



WILDFLOWER SOCIETY OF WESTERN AUSTRALIA (Inc)

16th December 2023

Chair
Environmental Protection Authority
Locked Bag 10
Joondalup DC WA 6919

Assessment No. 2316. Public consultations for Public Environmental Review (PER). Proponent: Hamersley HMS Pty Limited. Develop two new above water table (AWT) iron ore mine pits. Hope Downs 2 proposal.

The Wildflower Society (hereafter 'the Society') submits these comments on the proposal to establish two (AWT) open pits to mine iron ore at Hope Downs 2. The proposal for additional iron ore mines in one of Australia's biodiversity hotspots, the Pilbara region, with most of its vegetation condition rated as 'Excellent', threatens several biophysical factors in the biological and social environment, and at a broader scale; contributes to the global climate crisis. These threats arise cumulatively through mass land clearing, and the production of hundreds of millions of tonnes of greenhouse gas (GHG) emissions (primarily carbon dioxide) including scope 3 GHG emissions. The Society of Western Australia is opposed to this proposal for these reasons which are described in more detail below. We request the EPA to dismiss this proposal and recommend it to not proceed due to the significant residual impacts.

Flora and Vegetation

'Phase one' of the flora and vegetation survey was conducted over six years ago (2017), the second phase was conducted over five and a half years ago (2018), and the third phase was conducted over four and a half years ago (2019). These flora vegetation surveys are outdated and therefore provide an unreliable assessment. There is over six years where the populations and community compositions may have altered from factors including weather events and surrounding mining and other land uses. Considering the significance and therefore subsequent weight this proposal carries, all necessary information, such as these surveys, must be as accurate and current as possible, which is not the present case. The Society recommends the survey information needs to be verified through an updated survey to allow for a more comprehensive understanding of the current environment.

2.1.1. Existing Operations

- The Society appeals the EPA's decision to assess this Proposal on a stand-alone basis for conditioning separate from the Hope Downs (HD) 1 (approved under Ministerial Statement 584), operations.
- As a minimum, the cumulative impacts of this proposal must be assessed in addition to the surrounding mine sites of HD2. To assess HD2 independently from HD4 and HD1, which both intersect the development envelope (DE) is unacceptable.



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- While “...*the Proposal does not seek to expand the processing capacity of the Hope Downs 1 mine...*”, the capacity of iron ore exportation *is* proposed to be expanded under the same proponent. The impact assessment cannot be reduced simply because the numbering has increased by one at the end of the same project’s name. HD2 will be utilising and operating off the constructed infrastructure of HD1, with expansions of these facilities to further accommodate HD2 proposed, it is clearly unacceptable to review this proposal on a stand-alone basis and must be done cumulatively to the surrounding site’s impacts.
- The Society rejects the notion in its entirety that the cumulative impacts of this proposal will be reviewed independently from HD1 and HD4 only on the basis that HD2 is not an ‘expansion’ of HD1; despite utilising majority of HD1’s infrastructure and facilities with the proposal to further expand them. While the impacts of HD1 will continue to be managed under separate approvals, the overall effects of the proponent’s projects must be considered, as individual assessments threaten to minimise the true impacts and environmental damage which has occurred.
- There will be a colossal decline in land systems, specifically that of Wannamunna, Pindering, and Boolgeeda, with **over a 10% reduction** resulting from this proposal and foreseeable proposals; this is of course with the exclusion of current and past projects within the local and regional area. With a reduction of this size in land systems proposed for foreseeable projects, it only contributes to the necessity of evaluating this proposal with all its surrounding, operating, and closed mines from the same proponent, as a minimum effort. The Society contends that if an individual project requires **the loss of a land system by more than 0.05% then that loss is significant** (as per international standards) and the project requirements should be revised to reduce the losses to an acceptable level.

4.2. Rehabilitation Monitoring Methods

The section 4.2. Rehabilitation monitoring methods should be amended to include detailed fauna surveys which repeat all surveys originally required for the PER proposal application. The current listed methods applied post ‘rehabilitation’ are unsatisfactory and do not provide detailed data and information to allow for accurate analysis of the environmental impacts, and rehabilitation efforts following the mine’s closure. The current requirements are lacking, and are a bare minimum in fauna monitoring, it is imperative that the surveys conducted for the purposes of this PER are repeated incrementally to observe how this project has affected the local species post ‘rehabilitation’. *“Fauna and habitat monitoring comprises estimating litter cover, noting rocks and logs in each quadrat, and a whole-of-transect assessment of grazing extent, native animal scats, ant numbers, and other indicators of animal activity.”* pg.6 sect 4.2.

The clearing of critical habitat of four MNES fauna species, including supporting habitat, which is essential to the continual local survival of these species. The immediate and residual impacts resulting from this proposal, in addition to surrounding mining projects, on these MNES species is likely to lead to a loss of species abundance and habitat. The key threatening processes for each of



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these species are predominantly linked to mining projects such as this proposal. The table below summaries the threats which are posed by these mining activities and demonstrates the sheer quantity of impacts that will occur as a result and why it is necessary that this proposal's impacts are reviewed cumulatively with the proponent's other projects.

Table 1. List of the recorded MNES fauna species in the proposal and the direct & indirect impacts this proposal will have. (DBCA, 2023).

MNES Species	Direct Impacts	Indirect Impacts
Northern quoll (<i>Dasyurus hallucatus</i> ; Gould, 1842) – ('Endangered')	Habitat loss, fragmentation and degradation , particularly from mining and infrastructure development ; the emission of noise and light .	mortality from road and/or rail traffic collisions, climate change ; predation by, and competition with, feral cats and foxes
Pilbara Olive Python (<i>Liasis olivaceus barroni</i> ; Smith, 1981) – ('Vulnerable')	The destruction of habitat (blasting, removal, flattening of rock shelters) during mining processes and infrastructure development are likely to have profound impacts on resident POP populations; the emission of noise and light ; Loss of riparian zones , results in reduction of important shelter and ambush sites of juveniles (D. Pearson pers. comm.); Habitat fragmentation and degradation due to resource development that results in the loss or reduction of habitat quality, shelter sites and/or prey resources ; Local populations near transport corridors may also be impacted by vehicle collisions ;	Wild canids have been reported to kill large adult carpet pythons (<i>Morelia spilota</i>) when encountered in open environments , leading to the loss or suppression of prey species is a potential threat where introduced predators occur, or where other factors are impacting prey populations such as habitat change linked to mining activities ; Altered fire regimes and climate change ; Mining associated dewatering can alter regional hydrology by lowering water tables or drying waterholes/springs (e.g., Weeli Wolli Spring in the Fortescue River Basin; Booth et al., 2021),



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MNES Species	Direct Impacts	Indirect Impacts
<p>Pilbara Leaf-nosed Bat (<i>Rhinonicteris aurantia</i> Pilbara form; Gray, 1845) – ('Vulnerable') <i>“There is concern that the estimated population size of the PLNB could decline by > 30% over the next 15 years, and in the absence of management intervention, it is predicted that the majority of roost sites will be destroyed over the next 30-50 years as they tend to occur in ore-bearing strata (Woinarski et al., 2014).”</i></p>	<p>Disturbance and destruction of roosts from mining; Vibration, dewatering, light, noise and blasting; Degradation and fragmentation of foraging habitat; Inadequate buffer zone implementation; Hydrological change (i.e., loss of permanent water and reduction in water quality/pollutants); Direct disturbance to two Category 4 Pilbara Leaf-nosed Bat caves</p>	<p>Climate change (potentially reduced rainfall); Cumulative impacts; Characteristic low-to-ground zigzag flight pattern also makes the species' highly susceptible to mortality from vehicle strike; feral cat predation (via disturbance)</p>
<p>Ghost Bat (<i>Macroderma gigas</i>; Dobson, 1880) – ('Vulnerable')</p>	<p>Philopatric roost sites in the Pilbara are associated with underground mines and natural caves in banded ironstone strata (Woinarski et al., 2014). Therefore, loss of roosting sites and degradation of foraging habitat due to mining and infrastructure development are considered the greatest threats to ghost bats in the region (Cramer et al., 2022). Proposal to destroy One Category 3 (Cave 1) and one Category 4 (Cave 8) Ghost Bat roosts; Impacts from mining (i.e., noise, vibrations and dust from drilling blasting and machinery movement, artificial lighting, vehicle traffic, barbed wire entanglement);</p>	<p>Cumulative impacts of disturbance and environmental change; The impact of climate change on prey availability and cave microclimate;</p>

The Society considers the international standard of 0.05% maximum loss of critical habitat/species needs to be applied to the direct and indirect impacts associated with this project.

Offsets

The Society rejects the purchasing of Australian Carbon Credit Units (ACCUs) as a credible means to 'offset' this project's GHG emissions. The use of ACCUs allows the proponent to continue their activities without any actual reduction in their GHG emission production and removes all accountability for their contribution to the climate crisis through the monetisation of carbon. The purchasing of existing trees or vegetation does not offset the emissions released because of this



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project's activities. Revegetation through use of ACCUs does not replace the habitat loss in its totality and frequently replaces vegetation with habitat with minimal biodiversity.

Conclusion

The Society urges the EPA to advise against this proposal based on the undeniably significant impacts and irreversible damage on the local and regional environment, and all ecosystem inhabitants. This proposal must be reviewed with the consideration of the proponent's historic and active projects in the surrounding areas of the Pilbara, or at a minimum, those of which intersect the development envelope, and analyse the combined cumulative direct and indirect impacts which are proposed. There is no question that this proposal, situated in a recognised biodiversity hotspot, will leave significant, residual impacts if it proceeds. Following the EPA's own factors, principles, and objectives, this proposal must be advised against, and should not be permitted approval.



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<https://www.wildflowersocietywa.org.au/>

PO Box 519, Floreat WA 6014

Reference

- DBCA. (2023). Summary of knowledge for six faunal species that are Matters of National Environmental Significance in the Pilbara, Western Australia. Pilbara MNES Review.
- DWER. Native vegetation clearing legislation in Western Australia. Clearing Regulation Fact Sheet 1. Environmental Protection Act 1986
- Environmental Protection Authority. (2023). Statement of environmental principles, factors, objectives and aims of EIA, EPA, Western Australia.