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5.1 **Biodiversity**	Required removal of a minimum of 223.58 ha of native vegetation. Area of native vegetation removal would increase with the unquantified native vegetation removal at 2705 Bairnsdale-Dargo Road property. The loss of a cohort of over 700 large trees across an area the size of the project footprint in the space of only decades which would be very significant in ecological terms for the region and impracticable to mitigate.	The Project changes is focused on avoiding areas of indigenous vegetation within road reserves and dissecting gullies as previous assessments identified that much of the good-quality terrestrial fauna habitat in the project area is confined to these corridors. These well-connected remnants, which have been less affected by past land clearing and sustained agricultural use, represent a substantial proportion of the vegetation within the previous project footprint. Avoiding these areas reduces potential impacts on vegetation and habitat, maintaining better ecological connectivity, and improving biodiversity outcomes compared with the earlier project design. The new Project footprint avoids the following areas which would materially minimise the direct loss of native vegetation and large trees: • No mining and minimal disturbance in Perry, Simpson and Lucas Creek gullies • Retaining approximately 6 km of the 7.5 km roadside vegetation compared to the previous project which comprises well established indigenous trees • At 2705 Bairnsdale–Dargo Road, approximately 21 ha (around 90%) of native vegetation areas are now excluded from the mining area • The revised project boundaries include buffer zones that protect native vegetation and sensitive gully systems, including a 1.5 km exclusion buffer from the Lindenow Valley Horticultural District (LVHD). Together, the above measures minimise ecological, and biodiversity impacts of the Project, by avoiding an estimated 80% of the previously identified endangered and vulnerable EVCs that would have been lost under the previous project and avoiding an estimated 50% of scattered tree losses.	GCM engaged GHD in April 2025 to commence a range of seasonal ecological surveys across all project areas where access has been granted. The objectives of the surveys are to check and update historic information and ensure that the existing conditions and current ecological values are fully understood and documented. Access to the 2705 Bairnsdale-Dargo Road property remains ungranted at this time. GCM will continue to engage with the property owner to seek access. GCM and the project team has commenced engagement with Department of Energy, Environment and Climate Action (DEECA) Planning Environment and Assessment (PEA)to agree a methodology for developing what can be assumed within the property based on existing and remote data sets, such that a direct and indirect (if any) loss can be estimated.
5.1 **Biodiversity**	Proponent has not taken sufficient measures to avoid clearing native vegetation and minimising ecological impacts.	In addition to the footprint changes outlined above, the following project components have been relocated and redesigned compared to the 2021 proposal to avoid remanent native vegetation patches and minimise ecological impacts: • Temporary topsoil, subsoil and overburden storage stockpiles have been moved to areas within the mining footprint or areas previously significantly cleared through agriculture to reduce direct impacts on native vegetation and prioritising retention of remnant patches and fauna habitat where feasible.	The scope that GHD has been engaged to complete includes a detailed avoid and minimise assessment, including assessment of ancillary and infrastructure areas, to inform and refine location and design. It is planned that once the majority of seasonal and targeted surveys are complete, a series of workshops will be conducted with GCM to ensure that all the inherent project changes which avoid native vegetation are captured and

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		• The Internal haul road between the process plant and Fernbank East rail siding now avoids intact areas of native vegetation, including consideration of locations of protected flora records in the area. • 2 GL freshwater storage dam, with an approximate footprint of 60 ha has been relocated to a cleared area to avoid direct impacts on native vegetation • Mitchell River off-take and associated pipeline to 2 GL freshwater storage dam have been relocated to follow cleared fence lines and corridors, minimising both new clearance on remnant vegetation during construction and with the aim of reducing impacts associated with operation and maintenance • Groundwater supply and monitoring bores will be micro-sited and situated to avoid and/or minimise native vegetation loss.	quantified, and that any areas where material loss is planned, there is no alternative to minimise.
5.1 **Biodiversity**	Adverse effects to several listed threatened species and communities, along with biodiversity and ecological values within and near the site including: Gippsland Lakes Ramsar Site Gippsland Red Gum grassy woodland and associated native grassland (EPBC Act: critically endangered) 13 threatened species	The design changes outlined above, specifically boundary and footprint changes and the avoidance of disturbance in the gully and roadside areas, are intended to avoid vegetation community and fauna habitat losses as much as possible. These areas were prioritised for retention as they represent the largest contiguous patches of native vegetation identified in the previous project studies and are recognised for their potential to support a range of flora and fauna species. Survey work is currently ongoing and when complete, GCM will be able to assess overall impact and will develop a range of mitigation measures for the loss of natural hollows, to address the diverse habitat needs of large threatened species as well as smaller species such as pardalotes, treecreepers, small marsupials and microbats. The Project would be a zero-discharge site, meaning that any surface water run-off impacted by operations will be directed, retained and reused within the site, and thus avoid water quality impacts to downstream watercourses including the Mitchell and Perry Rivers and the Gippsland Lakes. The new Project has also made a key change to the tailings management strategy, which will now utilise tailings co-disposal directly to in-pit cells, and eliminating the above ground Tailings Storage Facility (TSF). These changes significantly mitigate risk to surface waters and associated biodiversity values downstream of the Project, including the Mitchell and Perry Rivers and the Gippsland Lakes RAMSAR wetland.	GHD's scope includes targeted surveys for all relevant listed flora and fauna species, with winter species surveys completed in July 2025 and spring surveys nearly complete as of November 2025. Vegetation mapping and condition assessments will be progressively updated to support the final overall ecological impact assessment, with an aim to prepare a range of avoidance strategies and mitigation measures to minimise any risk to Gippsland Lakes Ramsar site and any FFG/EPBC listed species. Offset requirements will be confirmed in line with DEECA standards before any works affecting native vegetation occur.

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5.2 **Air Quality and Greenhouse Gases**	Project's effects on air quality and sensitive receptors related to airborne dust is unacceptable on the basis that: Only just complies with air quality standards for many nearby receptors Unlikely that proposed mitigation measures, in combination with the adaptive management approach, will offer effective and reliable management	The following Project design and operation changes from the 2021 project will avoid or minimise dust source emissions and result in corresponding lower dust, PM_{10} and $PM_{2.5}$ values predicted at receptor locations: • Mining rate reduced from 1,500 to 900 tonnes per hour (40% reduction), with corresponding reduction in the fleet size required to move overburden on surface. This was a primary source of dust generation in the 2021 EES • Increased distance between disturbance areas and dwellings • A reduction in overburden material being hauled to surface with a preference for in-pit dozer push method, resulting in a reduction of stockpiling overburden adjacent to the mine. All tailings to be deposited in-pit with no 'above-ground' Tailings Storage Facility (TSF) or tailings deposited in Perry Gully, which minimises windblown dust from exposed tailings. • A closed shed for storage and loading of Heavy Mineral Concentrate (HMC) into closed containers for transport and thus avoidance of windblown dust emissions from this source • Revegetation type to pasture which allows for quicker, more effective and increased certainty of surface coverage, and which minimises windblown dust generation as compared to native vegetation plantation. GCM has also commenced an iterative design optimisation process, whereby preliminary air modelling results are used to identify additional design, management or process refinements to further avoid or mitigate impacts. GCM has Installed a second weather station to ensure that modelling is based on site conditions and accounts for potential weather variability in the project area (micro-climate), which was noted as a key concern during the previous EES assessment. In addition to the Project's use of engineered changes to reduce dust source emissions as listed above, adaptive management would continue to be utilised in accordance with the General Environmental Duty (GED) objectives to further reduce emissions so far as reasonably practicable.	Scope of air quality impact assessment includes use of EPA-approved modelling methodology to run a series of scenarios that aim to be representative of 'worst' case in terms of closeness to receptors and periods of highest material movement.

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5.2 **Air quality and Greenhouse Gases**	Modelling shows that significant increases in depositional dust are expected to occur for some receptors including areas of the adjacent Lindenow Valley Horticultural District (LVHD). Lack of an effective buffer, means depositional dust will pose an unacceptable risk to the important LVHD.	The slowing of the mining rate by 40% from 1500tph to 900tph, as well as the in-pit dozer mining method, will help to avoid dust generation at its source (with precise numbers to be validated as part of studies). Smaller open voids than those proposed in 2021 enable them to be backfilled faster, also reducing exposed areas. To further mitigate potential impacts, the Project now includes a 1.5km buffer zone, which more than doubles the distance between dust emissions sources and LVHD as compared to the 2021 project (in 2021, at its closest point, mining would have occurred within 700m of the Mitchell River). The removal of the Perry Gully TSF, which was proposed in close proximity to the LVHD and changing to an in-pit tailings strategy avoids windblow dust generation from exposed tailings, and a key source identified in the 2021 EES.	Scope of air quality impact assessment will include predictive modelling of a scenario that can be shown to be representative of 'worst' case in terms of potential emissions that could impact on the LVHD.
5.2 **Air Quality and Greenhouse Gases**	Air quality emissions (other than dust) and greenhouse gas emissions related to the project could be managed to an acceptable level should the project proceed	Mining methods which have potential to generate non-dust air quality impacts are largely retained, noting that a series of strategies are in-built to minimise source emissions so far as reasonably practicable, such as use of grid connection for power, with the only on-site power generation limited to back-up diesel generation and remote mine activities, which do not operate continually.	GCM has engaged AECOM to conduct an updated air quality impact assessment based on the refined project footprint and mine plan, and which fully aligns with EPA guidance and Environment Reference Standards (ERSs). A Greenhouse Gas impact assessment will also be undertaken for the new Project.

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5.3 **Agriculture and Horticulture**	Project could have significant and unacceptable effects on existing horticultural and agricultural operations on the basis on the following: • air quality impacts affecting the produce • water availability and water quality	The Project includes a 1.5km buffer zone and a number of other inherent engineered changes as outlined above, to avoid and minimise dust emissions and thus mitigate effects on LVHD and other agricultural arears. The buffer zone increases the setback by 600 to 700 m between areas of Project disturbance the horticultural area as compared to the 2021 project and will result in expected avoidance of dust deposition in some areas and a material reduction in dust deposition on other receptors. Avoidance measures have been introduced in the new project design to eliminate and minimise dust creation including less overburden being hauled to surface, no TSF within Perry Gully, and placement of overburden stockpiles to reduce dust source emissions. Covered sheds for HMC, smaller voids and fast backfilling/rehabilitation of voids further avoid and minimise effects on receptors so far as reasonably practicable. GCM is also investigating if planting trees in the buffer area would further minimise dust impacts on the LVHD.s. The Project will be a zero-discharge site, meaning that any surface water run-off impacted by operations will be directed, retained and reused within the site, and thus avoid water quality impacts to surface water sources utilized by the local horticultural industry. Section 5.6 Surface water below outlines key aspects of the new Project that support its operation as a zero-discharge site. A detailed Project water supply strategy is in development to provide greater certainty over how the Project will meet its 3.0GL per year water needs. Potential supply options from multiple sources are being investigated to spread demand and increase reliability. These sources include working within water trading rules to enable licenced extractions from the deep Latrobe Group Aquifer, Mitchell River winter fill and Macalister River winter fill. GCM is also in early discussions with East Gippsland Water about the potential to use recycled water from treatment plants in Bairnsdale and Paynesville, to further reduce pressure on the water resources of the area and mitigate potential competition for water supply. GCM has undertaken preliminary analysis that indicates no established hydraulic connection between the deep aquifer being targeted for Project water supply, and the shallow aquifers within the area relied upon by local landholders and the LVHD, and consequently avoids any expected impact on the water supply to existing bore users.	GCM has engaged AgriQulture Consulting Pty Ltd (AQC) to conduct a detailed assessment of the existing horticultural and agricultural setting. This means documenting the practises and environmental conditions in which the industry currently works. AQC will utilise the outcomes of other impact assessments, such as Air Quality and Radiation, to assess whether there is any potential risk to future production or quality assurance ratings and develop mitigation measures aimed at ensuring no unacceptable impacts to operations. GCM has engaged Marsden Jacob Associates (MJA) to develop the water supply strategy and support in its implementation. GHD has been engaged to commence a groundwater exploration program. Southern Rural Water has been consulted on the program design, which was developed from new geophysical surveys south of the project, as well as previous drilling data, monitoring and test-pumping bores. The proposed program includes a test production bore and a series of nested observation bores that are specifically aimed at establishing whether there is any interconnectivity between the deep and shallower aquifers, The data obtained from the investigation program will validate supply capacity, measure any potential impacts on existing bore users, and inform cumulative impact assessments.

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5.4 **Social**	Project would have very significant effects on the social values of the local and possibly regional community and are likely to be unacceptable. It is likely that effects have already occurred to a significant degree, in the context of the EES process for the project. Should the project proceed, the likely very significant and unacceptable effects would result in impacts to the local community that would not be able to overcome even with the implementation of the proposed mitigation measures.	The Project aims to reduce the social value effects perceived by the local community through the following: • a smaller mining footprint, with smaller open voids and mining throughout rate to reduce noise and dust impacts at any one location across the area at any one time when compared to those previously identified • retaining remanent native vegetation patches within major gullies features • retaining remanent native vegetation along roadsides • retaining Fingerboards junction • minimising impacts on local roads • no HMC product transport on public roads • minimising visual effects through no above ground TSF, reducing overburden stockpile size and duration so far as reasonably practicable. • Increasing buffer distances between active areas and receptors. Furthermore, it is acknowledged that some community members continue to be impacted by the previous EES process, and GCM has adopted an engagement approach that is respectful, measured and designed to minimise and mitigate, so far as reasonably practicable, any further impact. In October 2024, GCM commenced a fundamentally different approach to project design and development, driven by structured and genuine community engagement, progressed in parallel with a suite of community benefit initiatives. GCM's approach has three core values: iterative design, radical transparency and lasting benefit. Consistent with best practice project and corporate governance principles, GCM is delivering the Project openly and transparently, while striving for an orderly process that provides stakeholders the information, they need and clear opportunities to contribute to project design refinements. Early findings by Public Place identify community benefits programs which focus on long term legacy benefits as being the primary avenue to address any existing or expected negative social effects of the Project. Key programs and initiatives that differentiate GCM's approach include:	GCM has engaged Public Place to undertake a Social Impact Assessment. The scope of the assessment will be to understand and document the existing social setting and social cohesion framework, and in the context of the Project recommend mitigation measures to minimise future social impacts. GCM is conducting a large scale rehabilitation trial in 2026 through a demonstration pit project which will aim to provide the community and other stakeholders with evidence that land can be returned to current use.

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		Economic and Industry Benefits • The establishment of a Rail Freight Taskforce to expand regional access to the project-enabled freight service and connect local industry directly to port and export markets. • Local procurement program prioritising East Gippsland suppliers and supporting small businesses to compete for project contracts. • Supplier development and readiness program to help local businesses meet requirements and secure work. **Employment, Training and Youth Pathways** • Local jobs initiative prioritising East Gippsland workers and creating clear pathways into construction and operations. • Development of targeted youth training and employment pathways, with initiatives including Head Start apprenticeships and TAFE partnerships actively under consideration. • Young Farmers Program enabling young farming families to expand or establish their businesses with access to discounted land leases and long-term security of tenure. **Environment, Land Management and Restoration** • The establishment of a Restoration Program, including a dedicated local rehabilitation nursery and partnerships with local farmers, agronomists, land management groups and a Community Reference Group (CRG). • Restoration and land management planning shaped by direct input from local farmers, landholders and CRG members, ensuring local knowledge guides restoration priorities. • Ongoing engagement with local growers and irrigators to address dust, water, buffers and long-term coexistence with agriculture. • Commitment to provide accessible information on environmental monitoring such as dust, water and noise as part of GCM's transparency approach. **Transparency, Participation and Community Engagement** • Demonstration pit program supporting transparency through community Open Days and guided tours.	

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		• Community information established ahead of regulatory requirements and supported by significant early investment in community engagement. • Early full-time employment of local East Gippsland staff to lead GCM's community engagement. • Accessible community engagement delivered across roving community drop-in sessions, webinars, project office, bi-monthly newsletters, direct mail, direct engagement through allocated staff and expanded digital access through a new website and virtual office. • Direct engagement with landholders, neighbours and nearby residents through one-on-one meetings, property visits and tailored information sessions. • Establishment of a CRG to provide structured, direct community feedback and input into a wide range of project elements, including aspects of project design. • Further investment to expand the CRG to deliver stronger representation of the diverse views and people of East Gippsland. • Radical transparency through the publication of key reports and project documentation on the GCM website. **First Nations Partnerships and Cultural Outcomes** • Commitments to empower Gunaikurnai Land and Waters Aboriginal Corporation (GLaWAC) through long-term partnership opportunities that extend across the life of the project. • Partnership focus areas include cultural heritage roles, training pathways and employment opportunities for Gunaikurnai people. • Support for local youth development initiatives, including engagement with the Clontarf Foundation to encourage education, training and employment pathways for young First Nations men. • Enterprise and procurement opportunities for GLaWAC's commercial arms to support sustained First Nations economic participation. Where appropriate, the above initiatives will be embedded in the Project's Environmental Management Framework to ensure transparency and accountability to these initiatives. GCM's approach to community engagement has also delivered a significant improvement in community sentiment toward the Project. Independent local sentiment surveys are conducted regularly, with a recent November report outlining 49.8% percent of	

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		respondents now support or strongly support the Project, while only 31% oppose (Redbridge, November 2025). GCM's proposed program of comprehensive community benefits will continue to adapt and respond to local needs and priorities, ensuring the project delivers real and lasting benefits across the region. In addition to the above engagement principles and community benefits programs, the retention of the Fingerboards intersection and meeting place is a significant design change made to the Project based on community feedback to reduce social impacts. A strong sense of place and connection to Fingerboards intersection and meeting place was identified through the Inquiry and Advisory Committee (IAC) and Minister's assessment findings from the 2021 project.	
5.5 **Groundwater**	A contingency plan to scale back operations in the face of insufficient water availability would lead to the extension of significant and unacceptable effects on nearby sensitive receptors. There is insufficient site-specific groundwater baseline information and further investigations should be undertaken.	GCM has recalculated the Project water balance at 3.0 GL per year, providing greater certainty and reflecting the revised design and methodology and with increased allowances for dust suppression, rehabilitation and contingency. Water reuse assumptions are being tested through laboratory analysis of tailings water recovery, with results to be confirmed through the demonstration pit planned for 2026. Multiple recovery scenarios will be modelled to test the sensitivity of the overall water balance and provide further certainty. GCM is developing a water supply strategy that is focused on securing water source diversity to give greater certainty over how the Project will meet its water needs and mitigate potential competitive pressures with other water users in the region. This strategy relies on securing an allocation from a combination of two or more of the following: • winter-fill surface water from the Mitchell River • winter-fill surface water from the Macalister River • groundwater from the deep Latrobe Group aquifer • recycled water from East Gippsland GCM has undertaken preliminary analysis that indicates no established hydraulic connection between the deep aquifer being targeted for Project water supply, and the shallow aquifers within the area relied upon by local landholders and the LVHD and consequently avoids any expected impact on the water supply to existing bore users.	GCM has engaged GHD to conduct investigations into the Latrobe Group aquifer should sufficient groundwater allocations be found from trading within the relevant groundwater management areas. These investigations will allow a detailed numerical model to be set-up and calibrated, and subsequent impact scenarios to be run, to allow an iterative wellfield design to be developed that ensures no unacceptable impacts to existing users. GCM re-commenced groundwater monitoring in early 2025 to continue baseline data collection, which will input existing conditions definition and nature and extent of any Groundwater Dependent Ecosystems (GDEs). GCM has engaged Marsden Jacob Associates (MJA) to develop the water supply strategy and support in its implementation. GHD has been engaged to commence a groundwater exploration program. Southern Rural Water has been consulted on the program design, which was developed from new geophysical surveys south of the project, as well as previous drilling data, monitoring and test-pumping bores. The proposed program includes a new production bore and a series of nested observation bores that are

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			specifically aimed at establishing whether there is any interconnectivity between the deep and shallower aquifers, The data obtained from the investigation program will validate supply capacity, measure any potential impacts on existing bore users, and inform cumulative impact assessments.
5.5 **Groundwater**	There is insufficient information to inform an assessment of the potential effects related to seepage quality and quantity from the fine tailings material to the local aquifer and further investigations are required. The effects of groundwater mounding on mobilising existing contaminants within the regional groundwater table to beneficial uses including the Mitchell and Perry Rivers and the Woodglen active storage and recovery are likely to be acceptable subject to the implementation of monitoring of groundwater levels and quality and contingency measures to reduce impacts of mounding if detected.	The revised tailings strategy of co-disposal of fine and course tails, in-pit deposition and optimised water recovery are expected to avoid quality and mounding impacts so far as reasonably practicable on local aquifer and connected users such as groundwater dependent ecosystems.	GCM has commenced a series of bench scale testing of representative tailings samples to determine potential seepage quality and geotechnical properties of deposited tailings. The results of this work will input to a groundwater impact assessment, that will include predictive modelling on the nature and extent of any changes to groundwater levels and quality. Initial results of this geochemical test work undertaken in 2025, using Project tailings material and Latrobe Aquifer groundwater, shows leachate quality comparable to the native groundwater underlying the site, and no indication of saline and/or metalliferous impacts. The next phase of testing will assess whether there is a potential for seepage quality from deposited tailings to change overtime.
5.5 **Groundwater**	Further work is needed to identify the potential for dune sands to support perched groundwater supply to farm dams outside of the project area The implementation of make-good arrangements between the proponent and potentially impacted dam owners, potential effects to spring-fed dams could be adequately managed.	To mitigate potential impacts on local landowners, impact assessment of the Project will include definition of the hydrogeological conditions relative to farm dams to allow determination of those at risk from mining, and outline details of make-good arrangements (where and when needed).	GCM has commenced investigations into determining the nature and extent of any perched aquifer system within and surrounding the mine pit areas, and whether there is a risk to farm dams. The investigation will include the following as a minimum: • Detailed analysis of geological database to 'map' any dune sands and/or perching system which has the potential to be connected to known farm dams

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			• Targeted shallow groundwater drilling program to allow site specific gauging of groundwater levels relative to farm dam water levels
5.6 Surface Water Values Downstream of the Site	It is beyond the scope of Minister's assessment to determine how winter-fill water is allocated under the Water Act 1989 or how that can/may need to occur to minimise environmental risk and remains a matter for SRW, should decision-makers consider proceeding with approval of the project.	As outlined in section 5.3 Agriculture and horticulture, GCM is developing a water supply strategy that documents the water sources that will meet its water needs and mitigate potential competitive pressures with other water users in the region.	GCM has commenced investigations into the water source allocations available within the current trading rules, with an objective to have the proposed Project water supply detailed in early 2026.
5.6 Surface Water Values Downstream of the Site	Concluded that combined with the unreliability of the Dissolved Air Flotation (DAF) plant as a core element of the water management system (and without any redundancy or contingency), this presents very significant challenges for how water can be effectively managed on the mine site. Concluded that there is potential for higher sediment loads and contaminated water entering the Perry and Mitchell Rivers to increase the risk for the downstream waters of the Gippsland Lakes Ramsar Site. The proponent has not demonstrated it has taken all reasonably practicable measures to reduce risk of harm to downstream environments such as the Gippsland Lakes.	The Project no longer includes a DAF Plant. Further, to avoid downstream effects to surface water and associated environmental values, GCM has developed a mine site surface water plan that is integrated to the mine plan and aims to ensure no surface water discharge is required to local catchment (a zero-discharge site). Key measures of the Project's mine surface water management strategy include a revised tailings management protocol and incorporation of the following: • in-pit tailings cells in lieu of an above ground and Perry Gully TSF that avoids risk of tailings discharge downstream • smaller active mining areas and optimised progressive rehabilitation and final landform to minimise disturbed areas and runoff generation, • siting and design of water management dams to capture runoff from disturbed areas built to ANCOLD standards and with capacity in line with EPA requirements, • rapid reinstatement of dam capacity after rainfall events by pumping of collected water to the mine process dam, • in-pit freeboard available as emergency storage if required.	The design elements and assumptions of the site surface water management strategy will form inputs to the surface water impact assessment, with Water Technology engaged to define the existing surface water catchment conditions and assess impacts from the project, including incorporating climate change risks. In early 2025 GCM has recommenced site meteorological and surface water monitoring relevant to this impact assessment. Monitoring includes the following: • Continuous and manual stream flow gauging during east coast lows and other major rainfall events. The monitoring points in two local gullies have been upgraded with v-notch weirs to improve the accuracy of runoff measurements. Continuous loggers have also been installed in several streams to capture flow data, which will be used to calibrate the surface water models for the impact assessment. • Surface water quality Rainfall and wind from a second weather station to address issues raised about "micro-

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			climates" that could exist between the eastern and western extents of the project area.
5.7 **Noise and Vibration**	Cannot conclude that the project's noise and vibration effects would be unacceptable, nor that they would be manageable within acceptable limits. Key concerns for noise include road transport of HMC and giving due regard to application of the GED in an environment of low ambient noise. Key concerns for vibration include impacts from centrifuges and road transport of HMC.	Heavy truck movements and the centrifuges were identified as leading sources of noise in the last EES assessment of the 2021 project. To minimise noise from truck movements, GCM has eliminated transport of HMC on public roads, with the new design elements including: • moving the process plant to a location east of the Fernbank-Glenaladale Road, enabling a fully private haul road direct from the process area to the proposed new rail siding at Fernbank East. This land is owned by GCM. • confirmation of rail-based HMC transport from Fernbank East to port (either Melbourne or Geelong) The new Project design avoids all centrifuge noise impacts, with the new Project tailings co-disposal method enabling elimination of centrifuges from the design. Noise from general mining activities associated with a 24/7 operation was also an area of concern identified. GCM is undertaking several activities to ensure it can demonstrate effective mitigation measures and application of the GED in relation to noise and vibration: • The reduced mining rate, in-pit dozer push and tailings deposition, and enclosed HMC storage and loading are expected to reduce overall noise levels emitted from the project, as is the reduced mining footprint and 1.5km buffer which increases the distance between mining and sensitive receptors. • The construction phase of the project will be undertaken within the daytime noise periods, with only essential maintenance being undertaken outside of these hours. • GCM has commenced an iterative design optimisation process particularly focussed on the night-time period, whereby preliminary noise modelling evaluates design parameters for specific mine and overburden management sequences and locations that are used to identify design, management or process refinements, which are then re-evaluated to ensure impacts have been minimised as much as possible.	GCM has engaged AECOM to conduct an updated noise and vibration impact assessment based on the refined project footprint and mine plan, and which fully aligns with EPA guidance and Environment Reference Standards (ERSs).

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		• In addition to the Project's use of engineered changes to avoid, minimise and mitigate noise source emissions as listed above, adaptive management would continue to be utilised in accordance with the General Environmental Duty (GED) objectives to further mitigate noise emissions so far as reasonably practicable.	
5.8 **Radiation**	Potential radiation impacts are likely to be manageable to an acceptable level, given the predicted dose rates and strong regulatory framework. Concerned at potential for significant dust effects should it not be feasible to manage HMC within a closed system.	GCM has made a number of changes to the way HMC is separated, stored and transported to further avoid impacts, mitigate risk and reduce community concern. Specifically: • Purpose-built storage shedding to store the HMC and eliminate airborne dust emissions from HMC stockpiles as much as possible. This compares favourably to the previous project, which was proposed to have open air HMC stockpiles • Loading and transport of HMC in enclosed shedding, in covered storage containers and transported via a private haul road to GCM's new proposed rail siding, will avoid airborne dust emissions from these activities. • Slowing the mining rate by 40%, reducing the mining and disturbance footprint, limiting exposed areas at any one time, and prioritising progressive rehabilitation, further minimises airborne dust emissions. • Incorporation of a 1.5km buffer between mining and the horticultural area to mitigate airborne dust effects. • HMC is produced on site via a gravity/water separation plant with HMC production managed to ensure the concentration stays below the safe transportable level of 10bq/g.	GCM has engaged DBH Radiation Pty Ltd to conduct a radiation impact assessment which will review and update existing conditions and with input from other impacts assessments, such as air and surface water, assess effects to community and surrounding land uses, including impacts on agriculture, horticulture, and transport routes. GCM has recommenced baseline radiation monitoring, with it noted that the Department of Health has also installed background radon monitors at multiple locations around the proposed project site.
5.9 **Traffic and Transport**	Traffic and transport effects are likely to be acceptable. Option of rail transport to Port of Geelong has not been assessed. Fernbank East rail siding creates potential impacts to Gaping Leek orchid	Design changes to the new Project have further minimised and mitigated traffic and transport impacts, complexities and uncertainties, including: • Reduction of approximately 6km of proposed road relocation, with only one 1.6km section of Bairnsdale-Dargo Road to be temporarily relocated, compared to multiple realignments totalling around 7.6 km in the previous proposal. • Confirmation of rail-based HMC transport to port (either Melbourne or Geelong), via a fully private haul road direct from the process area to the proposed new rail siding at Fernbank East. This avoids impact by eliminating requirements for new road upgrades related to HMC transport.	GCM will engage a suitably qualified specialist to prepare a new traffic and transport impact assessment for the revised project to assess potential impacts and identify any further mitigation measures. GCM has commenced consultation with the Department of Transport and Planning (DTP Gippsland office, Transport Strategy and Freight Victoria) to ensure transport matters are managed to their satisfaction. GCM has also commissioned a freight logistics study to assess the rail transport opportunities, issues and

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		• Avoiding operational impacts to Fernbank-Glenaladale Road from HMC transport, by relocating the process plant to the east enabling elimination of the haul road crossing of Fernbank-Glenaladale Road. A decision on port destination (Melbourne or Geelong) is under consideration. with impacts will be fully assessed during the environmental approvals processes. The design of the Fernbank East rail siding has been configured to avoid encroachment on known rare plant reserves. An ecological impact assessment is underway, including seasonal flora and fauna surveys to confirm the presence of significant vegetation near the siding. Where required, the assessment will recommend mitigation measures, including design refinements.	constraints. This study, which is being undertaken in consultation with Qube Logistics, will also identify the preferred port destination (Melbourne or Geelong). GCM will seek specific consultation and agreement from DEECA on the final design plans for the proposed rail siding, following completion of the assessment.
5.10 **Land Use and Planning**	There is policy support for mining within the East Gippsland planning scheme, but it needs to be balanced against the protection of existing values and land uses, also supported in the planning scheme, including agriculture, biodiversity values, air quality, water and social values of the region. The conclusion is that given the likely effects of the project the use of the land for the project is not supported by planning policies, particularly given the planning policy framework seeks to ensure development protects surrounding areas of agricultural land and environmental values.	GCM's proposed new design aims to show that mining can operate in an environmentally sustainable manner and in conjunction with the existing values and land uses of the location, particularly agriculture and horticulture. The Project changes as outlined in this table directly address those aspects related to the findings of unacceptable effects of the previous project identified in 2021, on agriculture, biodiversity values, air quality, water and social values of the region. Please also refer to section 5.4 Social for details of the new Project's approach to stakeholder and community engagement.	Upon completion of the various impact assessments GCM will engage a suitably qualified planning consultant to prepare a Land Use and Planning assessment. The scope is proposed to bring together the conclusions of the updated impact assessment and re-assess in the context of the current East Gippsland planning scheme.
5.11 **Landscape and Visual**	Concluded that there would be long-term impacts on the existing scenic value of the landscape, primarily due to the removal of native vegetation including large trees and changes to topography. Concluded that there would not be impacts on views from high use areas in Mitchell River National Park, there would be high impacts on views along the	GCM has adopted best-practice mitigations such the placement of visual screen planting or bunding where appropriate in its rescoped design, with the timing of planting to be aligned with the mining sequence to ensure screens have sufficient time to establish before mining begins in those areas. Engagement with landowners is a critical part of our new approach and GCM has commenced engagement with nearby landowners with a focus on setting GCM apart from Kalbar and past approaches. GCM will continue to consult through the assessment and mitigation design phase, and beyond.	GCM has engaged Hansen Partnership Pty Ltd to conduct a Landscape and Visual Impact Assessment (LVIA). The scope of the assessment includes a review and update the existing landscape setting in the context of various viewpoints, with the generation of a series of photomontages that allow a qualified assessment of visual effects and their significance given location and duration of occurrence.

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	journey to the park, particularly during mine operation, which would be likely to reduce visitation to the park and other nearby destinations.	The Project's changes relevant to landscape and visual that will materially avoid or mitigate effects include the following: • Retaining a large proportion of the native vegetation and large trees, including that within gullies and roadsides. • No mining in the Perry, Simpson and Lucas Creek gullies. • The overall mine footprint reduced by 27%, and incorporation of a 1.5km buffer to more than double the distance between mining and the Mitchell River. • Rehabilitation that returns land back to a comparable topography (see section 5.15 Soils and rehabilitation for further detail). • An optimised rehabilitation schedule that progressively returns the land back to existing agriculture use as soon as practical. • No above-ground or Perry Gully TSF, with all tailings deposition below natural surface in-pit. • Dozer-push method to retain as much overburden in-pit as possible and reduce the height of out of pit stockpiles.	
5.12 Heritage	Concluded that the project could have significant impacts on tangible and intangible Aboriginal cultural heritage, which are yet to be fully characterised and considered by the relevant Traditional Owners.	The new Project footprint would change the potential Aboriginal cultural heritage impacts. The Cultural Heritage Management Plan commenced under the previous project was not completed following the Ministerial findings, and will be recommenced to evaluate the new Project. In parallel, GCM has developed a First Nations Engagement Plan supported by a community benefits program for consultation with First Nations communities in East Gippsland and particularly GLaWAC.	GCM has commenced engagement with GLaWAC with the aim to start the Complex Assessment process for the revised footprint, including all the ancillary aspects outside the proposed Mine Lease Area. In addition, and when appropriate, GCM will engage with GLaWAC on their views regarding a CVA.
5.12 Heritage	Concluded that here are no known unacceptable or significant effects on historic heritage values arising from the project.	No changes developed for the new Project in the context of historic heritage, given there are no historic heritage values to protect.	At this time, is not proposed to conduct a historic heritage impact assessment.

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5.13 **Economics**	The project has economic benefits including for the state of Victoria, although the scale of the benefits and how and where they would be accrued remains uncertain. Concluded the project will have adverse effects on the local and potentially regional economy, including for the agricultural, horticultural and tourism industries, particularly given the likely significant and unacceptable effects.	The redesigned Project incorporates measures to materially minimise or mitigate impacts and ensure the operation can coexist with established industries, particularly agriculture. The revised layout, buffers and mitigation controls have been developed through iterative design and informed by local engagement. In parallel with minimising impacts, the Project is expected to deliver wider regional benefits, including enhanced rail connectivity that supports existing industry, improves access to export markets and contributes to a more resilient regional economy. The new Project is expected to generate approximately 400 jobs during construction and a further 300 ongoing operational roles, approximately $90 million annually to the Victorian economy through expenditures on employment, fuel, goods and services required for operations. Over a 22-year operating life, this represents a total economic contribution of approximately $2 billion. In 2025, GCM engaged Adamas Intelligence to undertake an analysis of the deposit and evaluate according to its significant in the global context. Adamas confirms the Fingerboards deposit contains an unusually high proportion of critical magnet rare earth oxides, with neodymium, praseodymium, dysprosium and terbium forecast to contribute more than 80 percent of total basket value by 2040. Fingerboards' concentrate is projected to double in value between 2025 and 2040, reflecting its enrichment in high-value magnet rare earths and strong global demand. Adamas finds the project has robust economics, with a likely position among the lowest-cost rare earth feedstocks worldwide, no Chinese ownership or offtake, and clear desirability to global separation facilities.	GCM has engaged KordaMentha to revise and update the local and regional scale economic effects of the project, on the basis of the revised mine plan, and current critical minerals setting. GCM will also commission a cost benefit analysis for the project to further study specific localised economic costs, benefits and disbenefits. As outlined above, AgriQulture Consulting are also undertaking an agricultural and horticultural impact assessment, which will feed into the economic considerations for the industry from the proposed Project.
5.14 **Human Health**	The project's human health risks are not entirely clear given residual uncertainty with some elements of the project and the need for further baseline data collection and assessment, and consideration of mental health effects. There is a risk that health impacts related to airborne dust have not been considered	GCM has made a number of significant changes to avoid or mitigate potential impacts and reduce uncertainties on human health as much as possible. Specifically the reduction in the size and scale of mining activity (27% reduction in mining footprint, 40% reduction in mining rate) and the preservation of roads, the Fingerboards Junction and the gullies are designed to avoid, mitigate and minimise impacts on stakeholders in relation to noise, dust, native vegetation removal, visual effects, road disruption, social effects and the extent of exposed areas. These outcomes will be tested and optimised through the iterative design process, detailed impact assessments and validated through the demonstration pit.	Baseline monitoring is underway across key areas including air quality, noise, radiation, water quality, landscape and visual, social, economic, soils, and agriculture and horticulture. Data from this program is being used to inform impact assessments, with recommended mitigations sensitivity tested in line with best practice. The findings will feed into a human health impact assessment that will consider a full range of potential health outcomes, including both physical and mental

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	given the likelihood of air quality unacceptable effects.	GCM will present information about the project and impact assessments, including human health, openly to the community through its robust engagement program. This includes regular newsletters, Community Reference Group (CRG) meetings, public webinars, drop-in sessions, media updates, and direct conversations at GCM's physical office, which provides a permanent point of access for community members to seek information and ask questions. Further information on this aspect is provided in section 5.4 Social.	health. Recommendations from this assessment will inform future design refinements and engagement with potentially affected individuals, groups and the broader community. To provide independent assurance, the human health assessment will be peer-reviewed by an external health expert. The assessment will also specifically examine potential health risks associated with PM_{10}, with a focus on risk minimisation, and will include a review of toxicants against appropriate screening levels.
5.15 **Soils and Rehabilitation**	The project's effects related to rehabilitation and soils are not clear given the need for additional baseline information and longer-term field scale trials.	The revised Project is designed to avoid far more native vegetation impact, with an estimated 80% less EVC vegetation loss and 50% less scattered tree loss compared to the 2021 proposal (based on previous ecology studies). As the great majority of disturbed areas are currently pasture lands, the new Project's rehabilitation will prioritise returning land to productive pasture. This is direct response to feedback from the local agricultural community. This means that the Grassy Woodlands Restoration Project, in the form that it was discussed and presented in 2021, is no longer the preferred rehabilitation method. Instead, the focus is on using species that establish quickly and have proven success in the region. This approach mitigates the risk from sediment runoff and enables land to return to farm use as soon as possible. GCM has developed a robust final landform that is intended to reinstate drainage patterns, while smoothing contours where they may be currently eroded or at risk, and enable successful rehabilitation and revegetation. To validate the Project's rehabilitation approach, GCM will run rehabilitation trials as part of its Mining and Rehabilitation Demonstration Pit in early 2026. The demonstration pit will replicate all stages of the proposed mining sequence, including excavation, ore processing, tailings co-disposal, replacement of overburden, subsoil and topsoil, and revegetation. Two ameliorated subsoil types will be trialled, with the former proposal for 'manufactured subsoil' no longer proposed. Rehabilitation methods will be designed and tested in partnership with local agriculture and horticulture groups, First Nations, representatives from the	GCM will undertake a comprehensive soils and rehabilitation impact assessment program, including: • SLR has been engaged to undertake a soils impact assessment, including stockpile management, reinstatement, testwork and fieldwork • Mining and Rehabilitation Demonstration Pit • Dispersive / sodic soils study to provide specific advice on this aspect • Soil landform study • Geotechnical stability study • Agronomy assessment • Development of a Rehabilitation Plan

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		Community Engagement Group and the wider community, with results available to help inform the environmental assessments for the Project. Where land is rehabilitated and intended for ongoing conservation status, for example as part of a benefit sharing initiative, it will be undertaken in collaboration with the local community and First Nations communities and supported by the native species propagation work of the GCM nursery.	