Submission on the Hazelwood Mine Rehabilitation Plan: Protecting the Gippsland Lakes

Balancing Mine Closure with Ramsar Obligations and Regional Water Security

Abstract

This submission urges Hazelwood mine rehabilitation to avoid diverting scarce Latrobe River water, safeguard Gippsland Lakes Ramsar wetlands, address legacy contamination, and uphold international obligations through sustainable, climate-resilient, and environmentally responsible planning.

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1. Introduction

Friends of Gippsland Lakes (FoGL) welcomes the opportunity to comment on the Draft Hazelwood Declared Mine Rehabilitation Plan (DMRP). Our focus is on safeguarding the ecological health of the Gippsland Lakes and their associated wetlands, which lie downstream of the Latrobe River. The Gippsland Lakes, including Lake Wellington and the fringing Lower Latrobe Wetlands (Sale Common, Dowd Morass, Heart Morass), are internationally recognised under the Ramsar Convention for their importance to waterbirds, fish, and other threatened species. Decisions about how the Hazelwood mine pit is rehabilitated could have debilitating long-term implications for both the Morwell and Latrobe Rivers, the Lower Latrobe Wetlands and Lake Wellington, which are integral parts of the Gippsland Lakes system and its Ramsar values. FoGL's firm position is that the rehabilitation of the Hazelwood mine must be managed carefully to avoid serious downstream ecological harm.

Hazelwood Power Station's closure in 2017 left a vast open-cut coal pit in the Latrobe Valley. The mine operator, ENGIE, proposes to convert this void into a pit lake by flooding it with water, as the "safest, most stable" final landform. Filling the pit to its rim would require an enormous volume of water (potentially hundreds of gigalitres) drawn mostly from the Latrobe River system. To put this in perspective, a full Hazelwood pit lake would approach or exceed the volume of Sydney Harbour. Such a massive extraction of water from an already stressed river system poses obvious risks to downstream waterways and wetlands.

We commend the Victorian Government for requiring Declared Mine Rehabilitation Plans and an Environment Effects Statement (EES) for Hazelwood's rehabilitation due to the potential for significant impacts on the rivers, groundwater and Ramsar-listed wetlands. Notably, the Australian Government has deemed this project a controlled action under the federal Environment Protection and Biodiversity Conservation (EPBC) Act's "water trigger", reflecting the national importance of protecting water resources and the Gippsland Lakes Ramsar listed wetlands. In this submission, we outline our concerns about the ecological risks of the current pit lake proposal – particularly the loss of surface water flows to the Latrobe system, reduced freshwater inflows to Ramsar wetlands, water quality hazards, and the inadequacy of proposed mitigations, and we offer recommendations to ensure mine closure does not come at the cost of the Gippsland rivers and Lakes' health.

2. The Internationally Recognised Ecological Significance of the Gippsland Lakes and Wetlands

The Gippsland Lakes are Australia's largest navigable inland waterway and a core habitat network for high biodiversity. Lake Wellington receives Latrobe/Morwell River outflows; its fringing wetlands (Sale Common, Dowd Morass, Heart Morass) are within the Gippsland Lakes Ramsar Site. These wetlands rely on seasonal freshwater inflows and overbank flooding to maintain ecological character and support reed beds, floodplain forests, and ephemeral marshes. Regular inundation sustains breeding and feeding grounds for waterbirds (including migratory species protected under international treaties) and habitat for threatened frogs, fish, reptile and bird species; in good years, tens of thousands of waterfowl use these wetlands, and fish nurseries replenish the lake populations.

Existing flow stress and system degradation

- The Latrobe River is already over-allocated and flow-stressed; regulation and extraction have reduced the frequency, duration, and volume of natural flows reaching the wetlands and Lake Wellington.
- Freshwater inflows to Lake Wellington have declined substantially, weakening the system's flushing capacity to maintain fresh / brackish conditions.
- Reduced freshwater flushing has increased salinity and the frequency of harmful algal blooms, degrading ecological conditions across the Lakes.

- Ramsar values, particularly the mosaic of freshwater/brackish habitats that underpin critical biodiversity values, are already compromised by the freshwater deficit and marine intrusion.

Consequences of further freshwater flow reductions

- Additional inflow losses risk tipping wetlands into prolonged dryness or greater salinity, collapsing shallow-water productivity and eliminating key bird breeding/feeding sites.

- Flow-dependent species and processes are at heightened risk; for example, native fish such as Black Bream require periodic "freshes" in late winter–spring to trigger spawning—events already diminished by reduced flows and further threatened by any new diversions let alone climate change induced decline.

- In cumulative terms, the consequence would be a measurable decline in ecological productivity across the wetland complex, increased susceptibility of flow-dependent habitats to drought stress, and a significant reduction in the ecological character of the Gippsland Lakes as protected under the Ramsar Convention.

3. Water Availability Under a Drying Climate

Water allocation decisions must account for climate change and long-term declines in flow. Historic Latrobe River flows (~800 GL/year in the late 20th century) are projected to fall sharply under high-emissions scenarios.

- By ~2050, annual flow is projected to be ~467 GL; by ~2080, ~334 GL—nearly a 60% decline from historic levels.

- By the 2030s in severe dry sequences, inflows may fail to meet minimum environmental flow requirements, leaving no surplus for large extractive or additional uses.

Policy benchmark (LVRRS) and implications for rehabilitation

- The Latrobe Valley Regional Rehabilitation Strategy recognises that, in a dry-climate future, water from the Latrobe system is not available for mine rehabilitation where this would impact other users or critical minimum environmental flows.
- Any plan to fill Hazelwood over ~10–20 years using Latrobe system water must be tested against these projections and constraints.
- If climate induced drying limits availability, a large pit lake risks remaining unfinished or proceeding only by taking water the environment cannot spare.

Current system stress and recovery commitments

- The Central & Gippsland Region Sustainable Water Strategy (2022) identifies the Latrobe River system as heavily stressed and fully allocated, with little or no spare capacity even before any mine water demands are considered.
- The Strategy further notes that the Latrobe River and estuary system faces an environmental water deficit of approximately 129 GL per year—an additional volume needed to sustain basic ecological functions, support Ramsar-listed wetlands, and restore ecological balance to the Gippsland Lakes.
- The Strategy commits up to 100 GL of additional environmental water over the next decade to support ecological objectives such as sustaining fish and platypus populations and improving summer flow resilience.
- Allowing Hazelwood pit filling to draw heavily on surface water would undermine these recovery efforts and conflict with stated policy goals.

Opportunity cost and Ramsar obligations

- Every megalitre diverted to the pit is a megalitre not reaching the estuary and fringing wetlands that sustain the Gippsland Lakes' Ramsar ecological character.

- If the Gippsland Lakes' Ramsar ecological character is to be maintained – existing Bulk Entitlements in the Thomson System will have to be adjusted substantially to offset the losses of water from the Latrobe system, thus impacting on Melbourne's water supply security and a knock-on effect of having to attain more costly desal water from Wonthaggi.
- As climate drying intensifies, the opportunity cost of each diverted litre rises; allocating scarce high-value freshwater to a mine void over a living river and internationally listed wetlands is not justifiable.
- Rehabilitation must therefore prioritise approaches that avoid or minimise use of Latrobe system surface water, in line with environmental flow objectives and international obligations.

4. Risks of Reduced Inflows to the Gippsland Lakes Ramsar Site

FoGL completely rejects diverting the Morwell River into the pit as it would permanently remove part of the river's flow from the natural system. Evaporative losses from a large open pit lake and degraded in-pit water quality (salinity, contaminants) risk harming river function and blocking movement of migratory species (fish, eels). Sending river water into the pit is an ecological dead-end: water is effectively lost to evaporation and groundwater instead of sustaining downstream rivers, wetlands and estuary processes.

"Flood-skimming" still carries ecological risk

- Seasonal high flows and freshes sustain fringing wetlands, trigger waterbird breeding and fish spawning (e.g., Black Bream, Shortfin Eels), and maintain Lake Wellington water quality.

- Taking water during peak events can reduce the magnitude, frequency, and duration of ecologically critical regular floods, shortening inundation and disrupting wetting–drying cycles.
- Good practice requires demonstrating **no net reduction** in key flood and inundation metrics for the Lower Latrobe wetlands and Lake Wellington before any extraction is allowed or any offset water sourced.

Loss of organic matter and nutrients to the downstream food web

- The Morwell/Latrobe Rivers transport leaves, wood and organic carbon that fuel aquatic food webs in the rivers, the estuary and Lakes.
- Diverting flows into the pit would trap this material in the lake, depriving downstream microbes, invertebrates and fish of essential energy and nutrients, further reducing ecological productivity.

Require rigorous cumulative impact assessment

- The EES must assess cumulative flow losses from Hazelwood filling together with other regional changes (e.g., Yallourn diversion issues).
- Quantify flow reductions to the Morwell/Latrobe/Lakes under realistic and worst-case dry climate sequences, and evaluate impacts on: wetland inundation frequency/duration, Lakes salinity regimes, fish recruitment, waterbird habitat availability, and other ecological indicators.
- Any scenario causing meaningful deterioration in these parameters should be deemed unacceptable.

Decision principle: no net ecological harm

- The Gippsland Lakes and wetlands are flow-dependent and already in critical decline; they cannot afford further upstream siphoning.

- Apply a “first, do no ecological harm” test: Hazelwood rehabilitation must not deepen the environmental water deficit of the Latrobe system or trade away the Lakes’ ecological character.

- Require **no net loss of water** to the Latrobe–Lakes system now and under a drier future climate; prohibit any water sourcing or pit–river interconnection unless independently shown to maintain downstream ecological flow objectives and Ramsar outcomes.

5. Pit Lake Water Quality and Contamination Concerns

In addition to the severe risks posed by water extraction, the Draft DMRP must also confront the legacy contamination hazards within the Hazelwood pit: a proposed pit lake is not a pristine reservoir but a chemically complex environment shaped by decades of coal mining and ash disposal, with significant water quality and long-term pollution risks that demand rigorous scrutiny.

- The Hazelwood Ash Retention Area contains coal ash with toxic metals (e.g., mercury, nickel, arsenic, lead). Submerging the ash as the pit fills raises significant unresolved stability and safety issues.

- Earthen embankments and liners would face unprecedented hydraulic loading; failure or seepage could release leachate to the lake or groundwater.

- Flooding without prior remediation risks mobilising toxic heavy metals into lake water.

- Higher final lake levels (e.g., +16 m or +29 m AHD) would fully submerge the ash, increasing risks of groundwater contamination or overflow to the Morwell River if containment fails.

- Keeping levels lower avoids submergence but leaves an exposed landfill needing perpetual maintenance; residual leachate and dust risks remain if not perfectly sealed.
- Notwithstanding the HARA issue, leaching of contaminants from the coal will present acidification and metal leaching risks.
- Bottom line: the ash poses pollution risk under any scenario; either remove or securely cap it above the final waterline, or strictly limit water levels with robust engineering controls. Address ash before inundation to avoid creating a permanent underwater contamination hazard.

Pit-lake limnology and poor water quality risk:

- A deep Hazelwood lake (over ~140 m in places) is likely to stratify with bottom waters becoming anoxic. Similar deep lakes commonly become meromictic, promoting dissolution and mobilisation of metals from pit walls or ash deposits (Boehrer & Schultze, 2008; Schultze et al., 2016; von Gunten et al., 2019).
- Periodic turnover can bring anoxic, metal-rich water to the surface, degrading overall water quality for decades without costly interventions (MLR Authority, 2022; Hale et al, 2020).
- Source waters (rivers/runoff) can import nutrients, sediments, and catchment-derived metals—often including Ni and Hg—from urban/industrial/agricultural land uses, elevating eutrophication risk; this risk is amplified where treated wastewater is used unless nutrient bioavailability is tightly controlled (Birch et al. 2001; McCullough & Schultze, 2015; McCullough & Schultze, 2019; McCullough et al., 2012; Silvino & Barbosa, 2015; Nui et al. 2020).
- Site legacies (e.g., PFAS) and exposed coal/overburden can alter pH and salinity, further compounding water-quality hazards (Izquierdo & Querol, 2012; Tian et al., 2018).

- Expert reviews of pit lake systems caution that **thermal stratification** can produce anoxic bottom layers that exclude most benthic life, while broader evaluations of pit lake ecology highlight profound uncertainties and ecological risks (such as algal blooms) in such environments (Boehrer & Schultze, 2008; von Gunten et al., 2019; Blanchette & Lund, 2021; MLRA Authority, 2022; Schultze et al., 2022).

- **Net effect**: without active management, pit lakes risk becoming terminal sinks or "toxic lakes". Expert reviews of pit lake closure practices show that in drier or drying climates, pit lakes can become "terminal sinks"—where evaporation concentrates contaminants, leading to toxic water bodies unlikely to support aquatic life (McCullough et al., 2013).. Such outcomes have been documented in coal pit lake case studies from Western Australia (McCullough, Marchand & Unseld, 2013). Global reviews of pit lake legacies further underscore the widespread ecological risks these lakes pose, with implications amplified under climate change (McCullough et al. 2012; Blanchette & Lund (2016).

Required water-quality safeguards (not optional):

- A rigorous Water Quality Management Plan with clear performance criteria (targets/limits) is essential—do not assume a full pit lake is benign.

- **Monitoring:** continuous profiling (temperature, dissolved oxygen, conductivity) plus routine sampling (nutrients, metals, other pollutants) with publicly accessible reporting.

- **TARPs:** enforceable Trigger-Action-Response Plans requiring timely corrective actions (e.g., artificial mixing/destratification, treatment, controlled releases only if safe) when thresholds are exceeded.

Hydraulic isolation and interconnection controls:

- Any physical connection to natural waterways (e.g., pipeline, spillway, Morwell Main Drain) adds an escape-path risk during floods or extreme rain.

- If contemplated, design with fail-safes (valves, gates, overflow weirs) that default to river/wetland protection—no outflow unless water quality meets limits and downstream flood/ecological triggers are satisfied.
- **Preferred:** keep the pit lake hydrologically isolated, allowing only carefully controlled emergency connections if absolutely necessary.

6. Inadequacy of Proposed Mitigation Measures in the DMRP

The plan relies heavily on securing water from the Latrobe River system to fill the pit, while proposing vague or non-binding environmental "mitigations." Given climate uncertainty and existing flow stress in the Latrobe–Gippsland Lakes system, these measures are inadequate to safeguard Ramsar values and downstream users.

Transparency and regulation of water sourcing

- Any commercial water supply arrangement (e.g., multi-GL per year) must be brought under the formal water entitlement regime with Ministerial oversight.
- Any commercial water supply arrangement must recognise the scarcity factor and other higher uses needs.
- Have definite 'sunsetting' clauses.
- Specify, in a legally enforceable instrument: allowable volumes, reliability rules (only at defined high-flow thresholds), priority of environmental flows, and mandatory curtailment during drought.
- Require public, monthly reporting of diversions and compliance against limits.
- Price any supplied water at full environmental opportunity cost, with revenue hypothecated to environmental recovery—both to reflect scarcity and to incentivise non-river alternatives.

“Flood-skimming” is not impact-free

- Treat flood harvesting as a high-risk strategy: allow only if independent modelling demonstrates no reduction in the magnitude, frequency, or duration of ecologically critical flow events and wetland inundation.
- If permitted, impose conservative caps and prerequisites: pump/divert only above very high flow thresholds; limit transfer rates to avoid altering the hydrograph; extract only after downstream wetlands have achieved target inundation for the event.
- **Default presumption:** the environment is satisfied first; the pit may access only the genuine surplus, if estimates are uncertain, err on the side of the Lakes and wetlands.
- Allow for unharvested bank full for the Morwell/Latrobe Rivers.

Adopt a strict source hierarchy (rivers last)

- Make recycled/manufactured water the primary sources (e.g., advanced-treated wastewater; desalinated or other non-river supplies).
- Require the EES/DMRP to analyse all feasible alternatives (treatment, conveyance, costs, timelines) and to include binding milestones (e.g., ≥50%, then ≥80% of top-up from non-river sources by set dates).
- Align with government strategy to expand manufactured water for future needs; do not normalise ongoing dependence on scarce surface water resources.

Prioritise low-volume/hybrid rehabilitation

- Avoid locking in a single “full lake” end-state that maximises water demand.
- First implement non-water-intensive measures (partial backfilling, regrading, engineered landforms, dry covers and revegetation over exposed coal) to restrict the void dimensions and reduce the volume of water needed.

- Where a smaller lake remains necessary, meet that need preferentially with recycled/manufactured water or occasional, strictly conditioned stormflow, minimising ecological trade-offs.

Climate risk, completion risk, and taxpayer exposure

- The assumed fill rate (e.g., ~30 GL/year over ~15 years) is highly uncertain or unattainable under a drying climate; multi-year droughts could stall filling. In FoGL's view the case for what amounts to an aggressive filling schedule has not been made.
- Require robust contingencies and financial assurances: contractual obligations for supplementary non-river supplies if needed; predefined fallback to an alternative safe landform if filling cannot proceed without harming environmental flows.
- Do not approve the plan without binding safeguards that fully protect environmental flows and prevent cost/risk transfer to the public.

Decision principle for approvals

- Apply a "no net ecological harm" test: no water-sourcing or interconnection should proceed if it would reduce critical downstream environmental flow objectives, Ramsar wetland inundation/salinity outcomes, or related ecological triggers.
- If this threshold cannot be met with high confidence (under present and future climate scenarios), the proposed water take should be refused.

7. Recommendations

In light of the issues discussed, Friends of Gippsland Lakes urges that the Hazelwood Declared Mine Rehabilitation Plan be revised to incorporate the following recommendations. These measures are aimed at ensuring **ecological risks are**

minimized and the Gippsland Lakes and Latrobe River are protected as Hazelwood is rehabilitated:

1. Adopt a "No Net Ecological Harm" Principle:

The rehabilitation must be guided by a strict rule that no actions will cause a net loss of water or ecological function in the Morwell/Latrobe–Gippsland Lakes system. In practice, this means any proposed water sourcing or river/pit connections should not proceed if they would reduce downstream environmental flows or Ramsar wetland inundation frequency/salinity outcomes. This principle should be explicitly stated and used as a pass/fail test for all water-related aspects of the project.

2. Do Not Divert the Morwell River into the Pit Lake:

FoGL unequivocally opposes returning the Morwell River to its pre-mining course through the pit. The evaporation losses from a pit lake and the risk of poor water quality would seriously undermine the river's health and the Gippsland Lakes downstream. The DMRP should make clear that there will be no routine or permanent diversion of the Morwell River, Eel Hole Creek, or Bennetts Creek into the mine void. Although their original courses have been destroyed by mining, these waterways must be re-established in stable, reconstructed, and revegetated channels that reconnect to their current flow paths. At most, an emergency diversion during an extreme flood could be contemplated, but only under tightly controlled conditions (e.g. a >1-in-20-year flood, with capped flow rates and limited total volume diverted) and only if absolutely necessary for community safety.

3. Prioritise Low-Volume/Hybrid Rehabilitation Options:

The plan must avoid a purely water-intensive "full lake" strategy. Instead, ENGIE needs to demonstrate it has maximised non-water rehabilitation methods (backfilling, recontouring, dry cover, etc.) to reduce the pit volume to be filled and meet safety criteria. A smaller pit lake (e.g. at a much lower level) would require substantially less water, easing the demand on the Morwell/Latrobe Rivers. This hybrid approach – landform stabilisation first, water second – must be the preferred path. Only after those measures are in place, should staged and measured filling commence, and even then, only to a level that is environmentally sustainable.

4. Limit Surface Water Extraction and Implement Tight Conditions:

If any surface water from the Morwell/Latrobe system is to be used (flood skimming), it should be minimal and subject to rigorous safeguards. No flood skimming should occur unless independent modelling demonstrates no net reduction in the magnitude, frequency or duration of target ecological events. Specifically, no water should be taken when river flows are low or moderate – only consider diversion during major flood events, and even then, only if it can be shown to cause no harm to ecological flood requirements downstream. An independent scientific panel should define the thresholds and triggers: for example, a diversion might only occur after the Lower Latrobe Wetlands have been fully inundated to target levels and flows exceed a certain high volume for a sustained period. Each event-based extraction should have a daily and annual cap. If these conditions cannot be guaranteed in practice, then surface water diversions should be prohibited altogether. The project must not erode the frequency of "freshes" needed for fish spawning or the extent of floods needed for wetland health.

5. Enforce a Source Hierarchy – Rivers Last, Alternative Water First:

Recycled water and/or desalinated water should be the primary sources for any significant pit filling or long-term top-ups. The DMRP should include a clear water source hierarchy that places treated wastewater or other manufactured water at the top, and direct river water at the bottom. We support the Concerned Waterway Alliance's recommendation of setting binding targets for the proportion of non-river water used: e.g. by year X, at least 50% of any water used must be from non-river sources; by year Y, at least 80% from non-river sources. This helps facilitate Engie to invest in the necessary infrastructure (such as advanced treatment at Dutson Downs or pipeline connections) in a timely manner. Additionally, “supplementary” water for maintaining the lake level in dry years should not come from rivers – Engie should plan for off-site water (or plan for fluctuating lake levels) rather than quietly taking more from the Latrobe.

6. Integrate Environmental Water Recovery Goals:

Any permission to use surface water must be explicitly tied to the success of regional environmental water recovery efforts and ecosystem protection targets. Given the government's 100 GL environmental water recovery target for the Latrobe, the approvals should include a mechanism that scales back or halts pit water extraction if environmental water recovery falters or if climate and ecological conditions worsen. This ensures the environment doesn't pay the price if reality does not match overly optimistic forecasts. Rehabilitation must not slow down or negate the intended improvements to the rivers and Gippsland Lakes health – it should proceed only in step with them.

7. Bring Water Supply Agreements Under Tighter Regulation:

We request that the 20–30 GL/year Gippsland Water supply arrangement (or any similar agreements) be brought under the Bulk Entitlement framework and Ministerial control. This would formalise the rules as described above (volumes, priorities, curtailment, accounting). It should also set an appropriate price on water to reflect scarcity – no essentially free or subsidised water for filling the mine pit given that the Latrobe system and Gippsland Lakes are in a chronic state of water deficit. Any revenue from water charges should be reinvested in restoring environmental flows and downstream water projects or Traditional Owner water initiatives, creating a positive feedback loop for the river system. If Engie is faced with the real cost of water, it will be more inclined to minimise usage and seek alternatives, which is the desired outcome.

8. Remediate and Secure Contamination Sources (Ash Landfill):

Prior to any pit filling, the DMRP should require a resolution of the Hazelwood Ash Retention Area issue. Underwater burial of the ash should not proceed without a demonstrably fail-safe solution, which so far is not in evidence. The preferable course is to excavate and remove the coal ash to an appropriate off-site or lined facility that can be monitored indefinitely (this removes the long-term risk entirely). If that is proven unfeasible, then at the very least a "dry" in-pit containment above the eventual lake level with modern lining and capping should be constructed that won't disperse or collapse. This would keep the ash isolated from groundwater and lake water. In no case should the pit be filled to a level that submerges the ash landfill unless an independent expert review conclusively finds it will not contaminate the water for the next century and beyond – a standard that will be almost impossible to meet. By resolving the ash pollution risk upfront, we may possibly prevent creating a toxic lake that could threaten the Morwell River and downstream environments or require costly clean-up later.

9. Mandate Comprehensive Water Quality Monitoring and Management:

As noted, any pit lake that does form must be managed as an active ecological system, not a set-and-forget "toxic pit lake". The final plan should include detailed requirements for water quality monitoring, transparent reporting, and adaptive management. This includes installing monitoring equipment to continuously measure stratification (temperature, dissolved oxygen) and detect developing problems early. Regular sampling of heavy metals, acidity (pH), salinity, nutrients and biological indicators should be mandated. Crucially, there must be **Trigger Action Response Plans (TARPs)** – predefined responses the operator must take when monitoring shows certain thresholds are exceeded. For example, if oxygen levels in bottom waters drop too low, the operator might be required to install mixers or aerators within a set time. If metal concentrations rise, treatment or controlled discharge (to an appropriate facility, not into the river) ought to be required. All data and reports should be made freely available and public in real time or near-real time to build community trust. The pit lake should remain subject to environmental regulation for as long as it exists – in perpetuity – given that water quality issues can otherwise go undetected until they cause serious harm to people, wildlife and habitats.

10. Ensure river/drain interconnection is ecologically sound and flood-safe:

If the DMRP considers any physical interconnection between the pit lake and the natural drainage (for instance, re-purposing the Morwell Main Drain to channel water in or out), strict design criteria must apply. No interconnection should increase flood risk to the community or allow unregulated exchanges of water. Any structure should be engineered with sufficient capacity (e.g., ≥0.2% AEP flood) and resilience to climate change so that it does not fail or overtop in extreme events. It should also have built-in ecological "gates" – meaning it only operates when certain downstream ecological conditions are met, ensuring the downstream rivers and wetlands receive sufficient flows first. Backflow prevention is critical so that a flooded pit cannot send polluted water downstream. Independent experts should review the design before implementation and audits should be conducted after any major flood to verify performance. In essence, the default should be keeping the pit lake isolated, unless a controlled connection is shown to be completely benign and beneficial.

11. Conduct a Cumulative Impact Assessment for the Entire Latrobe Valley:

The Hazelwood rehabilitation cannot be viewed in isolation. Two other large mine pits (Yallourn and Loy Yang) will also require rehabilitation in the same region and timeframe. We urge that a comprehensive cumulative water impact assessment be undertaken that considers all three mines' water demands (surface and groundwater) together, using consistent climate scenarios and hydrological models. Publishing all models, data, and assumptions will allow community and scientific scrutiny, leading to more transparent and accountable decision-making. The DMRP should not be finalised until such a cumulative study is factored in, to avoid "robbing Peter to pay Paul" – i.e. solving Hazelwood in a way that negatively impacts downstream environments and communities.

12. Improve Transparency and Community Engagement:

Lastly, we recommend formal requirements for ongoing transparency and stakeholder engagement as the rehabilitation proceeds. This could involve establishing a local environmental oversight committee (with Traditional Owners, community groups like FoGL, FLoW and independent scientists) to regularly review monitoring data and compliance reports. All key documents (water management plans, monitoring results, audit findings, etc.) should be publicly and freely available in unredacted accessible formats. The community must have confidence that promises made in the plan are kept and that emerging issues will be addressed openly. Trust is built through openness: for a project with multi-decade horizons, this continuous engagement is vital.

8. Conclusion

Friends of Gippsland Lakes supports a rehabilitation outcome at Hazelwood that is safe, stable, and sustainable – but sustainable must encompass environmental sustainability downstream, not just stability of the pit itself. We believe it is entirely possible to achieve a safe closure of the mine without sacrificing much needed critical flows to our rivers and lakes, but it will require a shift in approach: restraint in water use, creativity in sourcing and reducing water demand, and an unwavering commitment to putting the environment and downstream lake-based economy first. We appreciate that extensive investigations have been conducted so far, and we trust the forthcoming EES will rigorously examine these water resource issues. The voices of downstream communities and the critical environmental needs of the Gippsland Lakes must be given due weight in deciding the final rehabilitation strategy.

The Gippsland Lakes and its catchments are a cornerstone of the region's identity and prosperity—supporting fisheries (e.g., Black Bream and estuarine species), extensive nature-based tourism, recreational boating and angling, birdwatching, hunting and associated small businesses, hospitality, and accommodation. Their wetlands also deliver essential ecosystem services—water purification, carbon sequestration, flood attenuation, and cultural values for Traditional Owners—that underpin liveability and investment confidence across East Gippsland. Accordingly, the Lakes' future cannot be an afterthought to mine rehabilitation: safeguarding environmental flows and water quality is not only a Ramsar obligation to maintain ecological character, it is a prudent economic strategy that protects jobs, nature-based tourism, and the long-term competitiveness of the regional economy.

In closing, FoGL urges the decision-makers to ensure Hazelwood's rehabilitation is guided by the principle of **"do no net harm"** to the Morwell/Latrobe–Lakes system, now and in the future. We have an opportunity here to turn a potentially toxic and dangerous legacy into a story of environmental care and restoration, rather than a cautionary tale of unintended consequences. By prioritising ecological integrity—maintaining environmental flows, safeguarding water quality, and committing to durable, climate-resilient solutions—the Hazelwood rehabilitation can achieve a safe, stable landform while upholding Australia's obligations under the Ramsar Convention to maintain the ecological character of the Gippsland Lakes, rather than diminishing the freshwater regimes on which the system depends. We stand ready to continue engaging constructively in this process, and we thank you for the opportunity to provide input on behalf of the Gippsland Lakes and all who cherish them.

FRIENDS OF THE GIPPSLAND LAKES
PARKS AND RESERVES

WE ACKNOWLEDGE THE GUNAI KURNAI PEOPLE AS THE TRADITIONAL CUSTODIANS OF THE GIPPSLAND LAKES LAND & SEA COUNTRY

AND RECOGNISE THEIR CONTINUING CONNECTION TO LAND, WATERS AND CULTURE.

WE PAY RESPECTS TO THEIR ELDERS PAST, PRESENT AND EMERGING.

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