



Report and recommendations of the Environmental Protection Authority



Parker Range (Mount Caudan) Iron Ore Project, Shire of Yilgarn - inquiry under section 46 of the *Environmental Protection Act 1986* to amend Ministerial Statement 892

Cazaly Iron Proprietary Limited

Report 1596

May 2017

ENVIRONMENTAL PROTECTION AUTHORITY
REPORT AND RECOMMENDATIONS TO THE MINISTER FOR
ENVIRONMENT

**PARKER RANGE (MOUNT CAUDAN) IRON ORE PROJECT SHIRE OF
YILGARN – INQUIRY UNDER SECTION 46 OF THE *ENVIRONMENTAL
PROTECTION ACT 1986* TO AMEND MINISTERIAL STATEMENT 892
(ASSESSMENT NO. 2094)**

The Minister for Environment has requested that the Environmental Protection Authority (EPA) inquire into and report on the matter of changing the implementation conditions relating to the Parker Range (Mount Caudan) Iron Ore Project, in order to extend the Time Limit of Authorisation (condition 3).

The following is the EPA's Report and Recommendations (No. 1596) to the Minister pursuant to section 46(6) of the *Environmental Protection Act 1986*.

Background

The proposal is to develop and operate the Parker Range (Mount Caudan) Iron Ore Project located approximately 15 kilometres south-east of Marvel Loch in the Shire of Yilgarn. The proposal consists of a mining area and haul road area. The mining area includes an above and below the watertable iron ore mine, associated infrastructure and the Parker Range Bypass Road.

The EPA assessed the proposal at the level of Public Environmental Review and released its assessment report (Report 1410) in August 2011. The EPA identified the following key environmental factors relevant to the proposal:

- Flora and Vegetation;
- Fauna;
- Air Quality – Dust
- Groundwater; and
- Closure and Rehabilitation.

In applying the Environmental Protection Authority *Statement of Environmental Principles, Factors and Objectives*, December 2016 (SEPFO) these factors are now represented by:

- Flora and Vegetation;
- Terrestrial Fauna;
- Air Quality (Dust);
- Social Surroundings (Dust);
- Hydrological Processes; and
- Inland Waters Environmental Quality.

The EPA concluded in August 2011 that “it is likely that the EPA’s objectives would be achieved provided there is satisfactory implementation by the proponent of the recommended conditions”.

The Minister for Environment approved the proposal for implementation, subject to the implementation conditions of Ministerial Statement 892 (12 April 2012).

This project was considered by the Commonwealth of Australia to be a controlled action under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) because of potential significant impacts to listed threatened species and communities and migratory species. The proposal was assessed under the Bilateral Agreement between the Commonwealth and the State.

Requested changes to conditions

Condition 3-1 of Ministerial Statement 892 requires the proponent to substantially commence the proposal within five years of the date of issue of the Statement (that is, before 12 April 2017).

The proposal has not yet substantially commenced. The proponent for the proposal, Cazaly Iron Proprietary Limited, has requested an extension of the “Time Limit of Authorisation” (now referred to as “Time Limit for Proposal Implementation”) for substantial commencement to 12 April 2022.

The proponent has not proposed any additional changes to the proposal as part of their application to extend the Time Limit for Proposal Implementation.

Application of relevant EPA Policies and Guidelines

In inquiring into the 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.

On 13 December 2016, the EPA released a new suite of environmental impact assessment policy and guidance documents.

The Minister requested the section 46 inquiry on 7 September 2016, prior to the release of the new *Environmental Impact Assessment (Part IV Divisions 1 and 2) Administrative Procedures 2016* and environmental impact assessment policy and guidance documents.

In its assessment, the EPA has considered and given due regard to, where relevant, its current environmental impact assessment policy and guidance documents (Table 1).

Inquiry into the requested change to conditions

The EPA recommends imposing a substantial commencement timeframe implementation condition so that the conditions relating to a proposal can be reviewed within a reasonable timeframe to ensure:

- consideration is given to changes in the environment, scientific or technology knowledge arising since the initial assessment; and
- proposals are being implemented using best practice and contemporary methods so that the EPA objectives for the relevant key environmental factors are met.

The EPA has discretion as to how it conducts this inquiry. 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 under s46. Ministerial Statement 892 was published on 12 April 2012.

Inquiry Findings

In conducting this inquiry, the EPA reviewed the information provided by the proponent.

In considering whether it should recommend an extension of the Time Limit for Proposal Implementation for substantial commencement of the proposal, the EPA also considered whether there is any new relevant information in relation to the assessment of the potential impacts of the proposal.

Flora and Vegetation

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

The Parker Range proposal is located on a discontinuous ridge of Banded Ironstone Formation (BIF). In the EPA's original assessment of the proposal, the EPA noted that the loss of 414 hectares (0.7%) of the Priority 3 Parker Range Priority Ecological Community is not significant. There is however potential for the Declared Rare Flora (DRF) species *Isopogon robustus* to be indirectly impacted and eight species of Priority Flora to be directly and/or indirectly impacted by the implementation of the proposal. Impacts include clearing and edge effects, primarily from dust and weeds.

The EPA originally considered that the impacts were unlikely to be significant subject to the implementation of recommended conditions which minimise impacts to the DRF and Priority Flora. As such, the EPA recommended environmental conditions for Flora and Vegetation (condition 6) and specific conditions for conservation significant flora (condition 7).

In its original assessment, the EPA considered that the long-term success of decommissioning, mine closure and rehabilitation will be managed by the Department of Mines and Petroleum (DMP) in accordance with the DMP/ EPA *Guidelines for Preparing Mine Closure Plans* (2015) through the statutory

requirements of the *Mining Act 1978*. As there has been no change to extent of vegetation clearing, the EPA's original advice remains valid.

The EPA also considered the implementation of residual impacts and risk management measures to mitigate residual impacts to conservation significant flora. These measures included the constitution of a residual impact strategy proposed by the proponent which includes establishment of the Parker Range Conservation Trust and the acquisition and rehabilitation of 1,311 ha of farmland located between two nature reserves.

The EPA recommended condition 10 of Ministerial Statement 892 "*Residual Impacts and Risk Management Measures*" to mitigate residual impacts to conservation significant fauna, eight priority flora; and potential indirect impacts to Declared Rare Flora *Isopogon robustus*.

Specifically, conditions 10-2 and 10-3 require that the proponent constitute the Parker Range Conservation Trust (PRCT) and contribute funds to the PRCT within six months and one year of the date of Ministerial Statement 892 respectively, unless otherwise agreed by the Chief Executive Officer (CEO). The EPA notes that the CEO of the Office of the Environmental Protection Authority agreed to amend the timing of implementing conditions 10-2 and 10 - 3 to "*prior to ground disturbing activities*" in October 2013, at the request of the proponent.

In consideration of the information provided by the proponent and relevant EPA policies and guidelines, the EPA considers that:

- there has been no change to the approved extent of native vegetation disturbance; and
- there is no significant new or additional information that justifies the reassessment of the issues raised by the proposal.

The EPA is therefore satisfied that the following existing implementation conditions of Ministerial Statement 892 will minimise and mitigate the impacts of this proposal to flora and vegetation and continue to meet the EPA's objectives:

- Condition 6 Flora and Vegetation;
- Condition 7 Conservation Significant Species; and
- Condition 10 Residual Impacts and Risk Management Measures.

Terrestrial Fauna

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

EPA Report 1410 concluded that implementation of the proposal would result in the loss of 414 ha of Malleefowl habitat and an estimated loss of 0.4% of Western Rosella habitat within the Parker Range Priority Ecological Community (PEC).

In its original assessment, the EPA considered that the proponent's commitment to establish the Parker Range Conservation Trust and the acquisition and rehabilitation of 1,311 ha of farmland would mitigate the residual impacts on vegetation in the Southern Yilgarn region. The proponent is not proposing any additional disturbance for the implementation of the proposal.

In consideration of the information provided by the proponent and relevant EPA policies and guidelines, the EPA considers that:

- there has been no change to the impacts on native fauna habitat; and
- there is no significant new or additional information that justifies the reassessment of the issues raised by proposal.

The EPA considers that existing condition 8 (Fauna), condition 9 (Trench Management) and condition 10 (Residual Impacts and Risk Management Measures) of Ministerial Statement 892 will continue to minimise and mitigate the impacts of this proposal to terrestrial fauna and meet the EPA's objective.

Air Quality (Dust)

The EPA's objective for this factor is to "*maintain air quality and minimise emissions so that environmental values are protected*".

EPA Report 1410 indicated that the proposal has the potential to exceed National Environment Protection (Ambient Air Quality) Measure (NEPM) standards for dust, specifically particulate matter with diameters less than 10 millionths of a metre (PM₁₀) maximum 24 hour average at one sensitive premises in Liddell Road. This potential exceedance would be as a result of dust from ore transport on the upper haul road and from the Moorine Rock Rail siding.

The EPA further noted that this premises does not fall within the provisions of Part V of the EP Act, works approval and licensing issued by the then Department of Environment and Conservation. Therefore the EPA took a precautionary approach and recommended that condition 11 is implemented, which requires the proponent to monitor the PM₁₀ maximum 24 hour concentrations at the Liddell Road Property and maintain a complaint register. Should the NEPM standard be exceeded, the proponent is required to introduce management measures to reduce PM₁₀ levels below the NEPM standard.

The EPA considers that, as there has been no significant changes to this key environmental factor, existing implementation condition 11 (Air Quality) will continue to manage and mitigate the potential dust impacts on sensitive receptors, and its original advice to the Minister in Report 1410 in relation to this factor remains valid.

Social Surroundings (Dust)

The EPA's environmental objective for the factor Social Surroundings is to "*protect social surroundings from significant harm*". The objective recognises the importance of ensuring that social surroundings are not significantly affected as a result of implementation of a proposal or scheme.

Considerations for Environmental Impact Assessment for this factor include ensuring that emissions of dust are considered in the context of relevant legislation, criteria or standards. Dust has the potential to unreasonably interfere with the health, welfare, convenience and comfort of people. In its original assessment, the EPA recognised that the haul route was selected to minimise impacts to surrounding residents.

The EPA has considered the impact to social surroundings as it relates to Air Quality above, and its original advice to the Minister in Report 1410 in relation to social surroundings remains valid.

Hydrological Processes

The EPA's objective for this factor is to "*maintain the hydrological regimes of groundwater and surface water so that environmental values are protected*".

EPA Report 1410 noted that groundwater modelling was undertaken to predict the impact of dewatering of up to 657 megalitres per annum on the groundwater levels in the vicinity of the mine zones. This dewatering exceeds the anticipated rates required by the proponent for operational needs and therefore the findings could be considered conservative. Due to the low permeability of the country rocks surrounding the orebody, the radial influence of dewatering is predicted to be small on either side of the orebody.

EPA Report 1410 indicated that the closest known existing groundwater bores were at least seven kilometres away from the project area. The results of the groundwater modelling showed that drawdown impacts would be restricted to one kilometre from the pit boundary, it was therefore concluded that the abstraction required for proposal would not impact other groundwater users.

In its original assessment, the EPA noted the Department of Water's (DoW) advice that the proponent's groundwater drawdown and recovery predictions are reasonable based on the scenarios provided. Based on this advice and information provided by the proponent, the EPA considered that monitoring and management measures for the proposal referred to the EPA could be managed under the groundwater abstraction licensing process regulated by the DoW in accordance with the *Rights in Water and Irrigation Act 1914* and did not recommend an implementation condition.

The proponent has indicated that since Ministerial Statement 892 was granted, there has been no significant environmental change to this key environmental factor at a local or regional level.

In consideration of the information provided by the proponent and relevant EPA policies and guidelines, the EPA considers that its original evaluation of this factor in EPA Report 1410 has not changed and a condition is still not required as groundwater abstraction is more appropriately regulated by the DoW under the *Rights in Water and Irrigation Act 1914*.

Inland Waters Environmental Quality

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

In its original assessment, the EPA was concerned about potential contamination of groundwater quality from: mining activities such as pit dewatering; leachate from tailing storage facility and waste dumps; and potential Acid and/ or Metalliferous Drainage (AMD).

To support the original assessment, the proponent conducted waste characterisation testing, which characterised the waste as generally non-acid forming. The short-term leach testing was also undertaken which concluded

that there was little or no leaching of metals from the broken solids into the groundwater.

While the EPA noted that some areas of the orebody had acid generation capacity and needed to be monitored during production, the EPA considered that AMD was more appropriately regulated by the DMP through the statutory requirement of the *Mining Act 1978*.

At the time of the original EPA assessment, the Department of Environment and Conservation (now the Department of Environment Regulation (DER)) advised that impacts to groundwater depth and quality around the Tailing Storage Facility will be managed through a licence issued under Part V of the *Environmental Protection Act 1986*.

The DMP is still responsible for regulating AMD produced from waste dumps and the DER is the agency responsible for managing acid leachate to groundwater through a Part V licence. Further, the proponent has indicated that since Ministerial Statement 892 was granted, there has been no significant environmental change to this key environmental factor at a local or regional level. A condition, therefore, is not required for managing this key environmental factor.

EPA conclusions and recommendations

Having inquired into this matter, the EPA submits the following recommendations to the Minister for Environment:

1. That condition 3 of Ministerial Statement 892 be amended to allow for the timeframe for substantial commencement of the Parker Range (Mount Caudan) Iron Ore Proposal to be extended to 12 April 2022; and
2. That, after complying with section 46(8) of the Environmental Protection Act 1986, the Minister issues a statement of decision to change condition 3 of Statement 892 in the manner provided for in the attached recommended Statement.

Table 1 – Relevant EPA Policies and Guidelines

Process/ Factor/s	Policies and guidelines considered relevant	Applied Yes/No	Comments
Change to conditions	<i>Environmental Impact Assessment (Part IV Divisions 1 and 2) Administrative Procedures 2016</i>	Yes	<p>The Administrative Procedures provide the practices around the environmental impact assessment process undertaken by the Office of the Environmental Protection Authority under Part IV of the EP Act.</p> <p>Relevantly, section 5.4 of the Administrative Procedures provide guidance on the process for changing conditions under section 46 of the EP Act.</p>
Change to conditions	<i>Environmental Impact Assessment (Part IV Divisions 1 and 2) Procedures Manual, December 2016</i>	Yes	<p>The Procedures Manual supports the Administrative Procedures and contains more detailed information on each step of the EIA process, including section 46 changes to conditions, under section 5.4.</p> <p>More relevantly, section 5.4 details the process for changing implementation conditions.</p>
Change to conditions	<i>Statement of Environmental Principles, Factors and Objectives (December 2016) (SEPFO).</i>	Yes	<p>Relevantly, the SEPFO:</p> <ul style="list-style-type: none"> • considers the object and principles of the <i>Environmental Protection Act 1986</i>; • uses environmental factors and objectives to organise and systemise environmental impact assessment and reporting; • takes a holistic view of the environment and a proposal or scheme’s potential impact on the environment; and • considers significance when determining whether or not to assess a proposal or scheme and recommend whether or not an assessed proposal or scheme may be implemented. <p>In this case the SEPFO was applied in:</p> <ul style="list-style-type: none"> • confirming the key environmental factors identified for the original assessment in the current policy context; • determining whether the identified environmental factors are still relevant and if any new factors should be considered; and • preparing advice on whether the EPA’s environmental objectives can be met.

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Process/ Factor/s	Policies and guidelines considered relevant	Applied Yes/No	Comments
Flora and Vegetation	<i>Environmental Factor Guideline – Flora and Vegetation</i> , (December 2016).	Yes	<p>The purpose of this guideline is to communicate how the factor Flora and Vegetation is considered by the Environmental Protection Authority (EPA) in the environmental impact assessment (EIA) process.</p> <p>In considering the change to conditions, this Guideline was applied when defining and identifying the environmental values for the factor Flora and Vegetation.</p> <p>Relevantly this guideline was applied with regard to:</p> <ul style="list-style-type: none"> • application of the mitigation hierarchy to avoid or minimise impacts on flora and vegetation, where possible; • the potential impacts as a result of the proposed change, including direct and indirect impacts; • the significance of the flora and vegetation, and the risk to the flora and vegetation; • the flora and vegetation affected by the proposal; • whether proposed management and mitigation approaches are technically and practically feasible; • the potential impacts and the activities that will cause them, including direct and indirect impacts; and • whether the residual impacts of the proposal on eight priority flora; and potential indirect impacts to Declared Rare Flora “<i>Isopogon robustus</i>” will be mitigated by the existing management measures. <p>The proponent has advised that there are no change to the approved area of native vegetation disturbance.</p>
Terrestrial Fauna	<i>Environmental Factor Guideline – Terrestrial Fauna</i> , (December 2016).	Yes	<p>The purpose of this guideline is to communicate how the factor Terrestrial Fauna is considered by the Environmental Protection Authority (EPA) in the environmental impact assessment (EIA) process.</p> <p>In considering the change to conditions, this Guideline was applied when defining and identifying the environmental values for the factor Terrestrial Fauna.</p>

Process/ Factor/s	Policies and guidelines considered relevant	Applied Yes/No	Comments
			<p>Relevantly this guideline was applied with regard to:</p> <ul style="list-style-type: none"> • application of the mitigation hierarchy to avoid or minimise impacts on terrestrial fauna where possible; • the terrestrial fauna affected by the proposal; • the potential impacts and the activities that will cause them, including direct and indirect impacts; • the significance of the terrestrial fauna, and the risk to the terrestrial fauna; • the current state of knowledge of the affected species/ assemblages and the level of confidence underpinning the predicted residual impacts; and • whether proposed management and mitigation approaches are technically and practically feasible. <p>The proponent has advised that there is no increase in the disturbance of fauna habitat from that approved in the original proposal.</p>
Air quality	<i>Environmental Factor Guideline – Air Quality</i> , (December 2016).	Yes	<p>The purpose of this guideline is to communicate how the factor Air Quality is considered by the Environmental Protection Authority (EPA) in the environmental impact assessment (EIA) process.</p> <p>In considering the change to conditions, this Guideline was applied when defining and identifying environmental values for the factor air quality.</p> <p>Relevantly this guideline was applied with regard to:</p> <ul style="list-style-type: none"> • potential air quality impacts on health and amenity; • the significance of the likely change to air quality as well as the environmental values affected by those changes, in the context of existing and predicted cumulative impacts; and • whether analysis of potential health and amenity impacts has been undertaken using recognised criteria and standards. <p>This proposal has not yet commenced, and the proponent has advised that there has been no significant changes to this key environmental factor since EPA’s original assessment.</p>

Process/ Factor/s	Policies and guidelines considered relevant	Applied Yes/No	Comments
Social Surroundings	<i>Environmental Factor Guideline – Social Surroundings</i> , (December 2016).	Yes	<p>The purpose of this guideline is to communicate how the factor Social Surroundings is considered by the Environmental Protection Authority (EPA) in the environmental impact assessment (EIA) process.</p> <p>With regard to the change to conditions, this Guideline was applied in the context of dust impacts when:</p> <ul style="list-style-type: none"> • considering emissions of dust in the context of relevant legislation, criteria or standards and whether proposed management or mitigation of impacts to social surroundings is technically and practically feasible. <p>This proposal has not yet commenced, and the proponent has advised that there has been no significant changes to this key environmental factor since EPA’s original assessment.</p>
Hydrological Processes	<i>Environmental Factor Guideline – Hydrological Processes</i> , (December 2016).	Yes	<p>The purpose of this guideline is to communicate how the factor Hydrological Processes is considered by the Environmental Protection Authority (EPA) in the environmental impact assessment (EIA) process.</p> <p>In considering the change to conditions, this Guideline was applied when defining and identifying the environmental values for the factor Hydrological Processes.</p> <p>Relevantly, this guideline was applied with regard to:</p> <ul style="list-style-type: none"> • application of the mitigation hierarchy to avoid or minimise impacts to hydrological processes, where possible; • the environmental values which are permanently impacted, and their significance. • the significance of the potential impacts in the context of the location, regional cumulative impacts, climate, and other relevant issues discussed in this guideline; and • whether proposed mitigation is technically and practically feasible. <p>The proponent has indicated that since Ministerial Statement 892 was granted, there has been no significant environmental change to this key environmental factor at a local or regional level.</p>

Process/ Factor/s	Policies and guidelines considered relevant	Applied Yes/No	Comments
Inland Waters Environmental Quality	<i>Environmental Factor Guideline – Inland Waters Environmental Quality</i> , (December 2016).	Yes	<p>The purpose of this guideline is to communicate how the factor Inland Waters Environmental Quality is considered by the EPA in the EIA process.</p> <p>In considering the change to conditions, this Guideline was applied when defining and identifying the environmental values for the factor Inland Waters Environmental Quality.</p> <p>Relevantly this guideline was applied with regard to:</p> <ul style="list-style-type: none"> • application of the mitigation hierarchy to avoid or minimise impacts to inland waters environmental quality, where possible; • the environmental values which are potentially impacted and their significance; • the pathways through which water quality may be impacted; • the significance of the likely change to water quality as well as the environmental; and • the risk to environmental values and whether proposed mitigation is technically and practically feasible. <p>The proponent has indicated that since Ministerial Statement 892 was granted, there has been no significant environmental change to this key environmental factor at a local or regional level.</p>

RECOMMENDED ENVIRONMENTAL CONDITIONS

**STATEMENT TO AMEND CONDITIONS APPLYING TO A PROPOSAL
(PURSUANT TO THE PROVISIONS OF SECTION 46 OF THE *ENVIRONMENTAL
PROTECTION ACT 1986*)**

PARKER RANGE (MOUNT CAUDAN) IRON ORE PROJECT
SHIRE OF YILGARN

Proposal: The proposal is to develop and operate the Parker Range (Mount Caudan) Iron Ore Project located approximately 15 kilometres south-east of Marvel Loch in the Shire of Yilgarn. The proposal consists of a mining area and haul road area. The mining areas includes an above and below the watertable iron ore mine, associated infrastructure and the Parker Range Bypass Road.

Proponent: Cazaly Iron Proprietary Limited
Australian Company Number 110 981 783

Proponent Address: Level 2, 38 Richardson Street
WEST PERTH WA 6005

Assessment Number: 2094

Report of the Environmental Protection Authority: 1596

Previous Assessment Number: 1811

Previous Report Number: 1410

Preceding Statement Relating to this Proposal: 892

Pursuant to section 45 of the *Environmental Protection Act 1986*, as applied by s46(8), it has been agreed that the implementation conditions set out in Ministerial Statement No. 892, be changed as specified in this Statement.

Condition 3 changed

Condition 3 of Ministerial Statement 892 is deleted and replaced with:

3 Time Limit for Proposal Implementation

3-1 The proponent shall not commence implementation of the proposal after 12 April 2022, and any commencement, prior to this date, must be substantial.

3-2 Any commencement of implementation of the proposal, on or before 12 April 2022, must be demonstrated as substantial by providing the CEO with written evidence, on or before 12 April 2022.

*“CEO” means the Chief Executive Officer of the Department of the Public Service which is responsible for the administration of section 48 of the *Environmental Protection Act 1986*, or his delegate.

Hon Stephen Dawson MLC

MINISTER FOR ENVIRONMENT; DISABILITY SERVICES