PHCC's Objection Statement to Rio Tinto's Exploration Applications for the Jarrah Forest

(To be included under Minerals Title Online - Step 4 – Grounds – Reasons for the Objections (Step 5 under WAFA Instructions))

Guidance for making a submission by 14th March 2022 can be found at https://wafa.org.au/wp-content/uploads/2022/03/10-Steps-to-stop-Rio-Tinto-final_with-links.pdf?utm_source=website&utm_medium=pdf&utm_campaign=NJF

Tenement ID's: E 70/6049, E 70/6050, E 70/6051, E 70/6052, E 70/6053, E 70/6054, E 70/6055, E 70/6056, E 70/6057, E 12/13

Overview

Our Jarrah Forest is the only one in the world. The Northern Jarrah Forest is incredibly precious, biodiverse and globally unique, and has been subject to extensive clearing and logging over the past 200 years. Australia is leading habitat destruction and extinction, we need to stop this now and show leadership by protecting our species, reducing climate impacts and acknowledging the long term values our forests provide. This proposal to conduct exploration is our Jarrah Forest goes against State and Federal Policy due to the impacts on our flora, fauna and waterways, including the internationally significant Ramsar 482 wetland system.

The Jarrah Forest of southwest WA has evolved in a delicate balance of climate, water, soils, plants and animals. Our northern Jarrah Forest and the waterways within it are important for a multitude of reasons. The waterways of the Peel-Harvey catchment are environmental, culturally as well as socially significant, the forest lies within the southwest biodiversity hotspot which forms one of 34 global biodiversity hotspots, where exceptional concentrations of endemic species are undergoing significant loss of habitat. Flora and fauna of the region is internationally renowned as one of the richest in the world, many of which occur no-where else in the world. The forests are critical habitats for a range of threatened species, including mainland quokkas and all three species of black cockatoo.

The Jarrah Forest is valuable to people for many reasons. For a long time it supported thriving Noongar people and when Europeans first settled in WA, it offered timber for building and firewood. The remaining mature, old-growth and two-tiered jarrah forests and linkages between these ecosystems, waterways, First Nations cultural heritage, habitat for wildlife and recovering regrowth and rehabilitation areas are critically important for climate, biodiversity, water, culture and communities.

The Jarrah Forest supports water and wood production, recreation, community well-being, acts as major carbon storage for climate mitigation, and contains significant ecological linkages. The area is increasingly popular for nature based tourism, with major walk and mountain bike trails such as the Bibbulman Track and Munda Biddi and areas like Jarrahdale and Dwellingup being award winning tourist destinations for swimming, mountain biking, climbing, camping and bushwalking. It has a long history of timber harvesting and intensive

mining for minerals such as bauxite, gold and tin. The 2021 announcement that native forest timber harvesting will end in WA by 2024 is recognition of the many other values of these forests.

Large areas of the northern jarrah forest bioregion have been, and continue to be at risk from vegetation clearing, invasive species, disease, climate change including reduced rainfall and increased fire intensity and frequency and other threatening processes which in turn affect environmental, economic and social well-being/health. In this context, many landholders, community groups, industry and government partners are working to protect and restore native vegetation within areas under their control. In the Peel-Harvey Catchment, this work is undermined by the extent of clearing and decline in vegetation condition.

Across all landscapes, native vegetation is changing due to the impacts of reduced rainfall, hotter than average and extreme temperatures, and increased burning. Mining and associated exploration activities in particular is well documented/known to have significant environmental impacts. In the northern jarrah forest, past, present and proposed large scale mining is one of the highest impact threats, through direct and cumulative impacts. Clearing for mining changes the structure, health and composition of forest ecosystems, can change water cycling and flow regimes, result in loss of carbon stores and change fire regimes.

The cumulative impacts of vegetation clearing and land degradation are recognised internationally as detailed in the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) 2018 Assessment Report on Land Degradation and restoration report (https://ipbes.net/assessment-reports/ldr). This recognizes that combatting land degradation, which is a pervasive, systemic phenomenon occurring in all parts of the world, is an urgent priority in order to protect the biodiversity and ecosystem services that are vital to all life on Earth and to ensure human well-being.

A global scale assessment of the trends and impacts on biodiversity and ecosystem services have shown that there has been a significant increase in our understanding of biodiversity and ecosystems, as well as their importance to the quality of life of every person. There is also greater understanding now about which policies, practices, technologies and behaviours can best lead to the conservation and sustainable use of biodiversity and the achievement of many of the Sustainable Development Goals, the Aichi Biodiversity Targets and the Paris Agreement on Climate Change. However, biodiversity is still being lost, ecosystems are still being degraded and many of nature's contributions to people are being compromised. Refer to the Global Assessment Report on Biodiversity and Ecosystem Services (https://ipbes.net/global-assessment)

A workshop on recent international agreements including the Paris Agreement, the Strategic Plan for Biodiversity 2011-2020 and ongoing preparation for the post-2020 global biodiversity framework, the Sendai Framework for Disaster Risk Reduction and the 2030 Agenda for Sustainable Development that converge on solving the dual crises of climate change and biodiversity loss as essential to support human well-being. A scientific outcome of the IPBES-IPCC co-sponsored international workshop on biodiversity and climate change (https://zenodo.org/record/5101125#.Yiq-XIlByUk) further develops and substantiates the conclusions of the Synopsis, summarizes the emerging state of knowledge involving

climate change and biodiversity with the objective to inform decision making and highlight options for action, and to identify knowledge gaps to be filled by scientific research. The Scientific Outcome includes seven sections, the references outlining the evidence reviewed within those sections and the report glossary.

Globally, Australia has amongst the highest rates of land clearing, with 29 mammals driven to extinction since European colonisation and more than 1,700 others being listed as threatened or endangered. Western Australia has had the third highest area of land cleared (between 2010 and 2018) with a total of 288,400 hectares cleared, of which 68,700 hectares were primary forests at least 30 years old. Recent data has shown clearing of native vegetation is occurring at a faster rate than is being replanted or regenerating naturally, including high quality habitat that is rich in biodiversity and important structural elements.

The Peel-Harvey Catchment Council strongly opposes the application by Rio Tinto to explore for minerals on the following grounds:

Cumulative Impacts

- The forests within the application areas have been cleared for farms, roads, towns and dams and later mined for minerals like bauxite, coal, tin and gold. Throughout this, the forest has been a place for people to live and enjoy. Approximately half of the jarrah forest has been lost or disturbed, and the precious little that remains is under increasing pressure.
- Most of the application area falls within the Peel Harvey Catchment, from river sub catchments to the Peel estuary, as such has capacity to have major detrimental region-wide impacts.
- Cumulative impacts from historical, current and proposed exploration activities are insufficiently and poorly considered.
- The forest is under increasing pressure from not only this proposal but also possible expansion activities from two bauxite mining companies.
- Within the Peel Harvey Catchment 98% of the forest and scarp is under mining tenement.

Flora

- One of the Peel-Harvey Catchment subsystems is the forest and scarp which consists of 87% native vegetation, mostly in native forest. It consists of 70 threatened flora species in 395 populations.
- Adverse impacts on threatened and priority flora (refer to https://peel-harvey.org.au/nrm-strategy-2/flora/?filter=true&local_landscape=forest-and-scarp)
- Adverse impacts on remaining Old-growth Jarrah.
- Adverse impacts on mature 'two-tiered' Jarrah forest.
- Secondary impacts from dust, including light penetration to vegetation health.

Fauna

- The northern Jarrah forest bioregion within the Peel Harvey Catchment supports 27 threatened fauna species (https://peel-harvey.org.au/nrm-strategy-

2/fauna/?filter=true&local_landscape_f=forest-and-scarp). Several of these species are iconic and are under threat of extinction.

- The application will impact Matters of Environmental Significance (Environment Biodiversity and Conservation Act 1999) listed species including all three species of Black Cockatoos (Forest Red-tailed, Carnaby's and Baudin's Cockatoos),Chuditch, Woylie, Western Ringtail Possum, red tail phascogale and mainland Quokka. It has the potential to impact State listed threatened fauna species under the Biodiversity Conservation Act 2016 such as brushed-tail Phascogale, Woylie, Western False Pipistrelle, Western brush wallaby, Rakali, southern death adder and mainland quokka. For a full list of conservation significant species that may be impacted see https://peel-harvey.org.au/nrm-strategy-2/fauna/?filter=true&local_landscape_f=forest-and-scarp
- Adverse impacts to iconic black cockatoo species include disturbance, loss of foraging resources and adverse impact on roosts and breeding sites.
- Fragmentation of habitat and linkages causing isolation of habitat areas/patches, along with legacy and direct cumulative impacts of clearing from mining and timber harvesting and resultant secondary pressures from invasive predators.
- Direct mortality of fauna species from clearing, increased incidence of vehicle strikes and habitat loss.
- Secondary impacts from noise, vibrations and dust i.e. light penetration to flora and impacts on fauna health.

Social Impacts

- Social impacts include loss of amenity, degradation and loss of walk trails and other recreation opportunities, and damage to tourism branding.
- Secondary impacts from dust including to people accessing walk trails.

Terrestrial Environmental Quality

- Spread of *Phytophthora cinnamomi* (dieback) and other forest diseases.
- Soil impacts including erosion from clearing.

Drinking Water Protection

- Adverse impacts on Drinking Water Catchment and Protection Areas.

Ecological Linkages

- Containing large areas continuous vegetation, the Jarrah forest forms a major ecological linkage, as well as comprising formally recognised and mapped major ecological linkages. Refer to https://walga.asn.au/getattachment/Policy-Advice-and-Advocacy/Environment/Biodiversity/SWREL_LowRes.pdf?lang=en-AU (Molloy, S., Wood, J. , Hall, S, Wallrodt, S and Whisson, G. (2009) Southwest Regional Linkages Technical Report, Report for the Western Australian Local Government Association and Department of Environment and Conservation).

Climate Change

- Clearing for exploration would contribute to loss of carbon storage that would contribute to atmospheric carbon and climate change impacts as well as loss of climate change resilience and migration pathways and refuges for fauna.
- Adverse impacts to biodiversity as one of the key factors in mitigating the impacts of climate change. The IPCC 's *Climate Change 2022 Impacts, Adaption and Vulnerability report* (2022) (https://report.ipcc.ch/ar6wg2/pdf/IPCC_AR6_WGII_SummaryForPolicymakers.pdf) recognizes the interdependence of climate, ecosystems and biodiversity. The report focuses on the relationship between climate, ecosystems (including their biodiversity) and human society with their interactions as the basis of emerging risks from climate change, ecosystem degradation and biodiversity loss and notes the increasing evidence that degradation and destruction of ecosystems by humans increases the vulnerability of people to further climate change impacts. It found that unsustainable land-use and land cover change, unsustainable use of natural resources, deforestation, loss of biodiversity, pollution, and their interactions, adversely affect the capacities of ecosystems, societies, communities and individuals to adapt to climate change.

Conservation Reserves and Environmentally Sensitive Areas (ESA'S)

- Adverse impacts on EPA Redbook recommended conservation reserve.
- Adverse impacts on EPA Environmentally Sensitive Areas, as listed under the *Environmental Protection Act 1986* – Environmental Protection (Environmentally Sensitive Areas) Notice 2005. These include wetlands, ecological community and rare flora.
- Potential impacts on adjacent formal conservation reserves.

Waterways and Wetlands

- Waterways and wetlands of the northern Jarrah Forest are environmentally, culturally and socially significant. Within the Jarrah forest subsystem in the Peel Harvey Catchment the Murray River subcatchment reports directly to the Peel-Yalgorup system, which is listed as the internationally significant 482 Ramsar site. Within the Peel Harvey jarrah forest subsystem, 77% of the waterways are in good to pristine condition, making protection of the forest subsystem important to preserve and enhance this area.
- The 10 application areas have the potential for adverse impacts on important waterways and wetlands, including contamination risk to downstream water sources such as the internationally important Peel-Harvey Ramsar site from potential exploration sump overflows and inappropriate hydrocarbon management.
- Impacts to water quality from sedimentation and increases in turbidity from erosion through clearing for exploration access tracks and drill pads.
- Exploration potential to affect flow regimes causing impacts to aquatic fauna and overall waterway health.

The proposal is incongruous with Australia's obligations under National and international policy advice, strategies, agreements and legislation. For example the Australian Government's *Threatened Species Strategy 2021 – 2031* (https://www.awe.gov.au/environment/biodiversity/threatened/publications/threatened-species-strategy-2021-2031#:~:text=The%20Threatened%20Species%20Strategy%20sets,on%20the%20path%20to%20recovery') focus is improving the trajectory of priority threatened species and improve the condition of priority places by 2031 through key actions such as mitigating new and establish threats, and conserving habitat, which would be in conflict with the allowing mineral exploration in areas of core threatened species habitat.

This tenement application cannot be removed from the context of 10 other tenement applications by the same company applied for at the same time, and the associated cumulative adverse impacts.

'Attachment A' lists the conservation values that will be adversely impacted.

Given the significant adverse impacts on multiple conservation values, we (Peel-Harvey Catchment Council) trust that this application will be rejected.

Attachment A

Conservation Values of Forests Compartments Within or Overlapping Ten Exploration Licences with Range E 70/6049 to E 70/6057, and E 12/13

E 70/6049
- Two-tiered jarrah in 7/10 compartments
- RTE flora in 1/10 compartments
- RTE fauna in 3/10 compartments
- Carnaby's roosts in 1/10
- Drinking Water Protection Area in 1/10 compartments

E 70/6050
- adjacent formal conservation reserves in 3/14 compartments
- Two-tiered jarrah in 12/14 compartments
- RTE fauna in 3/14 compartments
- important waterways and wetlands in 3/14 compartments
- Drinking Water Protection Area in 1/14 compartments

E 70/6051
- adjacent formal conservation reserves in 5/10 compartments
- Two-tiered jarrah in 8/10 compartments
- RTE fauna in 1/10 compartments
- important waterways and wetlands in 3/14 compartments
- Drinking Water Protection Area in 1/14 compartments

E 70/6052
- adjacent formal conservation reserves in 10/18 compartments
- Two-tiered jarrah in 16/18 compartments
- RTE fauna in 1/18 compartments
- Carnaby's roosts in 3/18 compartments
- important waterways and wetlands in 3/18 compartments
- Drinking Water Protection Area in 1/18 compartments
- 'Redbook' recommended conservation reserve in 4/18 compartments

E 70/6053
- adjacent formal conservation reserves in 3/21 compartments
- Two-tiered jarrah in 11/21 compartments
- RTE flora in 1/21 compartments
- RTE fauna in 9/21 compartments
- Carnaby's roosts in 1/21 compartments
- important waterways and wetlands in 1/21 compartments
- Drinking Water Protection Area in 3/21 compartments
- EPA Environmentally Sensitive Area in 4/21 compartments

E 70/6054
- Two-tiered jarrah in 4/4 compartments

E 70/6055
- adjacent formal conservation reserves in 6/6 compartments
- Two-tiered jarrah in 4/6 compartments
- Old-growth Jarrah in 4/6 compartments
- RTE fauna in 1/6 compartments
- important waterways and wetlands in 1/6 compartments
- 'Redbook' recommended conservation reserve in 3/6 compartments

E 70/6056
- adjacent formal conservation reserves in 2/8 compartments
- Two-tiered jarrah in 6/8 compartments
- RTE flora in 1/8 compartments
- RTE fauna in 4/8 compartments

E 70/6057
- adjacent formal conservation reserves in 15/25 compartments
- Two-tiered jarrah in 16/25 compartments
- RTE fauna in 2/25 compartments
- Carnaby's roosts in 12/25 compartments
- important waterways and wetlands in 3/25 compartments
- 'Redbook' recommended conservation reserve in 6/25 compartments

E 12/13
- adjacent formal conservation reserves in 5/21 compartments
- Two-tiered jarrah in 10/21 compartments
- RTE flora in 3/21 compartments
- Carnaby's roosts in 8/21 compartments
- 'Redbook' recommended conservation reserve in 2/21 compartments