Response to Requirement Notice

(Regional Planning Interests Act 2014, s44)

RPI25/038 — Rio Tinto — Carrier Project

ATTACHMENT A

Information required for assessment against the SEA Criteria – Schedule 2, Part 5 of the *Regional Planning Interest Regulation 2014*

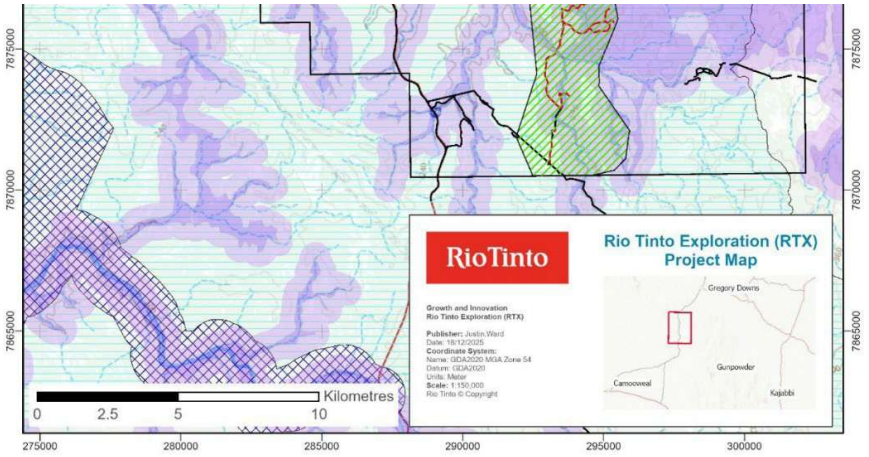
1.	**Development footprint is unclear Issue:** (a) The development footprint for the proposed resource activities (including the location of the proposed ground hole versus surface geophysics) is unclear. The supporting information provided with the RIDA application includes mapping that indicates the proposed drilling activities and access tracks. According to the Department's mapping, multiple access tracks may overlap with either a watercourse or drainage features. It is not clear which features may be intercepted by the proposed disturbance/works. (b) Some of the plans provided in support of the application lack clarity and are not legible. **Actions:** (a) Provide the shapefiles for the proposed access tracks and drill lines TRO allow for a clearer interpretation of which watercourses may be impacted. (b) Provide legible plans that clearly define the location and footprint of the resource activities, including geophysics hole references.
2.	**Erosion and sedimentation Issue:** Further information is required regarding the potential erosion and sedimentation risks associated with the proposed exploration activities, including drilling, temporary access tracks, and the campsite. **Actions:** To address identified gaps in the provided information regarding potential erosion and sedimentation risks the applicant is requested to: • provide details on how soil will be stabilised in cleared areas • outline plans for minimising sediment runoff during and after track construction, especially near watercourses or sensitive areas • specify how sediment will be contained to prevent it from entering waterways.

3.	**Effluent management** **Issue:** Further information is required regarding how effluent will be managed on-site, taking into account the environmental sensitivity of the area. **Actions:** Provide detailed information on the proposed measures for managing effluent. This should include an evaluation of any potential environmental risks associated with effluent management, with particular consideration given to the sensitivity of the area.

4.	**Riparian Vegetation** **Issue:** The extent of disturbance to riparian vegetation is not clearly outlined in the application. **Actions:** Provide detailed information regarding the extent and nature of the riparian vegetation clearing required to facilitate the exploration activities. Such considerations include but are not limited to: • identification of riparian corridor locations and details of proposed disturbances or changes • measures to stabilise disturbed areas and mitigate potential impacts • confirmation of buffer distances, with a minimum 100-metre buffer around all watercourses, lakes, wetlands or springs and defined riparian vegetation zones as recommended by Gulf Rivers SEA requirements • steps to minimise vegetation clearing and disturbance • strategies to mitigate impacts on native vegetation and prevent land degradation • assessment of potential short- and long-term environmental impacts.

5.	**Wildlife corridor Issue:** The supporting documentation states the exploration activities are unlikely to impact the wildlife corridor function of the riparian vegetation, as it intends to maintain connectivity for migration, shelter, and habitat, while allowing free movement of aquatic and marine fauna. It also notes that large trees will be preserved where possible to protect breeding habitats. However, the material lacks sufficient evidence on how these outcomes will be achieved, and the specific location of the wildlife corridor has not been identified and potential short and long-term impacts have not been adequately addressed. There is also insufficient information to confirm that a suitable buffer distance is in place to ensure the resource activities remains separated from wildlife corridors and does not compromise their integrity or function. **Actions:** Provide further information regarding the following, in order to address the identified gaps in the information provided regarding the wildlife corridors: • identify how the preservation of the wildlife corridor function of the riparian vegetation will be achieved • identify the wildlife corridor's location and details of proposed disturbances or changes • assess the potential short-term and long-term environmental impacts.

6.	**Water quality Issue:** The proposal states that the resource activities will aim to 'minimise exploration near rivers and riparian zones'. However, the areas of interest identified in the application appear to be within the 100m buffer required by the Gulf Rivers SEA guideline. **Actions:** The applicant is to address the following water quality matters: • demonstrate how minimising exploration near rivers and riparian zones will support their protection with reference to further mitigation measures to be implemented • provide confirmation of buffer distances, with a minimum 100-metre buffer to be provided around all watercourses, lakes, wetlands or springs and defined riparian vegetation zones as recommended by Gulf Rivers SEA requirements • demonstrate how water quality will be preserved when access tracks cross minor rivers.

6.	**Area of Disturbance** **Issue:** (a) Table 2 in the submitted application provides a summary of proposed exploration activities and surface disturbance, including existing access tracks with a total area of impact of 33.3 hectares. This figure is included within the overall area of disturbance. It is unclear why this figure has been included given they are existing access tracks. (b) The application material focuses on EPM27951 and EPM27935 over Lot 4 on GY805051. Lot 1 on UN7 is listed as part of the project area with a proposed access road shown partially in Figure 3 of the report. Notably, Figure 3: Carrier Drilling Activity and access track Polygon, indicates that there is a proposed road traversing Lot 1 on UN7. It appears that the proposed road will intersect with the Gulf Rivers SEA designated precinct (refer to red line in the figure below).  Figure 3: Carrier Drilling Activity & access track Polygon **Actions:**

	The applicant is requested to: (a) Clarify why the area of existing access tracks has been included in the total footprint of disturbance within the mapped SEA for which the approval is sought. (b) Clarify the area of disturbance involving Lot 1 on UN7 and provide spatial information for assessment. In particular, please confirm if there will be disturbance within the designated precinct of the SEA.
7.	**GIS data files Issue:** Section 4 of the submitted RPI Assessment Application Form indicates GIS data files were included, however no GIS data files were submitted. **Actions:** Provide the GIS data files.
8.	**RPI Assessment Criteria Issue:** The application material considers the proposed activities will not result in the widespread or irreversible impact on any environment attribute of the SEA and has provided an assessment against the criteria. **Actions:** Clarify how the application achieves the prescribed solution of Schedule 2, Part 5 of the RPI Regulation, preferably in a tabular format that cross-references relevant sections of the supporting report with respect to how the application complies with the prescribed solutions.

Company Response:

Please find below information in response to the Requirements Notice for RIDA application number RPI25/038 – Rio Tinto – Carrier Project.

1.	**Issue 1:** Please find **attached** shape files of proposed drill areas with proposed new access tracks contained within the spatial boundaries of the polygon. Please find attached the following maps: • Appendix 1 – Map of Proposed drill areas • Appendix 2 – Map of Proposed sampling and mapping areas • Appendix 3 – Map of Proposed ground geophysics areas • Appendix 4 - Map of Proposed airborne geophysics areas • Appendix 5 – Map of Proposed camp locations.
2.	Issue 2: The Carrier Project involves temporary small-scale mineral exploration activities comprising of short-term drilling, temporary access tracks, and a single temporary exploration camp. Activities will be undertaken with a staged approach and progressively rehabilitated as needed. The activities are within broad polygons that allow for flexibility to avoid sensitive features. The Carrier project is located within the Gulf Rivers Strategic Environmental Area (SEA) where erosion and sedimentation are recognised environmental risks if disturbance is poorly managed. However, the inherent erosion risk for the Carrier project is low due to: • limited spatial extent of disturbance • temporary nature of the exploration activities • dry-season timing of exploration activities • avoidance of watercourses and drainage features where practicable • progressive rehabilitation of disturbed areas. Soil stabilisation in cleared areas Soil stability will be maintained through the following measures: • Disturbance will be limited to the minimum footprint required for safe access and operations, with drill pads (approximately 30 m × 30 m) and access tracks micro-sited to avoid erosion-prone terrain where practicable. • Disturbed surfaces will not be left smooth or compacted; surface roughening and reinstatement of natural contours will be used to reduce runoff velocity and erosion potential. • Where practicable, topsoil will be retained and respread during rehabilitation to maintain soil structure and promote surface stability and natural regeneration. • Disturbed areas no longer required for access or operations will be rehabilitated as soon as practicable rather than deferred to the end of the program.

	Minimisation of sediment runoff Sediment runoff will be minimised through integrated planning and operational controls, including: • Dry-season scheduling of exploration activities to reduce exposure to rainfall-driven runoff. • Preservation of natural drainage patterns through careful siting of tracks and pads. • Diversion and dispersion of surface runoff where required to avoid concentration of flows. • Prompt stabilisation of exposed soils, particularly where disturbance occurs upslope of drainage features. Sediment containment and protection of waterways To prevent sediment from entering waterways: • A minimum 100-metre buffer to watercourses, wetlands, lakes and springs will be maintained wherever practicable. • No works are proposed within watercourses or drainage features. • Natural vegetation buffers, surface roughening and diversion of clean runoff around disturbed areas will be used to intercept sediment. • Disturbed areas will be inspected following rainfall events, with adaptive management applied where erosion or sediment mobilisation is observed. With the above controls in place, erosion and sedimentation impacts associated with the exploration program will be localised, temporary and reversible, and will not result in sediment discharge to waterways within the Gulf Rivers SEA.
3.	**Effluent management measures** Effluent will be managed to prevent contamination of land, surface water, groundwater and environmentally sensitive areas within the SEA through the following measures: • Use of portable, sealed, self-contained toilet systems at the camp and, where required, at drill sites. • No discharge of effluent to land, waterways, drainage features or infiltration areas. • Removal and disposal of effluent by licensed contractors at approved facilities. • Maintenance of effluent storage units to prevent leakage, overflow or accidental release. Environmental risk management Given the environmental sensitivity of the SEA: • Effluent facilities will be located outside riparian areas and at least 100 metres from mapped watercourses, wetlands, lakes and springs. • Facilities will be inspected regularly to ensure integrity and appropriate operation.

	• In the unlikely event of a system failure, immediate containment, clean-up and removal of contaminated material will be undertaken. Given the limited volume of effluent, sealed management systems, absence of discharge pathways and temporary nature of the camp, the risk of environmental harm from effluent management is low and will not adversely affect SEA environmental values.
4.	**<u>Issue 4:</u>** Riparian vegetation within the project area is associated with mapped watercourses, drainage lines, and floodplain features and supports key ecological functions including bank stabilisation, water quality protection, and habitat connectivity. Vegetation management, biodiversity planning, and aquatic conservation information confirms that riparian areas are spatially discrete and identifiable, allowing effective avoidance through informed siting decisions. The exploration program is temporary, low-impact, and flexible, comprising: • temporary drill pads (approx. 30m × 30m) • narrow access tracks • a single temporary camp • dry-season operations • progressive rehabilitation Importantly, the program relies on micro-siting within broad polygons, enabling final placement of tracks and pads to avoid riparian vegetation wherever practicable. <u>Avoidance and minimisation measures</u> Riparian vegetation will be protected through the following integrated controls: • Final locations of access tracks, drill pads, and camp infrastructure will be selected to avoid riparian vegetation, drainage lines, and floodplain areas wherever practicable. • A minimum 100-metre buffer to watercourses and riparian zones will be maintained wherever practicable. There are mapped non-perennial watercourses within the polygon areas where access across may be unavoidable. Where this occurs, there will be temporary encroachment into the 100m buffer at designated crossing points. • Where clearing near riparian areas is unavoidable, low-impact techniques will be used to minimise soil disturbance. Crossings of mapped non-perennial watercourses will be limited to a single designated crossing using the blade up method. Crossings will not involve excavation of the channel bed. Track approaches will be stabilised and runoff will be diverted away from the channel to minimise sediment delivery. Where excavation of the banks on the crossings has been unavoidable, the crossing and the banks will be contoured and reshaped back to its prior state during rehabilitation.

	• Large mature trees and structurally important riparian vegetation will be retained wherever practicable. Any disturbance near riparian vegetation will be rehabilitated as soon as practicable following use, with priority given to stabilising soils and reinstating natural drainage patterns. Short-term impacts may occur where access constraints limit avoidance but will be localised and temporary. Long-term impacts are not expected due to the absence of permanent infrastructure and the commitment to progressive rehabilitation.
5.	**<u>Issue 5:</u>** Wildlife corridor function is primarily associated with riparian vegetation, drainage lines, floodplain features, and permanent or semi-permanent water sources within the Gulf Rivers Strategic Environmental Area (SEA). These features provide habitat, movement pathways, refuge, and seasonal resources for terrestrial and aquatic fauna. The vegetation management, biodiversity planning, species and aquatic conservation material show that fauna movement and corridor values are concentrated along these linear riparian and drainage-associated environments, rather than being uniformly distributed across the broader landscape. These corridors are spatially identifiable and can therefore be effectively avoided or minimised through informed siting of temporary exploration infrastructure. The exploration program is temporary, small-scale and low-impact, comprising temporary drill pads, narrow access tracks, a single temporary exploration camp, dry-season operations, and progressive rehabilitation. Additionally, exploration infrastructure is not fixed at the application stage and will be micro-sited within the approved polygons, allowing final placement to respond to on-ground environmental constraints. No permanent infrastructure, fencing, or long-term land occupation is proposed. Low-impact exploration activities such as mapping, sampling and geophysical surveys do not require vegetation clearing and will not affect wildlife corridor function. <u>Measures to preserve wildlife corridor function</u> • Final locations of access tracks, drill pads and camp infrastructure will be selected to avoid riparian vegetation, drainage lines and floodplain habitats wherever practicable, using desktop mapping supported by on-ground verification prior to disturbance. • A minimum 100-metre buffer to watercourses and associated riparian vegetation will be maintained wherever practicable. Where access across minor drainage features is unavoidable, crossings will be limited to the minimum width necessary and designed to avoid widening or fragmenting corridor habitats. • Large mature trees, hollow-bearing trees and structurally important vegetation within or adjacent to corridor areas will be retained wherever practicable, recognising their role in fauna movement, shelter and breeding.

	• Camp infrastructure will be consolidated within a single temporary footprint and not located within wildlife corridor areas, avoiding repeated disturbance along linear habitats. <u>Rehabilitation and recovery of corridor function</u> Any temporary disturbance adjacent to wildlife corridors will be rehabilitated as soon as practicable following use. Rehabilitation will focus on reinstating natural landforms and surface drainage, stabilising soils to prevent erosion and facilitating natural regeneration of native vegetation consistent with surrounding habitat. Rehabilitation of corridor-adjacent disturbance will be prioritised to ensure rapid restoration of habitat connectivity prior to the wet season. Short-term impacts to wildlife corridor function may occur where access constraints limit complete avoidance, such as at minor drainage crossings. These impacts will be localised, narrow, and temporary, and will not sever corridor connectivity. Long-term impacts are not expected. The exploration activities do not involve permanent clearing, barriers to fauna movement, or ongoing disturbance. With avoidance, minimization and rehabilitation measures in place, wildlife corridor structure and function will be maintained.
6.	**<u>Issue 6:</u>** The project is located within the Gulf Rivers Strategic Environmental Area (SEA), where water quality is closely linked to intact hydrological, geomorphic and riparian processes. The exploration program is temporary, small-scale and low impact, with all infrastructure micro-sited to avoid watercourses and drainage features. <u>Measures to protect water quality</u> Water quality will be protected through the following integrated avoidance and management measures, consistent with the intent of Statutory Guideline 05/14: <u>Avoidance and buffers</u> A minimum 100-metre buffer to watercourses, wetlands, lakes and springs will be maintained wherever practicable. Temporary encroachment into the buffer will be limited strictly to designated crossing footprints where access across major non-perennial channels is unavoidable. No exploration drill pads, camps, refuelling, chemical storage or effluent facilities will be located within buffer areas. Where crossings are required, they will be limited to single, designated crossing point per channel. The crossings will be aligned as close to perpendicular as practicable and located at the narrowest and most stable section of the channel. Construction will be blade-up only, involving no excavation of the defined bed. Where excavation of the banks for single point crossings has been

	unavoidable, the crossing and the banks will be contoured and reshaped back to its prior state during rehabilitation. The bed and bank form will be maintained to preserve natural hydraulic and geomorphic function. <u>Sediment and runoff management</u> Where crossings are required, the crossing and associated works will be undertaken during the dry season only, with no works occurring when channels are wet or flowing. Track approaches will be stabilised through surface roughening and managed to divert and disperse runoff away from the channel, minimising sediment delivery. Disturbed surfaces will not be left smooth or compacted in a manner that could concentrate flows. Crossings and approaches will be inspected following rainfall events, and any rilling, scour or sediment mobilisation will be repaired promptly. <u>Contaminant controls</u> No refuelling, chemical storage or equipment maintenance will occur within or immediately adjacent to drainage features. Domestic effluent will be managed via sealed, self-contained systems with off-site disposal and no discharge to land or water. Exploration drill holes will be appropriately capped or secured when inactive to prevent surface water ingress and potential contamination pathways. Spill response measures will be in place to ensure immediate containment and clean-up in the unlikely event of an incident. <u>Rehabilitation</u> Temporary crossings and disturbed approaches will be rehabilitated as soon as practicable after use, and in all cases prior to the wet season. Rehabilitation will focus on reinstating natural surface contours, stabilising soils, and facilitating natural regeneration consistent with surrounding landforms and vegetation. <u>Short- and long-term impact assessment</u> Short-term impacts to water quality may occur as a result of localised ground disturbance associated with access tracks and temporary crossings. With the controls described above, these impacts will be minor, localised and temporary, and will not result in measurable or persistent degradation of water quality. Long-term impacts are not expected. The exploration program does not involve permanent infrastructure, ongoing discharge, or alteration of hydraulic or geomorphic processes. Progressive rehabilitation will restore surface stability and natural drainage patterns following completion of activities.
6a.	Issue 6a The footprint of existing tracks was included in the table to highlight that existing tracks will be used where possible. The calculated footprint of the existing drill tracks was not included in the total disturbance footprint for which the approval is sought. The area for the proposed resource activities on Lot 1 on UN7 is not within a designated precinct of the Gulf Rivers Strategic Environmental Area.

7.	**Issue 7** Please find **attached** shapefile of the proposed drill areas. Please note that proposed new access tracks are contained within the spatial boundaries of the polygon.
8.	**Issue 8** Assessment framework This assessment addresses the prescribed solutions for development in a Strategic Environmental Area (SEA) under Schedule 2, Part 5 of the *Regional Planning Interests Regulation 2014*, taking into account the intent of "Statutory Guideline 05/14 – Carrying out resource activities and regulated activities in a Strategic Environmental Area". The proposal comprises a temporary, small-scale exploration program, involving a single drill rig, a single dozer, excavator, grader and light vehicles, supported by micro-siting within broad approved polygons, dry-season operations, and progressive rehabilitation. No permanent infrastructure is proposed. The assessment below demonstrates that the proposal maintains the environmental attributes of the Gulf Rivers SEA and avoids widespread or irreversible impacts. (a) Natural hydraulic processes Requirement: Maintain unrestricted flows, floodplain connectivity, and groundwater and spring processes. Assessment: • No permanent infrastructure, watercourse realignment, or in-stream works are proposed. • Activities are undertaken during the dry season, reducing interaction with episodic flood flows. • Access tracks and drill pads are micro-sited to avoid drainage features wherever practicable. • Where access across major non-perennial channels is unavoidable, crossings are limited to temporary and the banks will be contoured and reshaped back to its prior state during rehabilitation • Crossings are rehabilitated prior to the wet season. Finding: Natural hydraulic processes will be maintained. (b) Natural geomorphic processes Requirement: Maintain natural erosion, sediment transport and deposition processes. Assessment: • Disturbance is limited in scale, duration and intensity, with no permanent alteration of landforms. • Erosion and sediment controls include dry-season timing, avoidance of drainage features, surface roughening, runoff dispersion, and progressive rehabilitation. • Crossings of major non-perennial channels do not involve excavation of the bed, fill placement, or channel reshaping, thereby avoiding alteration of geomorphic form. • Any short-term sediment mobilisation risk is managed through approach stabilisation and inspection following rainfall events.

Finding: Geomorphic processes will not be altered beyond short-term, localised effects that are reversible.

(c) Functioning riparian processes

Requirement: Maintain native riparian vegetation and associated stabilisation and ecological functions.

Assessment:

- Riparian areas are spatially identifiable and avoided through micro-siting wherever practicable.
- A 100-metre buffer to watercourses and riparian zones is maintained, with temporary encroachment limited strictly to designated crossing footprints where crossings are unavoidable.
- Clearing at crossings is confined to track width only and avoids mature and structurally important vegetation wherever practicable.
- Disturbed riparian-adjacent areas are rehabilitated promptly to reinstate stabilisation and ecological function.

Finding: Riparian structure and function will be maintained.

(d) Functioning wildlife corridors

Requirement: Maintain habitat connectivity associated with watercourse systems, floodplains and permanent or semi-permanent water features.

Assessment:

- Wildlife corridor values are primarily associated with riparian and drainage-linked habitats.
- Corridor features are avoided wherever practicable through siting controls.
- Where crossings are required, disturbance is narrow, localised and temporary, does not create barriers to movement, and is rehabilitated following use.
- No fencing, permanent barriers or long-term disturbance is proposed.

Finding: Wildlife corridor connectivity will not be severed or materially constrained.

(e) Natural water quality

Requirement: Maintain the physical, chemical and biological attributes supporting aquatic and terrestrial ecosystems.

Assessment:

- No discharge to land or water is proposed. Domestic effluent is managed via sealed, self-contained systems with off-site disposal.
- Water quality risks associated with blade-up crossings of major non-perennial channels are managed through dry-season works, avoidance of channel excavation, stabilisation of approaches, diversion of runoff away from channels, and prompt rehabilitation.
- Fuel, chemical storage and refuelling are located away from drainage features, and spill response measures are in place.
- Drill holes are capped or secured to prevent contamination pathways.

	Finding: Water quality will be preserved. When considered in the context of temporary, minimal-disturbance exploration techniques, controlled blade-up crossings of major non-perennial channels, conservative buffers, dry-season operations and progressive rehabilitation, the proposed activities avoid widespread or irreversible impacts to SEA attributes.