



Environmental  
Protection  
Authority

West Pilbara Iron Ore Project, Stage 1 Mine Area – Inquiry under  
section 46 of the *Environmental Protection Act 1986* to amend  
Ministerial Statement 1027

API Management Pty Ltd

Report 1741  
June 2023

## **Inquiry under section 46 of the *Environmental Protection Act 1986***

The Minister for Environment has requested that the Environmental Protection Authority (EPA) inquire into and report on the matter of amending the implementation condition 3 (Time Limit for Proposal Implementation) in Ministerial Statement 1027 relating to the West Pilbara Iron Ore Project – Stage 1 Mine Area.

Section 46(6) of the *Environmental Protection Act 1986* requires the EPA to prepare a report that includes:

- (a) a recommendation on whether or not the implementation conditions to which the inquiry relates, or any of them, should be amended.
- (b) any other recommendations that it thinks appropriate.

The following is the EPA's report to the Minister pursuant to section 46(6) of the *Environmental Protection Act 1986*.



**Prof. Matthew Tonts**  
Chair

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# 1 Proposal

The West Pilbara Iron Ore Project – Stage 1 Mine Area (WPIOP) (the proposal) is to develop eight iron ore deposits at five locations, between 35 and 85 kilometres (km) south of Pannawonica. The proponent for the proposal is API Management Pty Limited (API).

The Environmental Protection Authority (EPA) assessed the proposal at the level of Public Environmental Review and published its report in August 2011 (Report 1409). In this report, the EPA decided that the following key environmental factors were relevant to the proposal and required detailed evaluation in the report:

- Subterranean Fauna
- Terrestrial Fauna
- Vegetation and Flora
- Rehabilitation and Closure.

In applying the *Statement of environmental principles, factors, objectives and aims of EIA* (EPA 2021b) these factors are now represented by:

- Subterranean Fauna
- Terrestrial Fauna
- Flora and Vegetation.

In its original assessment, the EPA considered that rehabilitation and closure could be addressed by the then Department of Mines and Petroleum in accordance with the requirements of the *Mining Act 1978*, and the proposal could be managed to meet its objective for this factor and did not recommend a condition for closure and rehabilitation. Rehabilitation and closure has not been considered any further in this Report.

Since the time of the original assessment, the following new key environmental factors have arisen:

- Social surroundings – (Aboriginal heritage and culture)
- Greenhouse Gas Emissions.

The EPA concluded in Report 1409, that it was likely the EPA's objectives would be achieved provided there was satisfactory implementation of the EPA's recommended conditions by the proponent.

The then Minister for Environment approved the proposal for implementation, subject to the implementation conditions of Ministerial Statement 881 (MS 881) on 30 November 2011. The proposal was determined to be a controlled action requiring assessment under the Federal *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) due to potential impacts to listed threatened species and communities. The assessment was undertaken through the Western

Australian assessment process under the then Bilateral Agreement between the Commonwealth and the State. Commonwealth approval, subject to conditions was granted in November 2011 (EPBC 2009/4706).

## Previously approved amendments to the proposal and conditions

In August 2015, API submitted a request for a change to the proposal and ministerial conditions of Ministerial Statement 881 under section 45C and section 46 of the *Environmental Protection Act 1986* (EP Act), requesting that the Ministerial Statement be separated into two for the mine and rail infrastructure components.

The requested section 45C changes included:

- a separation of the development envelope into a mine development envelope and rail infrastructure development envelope
- a reduction in clearing of 542 hectares (ha) within the rail infrastructure development envelope
- an additional clearing of 475 ha within the mine area development envelope
- a commitment to backfill mine pits above the pre-mining water table.

The requested section 46 included:

- the splitting of the existing implementation conditions into separate mine and rail approvals
- some minor changes to contemporise the conditions.

The EPA assessed these changes and concluded in its Report 1563 (EPA 2015) that it was unlikely that the proposed changes would have a significant detrimental effect on the environment that is in addition to, or different from, the effect of the original proposal.

On 4 February 2016, the then Minister for Environment approved two separate Ministerial Statements, superseding MS 881:

- Ministerial Statement 1026 (MS 1026) West Pilbara Infrastructure Project – Rail
- Ministerial Statement 1027 (MS 1027) West Pilbara Iron Ore Project – Stage 1 Mine Area.

In conducting this inquiry, the EPA assessed information relating only to MS 1027, being the West Pilbara Iron Ore Project – Stage 1 Mine Area.

## 2 Requested amendments to the conditions

Condition 3 of MS 1027 states that the proponent shall not commence implementation of the proposal after the expiration of five years from the date of the statement (being 4 February 2016), and any commencement, within this five-year period, must be substantial.

In November 2020, the proponent requested an amendment to condition 3 of MS 1027 to extend the authorised time limit for substantial commencement of the proposal by five years. The proponent has not proposed any amendments to the proposal or to any other conditions of MS 1027.

In response to the proponent's request, in December 2020, the Minister for Environment requested that the EPA inquire into and report on the matter of amending the implementation conditions of MS 1027 for the proposal. This report satisfies the requirements of the EPA's inquiry.

## 3 Inquiry into amending conditions

The EPA typically recommends the Minister for Environment sets conditions on significant proposals that require them to be substantially commenced within a specified timeframe. Extending this timeframe requires the Minister to amend the relevant conditions under section 46 of the *Environmental Protection Act 1986* (EP Act) and provides for the EPA to review and consider the appropriateness of the implementation conditions relating to the proposal.

The EPA has discretion as to how it conducts this inquiry. In determining the extent and nature of this inquiry, the EPA had regard to information such as:

- the currency of its original assessment of the proposal (Report 1409)
- previous section 46 inquiry (Report 1563)
- MS 1027
- information provided by the proponent (API, 2022).

In conducting this inquiry, the EPA reviewed the information provided by the proponent and considered the original assessment of the proposal detailed in Report 1409. In considering whether it was appropriate to recommend an extension of the authorised timeframe for substantial commencement of the proposal, the EPA considered whether (since Report 1409) there has been any change to, or new information relating to, the key environmental factors relevant to the proposal. The EPA also considered whether any new key environmental factors had arisen since its original assessment of the proposal.

In conducting the section 46 inquiry, the EPA also had the opportunity to consider:

- any changes in environmental, scientific or technological knowledge that may have arisen since the initial assessment
- whether the proposal is being implemented using best practice and contemporary methods so that the EPA objectives for the key environmental factors are met
- the need for assessment of new EPA policy in regard to greenhouse gases.

### EPA procedures

In conducting this inquiry, the EPA followed the procedures in the *Environmental Impact Assessment (Part IV Divisions 1 and 2) Administrative Procedures 2021* (State of Western Australia 2021) and the *Environmental Impact Assessment (Part IV Divisions 1 and 2) Procedures Manual* (EPA 2021a).

## 4 Inquiry findings

The EPA considers that the following are the key environmental factors relevant to the amendment to the conditions:

- Subterranean Fauna
- Terrestrial Fauna
- Flora and Vegetation.

Since the 2011 report and previous section 46 inquiry, the EPA has also considered Social Surroundings and Greenhouse Gas Emissions as part of this inquiry. As noted previously, while rehabilitation and closure is no longer considered a key environmental factor, it is now addressed under Flora and Vegetation.

### 4.1 Subterranean Fauna

The EPA environmental objective for subterranean fauna is *to protect subterranean fauna so that biological diversity and ecological integrity are maintained.*

#### Conclusions from EPA Report 1409

##### Troglofauna

Regional surveys preceding the EPA's report found a total of approximately 1,000 troglobitic specimens, representing eight orders and 26 species. A further 211 specimens believed to be edaphobitic (living in deep soil) were also collected during the surveys. The report noted that troglobitic fauna in the survey area was observed to have attributes that may indicate that troglobitic species in the area would be assigned a similar conservation status to other troglofauna species endemic to Cape Range and the Robe River valley that, at the time, were listed under the now repealed *Wildlife Conservation Act 1950*.

The EPA concluded that the implementation of the proposal may result in impacts to troglofauna, including:

- direct loss of and change to troglofauna habitat and mortality of individuals
- disturbance through collapse of strata and mesa caverns within the remnant mesa or habitat formation due to vibration from blasting
- loss of habitat through contamination.

The EPA considered that impacts to troglofauna could be managed due to apparent habitat connectivity; 50% of the identified troglofauna habitat would remain unaffected by the mine footprint; backfilling of two of the mine pits; and the proponent's proposed troglofauna management.

To manage impacts to troglofauna, the EPA recommended a condition for further troglofauna surveys to ensure that the proponent demonstrates that its predictions about the extent of troglofauna habitat remaining are validated (condition 6).



The above-mentioned condition 6 on Ministerial Statement 881 was considered by the EPA in report 1563 as being relevant to the mine Stage 1 Area, and therefore was incorporated as condition 6 on Ministerial Statement 1027.

### Stygofauna

Survey work preceding the EPA's report collected 1,486 specimens from 35 of the 58 sample sites. Thirty-six stygal taxa from nine orders and 16 families were recorded, with the majority being crustaceans (99.6%). The superficial aquifer unit was identified as the more likely core habitat for stygofauna in the area.

EPA report 1409 noted that mining activities at Kens Bore and Cardo Bore East would result in a loss of 4.48% of the superficial aquifer stygofauna habitat due to dewatering. However, a large number of stygofauna species were found both within and outside the impact zone (19 of the 21 species identified), and it was considered likely that the habitat is regional, rather than localised. The EPA therefore concluded that it was unlikely that implementation of the proposal would result in a significant impact on stygofauna. No conditions relating to stygofauna were recommended in EPA Report 1409.

### Assessment of the requested amendment to conditions

The EPA considers that the following current environmental policy and guidance is relevant to its assessment of the proposal for this factor:

- Environmental Factor Guideline – Subterranean Fauna (EPA 2016c)
- Technical Guidance – Subterranean fauna surveys for environmental impact assessment (EPA 2021c).

### Studies post assessment

The proponent has commissioned additional studies since EPA Report 1409 was published, these include:

- study design for the troglobitic fauna habitat extension program (Biota 2012)
- troglobitic fauna habitat investigations – pre-disturbance surface characterisation (Blandford 2012)
- two phases of troglofauna and stygofauna surveys at Red Hill Creek, Kens Bore East, Catho Well Extension and Trinity Bore south (Biota 2015a)
- two phases of sampling targeting areas of potential habitat within the channel iron deposit boundary and off footprint (Biota 2015b).

The above-listed studies were commissioned to comply with the requirements of condition 6 on MS 1027, which requires the proponent to “*carry out work within two years of the commencement of mining to further define the extent of the troglofauna habitat in and adjacent to the project area*”.

The proponent has advised that the results of these studies indicate a high degree of troglofaunal habitat connectivity beyond the development envelope.

The proponent has not proposed any modifications to the proposal with the potential for changed impacts to subterranean fauna. However, since the original assessment, known populations of troglofauna in this region have been listed as Priority Ecological Communities (PECs). In addition, the EPA's technical guidance on subterranean fauna survey and assessment has been revised and updated since the original assessment.

There are two Priority 1 troglofauna PECs located in the region:

- subterranean invertebrate community of pisolitic hills in the Pilbara
- subterranean invertebrate communities of mesas in the Robe Valley region.

However, neither of the above PECs are mapped as intersecting the development envelope for Ministerial Statement 1027, with the nearest subterranean PEC located approximately 15.5 kilometers to the north.

In considering the information provided by the proponent and relevant EPA policies and guidelines, the EPA considers that there is no new significant or additional information that justifies the reassessment of the Subterranean Fauna factor for this proposal.

The EPA is therefore satisfied that existing condition 6 of MS 1027 and the revised condition for the extension of Time Limit for proposal implementation for an additional five years would, when implemented, ensure that the outcome of the proposal would not be inconsistent with the EPA objective for subterranean fauna.

## 4.2 Terrestrial Fauna

The EPA's environmental objective for Terrestrial Fauna is *to protect terrestrial fauna so that biological diversity and ecological integrity are maintained.*

### Conclusions from EPA Report 1409

In its Report 1409, the EPA noted that a number of conservation significant fauna including the northern quoll, Pilbara orange leaf-nosed bat, and Pilbara olive python, have been recorded in the project area. The EPA concluded that it was unlikely that implementation of the proposal would result in any significant impact on species listed under State or Commonwealth statutes.

With the exception of direct clearing of vegetation and fauna habitat, EPA Report 1409 stated that the key potential impact to terrestrial fauna was related to trenching associated with the construction of services, such as the gas pipeline, power cables, communication cables and water pipes. Management measures proposed by the proponent included inspecting trenches regularly, providing ramps to assist fauna to exit trenches, and relocating trapped fauna.

To manage these direct and indirect impacts to terrestrial fauna species, the EPA recommended the following conditions:

- management of vegetation clearing, with a focus on the Priority 3 listed *Triodia* sp. Robe River assemblages of the mesas of the West Pilbara Priority Ecological Community (PEC) through condition 7 (Vegetation and Flora)
- management of trapped fauna through condition 11 (Trenching).

The above-mentioned conditions 7 and 11 of MS 881 were considered by the EPA in Report 1563 as being relevant to the mine Stage 1 Area, and therefore were incorporated as conditions 7 and 11 of MS 1027.

### Assessment of the requested amendment to conditions

The EPA considers that the following current environmental policy and guidance are relevant to its assessment of the proposal for this factor:

- Environmental Factor Guideline – Terrestrial Fauna (EPA 2016d)
- Technical guidance – Sampling methods for terrestrial vertebrate fauna (EPA 2016g)
- Technical guidance – Sampling for short range endemic invertebrate fauna (EPA 2016f)
- Technical guidance – Terrestrial vertebrate fauna surveys for environmental impact assessment (EPA 2020)
- *WA Environmental Offsets Policy* (Government of Western Australia 2011)
- *WA Environmental Offsets Guidelines* (Government of Western Australia 2014).

The proponent has not proposed any modifications to the proposal with the potential to change the previously-assessed nature and extent of impact to terrestrial fauna. However, the status of some conservation significant species has changed since the EPA's original assessment (EPA Report 1409).

The ghost bat (*Macroderma gigas*) and grey falcon (*Falco hypoleucos*) were, at the time of the EPA assessment (Report 1409), listed as Priority 4 species by the then Department of Environment and Conservation. Subsequently, the ghost bat and the grey falcon were listed as Vulnerable under the *Biodiversity Conservation Act 2016* (BC Act) in 2018, and as Vulnerable under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) in May 2016 and July 2020, respectively.

A number of additional fauna surveys have been completed across the project area since the EPA's original assessment. These surveys have supported the development of individual management plans for conservation significant species, including the northern quoll, Pilbara olive python and Pilbara leaf-nosed bat.

The proposal, including the rail component currently approved under MS 1026, was determined to be a controlled action requiring assessment under the EPBC Act due

to potential impacts to listed threatened species and communities. Federal approval, subject to conditions, was granted on 27 November 2011 (EPBC 2009/4706).

To manage impacts to threatened fauna, EPBC Act approval 2009/4706 included conditions requiring:

- implementation of management measures that maximise the ongoing protection and conservation of EPBC Act listed threatened fauna species within the vicinity of the disturbance areas, specified in fauna management plans (condition 4)
- preparation and implementation of a Ground Water Report and Monitoring Program to maintain groundwater fed pools for the protection of habitat for listed threatened fauna species (condition 5)
- preparation of a Threatened Fauna Offset Strategy related to the protection and conservation of EPBC Act listed threatened fauna species in the Pilbara region (condition 6) (amended 17 September 2012).

With reference to condition 4 (EPBC 2009/4706), the proponent has prepared Fauna Management Plans for the northern quoll, Pilbara leaf-nosed bat, and Pilbara olive python. Whilst not explicitly required in condition 4 (EPBC 2009/4706), the proponent has also prepared a Fauna Management Plan for the ghost bat.

### Ghost bat

Preliminary information on the presence of ghost bats within the proposal area was collected during fauna surveys that supported the original assessment. Several bat surveys have since been undertaken, including a targeted ghost bat survey in 2020. Ghost bats were identified at 10 of the 20 sites assessed within and proximal to the development envelope. Four caves with confirmed ghost bat activity are located within the development envelope. Each bat cave has been categorised based on ghost bat usage (Bat Call WA 2021):

- Category 1 - diurnal roost caves with permanent ghost bat occupancy
- Category 2 - diurnal roost caves with regular occupancy
- Category 3 - roost caves with occasional occupancy
- Category 4 - nocturnal roost caves, opportunistic usage.

Of the four caves within the development envelope with confirmed ghost bat activity, one is considered a Category 2 roost cave (Cardo Bore East T14), and the remaining three are Category 3 caves. No Category 1 caves were identified within the development envelope.

Category 2 caves are noted to be relatively rare within the development envelope, indicating that the Cardo Bore East T14 may be a locally important foraging site for the ghost bat. However, a further eight Category 2 caves were identified outside of the development envelope during the 2020 survey. Most of these Category 2 caves are located within 2 km of the development envelope, with a further two caves within 10 km of the development envelope (4.2 km and 9 km). Given the typical nightly foraging range of the ghost bat is 10 to 15 km (Bat Call WA 2021), these additional

caves are likely to provide a suitable alternative site for ghost bats displaced from the Cardo Bore East T14 cave.

The proponent has committed to avoiding seven Category 2 caves with ghost bat activity within and proximal to the development envelope, including Cardo Bore East T14. These caves are subject to a number of management strategies to mitigate indirect impacts (for example, vibration, noise, loss of foraging habitat). The EPA notes that three Category 3 caves with recorded ghost bat activity within the development envelope will be directly impacted by the proposal. These caves are isolated and are not considered critical habitat essential to the viability of the local population (Bat Call 2021). Numerous Category 3 and Category 4 caves have been identified outside of the development envelope but within the foraging range of ghost bats, that are likely to provide alternative occasional or opportunistic roosting sites for the local population.

To manage and mitigate impacts to the ghost bat, the proponent has prepared a Ghost Bat Management Plan (GBMP) (Revision 1, API & MRL 2022). The GBMP was revised in 2022 following an independent review undertaken by Bat Call WA Pty Ltd.

The GBMP sets out management and monitoring measures intended to retain the viability of critical habitat ghost bat caves post-mining, on the basis that bats may temporarily abandon caves due to impacts from the proposal (for example noise and vibration). This management approach is reliant on the availability of alternative suitable habitat, and the ability of the bats to successfully transition to that habitat during mining operations.

Following review of the GBMP, the EPA considers that the GBMP needs further updates for appropriate management of impacts to the ghost bats. The EPA considers that it has enough information to determine that impacts are manageable with appropriate mitigation in place.

The EPA recommends the addition of condition 12, requiring the revision of the GBMP and implementation of the CEO-approved revised management plan. Recommended condition 12 focuses on the protection of Category 2 ghost bat caves within and proximal to the development envelope that are considered 'critical habitat'. The proponent is restricted from undertaking ground-disturbing activities within 500 metres of these seven critical habitat caves until the GBMP has been approved by the CEO.

The EPA considers that with the imposition of condition 12, and counterbalancing the significant residual impacts on habitats through offsets (condition 13), impacts of the proposal to the ghost bat can be managed consistent with the EPA's objective for terrestrial fauna.

The EPA also notes that the proponent would be required to obtain ministerial authorisation to take or disturb threatened fauna in accordance with the BC Act.

## Grey falcon

The grey falcon occurs at low densities across arid and semi-arid parts of mainland Australia. Terrestrial fauna surveys associated with the proposal recorded one opportunistic observation of a grey falcon, in the Hamersley Ranges, over 10 kilometres east of the development envelope. Based on surveyed vegetation descriptions, approximately 2064 ha of suitable habitat has been mapped within the broader area, of which 160 ha (7.8%) is located within the development envelope.

The proponent has identified a number of management measures that are expected to contribute to mitigating potential impacts on the grey falcon:

- minimising the extent of vegetation disturbance
- avoiding the use of barbed wire in fencing
- placing strict speed limits on vehicles
- preventing access to habitats of conservation significance.

Based on available information, including the apparent low occurrence of grey falcon within and surrounding the development envelope, the change in conservation status of the grey falcon does not result in an additional impact to terrestrial fauna values.

## Conclusion and summary

In considering the information provided by the proponent and relevant EPA policies and guidelines, the EPA considers that the change in conservation status of the ghost bat and grey falcon to Vulnerable under the BC Act and EPBC Act justifies the reassessment of the terrestrial fauna factor for this proposal. However, it is noted that the proponent has not proposed any modifications to the proposal with the potential to change the previously assessed nature and extent of impact to terrestrial fauna.

The EPA considers that the significant residual impact to the ghost bat can be regulated through recommended condition 12, which requires implementation of a revised ghost bat management plan. The EPA considers that the proponent has provided enough information to enable an assessment of impacts and detail that impacts could be managed with a revised plan.

The EPA considers that the proposal is unlikely to significantly impact the grey falcon given the low occurrence of grey falcon in the project area and the prevalence of suitable habitat outside of the development envelope.

## 4.3 Flora and Vegetation

The EPA's environmental objective for Flora and Vegetation is *to protect flora and vegetation so that biological diversity and ecological integrity are maintained.*

## Conclusions from EPA Report 1409

In Report 1409 the EPA concluded that the implementation of the proposal would result in:

- direct clearing of 4,970 ha of native vegetation for the mine area, including 41% of the then known extent of the *Triodia* sp. Robe River Assemblages of the mesas of the Pilbara PEC (Priority 3).
- no impact to Threatened Ecological Communities (TEC) or Threatened Flora (TF).
- dewatering of approximately five gegalitres per annum (GLpa) associated with below water table mining at Ken's Bore and Cardo Bore East deposits, with surplus water volume varying from between 1 to 1.5 GLpa. 125 ha of groundwater dependent vegetation along Red Hill Creek is situated in the predicted groundwater drawdown area at Kens Bore deposit.
- impacts to sheetflow dependent vegetation, including mulga (*Acacia aneura*), due to altered surface water flows from the construction of transport corridors included in the mine area proposal.

In Report 1409, the EPA acknowledged that the *Triodia* sp. Robe River PEC is widespread and covers an area of approximately 709 ha. The area of the PEC to be disturbed by the proposal was 281.2 ha, having an impact of no more than 41% of the then surveyed extent of the PEC.

Although the proponent avoided and minimised impacts as much as reasonably practicable, the EPA considered that significant residual impact to the PEC remained. To manage these impacts, the EPA recommended the following conditions:

- condition 7-1, to ensure the implementation of the proposal does not cause the loss of Declared Rare Flora or Priority 1 Flora or disturb more than 282 ha of the *Triodia* sp. Robe River PEC
- condition 7-2, requiring regional floristic surveys to determine the presence and abundance of the *Triodia* sp. Robe River PEC. Furthermore, condition 7-4 required that a report on the survey be provided to the CEO, validating predictions on the proposed impacts on the *Triodia* sp. Robe River PEC
- condition 7-5, committing the proponent to use aerial surveys to map *Triodia* sp. Robe River PEC after clearing events to quantify that cleared and monitor pattern of disturbance
- condition 7-6, placing access restrictions on areas that support the *Triodia* sp. Robe River PEC, within the proposal area (as per the mine area development envelope), and limiting access to authorised personnel only. This aspect will be covered in a significant flora and vegetation management procedure that will be developed to manage Threatened and Priority flora, and PEC's within the disturbance footprint
- condition 7-7, to monitor impacts due to dust deposition, saline water application for dust control, fire and feral species, on the *Triodia* sp. Robe River PEC in

proximity to the development envelope, this monitoring will be carried out to the satisfaction of the CEO on advice from the Department of Parks and Wildlife.

The EPA also considered potential indirect impacts to flora and vegetation through the alteration of site hydrological processes and resultant impacts to groundwater dependent vegetation; dust deposition on vegetation; increased fire risk; and the spread of weeds.

To manage impacts on groundwater dependent vegetation the EPA recommended the following condition:

- condition 8-1, to ensure that the dewatering of groundwater for the implementation of the proposal does not cause the loss or decline in condition and health of the groundwater dependent vegetation.

To manage impacts to sheetflow dependent vegetation due to altered surface water flows, the EPA recommended the following condition:

- condition 9, to ensure that changes to surface water flows do not adversely affect any significant vegetation community beyond that specified in Schedule 1 (200 ha for the combined rail and mine proposal). Condition 9 required the identification of areas of significant vegetation that may be impacted; a baseline survey; development of trigger levels for vegetation health; design and location of culverts; monitoring of surface water flows and vegetation health; reporting obligations; implementation of corrective actions in response to exceedances of triggers; and annual reporting.

To manage impacts associated with weeds the EPA recommended the following condition:

- condition 10, to ensure that weeds are managed during the implementation of the proposal.

## Conclusions from EPA Report 1563

In its assessment of the proposed changes to the proposal, the majority of the above-mentioned elements of condition 7 on MS 881 were considered by the EPA in Report 1563 as being relevant to the Mine Stage 1 Area and therefore were incorporated as condition 7 on MS 1027.

The Potential Impact Minimisation Report required by former condition 7-2 of MS 881 was submitted to the CEO and accepted; the report has been acknowledged by the CEO (December 2013) as satisfying condition 7-3 (MS 881). In Report 1563 the EPA therefore recommended that condition 7-2 and 7-3 of MS 881 were not required to be transferred to MS 1027. In addition, the EPA recommended the removal of condition 7-8, relating to the minimisation of native vegetation clearing, as it could be managed through Schedule 1, Table 2 of the revised conditions.

## Assessment of the requested amendment to conditions

The EPA considers that the following current environmental policy and guidance are relevant to its assessment of the proposal for this factor:



- Statement of Environmental Principles, Factors and Objectives and Aims of EIA (EPA 2021b).
- Environmental Factor Guideline – *Flora and Vegetation* (EPA 2016a).
- Technical guidance – Flora and vegetation surveys for environmental impact assessment (EPA 2016e).
- *WA Environmental Offsets Policy* (Government of Western Australia 2011).
- *WA Environmental Offsets Guidelines* (Government of Western Australia 2014).

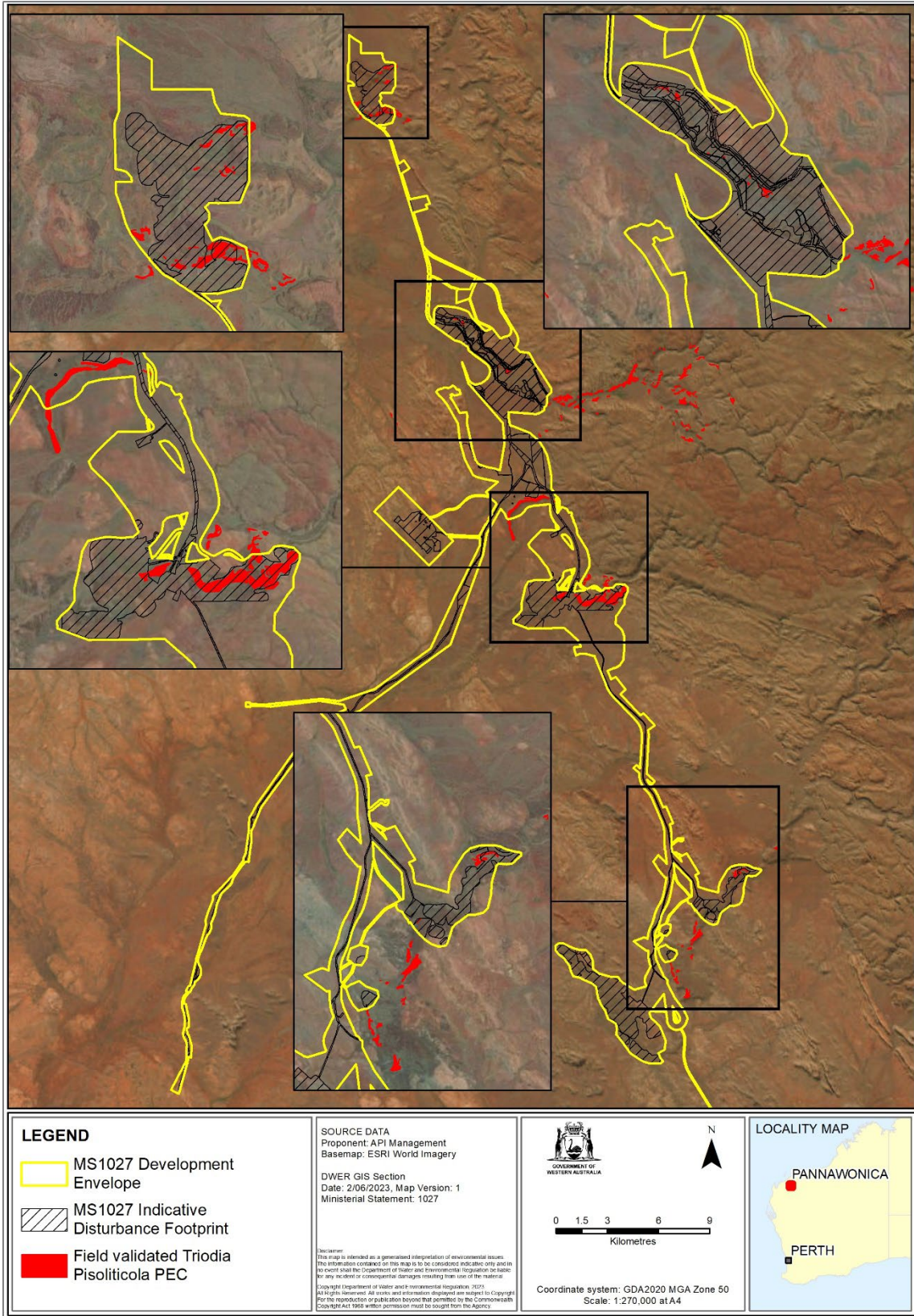
The proponent has not proposed any modifications to the proposal with the potential to change the previously assessed nature and extent of the impact to flora and vegetation. However, since the original assessment, the *Triodia* sp. Robe River assemblages of mesas of the West Pilbara PEC has had a name change to *Triodia pisolitica* assemblages of mesas of the West Pilbara PEC (*Triodia pisolitica* PEC), but its conservation status remains unchanged.

#### Studies post assessment

Since the original assessment, the proponent has undertaken approximately 30 vegetation and flora surveys across the broader WPIOP area, including the mine (MS 1027) and rail (MS 1026) proposal areas.

Since the original assessment, there is a greater understanding of the *Triodia pisolitica* PEC distribution and extent (Figure 1). The *Triodia pisolitica* PEC has been recorded over broad areas outside of the development envelope, with an additional 787 ha of confirmed PEC mapped since the original assessment, and a further 588 ha identified as ‘inferred’ *Triodia pisolitica* PEC based on a review of high-resolution aerial photography (Newland Environmental 2021).

The known impact to the *Triodia pisolitica* PEC is far less than originally assessed. At the time of the original assessment, the disturbance footprint intersected 281.2 ha of PEC, representing approximately 40% of the then known mapped extent of PEC (709.0 ha). Based on the additional survey information now available, the disturbance footprint intersects 129.7 ha of PEC, representing 8.6% of the now mapped extent of the PEC (1496 ha). The 129.7 ha of PEC within the disturbance footprint represents approximately 6.2% of the potential broader PEC area of 2085 ha based on the above-mentioned preliminary aerial imagery mapping.



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**Figure 1: *Triodia pisolitica* PEC within and adjacent to development envelope**

The proponent has developed a Significant Flora and Vegetation Management Procedure to manage impacts on Priority flora and PECs within the disturbance footprint to achieve the objectives of condition 7 of MS 1027.

Condition 7-9 of MS 1027 requires the proponent to: “*minimise the impacts of their workforce’s out of hours recreational activities on the Cane River Conservation Park and proposed West Hamersley Range Conservation Park*”. The Cane River Conservation Park is a Class C reserve located 30 km west of the development envelope. The then proposed West Hamersley Range Conservation Park has not been added to the conservation reserve system and has not been identified to date as part of the State Government’s ‘Plan for our Parks Initiative’.

Given the distance between the proposal and the Cane River Conservation Park, and the status of the then proposed West Hamersley Range Conservation Park, the EPA considers that there is a low risk of impacts from workforce recreational activities on conservation reserves. The EPA has also considered submissions from the proponent regarding the difficulty in demonstrating compliance with condition 7-9. Based on the available information, the EPA recommends the removal of condition 7-9.

Having considered the information provided by the proponent and relevant EPA policies and guidelines for this factor, the EPA considers that:

- there is no new significant or additional information that justifies the reassessment of the issues raised by the proposal
- there have been no new significant changes in the relevant environmental factor since the proposal was assessed by the EPA in Report 1409 (August 2011) and Report 1563 (November 2015)
- no new significant environmental issues have arisen around this factor since the EPA’s assessment of the proposal in Reports 1409 and 1563.

However, the EPA recommends minor revisions to contemporise condition 7 of MS 1027 as follows:

- update the PEC name from ‘*Triodia* sp. Robe River assemblages of the mesas of the West Pilbara Priority Ecological Community’ to ‘*Triodia pisolitica* assemblages of the mesas of the West Pilbara Priority Ecological Community’ (conditions 7-1, 7-2, and 7-4 to 7-7)
- update the area of PEC that may be disturbed from 282 ha to 149.2 ha based on the additional survey information which has identified 129.7 ha of PEC within the disturbance footprint (condition 7-1). The revised limit of 149.2 ha incorporates a 15% buffer to allow flexibility in the final design of the proposal within the development envelope
- remove reference to ‘Declared Rare Flora or Priority 1 Flora’ given that no Threatened flora or Priority 1 flora species have been identified within the development envelope (condition 7-1)
- update references to the former ‘Department of Parks and Wildlife (DPaW)’ to the now ‘Department of Biodiversity, Conservation and Attractions (DBCA)’ (conditions 7-2, 7-7, and 7-8)

- update EPA Technical Guidance reference: ‘Flora and Vegetation Surveys for Environmental Impact Assessment’ (December 2016) (condition 7-3)
- update condition 7-8 to include clear and contemporary requirements relating to reporting and implementation of contingency measures in the event that environmental outcomes for the *Triodia pisolitica* PEC are not being met
- delete Condition 7-9 relating to minimising impacts of proposal workforce recreational activities on conservation parks.

### Residual impacts and risk management measures (offsets)

The proposal as currently approved, allows clearing of up to 5,445 ha of ‘Good’ to ‘Excellent’ condition native vegetation within the Hamersley IBRA region, including the loss of habitat for conservation significant fauna species and significant residual impact to PECs. As stated in its advice to the Minister under s. 16(e) of the EP Act (EPA 2014), the EPA is concerned that, without intervention, the increasing cumulative impacts of development and land use within the region will significantly impact on biodiversity and environmental values.

Since the original assessment and publication of MS 881 and MS 1027, the Pilbara Environmental Offsets Fund (PEOF) has been established to accept funds from proponents, and standardised wording has been developed for conditions requiring offsets for clearing of ‘Good’ to ‘Excellent’ condition vegetation and some types of specialised environmental values, such as PECs, riparian vegetation and threatened fauna habitat, within the Pilbara IBRA region.

Regarding this proposal, offsetting of significant residual impacts through the provision of funds to the PEOF would be appropriate for any residual impacts to flora and vegetation, and terrestrial fauna values that the EPA has determined could be counterbalanced.

In applying the residual impact significance model (Government of Western Australia 2014), the EPA considers that the proposal would result in a significant residual impact to:

- ‘Good’ to ‘Excellent’ condition native vegetation – base rate
- the *Triodia pisolitica* PEC – higher rate
- critical habitat for the ghost bat – higher rate
- supporting habitat for the ghost bat – base rate
- riparian vegetation, including groundwater dependent vegetation – base rate.

The EPA recognises that the proposal may also result in a significant residual impact to threatened species, being the northern quoll, Pilbara leaf-nosed bat, and Pilbara olive python. However, as these species were listed at the time of the original bilateral assessment, offset requirements in relation to impacts to habitat for these species were accounted for in EPBC Act approval 2009/4706. Condition 6 of the Commonwealth approval requires the preparation of a Threatened Fauna Offset

Strategy<sup>1</sup> related to the protection and conservation of EPBC Act listed threatened fauna species in the Pilbara region. This means that offset requirements have effectively already been applied for impacts to northern quoll, Pilbara leaf-nosed bat, and Pilbara olive python habitat through the Commonwealth approval. Consistent with the WA Environmental Offsets Guidelines, where the project has already been assessed by the Commonwealth Government and offsets have been applied, the State will consider these offsets as contributing to the State's requirements.

Consistent with other decisions within the Pilbara region, the EPA recommends that the following offset rates (calculated on the 2021–2022 financial year) should apply in the form of a contribution to:

- \$890 per ha of 'Good' to 'Excellent' condition native vegetation within the Hamersley IBRA subregion
- \$1,780 per ha of *Triodia pisolitica* PEC
- \$1,780 per ha of critical habitat for the ghost bat
- \$890 per ha of supporting habitat for the ghost bat
- \$890 per ha of riparian vegetation, including groundwater dependent vegetation.

Due to the remaining quantity and quality of habitat types in the local area and region, the significant residual impact could be counterbalanced in accordance with the WA Environmental Offsets Guidelines by a contribution to the PEOF.

The EPA recommends the addition of condition 12 to provide an offset in the form of a contribution to the PEOF to counterbalance the significant residual impacts of the proposal.

## 4.4 Other factors

Given the time since the original assessment and the previous s. 46 inquiry, the proponent is required to consider the relevancy of any new or additional environmental factors to its request for a change to conditions. The assessment of other factors is outlined below.

### Social Surroundings – Aboriginal heritage and culture

The EPA's environmental objective for social surroundings is *to protect social surroundings from significant harm*.

The EPA considers that the following current environmental policy and guidance are relevant to its assessment for this factor:

- Environmental Factor Guideline – Social Surroundings (EPA 2016b).
- Statement of Environmental Principles, Factors and Objectives and Aims of EIA (EPA 2021b).

<sup>1</sup> Published on the proponent's website: [https://www.apijv.com.au/wp-content/uploads/2018/07/01\\_APIM-WPIOP-EPBC-2009-4706-TFOS-Rev-1.1-10052013\\_with-App3.pdf](https://www.apijv.com.au/wp-content/uploads/2018/07/01_APIM-WPIOP-EPBC-2009-4706-TFOS-Rev-1.1-10052013_with-App3.pdf)

At the time of the original assessment (EPA Report 1409) Aboriginal heritage was not considered a key environmental factor for the EPA's assessment. In applying the *Statement of Environmental Principles, Factors, Objectives and Aims of EIA* (EPA 2021b), this factor is now included as part of Social Surroundings. The EPA recognises that the factor Social Surroundings should consider matters relevant to Aboriginal heritage and the interests of Traditional Owners that are directly linked to physical or biological aspects of the environment.

The EPA's original assessment took into consideration the proponent's intention to prepare a Cultural Heritage Management Plan in consultation with Traditional Owners. The EPA also recognised that the proponent is required to obtain approval under s. 18 of the *Aboriginal Heritage Act 1972* (AH Act) where disturbance of heritage sites cannot be avoided.

At the time of assessment, four registered sites were recorded in proximity to the development envelope:

- Cane River (approximately 5 km south of the Cardo Bore East and Upper Cane resources area)
- Tjurumirta Hill (approximately 5 km west of Jewel resource area)
- Walkamulka (approximately 17 km southwest of the Cardo Bore East resource area)
- Yarrangung (approximately 20 km west of Cochrane resource area).

Since the original assessment, approximately 250 additional sites have been identified within the development envelope and subsequently lodged and/or registered as Aboriginal heritage sites under the AH Act through the Department of Planning, Lands, and Heritage (DPLH). The majority of the additional sites are the result of further heritage surveys commissioned by the proponent and undertaken in conjunction with Traditional Owner representatives. There are currently 17 registered sites within the proposal's disturbance footprint.

The mine area under MS 1027 is located within two native title determination claim areas:

- Robe River Kururma People (RRK), represented by the Robe River Kuruma Aboriginal Corporation
- Puutu Kunti Kurrama Pinikura People (PKKP), represented by the PKKP Aboriginal Corporation.

The proponent has advised that mining activities will initially be undertaken within the RRK determination area, and that ground disturbing works associated with the proposal will not occur within the PKKP determination area until approximately 2030.

Since the original assessment, an overarching Cultural Heritage Management Plan (CHMP) (API 2018) has been developed by the proponent for a broad area associated with the proponent's tenement holdings and including the stage 1 mine area and RRK and PKKP lands. Since 2005, several heritage surveys have been completed in the mine area in consultation with the Traditional Owners.

### RRK area

A CHMP was previously developed for the RRK native title claim area and executed in 2013 (API 2013). This CHMP was developed through extensive consultation with the RRK people since 2005 including:

- ethnographic and archaeological surveys
- establishment of a Heritage Advisory Committee comprising senior Traditional Owner knowledge holders
- interactions with the Robe River Kuruma Aboriginal Corporation (RRKAC) Board.

The proponent, in conjunction with the RRKAC Board, has acknowledged the need to revise and contemporise the CHMP, including to account for the impending commencement of the *Aboriginal Cultural Heritage Act 2021* (ACH Act).

In May 2023, the RRKAC provided a letter to the EPA confirming extensive and ongoing consultation has been undertaken by the proponent, and that sufficient surveys have been completed to identify heritage sites at risk of being impacted by the proposal. This has been reflected in RRKAC supporting several s. 18 Notices being lodged under the AH Act. RRKAC also confirmed that the proponent is working to develop a comprehensive CHMP that is expected to be in place prior to the commencement of ground disturbing activities within identified areas of cultural significance to the RRK people.

The EPA considers it appropriate to include a condition requiring revision of the CHMP in consultation with the RRK to ensure that consultation with the RRK about access, management and protection of cultural heritage sites is maintained. In recognition of the above-mentioned statements provided by the RRKAC, the EPA is confident that significant direct impacts to aboriginal cultural heritage can be avoided in the intervening period between the commencement of preliminary ground-disturbing works and the finalisation of the revised CHMP.

### PKKP area

Native Title was granted for the PKKP area in 2015. Existing Land Access Agreements between the proponent and the PKKP people were assigned to the PKKP Aboriginal Corporation in 2017.

In December 2022, the PKKP Aboriginal Corporation provided a letter to the department consenting to the s. 46 application process, subject to various conditions being applied to the extension of the approval, including the development of a 'Social Cultural Heritage Management Plan' in consultation with the PKKP Aboriginal Corporation. The letter also indicated that the level of consultation with the PKKP Aboriginal Corporation by the proponent had not been adequate.

The EPA recognises that consultation with the PKKP Aboriginal Corporation is at a relatively early stage, reflecting the proponent's mine sequence and ground disturbing activities within the PKKP area not planned for approximately 2030.

The EPA considers it appropriate to include a condition requiring the development of a CHMP in consultation with the PKKP prior to the commencement of any ground disturbing activities within the PKKP area.

### Conclusion and recommendation

The EPA notes that the proponent is aware of its obligations under the AH Act. The EPA is satisfied that existing condition 1 of MS1027 (Proposal Implementation), and the provisions of the AH Act, are sufficient to manage potential impacts to Aboriginal heritage aspects of the factor Social Surroundings provided that a new condition is applied requiring the development, implementation, monitoring and review of a CHMP (Condition 14).

Having considered the information provided by the proponent and relevant EPA policies and guidelines for this factor, the EPA considers that:

- matters of Aboriginal heritage have been included as a key environmental factor since the proposal was assessed by the EPA in Report 1409 (August 2011).
- Aboriginal heritage issues of significance to Traditional Owners that are directly linked to physical or biological aspects of the environment can be adequately protected by the imposition of a new condition requiring, amongst other things, a CHMP approved by the CEO prior to any ground disturbing activities that may impact cultural heritage site.

### Greenhouse Gas Emissions

In April 2020, greenhouse gas emissions was added as an environmental factor considered by the EPA in the environmental impact assessment process. The EPA's environmental objective for greenhouse gas (GHG) emissions is *to minimise the risk of environmental harm associated with climate change by reducing greenhouse gas emissions as far as practicable*.

The EPA's *Environmental Factor Guideline – Greenhouse Gas Emissions* (EPA 2023) sets out that, generally emissions from a proposal will be assessed where they exceed 100,000 tonnes of scope 1 GHG emissions each year, measured in carbon dioxide equivalent (CO<sub>2</sub>-e).

### Assessment of the requested amendment to conditions

At the time of the original assessment, the proponent estimated GHG emissions of 145,000 tonnes of CO<sub>2</sub>-e per year for the mine area for the proposal approved under MS 1027, exceeding the threshold of 100,000 tonnes of CO<sub>2</sub>-e per year. This estimate was based on a maximum mining rate of 25 million tonnes per year (Mtpa).

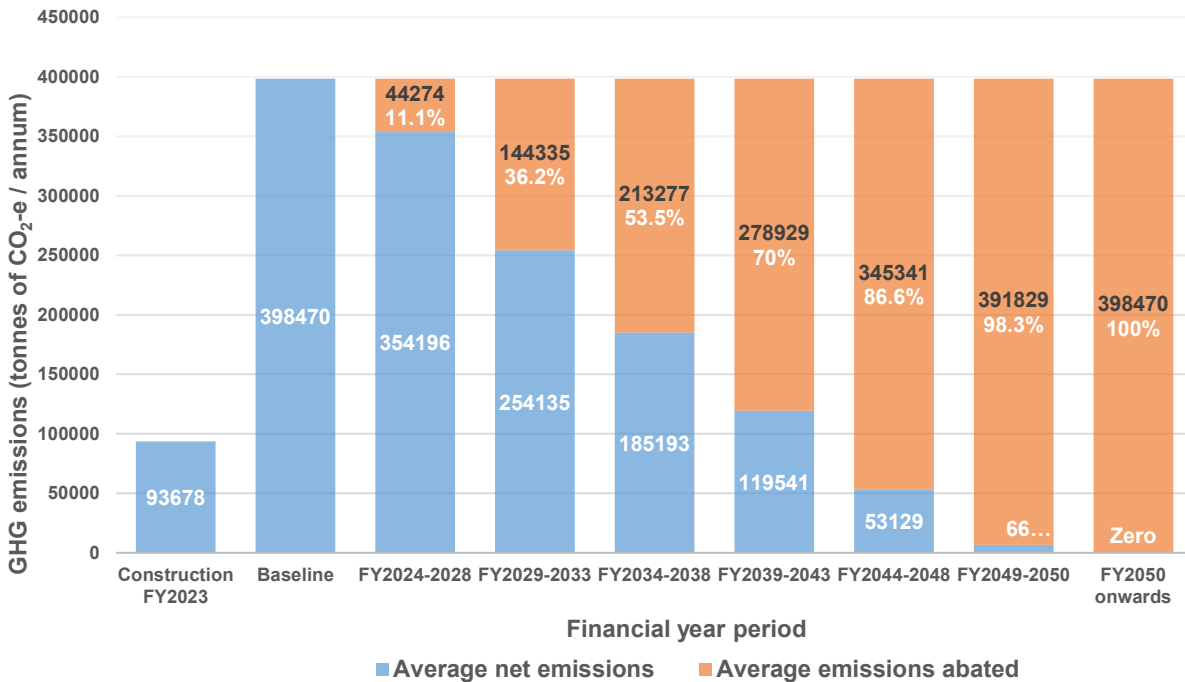
An updated GHG emissions estimate in 2022 indicates that average scope 1 GHG emissions of 398,470 tonnes of CO<sub>2</sub>-e per year is expected. This estimate is based on a maximum mining rate of 40 Mtpa and includes haulage of ore to the Port of Ashburton utilising a private haul road proposed under the Ashburton Infrastructure Project (EPA Report 1733).



The proponent has estimated a GHG intensity for the mining operation of 5.4 kg of CO<sub>2</sub>-e per tonne of dry ore, and 13.3 kg of CO<sub>2</sub>-e per tonne (dry) for the broader operation (incorporating haulage to port, port operations and transhipping to the final ocean-going vessel). The proponent has advised that the emissions intensity of 13.3 kg of CO<sub>2</sub>-e per tonne of (dry) ore is comparable to similar ‘pit to port’ iron ore operations in the Pilbara.

The proponent has not provided an updated GHG management plan based on the revised emission estimates. However, the proponent has provided information on emissions reduction targets for scope 1 emissions from mining and ore processing; power supply operations; and haulage to port for cumulative five-year periods, commencing in 2024 and continuing through to 2050. The EPA notes that the proponent’s proposed GHG emissions reduction trajectory commences from a baseline quantity of 398,470 tonnes of CO<sub>2</sub>-e / year from Financial Year 2024 (FY2024) and includes an average annual reduction of 36.2% from FY2029 to FY2033, a 53.5% reduction from FY2034 to FY2038, and reaches net-zero by 2050 (See Figure 2 below).

The EPA considers that the proposed GHG emissions reduction trajectory for the proposal is reasonable as it includes deep and meaningful cuts in emissions which are broadly in line with Government and public expectations.



**Figure 2: Proponent’s proposed GHG emissions reduction trajectory**

The proponent has advised that emissions reductions will be achieved through the use of solar energy systems and fuel substitution for mining fleet vehicles.

The proponent has provided GHG emission estimates relating to construction activities within the first year of implementation, but prior to the commencement of

mining operations. GHG emissions within the first year are estimated to be marginally less than the 100,000 tonnes CO<sub>2</sub>-e per year threshold, at approximately 93,500 tonnes of CO<sub>2</sub>-e. Construction-related emissions are associated with clearing of approximately 1,544 ha of native vegetation and diesel combustion for machinery and electricity production.

The EPA recommends that a new condition (condition 15) is applied to the new Ministerial Statement requiring the proponent to prepare and submit a Greenhouse Gas Management Plan (GHGMP) for the proposal to be consistent with the EPA's objective for this factor. Based on the relatively low emissions estimated for the construction phase of the proposal during the initial 12 months of operations, recommended condition 15 allows for the submission and approval of the GHGMP within six months of commencing ground disturbing activities, and prior to the commencement of mining operations. This will allow the proponent to commence construction works while the GHGMP is finalised. Recommended draft condition 15 will require the new GHGMP to indicate that the proponent must take measures to ensure that net GHG emissions do not exceed the proposed reduction targets shown in Figure 2 above.

## 5 Conclusions and recommendations

### Amendment to condition 3

The proponent has requested an amendment to condition 3 to extend the Time Limit for Proposal Implementation. The EPA considers it is appropriate to amend condition 3 and extend the time limit for proposal implementation by five years from the publication date of the Ministerial Statement resulting from this report.

### Amendment to condition 7

The EPA considers it appropriate to make minor revisions to contemporise condition 7 as follows:

- update the PEC name from ‘*Triodia* sp. Robe River assemblages of the mesas of the West Pilbara Priority Ecological Community’ to the updated name; ‘*Triodia pisolitica* assemblages of the mesas of the West Pilbara Priority Ecological Community’
- delete reference to ‘Declared Rare Flora or Priority 1 Flora’
- update references to the former DPaW to the now DBCA
- update EPA Technical Guidance reference: ‘Flora and Vegetation Surveys for Environmental Impact Assessment (December 2016)’
- delete Condition 7-9 relating to minimising impacts of proposal workforce recreational activities on conservation parks.

### Addition of condition 12

The EPA considers it appropriate for the addition of condition 12 to mitigate impacts to the ghost bat in recognition of the change in conservation status of the ghost bat since the original assessment.

### Addition of condition 13

The EPA considers it appropriate for the addition of condition 13 to require an offset in the form of a contribution to the PEOF to counterbalance the significant residual impacts of the proposal.

### Addition of condition 14

The EPA considers it appropriate for the addition of condition 14 requiring the development, implementation, monitoring and review of a CHMP in consultation with relevant Traditional Owners to ensure that impacts to Aboriginal cultural heritage are suitably mitigated.

### Addition of condition 15

The EPA considers it appropriate for the addition of condition 15 requiring the development and implementation of a GHGMP to ensure that the proposal achieves

progressive GHG emission reduction limits, including achievement of net zero by at least 2050.

## Conclusions

In relation to the environmental factors, and considering the information provided by the proponent and relevant EPA policies and guidelines, the EPA concludes that:

- there are no further changes to the conditions needed to deal with the issues associated with the proponent's request to change condition 3
- there are no changes to the proposal associated with the request to change the conditions
- there is no significant new or additional information that changes the conclusions reached by the EPA under any of the relevant environmental factors since the proposal was assessed by the EPA in Reports 1409 (August 2011) and 1563 (November 2015)
- new significant environmental factors have arisen since the EPA's original assessment of the proposal in the form of social surroundings (Aboriginal heritage) and greenhouse gas emissions
- impacts to the key environmental factors are considered manageable, based on the requirements of the conditions retained from MS 1027, and the imposition of the attached recommended condition changes (Appendix B)
- the authorised timeframe for substantial commencement of the proposal may be extended by five years as requested.

## Recommendations

Having inquired into this matter, the EPA submits the following recommendations to the Minister for Environment under s. 46 of the EP Act:

- while retaining the environmental requirements of the original conditions of MS 1027, it is appropriate to delete condition 3 and replace it with a new implementation condition extending the authorised timeframe for substantial commencements of the proposal by five years
- it is appropriate that the text '*Triodia* sp. Robe River Assemblages of the mesas of the West Pilbara Priority Ecological Community' be changed to the updated name *Triodia pisolitica* assemblages of the mesas of the West Pilbara Priority Ecological Community, throughout condition 7
- based on the additional survey information now available, it is appropriate to reduce the area of PEC that may be disturbed from 282 ha to 149.2 ha
- taking into consideration the formerly proposed West Hamersley Range Conservation Park has not been added to the conservation reserve system and is not expected to be added in the future, it is appropriate to delete condition 7-9, relating to minimising recreational impacts to nearby conservation reserves
- due to the change in conservation status of the ghost bat, it is appropriate to add a new condition (condition 12) requiring approval of a ghost bat management

plan prior to the commencement of any ground-disturbing activities that may impact critical ghost bat habitat

- it is appropriate to add a new condition (condition 13) requiring the proponent to contribute to the Pilbara Environmental Offsets Fund to counterbalance significant residual impacts
- it is appropriate to add a new condition (condition 14) requiring the proponent to develop, implement, monitor and review a Cultural Heritage Management Plan in consultation with Traditional Owners
- to ensure that the proposal achieves progressive GHG emission reduction limits, including achievement of net zero by at least 2050, it is appropriate to add a new condition (condition 15) requiring the development and implementation of a GHGMP
- after complying with s. 46(8) of the EP Act, the Minister may issue a statement of decision to amend MS 1027 in the manner provided for in the attached recommended statement (Appendix B).

## Appendix A: Assessment of proposed changes to implementation conditions of Ministerial Statement 1027

Ministerial Condition	Environmental Factor	Proposed Change	Assessment and Evaluation of Proposed Changes
<b>Ministerial Statement 1027</b>			
Condition 3  Time limit for proposal implementation	N/A	Delete and replace with a contemporary style condition that extends the time limit for substantial commencement for a further five years from the date of the amendment statement.	The EPA's assessment found that there is no significant new or additional information that changes the conclusions reached by the EPA under any of the relevant environmental factors since the proposal was assessed by the EPA in Reports 1409 (August 2011) and 1563 (November 2015). Therefore, it is appropriate to extend the time limit on substantial commencement for a further five years.
Condition 7	Flora and Vegetation	Condition 7 – throughout: Update the PEC name from ' <i>Triodia</i> sp. Robe River assemblages of the mesas of the West Pilbara Priority Ecological Community' to ' <i>Triodia pisoliticola</i> assemblages of the mesas of the West Pilbara Priority Ecological Community'.	Updated to reflect the formal change in PEC name since the original assessment.
		Condition 7-1 Change the area of PEC that may be disturbed from 282 ha to 149.2 ha.  Delete reference to Figure 2 as defining the spatial area of PEC disturbance.	The change in area of PEC that may be disturbed reflects additional understanding of the PEC and survey work completed since the original assessment.  The spatial extent of allowable PEC disturbance was previously defined through Figure 1 on MS1027. The revised limit (149.2 ha) incorporates a buffer to provide some flexibility in the final footprint of the

Ministerial Condition	Environmental Factor	Proposed Change	Assessment and Evaluation of Proposed Changes
		Delete reference to 'Declared Rare Flora or Priority 1 Flora'.	proposal. It is therefore not possible to spatially define the area of PEC that may be disturbed.  No Declared Rare Flora or Priority 1 Flora have been identified within the development envelope and therefore reference to this is unnecessary.
		Condition 7-2, 7-7, and 7-8 Replace 'Department of Parks and Wildlife (DPaW)' with 'Department of Biodiversity, Conservation and Attractions (DBCA)'.	Updated to reflect the change in name of the agency that administers the <i>Biodiversity Conservation Act 2016</i> .
		Condition 7-3 Update technical guidance reference from 'Environmental Protection Authority Guidance Statement 51 Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment in Western Australia (June 2004)' to 'Flora and Vegetation Surveys for Environmental Impact Assessment' (December 2016)'.	Updated to refer to contemporary EPA guidance document (December 2016 versus June 2004).
		Condition 7-6 Replace 'proposal area' with 'development envelope'.	Referring to a defined boundary (development envelope) provides greater clarity and will assist with demonstrating compliance.
		Condition 7-7 Add 'changed surface hydrology, weeds' to list of potential impacts on the PEC that must be monitored.	To ensure that monitoring of potential impacts to the PEC includes changes to surface hydrology and introduction/spread of weeds.

Ministerial Condition	Environmental Factor	Proposed Change	Assessment and Evaluation of Proposed Changes
		<p>Condition 7-8 Update to include contemporary requirements relating to reporting and implementation of contingency measures.</p>	<p>The changes to condition 7-8 provide a clear set of requirements in the event that the environmental outcomes in condition 7-1 are not being met. This includes specifying a defined reporting period (seven days) rather than referring to 'immediately'. The requirements are consistent with contemporary compliance related conditions.</p>
		<p>Delete condition 7-9 relating to minimising the proponent's workforce's out of hours recreational activities on the Cane River Conservation Park and proposed West Hamersley Range Conservation Park.</p>	<p>The Cane River Conservation Park is a Class C reserve located 30 km west of the development envelope. The then proposed West Hamersley Range Conservation Park has not been added to the conservation reserve system and has not been identified to date as part of the State Government's 'Plan for our Parks Initiative'.</p> <p>Given the distance between the proposal and the Cane River Conservation Park, and the current status of the then proposed West Hamersley Range Conservation Park, the EPA considers that there is a low risk of impacts from workforce recreational activities on conservation reserves and that the condition is no longer warranted.</p>
N/A	Terrestrial Fauna	<p>Add new condition 12 requiring mitigation of impacts to the ghost bat.</p>	<p>Due to the change in conservation status of the ghost bat since the original assessment, it is appropriate to add a new condition requiring approval of a ghost bat management plan prior to the commencement of any ground-disturbing activities that may impact critical ghost bat habitat within and proximal to the development envelope.</p>



<b>Ministerial Condition</b>	<b>Environmental Factor</b>	<b>Proposed Change</b>	<b>Assessment and Evaluation of Proposed Changes</b>
N/A	Flora and vegetation	Add new condition 13 requiring the contribution of funds to the Pilbara Environmental Offsets Fund to counterbalance significant residual impacts of the proposal.	<p>Since the original assessment the Pilbara Environmental Offsets Fund (PEOF) has been established to accept funds from proponents, and standardised wording has been developed for conditions requiring offsets for clearing of 'good' to 'excellent' condition vegetation and some types of specialised environmental values, such as PECs, riparian vegetation and threatened fauna habitat, within the Pilbara IBRA region.</p> <p>Recommended condition 13 is consistent with contemporary PEOF conditions applied to significant proposals in the Pilbara region.</p>
N/A	Social surroundings	Add new condition 14 requiring the proponent to develop, implement, monitor and review a Cultural Heritage Management Plan in consultation with Traditional Owners.	Since the original assessment, a new condition has been recommended to manage potential impacts to heritage sites.
N/A	Greenhouse gas emissions	Add new condition 15 requiring the development and implementation of a GHGMP.	Recommended condition 15 will ensure that the proposal achieves progressive GHG emission reduction limits, including achievement of net zero by at least 2050, consistent with the EPA's current policy position.

# Appendix B: Recommended conditions

## STATEMENT TO CHANGE THE IMPLEMENTATION CONDITIONS APPLYING TO A PROPOSAL

(Section 46 of the *Environmental Protection Act 1986*)

### WEST PILBARA IRON ORE PROJECT – STAGE 1 MINE AREA

**Proposal:** The proposal is to develop eight iron ore deposits at five (5) locations between 35 and 85 kilometres (km) south of Pannawonica.

**Proponent:** API Management Pty Limited  
Australian Company Number 112 677 595

**Proponent Address:** Level 14, 225 St Georges Terrace, Perth WA 6000

**Report of the Environmental Protection Authority:** 1741

**Preceding Statement/s relating to this proposal:** 881 and 1027

**Introduction:** Pursuant to section 45 of the *Environmental Protection Act 1986* as applied by section 46(8), it has been agreed that the implementation conditions set out in Ministerial Statement No.1027, be amended as specified in this Statement.

### **Condition 3 of Ministerial Statement 1027 is deleted and replaced with:**

#### **3 Time Limit for Proposal Implementation**

- 3-1 The proposal must be substantially commenced within five (5) years from the date of this Statement.
- 3-2 The proponent must provide to the **CEO** documentary evidence demonstrating that they have complied with condition 3-1 no later than fourteen (14) days after the expiration of period specified in condition 3-1.
- 3-3 If the proposal has not been substantially commenced within the period specified in condition 3-1, implementation of the proposal must not be commenced or continued after the expiration of that period.

**Condition 7 of Ministerial Statement 1027 is deleted and replaced with:**

**7 Vegetation and Flora**

- 7-1 The proponent shall ensure that the implementation of the proposal does not directly or indirectly **disturb** more than 149.2 ha of the ***Triodia pisolitica* PEC**.
- 7-2 The proponent shall undertake and complete regional floristic surveys within two (2) years of the commencement of mining to determine the presence and abundance of the ***Triodia pisolitica* PEC** to the satisfaction of the **CEO** on advice from **DBCA**.
- 7-3 The survey required under condition 7-2 shall be conducted in accordance with Environmental Protection Authority Technical Guidance 'Flora and Vegetation Surveys for Environmental Impact Assessment (December 2016) or its revisions and to the satisfaction of the **CEO**'.
- 7-4 A report on the survey required under condition 7-2 validating predictions on the proposed impacts on the ***Triodia pisolitica* PEC** shall be provided on completion to the **CEO**.
- 7-5 During construction, the proponent shall ensure the area of any **ground disturbing activities** is delineated spatially and marked in-situ to avoid exceeding the extent of the authorised clearing of ***Triodia pisolitica* PEC** in condition 7-1.
- 7-6 The proponent shall ensure access to areas that support the ***Triodia pisolitica* PEC**, within the development envelope, is restricted to personnel authorised to do so by the proponent.
- 7-7 The proponent shall monitor impacts due to dust deposition, saline water application for dust control, changed surface hydrology, weeds, fire and feral species, on the ***Triodia pisolitica* PEC** in the development envelope. This monitoring is to be carried out to the satisfaction of the **CEO** on advice from the **DBCA**.
- 7-8 In the event that the outcomes of condition 7-1 are not being met or are unlikely to be met, the proponent must:
- (1) report this to the **CEO** within seven (7) days;
  - (2) implement **contingency measures**;
  - (3) investigate the cause;
  - (4) investigate the environmental impacts;
  - (5) advise rectification measures to be implemented;

- (6) advise any other measures to be implemented to ensure no further impact; and
- (7) provide a report to the **CEO** within twenty-one (21) days of being aware that the outcomes of condition 7-1 are not being met, detailing the measures required in conditions 7-8(1) to 7-8(6) above.

## **Addition of Condition 12 of Ministerial Statement 1027:**

### **12 Terrestrial Fauna**

12-1 The proponent shall implement the proposal to meet the following environmental outcomes:

- (1) no adverse impact to the structural integrity, microclimate or capacity to support ghost bats (*Macroderma gigas*) of the seven (7) bat caves shown in Figure 5.

12-2 The proponent shall implement the proposal to meet the following environmental objective:

- (1) avoid, where possible, and otherwise minimise direct and indirect impacts to ghost bat (*Macroderma gigas*) within the development envelope.

12-3 The proponent shall update the Ghost Bat Management Plan (API-0000-EN-PLN-0009\_1, December 2022), which shall:

- (1) demonstrate how the environmental outcomes in condition 12-1 and the objective of condition 12-2 are achieved;
- (2) be informed by geotechnical assessments, blast modelling and testing to determine the stability of the seven (7) caves as shown in Figure 5;
- (3) include buffers around the seven (7) caves depicted in Figure 5 which are based on the outcome of testing done under condition 12-3(2), and consider the full lateral extent of the cave structure;
- (4) define blast criteria, including ground vibration limits and ambient noise level limits, based on the outcome of testing done under condition 12-3(2), to meet the objective of protecting the structural integrity of ghost bat (*Macroderma gigas*) roost sites, to meet the environmental objective in condition 12-2(1);
- (5) include measures to restrict unauthorised access to the seven (7) caves as shown in Figure 5;
- (6) specify trigger criteria that will trigger the implementation of management and/or contingency actions to prevent direct or indirect impacts to ghost bat (*Macroderma gigas*);
- (7) specify threshold criteria to demonstrate compliance with conditions 12-1 and 12-2;
- (8) specify monitoring methodology to determine if trigger criteria and threshold criteria have been met;

- (9) specify management and/or contingency actions which include changes to operations to be implemented if the trigger criteria required by condition 12-3(6) and/or the threshold criteria 12-3(7) have not been met;
  - (10) provide the format and timing for the reporting of monitoring results against trigger criteria and threshold criteria to demonstrate that conditions 12-1 and 12-2 have been met over the reporting period in the Compliance Assessment Report required by condition 4-6;
  - (11) be prepared in consultation with **DBCA**;
  - (12) provide evidence to support any management approach that is reliant on ghost bats returning to roost caves after **mining operations** have ceased; and
  - (13) where evidence cannot be provided to support the cave abandonment approach in condition 12-3(12), the management plan shall include measures to ensure that direct and indirect impacts to roost caves does not result in abandonment of the caves beyond the life of the proposal.
- 12-4 The proponent must not undertake any **ground disturbing activities** within 500m of the seven (7) caves depicted in Figure 5 until the **CEO** has confirmed in writing that the Ghost Bat Management Plan satisfies the requirements of condition 12-3.
- 12-5 Without limiting condition 12-4, the Ghost Bat Management Plan shall be provided to the **CEO** within six (6) months from the date of this Statement.
- 12-6 The proponent shall implement the most recent version of the **confirmed** Ghost Bat Management Plan until the CEO has confirmed by notice in writing that the proponent has demonstrated that the environmental outcomes in condition 12-1 and objective detailed in condition 12-2 have been met.
- 12-7 In the event that the environmental outcomes in condition 12-1 are exceeded, or monitoring or investigations at any time indicate an exceedance of threshold criteria specified in the **confirmed** ghost bat Management Plan, the proponent shall:
- (1) report the exceedance in writing to the **CEO** within seven (7) days of the exceedance being identified;
  - (2) implement the management or contingency actions required by condition 12-3(9) within seven (7) days of the exceedances being reported as required by condition 12-7(1) and continue implementation of those actions until the **CEO** has **confirmed** by notice in writing that it has been demonstrated that the threshold criteria are being met and

implementation of the management and/or contingency actions are no longer required;

- (3) investigate to determine the cause of the threshold criteria being exceeded;
- (4) investigate to provide information for the **CEO** to determine potential environmental harm or alteration of the environment that occurred due to threshold criteria being exceeded;
- (5) provide a further report to the **CEO** within twenty-one (21) days of the exceedance being reported as required by condition 12-7(1) which shall include:
  - (a) details of management and/or contingency actions implemented;
  - (b) the effectiveness of the management and/or contingency actions implemented against the threshold criteria;
  - (c) the findings of the investigations required by conditions 12-7(3) and 12-7(4);
  - (d) measures to prevent the threshold criteria being exceeded in the future;
  - (e) measures to prevent, control or abate the environmental harm which may have occurred; and
  - (f) justification of the threshold criteria remaining, or being adjusted based on better understanding, demonstrating that outcomes will continue to be met.

12-8 Without limiting condition 12-6 (implementation of the plan) and notwithstanding compliance with condition 12-7 (response to exceedance), the proponent must not cause or allow:

- (1) a failure to implement one of more management and/or contingency actions, if the relevant threshold criteria have been exceeded;
- (2) the exceedance of a threshold criteria (regardless of whether the relevant management and/or contingency actions have been or are being implemented); and/or
- (3) a failure to comply with the requirements of the **confirmed** Ghost Bat Management Plan.

12-9 The proponent:

- (1) may review and revise the **confirmed** Ghost Bat Management Plan and submit it to the **CEO**; and
- (2) shall review and revise the **confirmed** Ghost Bat Management Plan and submit it to the **CEO** as and when directed by the **CEO**.



## Addition of condition 13 of Ministerial Statement 1027:

### 13 Pilbara Environmental Offsets Fund

13-1 The proponent must contribute funds to the **Pilbara Environmental Offsets Fund** calculated pursuant to condition 13-2, to achieve the objective of counterbalancing the significant residual impacts to:

- (1) **'Good' to 'Excellent' condition native vegetation** within the Hamersley IBRA subregion within the Development Envelope;
- (2) Priority Ecological Communities in the Hamersley IBRA subregion;
- (3) riparian vegetation (including groundwater dependent vegetation) within the Hamersley IBRA subregion;
- (4) **critical ghost bat habitat** (*Macroderma gigas*) subject to any reduction approved by the **CEO** under condition 13-10; and
- (5) **supporting ghost bat habitat** (*Macroderma gigas*) subject to any reduction approved by the **CEO** under condition 13-10.

13-2 The proponent's contribution to the **Pilbara Environmental Offsets Fund** must be paid biennially, with the amount to be contributed calculated based on the clearing undertaken in each year of the biennial reporting period in accordance with the rates in condition 13-3. The first biennial reporting period must commence from **ground disturbing activities** of the environmental value(s) identified in condition 13-3.

13-3 Calculated on the 2021-2022 financial year, the contribution rates are:

- (1) \$890 AUD (excluding GST) per hectare of **'Good' to 'Excellent' condition native vegetation**, cleared as a result of the proposal within the Hamersley **IBRA** subregion;
- (2) \$1,780 AUD (excluding GST) per hectare of Priority Ecological Communities **cleared** as a result of the proposal within the Hamersley **IBRA** subregion;
- (3) \$1,780 AUD (excluding GST) per hectare of riparian vegetation (including groundwater dependent vegetation) **cleared** as a result of the proposal within the Hamersley **IBRA** subregion;
- (4) \$1,780 AUD (excluding GST) per hectare of ghost bat (*Macroderma gigas*) critical habitat cleared as a result of the proposal within the Hamersley **IBRA** subregion; and

- (5) \$890 AUD (excluding GST) per hectare of ghost bat (*Macroderma gigas*) supporting habitat cleared as a result of the proposal within the Hamersley **IBRA** subregion.
- 13-4 The rates in condition 13-3 change annually each subsequent financial year in accordance with the percentage change in the **CPI** applicable to that financial year.
- 13-5 To achieve the objective in condition 13-1 the proponent must prepare a West Pilbara Iron Ore Project – Stage 1 Mine Area Impact Reconciliation Procedure to the satisfaction of the **CEO** within six (6) months of the date of this Statement. This procedure must:
- (1) spatially define the environmental value(s) identified in condition 13-1;
  - (2) spatially define the areas where offsets required by condition 13-1 are to be exempt;
  - (3) include a methodology to calculate the amount of clearing undertaken during each year of the biennial reporting period for each of the environmental values identified in condition 13-3;
  - (4) state that clearing calculation for the first biennial reporting period will commence from ground disturbing activities in accordance with condition 12-2 and end on the second 30 June following commencement of ground disturbing activities;
  - (5) state that clearing calculations for each subsequent biennial reporting period will commence on 1 July of the required reporting period, unless otherwise agreed by the **CEO**;
  - (6) be prepared in accordance with Instructions on how to prepare Environmental Protection Act 1986 Part IV Impact Reconciliation Procedures and Impact Reconciliation Reports (or any subsequent revisions).
- 13-6 The proponent:
- (1) may review and revise the **confirmed** Impact Reconciliation Procedure;
- or
- (2) shall review and revise the **confirmed** Impact Reconciliation Procedure as and when directed by the **CEO** by a notice in writing.
- 13-7 The proponent must cease to implement any revisions which the **CEO** notifies the proponent (at any time) in writing may not be implemented.

- 13-8 The proponent must submit an Impact Reconciliation Report in accordance with the **confirmed** Impact Reconciliation Procedure in condition 13-5.
- 13-9 The Impact Reconciliation Report required pursuant to condition 13-6 must provide the location and spatial extent of the clearing undertaken as a result of the proposal during each year of each biennial reporting period.
- 13-10 The proponent may apply in writing and seek the written approval of the **CEO** to reduce all or part of the contribution payable under condition 13-2 where:
- (1) a payment has been made to satisfy a condition of an approval under the *Environment Protection and Biodiversity Conservation Act 1999* in relation to the proposal; and
  - (2) the payment is made for the purpose of counterbalancing impacts of the proposal on matters of national environmental significance.
- 13-11 The **CEO** may grant approval to discount the amount payable under condition 13-1(3) if the **CEO** is satisfied that the payment will offset the significant residual impacts of the proposal.
- 13-12 Failure to implement a **confirmed** Impact Reconciliation Procedure or submit an Impact Reconciliation Report as required by condition 13-8 represents a non-compliance with these conditions.

## **Addition of Condition 14 of Ministerial Statement 1027:**

### **14 Aboriginal Cultural Heritage**

- 14-1 The proponent must implement the proposal to meet the following environmental outcome:
- (1) subject to reasonable health and safety requirements, no interruption of ongoing access to land utilised for traditional use or custom by the Robe River Kururma (RRK) and the Puutu Kunti Kurrama Pinikura (PKKP) People.
- 14-2 The proponent must implement the proposal to meet the following environmental objectives:
- (1) avoid, where practicable, and otherwise minimise direct disturbance to **Aboriginal cultural heritage** sites;
  - (2) avoid, where possible, and otherwise minimise indirect impacts to **Aboriginal cultural heritage** within and surrounding the development envelope; and
  - (3) ongoing consultation and engagement with Traditional Owners about achievement of the outcomes and objectives in conditions 14-1 and conditions 14-2 for the life of the proposal.
- 14-3 The proponent must, in consultation with the RRK people, prepare a Cultural Heritage Management Plan that demonstrates how achievement of environmental outcomes related to **Aboriginal cultural heritage** will be substantiated, how **Aboriginal cultural heritage** objectives will be achieved, and satisfies the requirements of condition 14-1 and condition 14-2, and submit it to the **CEO**.
- 14-4 The proponent must not undertake **ground disturbing activities** within the **RRK native title determination area** that may result in any impact to **Aboriginal cultural heritage** until the **CEO** has confirmed in writing that the Cultural Heritage Management Plan required by condition 14-3 meets the requirements of condition 14-3.
- 14-5 Prior to the commencement of **ground disturbing activities** within the **PKKP native title determination area**, the proponent must, in consultation with the PKKP people, prepare a Cultural Heritage Management Plan that demonstrates how achievement of environmental outcomes related to **Aboriginal cultural heritage** will be substantiated, how **Aboriginal cultural heritage** objectives will be achieved, and satisfies the requirements of conditions 14-1 and condition 14-2, and submit it to the **CEO**.

- 14-6 Upon being required to implement the Cultural Heritage Management Plan(s) under condition 14-3 or condition 14-5, or after receiving notice in writing from the **CEO** under condition 14-3 or condition 14-5 that the environmental management plan(s) required in condition 14-3 or condition 14-5 satisfies the relevant requirements, the proponent must:
- (1) implement the most recent version of the **confirmed** Cultural Heritage Management Plan(s); and
  - (2) continue to implement the **confirmed** Cultural Heritage Management Plan(s) referred to in condition 14-6(1), other than for any period which the CEO confirms by notice in writing that it has been demonstrated that the relevant requirements for the Cultural Heritage Management Plan(s) have been met, or are able to be met under another statutory decision-making process, in which case the implementation of the environmental management plan is no longer required for that period.
- 14-7 The proponent:
- (1) May review and revise the **confirmed** Cultural Heritage Management Plan(s) provided it meets the relevant requirements of that environmental management plan, including any consultation that may be required when preparing the Cultural Heritage Management Plan(s); and
  - (2) must review and revise the **confirmed** Cultural Heritage Management Plan(s) and ensure it meets the relevant requirements of that Cultural Heritage Management Plan, including any consultation that may be required when preparing the environmental management plan, as and when directed by the CEO.
- 14-8 The proponent must cease to implement any revisions of the **confirmed** Cultural Heritage Management Plan(s) which the CEO notifies the proponent (at any time) in writing may not be implemented.
- 14-9 Subject to condition 14-8, **confirmed** Cultural Heritage Management Plans, and any revised Cultural Heritage Management Plans under condition 14-7, must be published on the proponent's website and provided to the **CEO** in electronic form suitable for on-line publication by the Department of Water and Environmental Regulation within twenty (20) business days of being implemented, or being required to be implemented (whichever is earlier).
- 14-10 If the **confirmed** Cultural Heritage Management Plans referred to in condition 14-9 contain sensitive Aboriginal cultural knowledge, the proponent may submit a request for approval from the **CEO** to not make elements of the plans publicly available. In making such a request the proponent shall provide the **CEO** with an explanation and reasons why the information should not be made publicly available.

## Addition of Condition 15 of Ministerial Statement 1027

### 15 Greenhouse Gas Emissions

15-1 Subject to condition 15-2 the proponent shall take measures to ensure that **net GHG emissions** do not exceed:

- (1) 93,678 tonnes of CO<sub>2</sub>-e for the period until 30 June 2024;
- (2) 1,770,978 tonnes of CO<sub>2</sub>-e for the period between 1 July 2024 and 30 June 2029;
- (3) 1,270,677 tonnes of CO<sub>2</sub>-e for the period between 1 July 2029 and 30 June 2034;
- (4) 929,763 tonnes of CO<sub>2</sub>-e for the period between 1 July 2034 and 30 June 2039;
- (5) 597,705 tonnes of CO<sub>2</sub>-e for the period between 1 July 2039 and 30 June 2044;
- (6) 265,647 tonnes of CO<sub>2</sub>-e for the period between 1 July 2044 and 30 June 2049;
- (7) 13,282 tonnes of CO<sub>2</sub>-e for the period between 1 July 2049 and 30 June 2050; and
- (8) zero tonnes of CO<sub>2</sub>-e for every five (5) year period from 1 July 2050 onwards.

15-2 Where the time between the **commencement of operations** and the end of a period specified in condition 15-1 is less than five (5) years, the **net GHG emissions** limit for that period is to be determined in accordance with the following formula:

$$\text{Reduced net GHG emissions limit} = (A \div 1825) \times B$$

Where:

A is the **net GHG emissions** limit for the period as specified in condition 15-1.

B is the number of days between the **commencement of operations** and the end of the relevant period specified in condition 15-1.

15-3 Within six (6) months of commencing **ground disturbing activities**, and prior to the commencement of **mining operations**, or such lesser time approved in writing by the **CEO**, the proponent shall develop, and submit to the **CEO**, a Greenhouse Gas Emissions Environmental Management Plan to:

- (1) be consistent with the achievement of the **net GHG emissions** limits in condition 15-1 subject to the adjustment provided for in condition 15-2 (or achievement of emission reductions beyond those required by those emission limits);
- (2) specify the estimated **proposal GHG emissions** and **emissions intensity** for the life of the proposal;
- (3) include a comparison of the estimated **proposal GHG emissions** and **emissions intensity** for the life of the proposal against other comparable facilities;
- (4) identify and describe any measures that the proponent will implement to avoid, reduce and/or offset **proposal GHG emissions** and/or reduce the **emissions intensity** of the proposal; and
- (5) provide a program for the future review of the plan to:
  - (a) assess the effectiveness of measures referred to in condition 15-3(4); and
  - (b) identify and describe options for future measures that the proponent may or could implement to avoid, reduce, and/or offset **proposal GHG emission** and/or reduce the **emissions intensity** of the proposal.

15-4 The proponent:

- (1) may revise and submit to the **CEO** the **confirmed** Greenhouse Gas Emissions Environmental Management Plan at any time;
- (2) must revise and submit to the **CEO** the **confirmed** Greenhouse Gas Emissions Environmental Management Plan if there is a material risk that condition 15-1 will not be complied with, including but not limited to as a result of a change to the proposal;
- (3) must revise and submit to the **CEO** the **confirmed** Greenhouse Gas Emissions Environmental Management Plan by the date that the first five (5) yearly consolidated report is required to be submitted under condition 15-9(1) and every five (5) years after that date; and
- (4) must revise and submit to the **CEO** the **confirmed** Greenhouse Gas Emissions Environmental Management Plan as and when directed to by the **CEO**.

15-5 Within one (1) month of receiving confirmation in writing from the CEO that:

- (1) the Greenhouse Gas Emissions Environmental Management Plan referred to in condition 15-3 has been revised and satisfies condition 15-3; or

- (2) any subsequent version of the **confirmed** Greenhouse Gas Environmental Management Plan submitted under condition 15-4 satisfies condition 15-3;

the proponent must submit a separate summary of the relevant plan to the **CEO**, which must:

- (3) include a summary of the matters specified in conditions 15-3(1) to condition 15-3(4); and
- (4) be published as required by condition 15-10(2).

15-6 The proponent shall implement the most recent version of the **confirmed** Greenhouse Gas Environmental Management Plan until the **CEO** has confirmed by notice in writing that it has been demonstrated that the **net GHG emission** limits in condition 15-1 have been met.

15-7 The proponent shall submit an annual report to the **CEO** each year by 31 March, commencing on the first 31 March after the **commencement of operations**, or such other date within that financial year as is agreed by the **CEO** to align with other reporting requirements for **GHG**, specifying for the previous financial year:

- (1) the quantity of **proposal GHG emissions**; and
- (2) the **emissions intensity** for the proposal.

15-8 The proponent shall submit to the **CEO** by 31 March 2030 or such other date within that financial year as is agreed by the **CEO** to align with other reporting requirements for **GHG**, and every five (5) years thereafter:

- (1) a consolidated report specifying:
  - (a) for each of the preceding five financial years, the matters referred to in condition 15-7(1) and condition 15-7(2);
  - (b) for the period specified in condition 15-1 that ended on 30 June of the year before the report is due:
    - (i) the quantity of **proposal GHG emissions**;
    - (ii) the **net GHG emissions**;
    - (iii) any measures that have been implemented to avoid or reduce **proposal GHG emissions**; and
    - (iv) the type, quantity, identification or serial number, and date of retirement or cancellation of any **authorised offsets** which have been retired or cancelled and which have been used to calculate the **net GHG emissions** referred to in



condition 15-8(1)(b)(ii), including written evidence of such retirement or cancellation.

- (2) an audit and peer review report of the consolidated report required by condition 15-8(1), carried out by an independent person or independent persons with suitable technical experience dealing with the suitability of the methodology used to determine the matters set out in the consolidated report, whether the consolidated report is accurate and whether the consolidated report is supported by credible evidence.

15-9 A consolidated report referred to in condition 15-8(1) must be accompanied by:

- (1) a revision of the **confirmed** Greenhouse Gas Environmental Management Plan under condition 15-4(3); and
- (2) a separate summary report, for the period specified in condition 15-1 that ended on 30 June of the year before the report is due and any previous periods specified in condition 15-1, and which includes:
  - (a) a graphical comparison of **net GHG emissions** with the **net GHG emissions** limits detailed in condition 15-1 (subject to the adjustment provided for in condition 15-2);
  - (b) proposal **emissions intensity** compared to comparable facilities;
  - (c) a summary of measures to reduce the **proposal GHG emissions** undertaken by the proponent for compliance periods detailed in condition 15-1; and
  - (d) a clear statement as to whether limits for **net GHG emissions** set out in condition 15-1 have been met, and whether future **net GHG emissions** limits are likely to be met, including a description of any reasons why those limits have not been, and/or are unlikely to be met.

15-10 The proponent shall make the **confirmed** Greenhouse Gas Environmental Management Plan, the summary of that plan, and all reports required by this condition 15 publicly available on the proponent's website within the timeframes specified below for the life of the proposal, or in any other manner or time specified by the **CEO**:

- (1) any **confirmed** Greenhouse Gas Environmental Management Plan, within two (2) weeks of receiving written confirmation from the **CEO** as referred to in condition 15-3;
- (2) the summary of any **confirmed** Greenhouse Gas Environmental Management Plan referred to in condition 15-5 and the reports referred

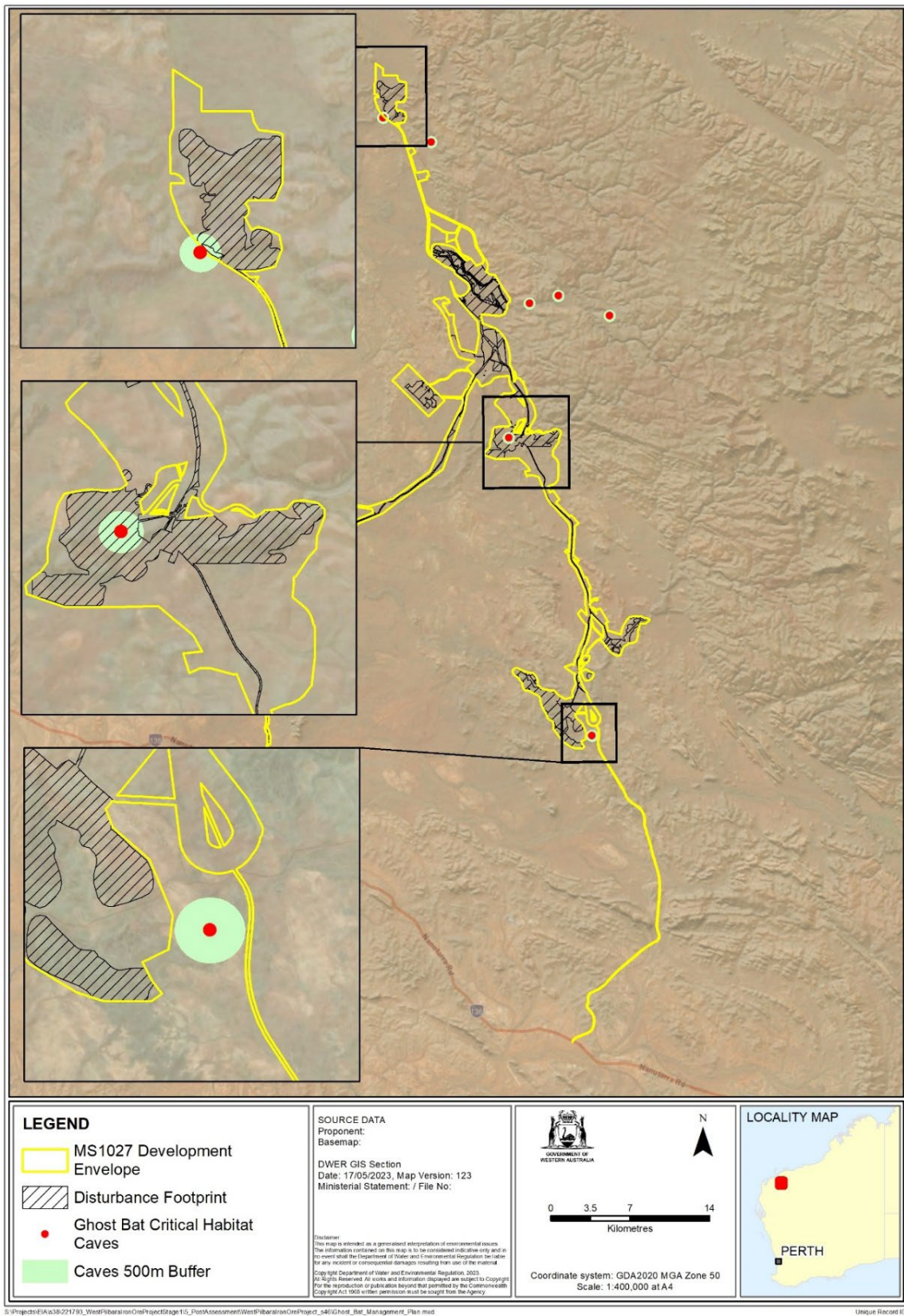
to in condition 15-7, condition 15-8, and condition 15-9 within two (2) weeks of submitting the document to the **CEO**.

**Table 1: Abbreviations and definitions**

Acronym or abbreviation	Definition or term
<b>Aboriginal cultural heritage</b>	Means the tangible and intangible elements that are important to the Aboriginal people of the State, and are recognised through social, spiritual, historical, scientific or aesthetic values, as part of Aboriginal tradition to the extent they directly affect or are affected by physical or biological surroundings.
<b>Authorised offsets</b>	Units representing <b>GHG emissions</b> issued under one of the following schemes and cancelled or retired in accordance with any rules applicable at the relevant time governing the cancellation or retiring of units of that kind: <ul style="list-style-type: none"> <li>(a) Australian Carbon Credit Units issued under the <i>Carbon Credits (Carbon Farming Initiative) Act 2011</i> (Cth);</li> <li>(b) Verified Emission Reductions issued under the Gold Standard program;</li> <li>(c) Verified Carbon Units issued under the Verified Carbon Standard program; or</li> <li>(d) other offset units that the Minister has notified the proponent in writing meet integrity principles and are based on clear, enforceable and accountable methods.</li> </ul>
<b>CEO</b>	The Chief Executive Officer of the Department of the Public Service of the State responsible for the administration of section 48 of the <i>Environmental Protection Act 1986</i> , or the <b>CEO's</b> delegate.
<b>Commencement of operations</b>	Means commencing operation of the plant infrastructure for the proposal and includes pre-commissioning, commissioning, start-up and operation of the plant infrastructure for the proposal.
<b>Confirmed</b>	In relation to a plan required to be made and submitted to the <b>CEO</b> , means, at the relevant time, the plan that the <b>CEO</b> confirmed, by notice in writing, meets the requirements of the relevant condition. In relation to a plan required to be implemented without the need to be first submitted to the <b>CEO</b> , means that plan until it is revised, and then means, at the relevant time, the plan that the <b>CEO</b> confirmed, by notice in writing, meets the requirements of the relevant condition.
<b>Contingency measures</b>	Planned actions for implementation if it is identified that an environmental outcome is not likely to be or is not being met. Contingency measures include changes to operations or reductions in disturbance or adverse impacts to reduce impacts and must be decisive actions that will quickly bring the impact to below any relevant threshold, management target and to ensure that the environmental outcome and/or objective can be met.
<b>CPI</b>	The Consumer Price Index numbers for Perth compiled and published by the Australian Bureau of Statistics.
<b>DBCA</b>	The government agency responsible for the administration of the <i>Biodiversity Conservation Act 2016</i> , which at the time of publication of this Ministerial Statement is the Department of Biodiversity, Conservation and Attractions.

<b>Disturb</b>	<p>Flora – result in death, destruction, removal, severing or doing substantial damage to.</p> <p>Fauna – has the effect of altering the natural behaviour of fauna to its detriment.</p> <p>Direct – causes or immediately has the disturbance effect.</p> <p>Indirect – materially contributes to the disturbance effect.</p>
<b>Emissions intensity</b>	<b>Proposal GHG emissions</b> per tonnes per annum of ore produced, or such other production value determined by the CEO as applicable to allow comparison with other producers.
<b>EP Act</b>	<i>Environmental Protection Act 1986.</i>
<b>GHG emissions</b>	Greenhouse gas emissions expressed in tonnes of carbon dioxide equivalent (CO <sub>2</sub> -e) as calculated in accordance with the definition of 'carbon dioxide equivalence' in section 7 of the <i>National Greenhouse and Energy Reporting Act 2007</i> (Cth), or, if that definition is amended or repealed, the meaning set out in an Act, regulation or instrument concerning greenhouse gases as specified by the Minister.
<b>'Good' to 'Excellent' condition native vegetation</b>	Means the condition of native vegetation rated in accordance with the <i>Technical Guidance – Flora and vegetation surveys for environmental impact assessment (EPA 2016)</i> including any revision to this Technical Guidance.
<b>Greenhouse gas or GHG</b>	Has the meaning given by section 7A of the <i>National Greenhouse and Energy Reporting Act 2007</i> (Cth) or, if that definition is amended or repealed, the meaning set out in an Act, regulation or instrument concerning greenhouse gases as specified by the Minister.
<b>Ground disturbing activities</b>	Any activity undertaken in the implementation of the proposal, including any clearing, civil works or construction, other than preliminary works to which approval has been given under the <b>EP Act</b>
<b>Ha</b>	Hectare
<b>IBRA</b>	Interim Biogeographic Regionalisation for Australia
<b>Mining operations</b>	Means any mode or method of working whereby the earth or any rock structure stone fluid or mineral bearing substance may be disturbed removed washed sifted crushed leached roasted distilled evaporated smelted combusted or refined or dealt with for the purpose of obtaining any mineral or processed mineral resource therefrom whether it has been previously disturbed or not ( <i>Mining Act 1978</i> ).
<b>PKKP Native title determination area</b>	The area of land as defined in Schedule 1 and Schedule 2 of <a href="#">National Native Title Tribunal Number: WCD2015/003</a> .

<b>Net GHG emissions</b>	<p>Proposal GHG emissions for a period less any reduction in GHG Emissions represented by the cancellation or retirement of <b>authorised offsets</b> which:</p> <ul style="list-style-type: none"> <li>(a) were cancelled or retired between the first day of the period until 1 March in the year after the period has ended;</li> <li>(b) have been identified in the report for that period as required by condition 15-9(1)(b)(iii);</li> <li>(c) have not been identified as cancelled or retired in the report for that period as required by condition 15-9(1)(b)(iii);</li> <li>(d) have not been used to offset <b>GHG emissions</b> other than <b>proposal GHG emissions</b>; and</li> <li>(e) were not generated by avoiding <b>proposal GHG emissions</b>.</li> </ul>
<b>Pilbara Environmental Offsets Fund</b>	A special purpose account created pursuant to section 16(1)(d) of the <i>Financial Management Act 2006</i> by the Department of Water and Environmental Regulation.
<b>Proposal GHG emissions</b>	<b>GHG emissions</b> released to the atmosphere as a direct result of an activity or series of activities that comprise/s or form/s part of the proposal.
<b>RRK Native title determination area</b>	The area of land as defined in Schedule 1 and Schedule 2 of <a href="#">National Native Title Tribunal Number: WCD2018/003</a> .
<b><i>Triodia pisolitica</i> PEC</b>	<p><i>Triodia pisolitica</i> Priority Ecological Community.</p> <p>Means the <i>Triodia pisolitica</i> (previously <i>Triodia</i> sp. Robe River) assemblages of mesas of the West Pilbara, Priority Ecological Community. This community is typically restricted to mesas and cordillo landforms where the plant assemblages are dominated by or contain <i>Triodia pisolitica</i> and are indicative of inverted landscapes; that is, where <i>Triodia pisolitica</i> occurs in combination with species that are considered 'out-of-context' from their normal habitat.</p> <p>The community is a combination of <i>Triodia pisolitica</i> with <i>Acacia pruinocarpa</i>, <i>A. citrinoviridis</i> on slopes or peaks of mesas. These two <i>Acacias</i> are generally found associated with Pilbara creeklines, and their occurrence is probably indicative of the genesis of the mesa surfaces in wetlands, then erosion of the landscape and 'inversion of the landscape' such that the mesa slopes and peaks that were previously low in the landscape become high points.</p>



**Figure 5: Location of the seven (7) critical ghost bat caves within and proximal to the development envelope**

## Appendix C: Decision-making authorities

The decision-making authorities in the table below have been identified for the purposes of s. 45 as applied by s. 46(8) of the *Environmental Protection Act 1986*.

Decision-making authority	Legislation (and approval)
1. Minister for Aboriginal Affairs	<i>Aboriginal Heritage Act 1972</i> (Section 18 consent to impact a registered Aboriginal heritage site) <i>Aboriginal Cultural Heritage Act 2021</i>
2. Minister for Mines and Petroleum	<i>Mining Act 1978</i> (Granting of a mining lease/general purpose lease/retention licence)
3. Minister for Water	<i>Rights in Water and Irrigation Act 1914</i> (Groundwater abstraction licence, permit to interfere with bed and banks)
4. Minister for Environment	<i>Biodiversity and Conservation Act 2016</i> (Section 40 authorisation to take and disturb threatened animals)
5. Chief Dangerous Goods Officer, Department of Mines, Industry Regulation and Safety	<i>Dangerous Goods Safety Act 2004</i> (Storage and handling of dangerous goods)
6. Exec Director, Resource and Environmental Compliance Division, Department of Mines, Industry Regulation and Safety	<i>Mining Act 1978</i> (Mining Proposal and Mine Closure Plan)
7. Chief Executive Officer, Department of Water and Environmental Regulation	<i>Environmental Protection Act 1986</i> (Works approval and licence)
8. Chief Executive Officer, Shire of Ashburton	<i>Planning and Development Act 2005</i> <i>Building Act 2011</i>

Note: In this instance, agreement is only required with DMAs 1-4 since these DMAs are a Minister.

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