Attachment 4 – 10 Clearing Principles Report

Native Vegetation Clearing Permit – 10 Clearing Principles Assessment

Rio Tinto Iron Ore Rail – Tom Price Mainline, within Millstream Chichester National Park

November 2024

Robe River Mining Company Pty Ltd

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Restrictions on use

Document Status

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Executive Summary

The Proposal was assessed against the 10 Clearing Principles as defined in Schedule 5 (Principles for Clearing Native Vegetation) of the *Environmental Protection Act 1986.*

Based on specialist assessment of the proposal and discussion below, it is deemed that

- Principles (C), (D), (E), (J) are not at variance;
- Principles (A), (B), (G), (I) are not likely to be at variance; and
- Principle (F), (H) are at variance.

Principle F states: *Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.*

Principle H states: *Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area*.

The Proposal falls within Millstream Chichester National Park (MCNP). At this location the only way to access the rail alignment to undertake the proposed works is through the MCNP. The proposal area has been refined to include only areas that are necessary for essential works to be completed. Almost half of the Proposal area has previously been cleared and is considered to be in Poor, Degraded or Completely Degraded vegetation condition. The vegetation that has not previously been cleared is in Good to Very Good condition. The entire proposal area runs along existing rail corridor infrastructure. It is considered unlikely the proposal will have a significant impact on the conservation area.

1. Statement addressing the 10 clearing principles

Rio Tinto is proposing to complete essential rail maintenance works and construction activities at two locations in the Millstream Chichester National Park in the Pilbara (The Proposal, Figure 1, Figure 2). The total area for the Proposal is 10.36 ha of which, up to 10 ha is being requested to be cleared under The Proposal. The requested 10ha include a number of existing tracks for which a clearing exemption cannot be applied. The area proposed to be cleared is referred to as the 'Proposal Area' throughout this document.

Location A, the northern location, between the Tom Price Mainline and the Western Creek West Mainline (The Proposal, Figure 1) comprises 3.96 ha of native vegetation and cleared tracks. The activities proposed for this location include essential works for rail maintenance including access to the rail formation and, rail bridge 74.1 that spans Western Creek. Location B, the southern location, to the east of the Tom Price East Mainline (The Proposal, Figure 2) comprises 6.4 ha of native vegetation and cleared tracks. The activities proposed for this location include remediation works for a historical track that was re-instated and an area as part of the proposed Rail Mobile Communications project.

A reconnaissance, targeted flora and fauna habitat assessment survey was carried out at the location in 2023, this survey covered 47.1 ha and included the current proposal area (Astron, 2023; Figure 1, Figure 2). The area covered by the survey is referred to as the 'Survey Area throughout this document.

The proposal area has been refined to include only areas that are necessary for essential works to be completed. Over half (5.57 ha, 53.7%) of the proposal area has been previously cleared and 0.95 ha (34.5%) remains cleared for tracks.

An assessment of the proposal on the biological values of the proposal area against the ten clearing principles under Schedule 5 of the EP Act is provided below.

1.1 Principle (a) - Comprises high level of biological diversity

Native vegetation should not be cleared if it comprises a high level of biological diversity.

The Proposal area is located in the Chichester sub-region of the Pilbara and is described as: 'Undulating Archaean granite and basalt plains include significant areas of basaltic ranges. Plains support a shrub steppe characterised by *Acacia inaequilatera* over *Triodia wiseana* (formerly *Triodia pungens*) hummock grasslands, while *Eucalyptus leucophloia* tree steppes occur on ranges' (Kendrick & McKenzie 2001). Known special values of the Chichester sub-region include rare features such as the Ripon Hills sinkhole, Meentheena Carbonate stromatolite fossils (also stromatolite fossils at North Pole and elsewhere), geological complexity of the Marble Bar – Nullagine mineral province and high species and ecosystem diversity in 'Hummock grassland reptile and small mammal communities' and 'Cracking clay communities of the Chichester Range and Mungaroona Range' (Kendrick & McKenzie 2001).

Ten vegetation units (excluding disturbed areas) were described for the Proposal rea: five from minor drainage habitats, three from hillslopes and crests, one from plains, and one from major drainage habitat. This does not represent an unusual number of units, given the linear nature of the proposal across the landforms of the area. Similar vegetation units are considered to be widespread and relatively common in the locality.

None of the vegetation units occurring within the proposal area are listed as TECs under either the EPBC Act. None of the units represent PECs under the State listing maintained by DBCA.

A total of 154 confirmed vascular flora taxa, comprising 99 genera and representing 42 families, were recorded within the Study area (Astron, 2023). The species occurring within the proposal area would comprise a subset of this. The general suite of flora species recorded largely aligns with what has been previously recorded in the surrounding area and is considered typical of what may be expected on similar landforms outside of the survey area (Astron, 2023).

One individual of the Priority two flora species *Pentalepis trichodesmoides* subsp. *hispida*. was recorded within the southern proposal area. A further two priority flora species are considered to have the 'potential to occur' *Trianthema* sp. Python Pool (G.R. Guerin & M.E. Trudgen GG 1023) P2 and *Triodia basitricha* P3.

Four broad fauna habitat types were recorded within the Proposal Area: Alluvial Plain; Low Hills and Slopes; Major Drainage; and Minor Drainage (Astron, 2023). These fauna habitats are not considered to be restricted at a local or regional level (Astron, 2023).

The Proposal is **not likely to be at variance** with this Principle.

1.2 Principle (b) - Potential impact to any significant habitat for fauna indigenous to Western Australia

Native vegetation should not be cleared if it comprises the whole, or part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.

No Threatened fauna species listed under the EPBC Act or the BC Act, nor Priority listed species by DBCA were recorded within the proposal area (Astron, 2023).

One priority 4 species, Western Pebble-mound Mouse (*Pseudomys chapmani*) is considered to have a high post-survey likelihood of occurrence. A further eight species (including five MNES) have a moderate likelihood of occurrence (Astron, 2023). Whilst some of these species may use the area for foraging and potential shelter on occasion, it is unlikely the Proposal will negatively impact on the conservation status of any of these species on either a local or bioregional scale (Astron, 2023).

Four broad fauna habitats (excluding disturbed areas) were recorded within the Survey Area (Astron, 2023) and all four are also found within the Proposal Area: Low Hills and Slopes (5.23 ha, 50.47%), Minor Drainage Line (0.37, 3.6%), Major Drainage Line (0.34, 3.25%), and Alluvial Plain (0.01, 0.14%). None of the fauna habitats recorded in the Proposal Area are considered to be restricted at a local or regional level (Astron, 2023). All habitats within the survey area are well-represented outside of the Proposal Area in the local and broader Pilbara region.

Due to the small size of the Proposal Area, it is considered unlikely the Proposal will negatively impact on the conservation status of any conservation significant species, on either a local or regional scale.

The Proposal is **not likely to be at variance** with this Principle.

1.3 Principle (c) - Potential impact to any rare flora

Native vegetation should not be cleared if it includes, or is necessary for the continued existence of rare flora.

No threatened flora listed under the EPBC Act or BC Act were recorded within the proposal area, and based on the results of the desktop assessment, none are considered likely to occur.

One priority two (P2) flora species was recorded within the survey area: *Pentalepis trichodesmoides* subsp. *hispida*. One individual is known to occur within the southern proposal area and was recorded

within a previously disturbed area. This species is known to be a disturbance specialist. Regionally *Pentalepis trichodesmoides* subsp. *hispida* is known from 14 locations scattered throughout the Pilbara (WAH, 1998-), with a further 355 records known from the Rio Tinto Flora Database.

The Proposal is **not at variance** to this Principle.

1.4 Principle (d) - Presence of any threatened ecological communities

Native vegetation should not be cleared if it comprises the whole or part of, or is necessary for the maintenance of a threatened ecological community (TEC).

No Threatened ecological communities listed under the EPBC Act or the BC Act occur, or have the potential to occur, within or adjacent to the Proposal.

Ten vegetation communities were recorded within the proposal area and none of these were considered to be similar to any Threatened or Priority ecological community. The buffer for the nearest known Priority ecological community is approximately 2 km to the south of the Proposal.

The Proposal is **not at variance** to this Principle.

1.5 Principle (e) - Significance as a remnant of native vegetation in the area that has been extensively cleared

Native vegetation should not be cleared if it is significant as remnant vegetation in an area that has been extensively cleared.

The proposal area occurs within the Chichester subregion of the Pilbara bioregion and within two pre-European vegetation associations, Chichester Plateau 587 and Abydos Plain – Chichester 152 (Shepherd et al., 2002). Both vegetation associations have 99.99% of total pre-European extent remaining within the Pilbara bioregion (Government of Western Australia 2020).

The vegetation types identified within the proposal area is not considered remnant and is not within an extensively cleared landscape.

The Proposal is **not at variance** to this Principle.

1.6 Principle (f) - Impact on any watercourse and / or wetlands

Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

The survey area occurs within the 'Harding River Upper' catchment. No Wetlands of International Importance (i.e. Ramsar wetlands) or Nationally Important Wetlands occur within the survey area (Department of the Environment and Energy 2017a, 2017b). The nearest Ramsar (draft proposed addition) and Nationally Important Wetland is Millstream Pools, located approximately 25 km south of the survey area.

The proposal area does not intersect any major rivers. However, the northern section of the proposal area intersects a large drainage channel, which is a tributary of the major river, Harding River. The tributary is known as Western Creek 2. The vegetation for this drainage channel has been mapped as Major Drainage vegetation: *Eucalyptus camaldulensis* subsp. *refulgens* and *Sesbania formosa* low open woodland over *Acacia trachycarpa*, *A. coriacea* subsp. *pendens* tall open shrubland over **Cencrhrus ciliaris*, *Eriachne mucronata* open tussock grassland (Astron, 2023). The *Sesbania Formosa* indicates the frequency of which this drainage channel is inundated.

The proposal area has been designed to minimise clearing of vegetation in general, especially within the creek line. The section of the proposal that intersects the creek line is required for access to the bridge for essential maintenance activities to the rail line and bridge bearing pads. This access will be via an existing 'informal' track, where clearing is expected to be minimal. Clearing within the creek line will be kept to a minimum, with clearing of large trees to be avoided where possible.

The Proposal is **at variance** with this Principle.

1.7 Principle (g) - Potential to cause appreciable land degradation

Native vegetation should not be cleared if the clearing of vegetation is likely to cause appreciable land degradation.

Approximately 83.4% (8.64 ha) of the proposal area lies within the Capricorn land system, with the remaining 16.60% (1.72 ha) occurring with the River land system. While the Capricorn Land system is resistant to erosion, the River land system is highly susceptible to erosion if vegetation cover is removed (van Vreeswyk et al. 2004).

The proposal area has been designed to minimise vegetation clearing overall, with particular emphasis on the creek line, where the land is susceptible to erosion. The proposed access through the creek (River land system) will utilise an informal track that will be formalised. Vegetation clearing is expected to be minimal, primarily involving the removal of small herbaceous plants and grasses. Efforts will be made to avoid clearing trees and large shrubs whenever possible.

The Proposal is **not likely to be at variance** with this Principle.

1.8 Principle (h) - Potential to impact on the environmental values of adjacent or nearby conservation areas

Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.

The Proposal falls within Millstream Chichester National Park (MCNP). For the proposed activities the only way to access the rail alignment is through the MCNP. The proposal area has been refined to include only areas that are necessary for essential works to be completed. Over half (53.7%) of the Proposal area has previously been cleared. The proposal area runs along existing rail corridor infrastructure. It is considered unlikely the proposal will have a significant impact on the conservation area.

The Proposal is **at variance** with this Principle.

1.9 Principle (i) - Potential deterioration in the quality of surface or underground water

Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.

While no permanent water features occur in or adjacent to the proposal area, ephemeral pools are known to form within Western Creek 2 (north proposal area). Two large ephemeral pools and a number of smaller ephemeral pools were observed during the survey for the proposal in association with the Major Drainage line vegetation (Astron, 2023).

The works that are to be carried out in Western Creek 2 (north proposal area) are planned to be conducted during the dry season when the worksite is at its driest. If water is present appropriate management strategies will be implemented to facilitate the works.

Access to bridge 74.1, located in Western Creek 2 will be via a currently informal track, which will be formalised. It is anticipated that there will be no clearing of mature trees associated with this track or within the creek bed. Given the small scale of Proposal, there is no reason to expect that the Proposal would affect groundwater quality in the region.

The Proposal is **not likely to be at variance** with this Principle.

1.10 Principle (j) - Potential of clearing to cause, or exacerbate, the incidence or intensity of flooding

Native vegetation should not be cleared if the clearing of vegetation is likely to cause, or exacerbate, the incidence of flooding.

Following cyclonic activity, localised natural flooding events may occur in the Pilbara region. The amount of vegetation clearing proposed would not be expected to exacerbate either the frequency or the intensity of flooding through these areas.

The Proposal is **not at variance** with this Principle.

References

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