



# Report and recommendations of the Environmental Protection Authority



## **Balla Balla Export Facilities – inquiry under section 46 of the *Environmental Protection Act 1986* to amend Ministerial Statement 945**

**Forge Resources Swan Pty Ltd**

Report 1654

November 2019

## **Inquiry under s. 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 changing the implementation conditions in Ministerial Statement 945 relating to Forge Resources Swan Pty Ltd's Balla Balla Export Facilities proposal.

Section 46(6) of the *Environmental Protection Act 1986* requires the EPA Report to include:

1. a recommendation on whether or not the implementation conditions to which the enquiry relates, or any of them, should be changed
2. any other recommendations that it thinks appropriate.

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



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Chairman

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# 1. The proposal

The Balla Balla Export Facilities (the proposal) is to construct and operate an iron ore export facility at Balla Balla midway between Port Hedland and Karratha, northwest of Whim Creek in the Pilbara region of Western Australia. The nominated proponent for the proposal is Forge Resources Swan Pty Ltd.

The following infrastructure is to be constructed within the development envelope:

- Marine Infrastructure:
  - 2.6 kilometre (km) long trestle jetty
  - four barge mooring towers
  - navigation markers.
  
- Terrestrial Infrastructure:
  - stockyard including dewatering filter plant
  - corridor from the approved Balla Balla mine-site to the stockyard
  - rock causeway from the stockyard to the laydown area
  - laydown area.

The Environmental Protection Authority (EPA) assessed the proposal at the level of Assessment on Proponent Information, and released its Report and Recommendations (Report 1481) in June 2013. In Report 1481, the EPA identified the following key environmental factors relevant to the proposal:

- Benthic Communities and Habitats
- Marine Fauna
- Marine Environmental Quality
- Flora and Vegetation.

In applying the *Statement of Environmental Principles, Factors and Objectives* (EPA 2018a) these factors remain unchanged.

The EPA concluded in Report 1481 that it was likely the EPA's objectives would be achieved, provided there was satisfactory implementation by the proponent of the EPA's recommended conditions.

The then Minister for Environment approved the proposal for implementation, subject to the implementation conditions of Ministerial Statement 945 (21 August 2013).

## 2. Requested changes to conditions

Condition 3-1 of Ministerial Statement 945 states that the proponent shall not commence implementation of the proposal after the expiration of five years from the date of the statement (being 21 August 2013), and any commencement, within this five year period, must be substantial.

The proposal has not yet substantially commenced. In February 2019, Forge Resources Swan Pty Ltd (the proponent) requested a change to condition 3-1 of Ministerial Statement 945 to extend the authorised timeframe for substantial commencement of the proposal by five years. The proponent has not proposed any changes to the proposal, or to the other conditions of Ministerial Statement 945.

In response to the proponent's request, on 31 May 2019, the Minister for Environment requested the EPA to inquire into and report on the matter of changing the implementation conditions relating to the proposal. This report satisfies the requirements of the EPA's inquiry.

## 3. Inquiry into changing conditions

The EPA typically recommends the Minister sets conditions on significant proposals that require them to be substantially commenced within a specified timeframe. Extending this timeframe requires the Minister to change the relevant conditions under s. 46 of the *Environmental Protection Act 1986*, 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 an inquiry under s. 46. The currency of the initial assessment and issue of the Ministerial Statement (that is when it was published) is also instructive in determining the extent and nature of the inquiry.

In conducting this inquiry, the EPA reviewed the information provided by the proponent and considered the original EPA assessment of the proposal detailed in Report 1481. In considering whether it should recommend an extension of the authorised timeframe for substantial commencement of the proposal, the EPA considered whether there was any change to, or new information relating to, the key environmental factors relevant to the proposal. The EPA also considered if any new key environmental factors had arisen since its original assessment of the proposal.

### EPA policy and procedures

In inquiring into the requested change to conditions, the EPA has given due consideration to relevant published EPA policies and guidelines, noting that a number of published policies and guidelines pertaining to this proposal were considered, but not determined to be relevant. The EPA followed the procedures in the *Environmental Impact Assessment (Part IV Divisions 1 and 2) Administrative Procedures 2016* and the *Environmental Impact Assessment (Part IV Divisions 1 and 2) Procedures Manual 2016* (EPA 2018b).

## 4. Inquiry findings

The EPA considered that the following are the key environmental factors relevant to the change to conditions:

- Benthic Communities and Habitats
- Marine Fauna
- Marine Environmental Quality
- Flora and Vegetation.

### 4.1 Benthic Communities and Habitats

The EPA's environmental objective for this factor is *to protect benthic communities and habitats so that biological diversity and ecological integrity are maintained.*

The proposal requires direct disturbance of up to 2.09 hectares (ha) of mangroves, 21.05 ha of algal mats and 0.3 ha of sub-tidal habitat and has the potential to indirectly impact on benthic primary producer communities through:

- introduced marine pests resulting in alteration of habitat dynamics
- oil spill or other marine pollution resulting in contamination of marine benthic habitat
- changes to tidal processes potentially resulting in indirect impacts to intertidal habitat.

Benthic communities and habitat surveys undertaken by the proponent in 2013 identified that the sub-tidal habitat consists of 0.22 ha of barren scoured substrate coarse sand over a gravel substrate and 0.08 ha of filter feeder habitat. The channel consists of flat limestone pavements with a veneer of coarse sand and contains a filter feeding community comprised of mainly sponges, hydroids and scattered gorgonians. These communities were observed in dense stands, covering 60 per cent to 80 per cent of the seabed and extending about 140 ha.

#### EPA Report 1481

EPA Report 1481 stated that, having particular regard to the:

- relatively small area of impact on the benthic primary producer communities
- proponent's commitments to further reduce the direct impacts through an additional survey and detailed design
- implementation of drainage culverts at appropriate locations to minimise indirect impacts,

it was the EPA's opinion that it would be likely the EPA's objectives for the factor would be achieved.

## Current situation

No further benthic communities and habitat studies have been completed since the publication of Ministerial Statement 945. However, the proponent is not proposing any changes to the proposal that would change the potential impacts to benthic communities and habitats, or any changes to the conditions of Ministerial Statement 945 relating to the management of benthic communities and habitats.

The EPA is satisfied that its objectives for this factor can be met, and the potential impacts of the proposal can be managed through the existing implementation Condition 6 (Benthic Communities and Habitat).

## 4.2 Marine Fauna

The EPA's objective for this factor is *to protect marine fauna so that biological diversity and ecological integrity are maintained*.

The proposal has the potential to impact on Marine Fauna during construction and operation, through:

- temporary or permanent displacement
- collision with vessels
- behavioural disruption
- injury at close range from high impact noises such as pile-driving and light spill impacts on turtle nesting.

The proponent identified the following marine fauna species listed under the *Wildlife Conservation Act 1950* in the vicinity of the proposal:

- green turtle (*Chelonia mydas*)
- hawksbill turtle (*Eretmochelys imbricata*)
- leatherback turtle (*Dermochelys coriacea*)
- loggerhead turtle (*Caretta caretta*)
- flatback turtle (*Natator depressus*)
- dugong (*Dugong dugon*).

## EPA Report 1481

EPA Report 1481 stated that, having particular regard to the:

- area surrounding the proposal not supporting critical habitats for marine fauna
- short-term duration of the pile-driving activities
- mitigation and management measures proposed by the proponent,

it was the EPA's opinion that it would be likely the EPA's objectives for the factor would be achieved.

## Current Situation

No further marine fauna studies have been completed since the publication of Ministerial Statement 945. However the proponent is not proposing any changes to the proposal that would change the potential impacts to marine fauna, or any changes to the conditions of Ministerial Statement 945 relating to the management of marine fauna.

The EPA is satisfied that its objectives for this factor can be met, and the potential impacts of the proposal can be managed through the existing implementation Condition 7 (Marine Fauna) and Condition 8 (Introduced Marine Pests).

### 4.3 Marine Environmental Quality

The EPA's objective for this factor is *to maintain the quality of water, sediment and biota so that environmental values are protected.*

The construction and ongoing port operations of the export facility may result in bulk material spillage, leaks and spills, as well as pulses of turbidity and sediment mobilisations during vessels berthing which may impact on the surrounding environment.

Studies undertaken by the proponent in 2013 identified that the movement of barges at the wharf has the potential to cause sediment resuspension especially during lower tides.

#### EPA Report 1481

EPA Report 1481 stated that, having particular regard to the:

- avoidance of capital dredging and construction of breakwaters
- management measures proposed by the proponent
- ability of the Works Approval and Licensing under Part V of the *Environmental Protection Act 1986* to manage ongoing bulk loading activities,

it was the EPA's opinion that it would be likely the EPA's objectives for the factor would be achieved.

## Current Situation

No additional studies have been completed since the publication of Ministerial Statement 945. However the proponent is not proposing any changes to the proposal that would change the potential impacts to marine environmental quality, or any changes to the conditions of Ministerial Statement 945 relating to the management of marine environmental quality.

The EPA is satisfied that its objectives for this factor can be met, and the potential impacts of the proposal can be managed through the existing implementation conditions of Ministerial Statement 945, noting that Works Approval and Licencing will also be managed subject to licence requirements under the *Environmental Protection Act 1986*.

## 4.4 Flora and Vegetation

The EPA's objective for this factor is *to protect flora and vegetation so that biological diversity and ecological integrity is maintained*.

The proponent proposes to clear up to 135.5 ha of native vegetation for a stockyard, laydown area, pipeline corridor and part of the rock causeway. Indirect impacts may also occur as a result of the introduction of, or spread of weeds, smothering from dust and fire.

A level 2 flora and vegetation survey was completed by the proponent in April 2013. The findings indicated that no threatened or priority flora species were recorded during the survey. However, the proponent noted that one priority flora species, *Heliotropium muticum*, has previously been recorded to the south-west of the infrastructure corridor.

The majority of the terrestrial footprint contains a Priority 3 Ecological Community (PEC) 'Horseflat land system of the Roebourne plains'. The PEC is known to occur from Cape Preston to Balla Balla. Implementation of the proposal would result in clearing of 82 ha or 1.9 of the mapped area of the PEC, however, the condition of the vegetation is heavily grazed and ranges in condition from degraded to very good.

### EPA Report 1481

EPA Report 1481 stated that, having particular regard to the:

- management measures proposed by the proponent to minimise impacts on the Priority Ecological Community (PEC) of good to very good condition
- potential impacts to a very small portion of the PEC mapped in the area,

it was the EPA's opinion that it would be likely the EPA's objectives for the factor would be achieved.

### Current Situation

An additional flora and vegetation survey was completed by Phoenix Environmental Sciences in 2017, which overlapped with a portion of the development envelope. This report is still in draft form but provides some relevant desktop and regional context information.

Desktop searches by Phoenix (2017) identified that no additional priority 1 or priority 2 flora have been located within the development envelope since the original assessment. It was noted that the previously recorded *Heliotropium muticum* is now listed as a priority 3 flora species.

No new threatened ecological communities or PECs have been listed in the development envelope since the original assessment.

The proponent is not proposing any changes to the proposal that would change the extent or location of clearing of native vegetation.

The EPA is satisfied that its objectives for this factor can be met, and the potential impacts of the proposal can be managed through the existing implementation Condition 1 (Proposal Implementation), which limits the amount and location of vegetation clearing, and Condition 9 (Flora and Vegetation).

## 4.5 Other factors

### Terrestrial Fauna

The EPA's objective for this factor is *to protect terrestrial fauna so that biological diversity and ecological integrity is maintained*.

The proponent proposes to clear up to 135.5 ha of native vegetation. Indirect impacts may also occur as a result of the introduction of, or spread of weeds, fire and light spill.

In 2012 a level 1 survey completed for terrestrial fauna and migratory shorebirds in the form of a habitat assessment and reconnaissance survey identified 356 vertebrate fauna species:

- 25 species were of conservation significance
- 22 species are listed as migratory under the *Environment Protection and Biodiversity Conservation Act 1999 Act*
- six species are listed as Schedule 1 under the *Wildlife Conservation Act 19850* (1 endangered and 5 vulnerable)
- 15 species are listed as Schedule 3 (migratory)
- one Priority 1 species
- two Priority 2 species.

### EPA Report 1481

EPA Report 1481 did not identify Terrestrial Fauna as a key environmental factor and concluded that the objective for terrestrial fauna could be achieved provided:

- clearing and disturbance was confined to within the development envelope
- personnel were educated and prevented from entering areas of high conservation value
- implementation of industry standards to control light spill.

### Current Situation

An additional conservation significant fauna survey was completed by Phoenix Environmental Sciences in 2017, for the Balla Balla railway, which overlapped with a portion of the development envelope (Phoenix 2017). Whilst still in draft form this report has provided the proponent with some additional relevant desktop and regional context information.

The proponent has advised that updated NatureMap and PMST Reports were generated in May 2018, together with reference to the *Wildlife Conservation*

(*Specially Protected Fauna*) Notice 2017 Summary of additions, deletions and changes to the notice as of January 2018 (DBCA 2018), identified changes in conservation status of fauna species relevant to the area. One fauna species has been removed from the list of Specially Protected Fauna (Northwestern Coastal Ctenotus (*Ctenotus angusticeps*)), and one species has been included (night parrot (*Pezoporus occidentalis*)) since the original study work was completed in 2013.

The night parrot is listed as Endangered under the *Environment Protection and Biodiversity Conservation Act 1999*, and as Rare or Likely to Become Extinct under the *Wildlife Conservation Act 1950*. The Threatened Species Scientific Committee published a federal Conservation Advice for the night parrot in July 2016 (TSSC 2016) and the Department of Biodiversity, Conservation and Attractions published an Interim guideline for preliminary surveys of the night parrot in Western Australia in May 2017. The proposal is situated just outside the 'Medium priority area for survey' shown within the Interim guideline and in the 'Species or species habitat may occur' area of the distribution map in the Department of the Environment and Energy *Species Profiles and Threats Database*.

The proponent is not proposing any changes to the proposal that would change the extent or location of clearing of fauna habitat, and the proposed clearing is a relatively narrow disturbance envelope.

The EPA is satisfied that its objectives for this factor can be met, and the potential impacts of the proposal can be managed through the existing implementation Condition 1 (Proposal Implementation), which limits the amount and location of vegetation clearing.

## 5. Conclusions and Recommendations

### Conclusions

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

- The proposal has not changed since the EPA's original assessment.
- There have been no significant changes to the key environmental factors relevant to the proposal, being Benthic Communities and Habitats, Marine Fauna, Marine Environmental Quality and Flora and Vegetation, since the EPA's original assessment.
- No new key environmental factors relevant to the proposal have arisen since the EPA's original assessment.
- The potential impacts to the key environmental factors can be adequately managed by the existing implementation conditions of Ministerial Statement 945.
- The authorised timeframe for substantial commencement of the proposal may be extended by five years as requested.

### Recommendations

Having inquired into the matter of changing the implementation conditions relating to the Balla Balla Export Facilities proposal, the EPA submits the following recommendations to the Minister for Environment under s. 46 of the *Environmental Protection Act 1986*:

- That, while retaining the environmental requirements of the original conditions of Ministerial Statement 945, it is appropriate to delete Condition 3 and replace it with a new implementation condition extending the authorised timeframe for substantial commencement of the proposal by five years, to 23 August 2023.
- That, after complying with s. 46(8) of the *Environmental Protection Act 1986*, the Minister issues a statement of decision to change the conditions of Ministerial Statement 945 in the manner provided for in the attached recommended statement.

## References

Department of Parks and Wildlife 2017, *Interim guideline for preliminary surveys of night parrot (Pezoporus occidentalis) in Western Australia*, DPaW, 1 May 2017.

*Environmental Impact Assessment (Part IV Divisions 1 and 2) Administrative Procedures 2016* Western Australia, Western Australian Government Gazette No 223, 13 December 2016.

EPA 2013, *Balla Balla Export Facilities*, Report 1481 Environmental Protection Authority, Perth, WA.

EPA 2018a, *Statement of Environmental Principles, Factors and Objectives*, Environmental Protection Authority, Perth, WA.

EPA 2018b, *Environmental Impact Assessment (Part IV Divisions 1 and 2) Procedures Manual*, Environmental Protection Authority, Perth, WA.

Preston Consulting 2018, *Balla Balla Export Facilities Section 46 Application Environmental Assessment Supporting Document*, Preston Consulting Pty Ltd, Perth WA.

## Definitions

Priority Ecological Community (PEC)	Communities listed by the Department of Biodiversity, Conservation and Attractions as: Priority 1, 2, or 3: Possibly threatened ecological communities that do not meet survey criteria or that are not adequately defined. The three categories are ranked in order of priority for survey and/or definition of the community. Priority 4: Ecological communities that are adequately known, and are rare but not threatened or meet criteria for Near Threatened, or that have been recently removed from the threatened list. Priority 5: Conservation Dependent ecological communities.
Threatened Species	Listed by order of the Minister for Environment as Threatened in the category of critically endangered, endangered or vulnerable under s. 19(1) of the <i>Biodiversity Conservation Act 2016</i> .
Threatened Ecological Community (TEC)	Communities declared under s.27 of the <i>Biodiversity Conservation Act 2016</i> .
Priority Species	Species listed by the Department of Biodiversity, Conservation and Attractions as: Priority 1, 2, or 3: Possibly threatened species that do not meet survey criteria, or are otherwise data deficient. These three categories are ranked in order of priority for survey and evaluation of conservation status so that consideration can be given to their declaration as threatened flora; or Priority 4: species that are adequately known, are rare but not threatened, or meet criteria for near threatened, or that have been recently removed from the threatened species list.

## Appendix 1: Identified Decision-Making Authorities and recommended environmental conditions

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

<b>Decision-Making Authority</b>	<b>Legislation and approval</b>
1. Minister for Water	<i>Rights in Water and Irrigation Act 1914</i> (Bed and Banks permit)
2. Minister for Environment	<i>Biodiversity Conservation Act 2016</i> (Taking of flora)
3. Minister for Transport	<i>Port Authorities Act 1999</i> <i>Marine and Harbours Act 1981</i>
4. Minister for Aboriginal Affairs	<i>Aboriginal Heritage Act 1972</i> (s. 18 approval)
5. CEO, Department of Water and Environmental Regulation	<i>Environmental Protection Act 1986</i> (Works Approval and Licence)
6. CEO, City of Karratha	<i>Planning and Development Act 2005</i> (Development Approval)
7. Mining Registrar, Department of Mines, Industry Regulation and Safety	<i>Mining Act 1978</i> (Land access)
8. Environmental Officer of the Environmental Division, Department of Mines, Industry Regulation and Safety	<i>Mining Regulations 1981</i> (Program of works approval R13A)
9. CEO, Department of Transport	<i>Jetties Act 1926</i>

RECOMMENDED ENVIRONMENTAL CONDITIONS

**STATEMENT TO CHANGE THE IMPLEMENTATION CONDITIONS APPLYING TO  
A PROPOSAL  
(Section 46 of the *Environmental Protection Act 1986*)**

BALLA BALLA EXPORT FACILITIES  
SHIRE OF ROEBOURNE

**Proposal:** To construct and operate an iron ore export facility at Balla Balla midway between Port Hedland and Karratha, northwest of Whim Creek in the Pilbara region of Western Australia.

**Proponent:** Forge Resources Swan Pty Ltd  
Australian Company Number 149 783 068

**Proponent Address:** Level 24, 56 Pitt Street  
SYDNEY NSW 2000

**Report of the Environmental Protection Authority:** 1654

**Previous Report relating to this Proposal:** 1481

**Preceding Statement/s Relating to this Proposal:** 945

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. 945, be changed as specified in this Statement.

**Condition 3 of Ministerial Statement 945 is deleted and replaced with:**

**3. Time Limit for Proposal Implementation**

- 3-1 The proponent shall not commence implementation of the proposal after 21 August 2023, and any commencement, prior to this date, must be substantial.
- 3-2 Any commencement of implementation of the proposal, on or before 21 August 2023, must be demonstrated as substantial by providing the CEO with written evidence, on or before the 21 August 2023.