment, measured by pH, TDS and turbidity	Receiving water pH, TDS and turbidity immediately upstream of any outlet structure consistent with modelled parameters. To be measured at any outlet structure (as relevant), with precise monitoring frequency to be determined	1 – Mine void 3 - Waterways	43
Pit water quality is compatible with targeted parameters, and is capable of supporting future proposed post relinquishment land uses	Pit water quality meets modelled water quality and is trending toward long term model predictions over consecutive years	Pit water quality monitoring plan to be developed (with agreed frequencies & reporting mechanisms).	1 – Mine void	44
The hydrologic regime of the pit lake minimises adverse effects on the flow or water quality of interconnected systems within the surrounding catchment or within adjacent groundwater systems	Pit lake water quality minimises the potential for the development of unfavourable biota	Pit water quality and biological monitoring plan to be developed (with agreed frequencies & reporting mechanisms).	1 – Mine void	46
	Conformance with numeric pit water body model forecasts in the short term (every 6 months during the filling process and/or if there are any significant pauses in the filling process) to ensure that medium (5 to 15 year) and long term (> 15 year) water quantity and quality forecasts are based on a known (measured) level of reliability	Pit lake water level & pit water quality monitoring, in accordance with short-term, medium-term and long-term forecast timeframes	1 – Mine void 3 - Waterways	47

REHABILITATION OBJECTIVE	CLOSURE CRITERIA	MEASURE	DOMAIN	ID
SUSTAINABLE: ALIGNS WITH THE PRINCIPLES OF SUSTAINABLE DEVELOPMENT, INCLUDING THROUGH THE RESPONSIBLE AND EFFICIENT USE OF WATER FROM A COMBINATION OF WATER RESOURCES				
Final landform minimises adverse effects on regional surface water regime	Area within MIN5004 providing rainwater runoff to Eel Hole and Bennetts Creek generally consistent with operational conditions	Catchment areas published in DMRP	2 – Mine surrounds 3 - Waterways	48
Final landform minimises adverse effects on the regional surface water regime (including in the event of flood conditions)	Broad-scale flow patterns (flood depth, extent, velocity, direction) are within modelled range at project boundary after rehabilitation earthworks are complete	Survey data demonstrates earthworks construction as per approved design, post-completion of earthworks	2 – Mine surrounds 3 - Waterways	49
Landform design will accommodate the modelled regional drainage function and minimise adverse effects on the surrounding natural environment (including in the event of flood conditions)	No overall increase in flood hazard rating of downstream environments as a result of the final landform	CMA flood rating, obtained prior to closure determination application	2 – Mine surrounds 3 - Waterways	50
Final landform is compatible with a range of potential future land uses (as informed by community, and local stakeholder perspectives at the relevant time) Terrestrial and aquatic landforms to be designed to support ecological benefit (to the extent reasonably practicable), and sustain under current and future climatic conditions; and are / or are trending toward becoming self-sustaining (all domains)	Coal capping is designed and constructed to support terrestrial ecosystem establishment	Coal capped wherever practicable with 1m (+/- 10%) of non-combustible silty clay plus minimum 100mm topsoil, measured prior to closure determination application	1 – Mine void	51
	The agronomic productivity of pasture is equal to or better than the agreed target (to be established) for 3 consecutive years prior to relinquishment	Agronomic assessment, addressing three-year period prior to closure determination application	All	52
	Restored soil profile has the capability to support productive pasture	Agronomic assessment and soil profile measurement, prior to closure determination application	1 – Mine void	53
	Restored soil profile has the capability to support specified vegetation establishment	Soil profile measurement and Landscape Function Analysis (LFA), prior to closure determination application	All	54
	Vegetation (pasture or native) is self-sustaining and demonstrated reproductive capacity over seasons without the need for supplementary seeding/planting, where possible	Agronomic assessment and LFA, meeting objective over three seasons prior to closure determination application	All	55
	Revegetation targets (to be established) are met prior to relinquishment; or are trending toward being met within 5 years	Ecological Function Analysis (EFA) (including to measure species density and diversity), undertaken prior to closure determination application	All	56
Landforms are assessed for repurposing land use capability, and future limitations are published in the DMRP	Rehabilitated landforms are repurposed within the limitations published in the DMRP	Relinquishment report, prepared prior to closure determination application	1 – Mine void 2 – Mine surrounds	57
The rehabilitated site has similar function and resilience to the surrounding ecosystem	EFA or equivalent measure indicates the rehabilitated site has similar function to nominated benchmark (i.e. surrounding ecosystem)	EFA, undertaken prior to closure determination application	2 – Mine surrounds 3 - Waterways	58
Rehabilitation landform design protects remnant vegetation and any relevant European and Aboriginal Cultural Heritage features within the mine surrounds	Protected features are avoided or effectively managed during rehabilitation activities	Audit of remnant vegetation and heritage features, undertaken prior to closure determination application	All	59
	Areas revegetated to native vegetation provide sufficient habitat to facilitate movement of native fauna across the landscape as per the site Conservation Strategy.	EFA, undertaken prior to closure determination application	2 – Mine surrounds 3 - Waterways	60
Soil properties are appropriate to support the target vegetation type	Topsoil quality parameters are within tolerance of standard parameters for relevant proposed land use(s)	Agronomic assessment and geochemical assessment of topsoils, undertaken prior to closure determination application	All	61
The soil profile will be suitable for the development and maintenance of nominated vegetation cover into the post-relinquishment phase	Top and sub soil profiles are within tolerance of standard parameters for agricultural land use	Agronomic assessment and geochemical assessment of topsoils, undertaken prior to closure determination application	All	62
Presence of weeds does not limit the sustainability of the rehabilitated landform or its potential to sustain any agreed post mining land uses	Weed cover of <1% for CaLP-listed weeds in every LMU. The secondary objective of <1% cover for woody weeds is desired for several LMUs including Conservation Areas, the Morwell River Diversion, Operational Areas and the Overburden Dumps.	Weed and plant species survey to be conducted annually	All	63
	No weed species present on site in material concentrations which do not occur within local area.	Weed and plant species survey to be conducted annually	All	64

REHABILITATION OBJECTIVE	CLOSURE CRITERIA	MEASURE	DOMAIN	ID
SUSTAINABLE: ALIGNS WITH THE PRINCIPLES OF SUSTAINABLE DEVELOPMENT, INCLUDING THROUGH THE RESPONSIBLE AND EFFICIENT USE OF WATER FROM A COMBINATION OF WATER RESOURCES				
To minimise the use of natural resources in execution of the rehabilitation activity to the extent reasonably practicable	Clay and fill materials to be sourced onsite wherever possible. Water source usage in accordance with relevant licence conditions (Gippsland Water and Southern Rural Water)	Water supply volume monitoring reported in annual DMRP report	All	65
Where possible, proposed land tenure arrangements for the post-closure phase will be documented prior to relinquishment (all domains)	Proposed land tenure arrangements documented in post-closure plan prior to application for closure determination.	Inclusion of proposed tenure arrangements in post-closure plan	All	66
Post closure monitoring and maintenance of rehabilitated areas are appropriately resourced and implemented	Costs to execute post relinquishment monitoring and maintenance activities for a period of 10 years are estimated and available to relevant future land manager(s) ahead of formalising land tenure agreements	Adequate information to be made available to relevant future land manager(s) prior to ENGIE Hazelwood's closure determination application	All	68
Accountability for post-closure management actions is clearly documented and agreed by responsible parties	Formal land tenure and land management agreements are in place at least 18 months prior to relinquishment (where possible)	Land management/tenure agreements in place (where possible), at least 18 months prior to closure determination application	All	70
Rehabilitated landforms are visually compatible with the surrounding natural landscape to the extent practicable	Viewshed analysis of rehabilitated landforms shows no detriment to the amenity of the landscape at three years prior to relinquishment	Viewshed analysis report, undertaken three years prior to closure determination application	All	71
To maximise the opportunities for establishment of a self-sustaining ecosystem	Vegetation cover: 60% in year 1, 70% in year 2, >70% by year 3 then maintained	Vegetation cover analysis/EFA, undertaken prior to closure determination application	All	72
Minimise the potential for impacts on the potential use of groundwater resource (shallow aquifer) by GDEs	Overall groundwater quality is maintained following establishment of pit lake	Groundwater quality monitoring, with precise monitoring frequency to be determined	All	73
NON-POLLUTING: TO AIR, LAND OR WATER				
So far as is reasonably practicable, no contaminating sources left in an exposed or unstable state that could cause adverse impacts to humans or the environment	No overall changes to groundwater quality from identified contamination sources in the groundwater monitoring bore network used to evaluate long term performance of the pit water body	EPA approved Clean Up Plan complete, with certificate of environmental audit providing evidence that all sources of contamination have been remediated so far as is reasonably practicable, by the time that a closure determination application is made Groundwater quality monitoring, with precise monitoring frequency to be determined	All	74
	Sources of contamination are removed from site (land) so far as is reasonably practicable, and residual sources of contamination are effectively managed	EPA approved Clean Up Plan complete, with certificate of environmental audit providing evidence that all sources of contamination have been satisfactorily remediated, by the time that a closure determination application is made	All	75
All plant, equipment and waste materials have been removed, repurposed, recycled or disposed of, unless retained under formal agreement with relevant future land manager(s) (all domains)	An audit of the site three years prior to relinquishment shows that redundant plant, equipment and waste materials have been removed from the site	Audit findings obtained three years prior to closure determination application	All	76
	The project waste disposal register demonstrates redundant materials are repurposed or recycled so far as is reasonably practicable	Waste disposal register reported in DMRP annual report	All	77
	Legal agreements are in place with relevant future land manager(s) and/or landowner within three years of relinquishment for retention of plant and equipment	Legal agreements formalised (where possible) within three years of closure determination application	All	78
Hazardous materials with potential for environmental impact are appropriately removed or contained to the extent reasonably practicable	EPA certificate of environmental audit of rehabilitated landforms determines any residual contamination sources are being effectively managed by the completion of the active rehabilitation phase	EPA approved Clean Up Plan complete, with certificate of environmental audit providing evidence that all sources of contamination have been remediated so far as is reasonably practicable, by the time that a closure determination application is made	All	79
Rehabilitation of EPA licenced structures (e.g. landfills) to comply with the requirements of the relevant Clean Up Plans, and Operating Licence(s) to minimise the potential for pollution to air, land or water in the active works and/or post relinquishment phases respectively	Aftercare management plan verified and approved by the EPA and Operating Licence surrendered (or compliance with Operating Licence demonstrated, if it remains in force).	Plan approved, and Operating Licence surrendered prior to closure determination application (or compliance demonstrated through Permission Information and Performance Statements, if Operating Licence remains in force)	All	80
	To the extent reasonably practicable, minimise mobilisation of airborne pollutants with the potential to impact on the health and wellbeing of sensitive receptors	Monitoring for PM2.5, PM10 and TSP demonstrates airborne pollutant risk has been addressed in accordance with the GED	All	81
Take active steps to reduce the potential for unacceptable impacts to aquifers or other regional water users (e.g. through regional bore network)	All bores (pump bores and observation bores) are constructed and decommissioned in accordance with the min construction requirements for water bores in Australia	Report submitted and approved by SRW as required following construction / decommissioning of relevant bores	All	82

REHABILITATION OBJECTIVE	CLOSURE CRITERIA	MEASURE	DOMAIN	ID
COMMUNITY VALUES: ALIGNS WITH THE PRINCIPLES OF SUSTAINABLE DEVELOPMENT AND CONSIDERS THE INTERESTS OF STAKEHOLDERS				
Post closure landforms are visually compatible with surrounding landscape to the extent reasonably practicable	Final landforms are not visually obtrusive from any public vantage point to the extent reasonably practicable; revegetated areas show trend of increasing vegetation cover and increasing structural and compositional integrity	Viewshed analysis, undertaken prior to closure determination application	All	84
Post closure land capability/ land use to be informed by consultation with relevant stakeholders (to be pursued in future following the successful completion of the relevant works)	LAAs and MOUs in place to define future potential post closure land uses and land tenure (wherever practicable)	Land access agreements or MOUs in place (wherever practicable) prior to closure determination application	All	85
Post closure risk management, monitoring and maintenance is appropriately resourced and documented in approved management plans (to be the subject of regulatory oversight)	Rehabilitation plan considers post closure monitoring and maintenance requirements and cost estimates	Adequate information available to be provided to Minister at the time of ENGIE Hazelwood's closure determination application, in order to determine appropriate amount for a contribution from ENGIE Hazelwood to Declared Mine Fund	All	88
	Rehabilitation provision and/or other financial assurance in place and updated as required	ENGIE Hazelwood to comply with relevant regulatory requirements (re: rehabilitation bond and/or payment into Declared Mine Fund (as relevant))	All	87
Traditional Owner perspectives and Aboriginal Cultural Heritage values are respected (and wherever reasonably practicable, enhanced)	Compliance with site's Cultural Heritage Management Plan	DMRP annual report	All	88
Engage with Traditional Owners on opportunities to rehabilitate landforms to enhance cultural values	Stakeholder register contains outcome of engagement with GLaWAC regarding enhancing cultural values within the rehabilitated landforms	Stakeholder engagement register contained in DMRP	All	89
Traditional Owner and stakeholder feedback will be actively sought and wherever reasonably practicable incorporated into the DMRP	The DMRP contains a register of the feedback received from stakeholders and how this feedback has been incorporated into the plan	Stakeholder engagement register contained in DMRP	All	90