



# **BHP Billiton Iron Ore Pilbara Strategic Assessment**

## **Offsets Plan**

**10 May 2018**



## Declaration of Accuracy

I declare that:

1. To the best of my knowledge, all the information contained in, or accompanying this Offsets Plan is complete, current and correct.
2. I am duly authorised to sign this declaration on behalf of the approval holder.
3. I am aware that:
  - a. Section 490 of the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act) makes it an offence for an approval holder to provide information in response to an approval condition where the person is reckless as to whether the information is false or misleading.
  - b. Section 491 of the EPBC Act makes it an offence for a person to provide information or documents to specified persons who are known by the person to be performing a duty or carrying out a function under the EPBC Act or the *Environment Protection and Biodiversity Conservation Regulations 2000* (Cth) where the person knows the information or document is false or misleading.
  - c. The above offences are punishable on conviction by imprisonment, a fine or both.

**Signed**



---

**Full name (please print)**

**Christopher Antony Serginson**

---

**Organisation (please print)**

**BHP Billiton Iron Ore**

---

Date 10/05/2018

---

## Glossary and Abbreviations

Term	Meaning
Activity or activities	The activities within the Strategic Assessment Area as defined at Part A, Section 2.5 of the Program.
Agreement, the	The agreement dated 18 September 2012 (including the Variation to the Agreement dated 21 October 2015) between the Commonwealth Minister for the Environment and BHP Billiton Iron Ore for the strategic assessment of the impacts of the Proposal on MNES.
Approval	Means the approval of the taking of an action or class of actions granted by the Minister on 19 June 2017 in accordance with the Program given under section 146B of the EPBC Act.
Approval Holder	Means any person or persons named in the Approval as the Approval Holder who may take action in accordance with the Program.
Assurance Plan	A plan that provides further detail on the processes described in the Program, including management of Program Matters, stakeholder engagement, reporting and auditing requirements and governance arrangements.
BHP Billiton Iron Ore	BHP Billiton Iron Ore Pty Ltd, as manager and agent for and on behalf of BHP Billiton Minerals Pty Ltd, BHP Iron Ore (Jimblebar) Pty Ltd, United Iron Pty Ltd, the participants of the Mount Goldsworthy Joint Venture, Mount Newman Joint Venture and Yandi Joint Venture.
Commence, commenced or commencement	Any preparatory works required to undertake a Notifiable Action including clearing, the erection of any onsite temporary structure and the use of heavy duty equipment for the purpose of breaking the ground.
controlling provision	As defined in Part 7 Division 1 section 67 of the EPBC Act.
Department, the	The Australian Government Department responsible for the administration of the EPBC Act or successors.
Direct disturbance	Means the clearing of native vegetation and/or moving of earth as a result of activities undertaken within the Strategic Assessment Area in accordance with the Program.
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Commonwealth).
ESD	Ecologically sustainable development.
Impact or impacts	As defined in section 527E of the EPBC Act.
Impact Assessment Report or IAR	BHP Billiton Iron Ore Strategic Assessment: Impact Assessment Report (BHP Billiton Iron Ore 2016).
Implementation Framework	Comprises this Offsets Plan and the Assurance Plan, which are designed to support the implementation of the Program
Minister	Minister responsible for administering the EPBC Act and includes a delegate of the Minister.
Notifiable Action	An activity that is considered likely to have a relevant impact on a Program Matter based on an assessment of the proposed activity against the thresholds defined for Program Matters in the Assurance Plan. In relation to the voluntary part of the Program, this includes an activity that is considered likely to have a relevant impact on a New Listing or a New Matter.

Practicable	Means reasonably practicable having regard to, among other things, local conditions and circumstances (including costs) and to the current state of technical knowledge
Program	The BHP Billiton Pilbara Strategic Assessment Program endorsed by the Minister on 11 May 2017. Whilst the Agreement refers to a Plan, it was agreed with the Department that the term Program is a better reflection of the systems and processes to be delivered by BHP Billiton Iron Ore.
Program Matters	Means the listed threatened species Hamersley lepidium ( <i>Lepidium catapycnon</i> ), Pilbara leaf-nosed bat ( <i>Rhynonictis aurantius</i> ), Northern quoll ( <i>Dasyurus hallucatus</i> ), Greater bilby ( <i>Macrotis lagotis</i> ), Ghost bat ( <i>Macroderma gigas</i> ), and Olive python (Pilbara subspecies) ( <i>Liasis olivaceus barroni</i> ).
Protected Matters	Matters protected by a provision of Part 3 of the EPBC Act.
Strategic Assessment Area	The geographical extent of the assessment and boundaries within which the Program must be implemented, as depicted in Figure 1.
Validation Notice	A non-statutory process administered by BHP Billiton Iron Ore under Part C of the endorsed Program.
WC Act	<i>Wildlife Conservation Act 1950 (WA)</i>

# Contents

---

<b>1</b>	<b>Introduction</b>	<b>1</b>
1.1	Context and Purpose .....	1
1.2	Scope of Offsets Plan .....	1
1.3	Offsets Plan Requirements .....	3

---

<b>2</b>	<b>Objectives and Outcomes</b>	<b>4</b>
2.1	Program Matter Objectives .....	4
2.1.1	Program Matters Applicable to this Offsets Plan .....	4
2.1.2	Program Matter Objectives and Outcomes.....	4
2.2	Offsets Objectives.....	5

---

<b>3</b>	<b>Pilbara Environmental Offsets Fund</b>	<b>7</b>
----------	---	----------

---

<b>4</b>	<b>Offsets Delivery, Reconciliation and Reporting</b>	<b>8</b>
4.1	Notifiable Actions .....	8
4.2	Offsets Determination .....	8
4.3	Offsets Calculation .....	9
4.4	Offsets Funding.....	9
4.5	Annual Environmental Report.....	10
4.6	Offsets Reconciliation .....	10

---

<b>5</b>	<b>Adaptive Implementation</b>	<b>11</b>
----------	--------------------------------	-----------

---

<b>6</b>	<b>Audit and Review</b>	<b>13</b>
6.1	Compliance Tracking and Auditing .....	13
6.2	Five Yearly Review of this Offsets Plan.....	13

---

<b>7</b>	<b>Governance</b>	<b>1</b>
----------	-------------------	----------

# 1 Introduction

## 1.1 Context and Purpose

The BHP Billiton Iron Ore Pilbara Strategic Assessment Program was endorsed by the Minister for the Environment and Energy on 11 May 2017 and an Approval Decision (the Approval) for taking actions in accordance with the Program was issued on 19 June 2017.

As described in Part B of the endorsed Program (the Program), an Offsets Plan is required to be approved prior to undertaking an activity in accordance with the Program. The conditions of approval set out in Annexure 2 of the Approval require the Approval Holder to, within 12 months of the Approval, prepare and submit the Offsets Plan for the Minister's approval. This Offsets Plan has been prepared to meet the requirements of the Program and the Approval.

The purpose of the Offsets Plan is to ensure that appropriate offsets are applied to address residual adverse impact(s) of actions under the Program at an appropriate time. This Offsets Plan has been developed to manage impacts to the Program Matters, being the EPBC Act listed threatened species greater bilby (*Macrotis lagotis*), olive python (Pilbara subspecies) (*Liasis olivaceus barroni*), Pilbara leaf-nosed bat (*Rhinonictis aurantius*), northern quoll (*Dasyurus hallucatus*), Hamersley lepidium (*Lepidium catapycnon*<sup>1</sup>) and ghost bat (*Macroderma gigas*). The Offsets Plan also includes Program Matter Objectives and Outcomes (Section 2.1) which are measureable outcomes set by the Pilbara Strategic Assessment Assurance Plan that BHP Billiton Iron Ore must meet for each Program Matter.

The Offsets Plan is supported by BHP Billiton Iron Ore regional plans, site specific plans and standard operating procedures to meet the outcomes specified in the Program and relevant conditions of the Approval.

## 1.2 Scope of Offsets Plan

Part C (Validation) and Part B (Implementation and Review) of the Program will have effect for 70 and 100 years respectively from the date of the Approval, subject to the review and adaptive management requirements specified in Section 4 of the Program. The Offsets Plan, as varied from time to time, will have effect for 100 years from the date of the Approval. Any activity that has not commenced prior to 70<sup>th</sup> anniversary of the Approval is not included within the scope of the Program.

This Offsets Plan applies to any Notifiable Action taken under the endorsed Commonwealth Pilbara Strategic Assessment Program that is determined to have a residual adverse impact.

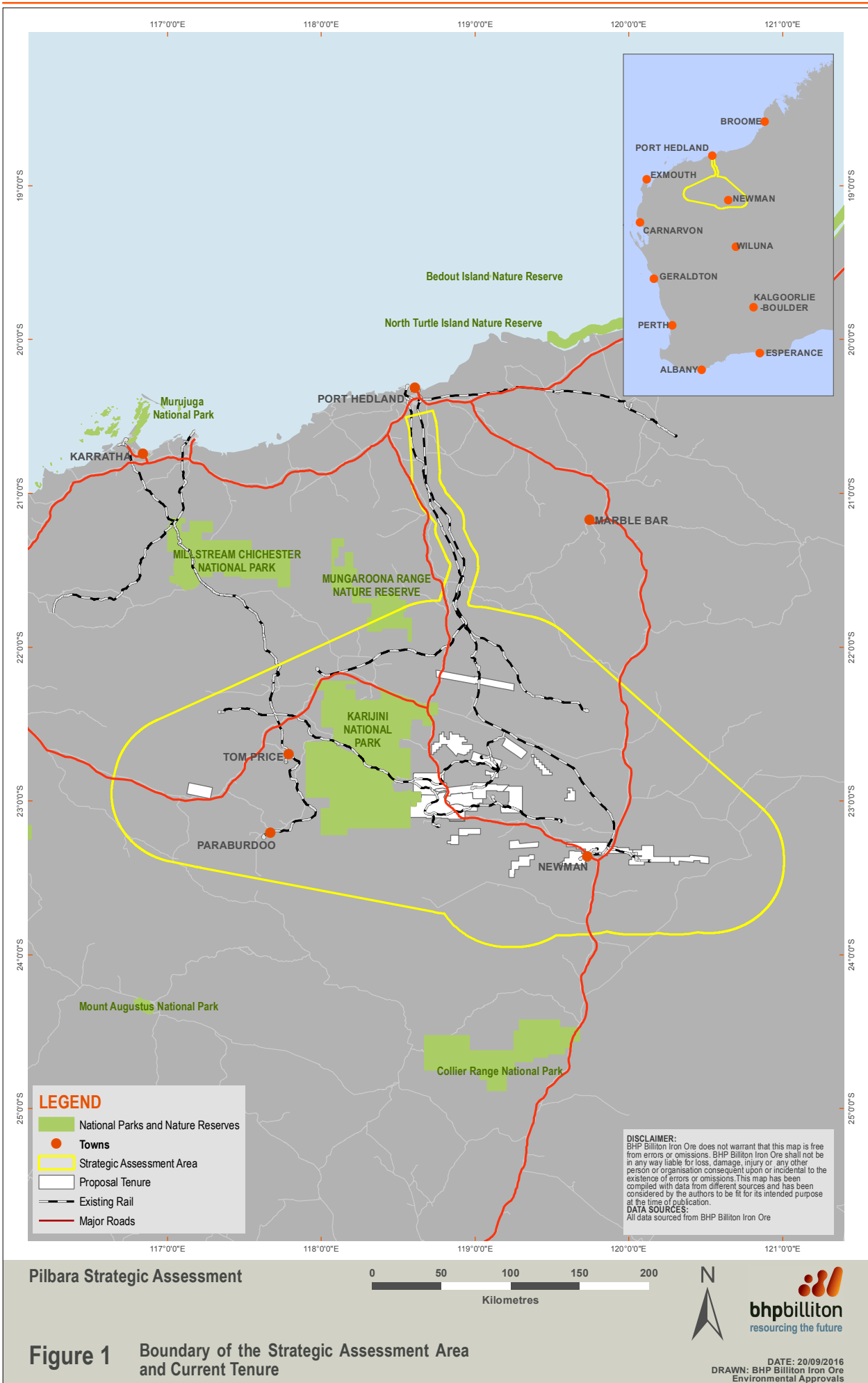
A process for identifying Notifiable Actions is outlined in the Pilbara Strategic Assessment Assurance Plan.

The Program applies to:

- all activities (as defined in Section 2.5 of the Program) associated with assets of BHP Billiton Iron Ore within the Strategic Assessment Area (Figure 1) with the exclusion of those noted below; and
- all activities associated with assets divested by BHP Billiton Iron Ore for which a Validation Notice has been issued.

<sup>1</sup> The Hamersley lepidium was delisted on 15 February 2018, see Section 2.1.





The Approval does not apply to the following activities within the Strategic Assessment Area:

- activities in any existing National Park, including Karijini National Park; and
- activities associated with any existing BHP Billiton Iron Ore operations and infrastructure that have been previously approved under the EPBC Act.

Activities north of the 26 km rail-chainage mark of the Newman to Port Hedland rail line, including BHP Billiton Iron Ore's existing operations at Port Hedland and the Goldsworthy rail line from Port Hedland to and including Yarrie, are not within the scope of the Approval.

### 1.3 Offsets Plan Requirements

Section 3.1 of the endorsed Program specifies the requirements for and content of the Offsets Plan. These are detailed below (Table 1). Unless otherwise agreed to in writing by the Department, the Approval Holder is required to review and revise the Offsets Plan every five years from the date of the Approval, as described in Section 4.1 of the Program and submit the revised Offsets Plan for approval within six months of that date.

**Table 1: Offset Plan Requirements**

Strategic Assessment Program Offsets Plan requirements		Sections which address these requirements
1	Program Matters Outcomes to be achieved	2.1
2	A method for calculating residual impact that may result from undertaking a Notifiable Action	4
3	An approach to converting the results of the residual impact estimate into a quantifiable offsets outcome	4.2
4	An implementation plan to apply and track offsets over time including identification and prioritisation of offsets process for adaptive management and corrective action	4.2, 5
5	Monitoring, reporting, adaptive management process for changing offsets identification and priorities and evaluation mechanisms	4.2, 5, 6
6	Timeframes and responsibilities for implementation	4
7	Funding schedule and financial arrangements	4.6, 6
8	Governance arrangements to deliver the above	4, 6, 7



## 2 Objectives and Outcomes

### 2.1 Program Matter Objectives

BHP Billiton Iron Ore is required to develop an objective for each Program Matter in consultation with the Department (Section 3.1.1 of the Program). Each objective is to be based on the Department's Standards for Accreditation of Environmental Approvals under the EPBC Act (2014) or other applicable Departmental Policy and is to set out an environmental standard that:

- supports the Commonwealth Government's intended outcomes for each Program Matter;
- is consistent with the principles of ecologically sustainable development; and
- will not result in unacceptable or unsustainable impacts on Program Matters.

The Commonwealth Government's objective for the Controlling Provision *Listed threatened species and ecological communities* is 'The survival and conservation status of listed species and ecological communities is promoted and enhanced, including through the conservation of habitat critical to the survival of a species or community and other measures contained in any recovery plans, threat abatement plans or conservation advices'.

BHP Billiton Iron Ore must achieve the objective for each Program Matter by implementing the Program in accordance with Program Matter Outcomes defined in the Assurance Plan. The requirements for the Program Matter Outcomes are detailed in Section 3.1.2 of the Program. For the purpose of the Assurance Plan and this Offsets Plan, species-specific outcomes have been developed for each Program Matter (Section 2.1.1).

These Program Matter Outcomes will be reviewed as part of the five yearly reviews and revised if necessary, for example if there are changes to Commonwealth standards or objectives.

#### 2.1.1 Program Matters Applicable to this Offsets Plan

The Program Matters requiring specific management are:

- Greater bilby (*Macrotis lagotis*)
- Pilbara olive python (*Liasis olivaceus barroni*)
- Pilbara leaf-nosed bat (*Rhinonicteris aurantia*)
- Northern quoll (*Dasyurus hallucatus*)
- Ghost bat (*Macroderma gigas*)

Amendments to the Threatened Species List effective under the EPBC Act on 15 February 2018 included the delisting of *Lepidium catapycnon*, which was removed from the Vulnerable category. Under Section 4.1.1 of the Program, BHP Billiton Iron Ore is not required to continue to manage any Program Matters that are delisted and may elect to discontinue with specific management measures for any delisted protected matters that are set out in the Implementation Framework. On this basis, *Lepidium catapycnon* has not been included further for the purpose of this Offsets Plan.

#### 2.1.2 Program Matter Objectives and Outcomes

This section describes objectives and outcomes for each of the Program Matters which will inform BHP Billiton Iron Ore's management approach for activities implemented under the Program (Table 2). These objectives and outcomes have been developed based on the information presented in the Impact Assessment Report (IAR), contemporary surveys, ongoing monitoring and research undertaken as part of BHP Billiton Iron Ore's continuous improvement program. A detailed description of the background and rationale to the objectives and outcomes can be found in the Assurance Plan.

The Objective for each Program Matter is *to support the long-term persistence and viability* of the Program Matter (e.g. Greater Bilby) *within the strategic assessment area*. Offsets are to be identified and applied to counterbalance residual adverse impacts to Program Matters. The offsets aim to maintain or enhance the distribution and conservation status of Program Matters within the Strategic Assessment Area, to meet the Program Matter Objectives.

**Table 2. Program Matter Outcomes**

Program Matter	Program Matter Outcome
Greater Bilby <i>Macrotis lagotis</i>	No loss of Greater Bilby population/s as a result of Program activities. Loss of Greater Bilby habitat is offset <sup>2</sup> by measures that maintain or enhance the distribution and conservation status of the Greater Bilby
Pilbara Olive Python <i>Liasis olivaceus barroni</i>	No loss of Pilbara olive python population/s as a result of Program activities. Program activities do not physically disturb, or result in adverse changes to the hydrological regimes and/or water quality of the following waterholes: Weeli Wolli Spring, Coondiner Pool, Ben's Oasis, Koodaideri Spring, and Punda Spring. Loss of Pilbara olive python habitat is offset <sup>2</sup> by measures that maintain or enhance the distribution and conservation status of the Pilbara olive python.
Pilbara Leaf-nosed Bat <i>Rhinonicterus aurantia</i>	No loss of PLNB population/s as a result of Program activities. Loss of PLNB habitat is offset <sup>2</sup> by measures that maintain or enhance the distribution and conservation status of the PLNB.
Northern Quoll <i>Dasyurus hallucatus</i>	No loss of Northern Quoll population/s as a result of Program activities. No loss of Northern Quoll habitat that supports a high density population <sup>3</sup> as a result of Program activities. Loss of Northern Quoll habitat is offset <sup>2</sup> by measures that maintain or enhance the distribution and conservation status of the Northern Quoll.
Ghost Bat <i>Macroderma gigas</i>	No loss of Ghost Bat population/s as a result of Program activities. Loss of Ghost Bat habitat, including roosts, is offset <sup>2</sup> by measures that maintain or enhance the distribution and conservation status of the Ghost Bat.

## 2.2 Offsets Objectives

BHP Billiton Iron Ore shall compensate for any residual adverse impacts to Program Matters through the application of appropriate, effective and enduring offsets for the affected Program Matters. BHP Billiton Iron Ore believes that the best approach to addressing environmental offsets under the Program is an approach that:

- is at the regional or landscape scale and relevant to the Strategic Assessment Area;
- meets the requirements of both the Commonwealth and State offset obligations. Commonwealth offset obligations will be met in accordance with Section 4;
- implements conservation actions in a coordinated way based on specific and clear investment decisions and achievement of measurable outcomes for the respective Program Matters;
- focuses on the highest-priority biodiversity issues (key threatening processes) in the region through the delivery of on-ground initiatives that are proportionate to potential residual impacts;

<sup>2</sup> In accordance with Section 3.2 of the Program and the Offsets Plan

<sup>3</sup> Defined as defined in EPBC Act referral guideline for the endangered northern quoll

- provides opportunities for partnerships between government, industry, landholders and Aboriginal communities;
- is transparent, with robust governance arrangements that ensure offset outcomes can be readily measured, monitored and audited; and
- will be applied within an adaptive management framework.

BHP proposes to meet these objectives through the design and implementation of offset projects submitted for agreement in accordance with Section 4.2 of this Offsets Plan.

### 3 Pilbara Environmental Offsets Fund

In July 2016, the Western Australian Government announced the establishment of a new conservation implementation framework to maximise the value of environmental offsets from major industrial projects that are approved for the Pilbara. The announcement proposed the establishment of the Pilbara Environmental Offsets Fund (the Fund).

Projects delivered through the Fund will maintain a strategic, landscape-scale focus. Projects will aim to counterbalance the significant residual impacts that have been identified in the relevant EPA Reports and Ministerial Statements under Part IV of the *Environmental Protection Act 1986* and in conditions of approval under the *Environment Biodiversity and Conservation Act 1999* (EPBC Act). This will allow strategic delivery of projects and remove duplication in offset requirements. The Fund is to be administered by the Department of Water and Environment Regulation (DWER).

The Department of Water and Environment Regulation is currently developing these elements in consultation with key stakeholders. The elements, which will support delivery of environmental offsets under the Fund, include:

- Governance Framework
- Special Purpose Statement
- Implementation Advisory Group (IAG)
- Implementation Plan
- Reconciliation procedure

While the procedures and governance of the Fund have not been finalised, BHP Billiton Iron Ore endorses the Fund in principle as a mechanism for meeting its environmental offset obligations for both the Pilbara Strategic Assessment and the State Pilbara Strategic Proposal. BHP Billiton Iron Ore will reserve commitment to the Fund until such time as these arrangements are in place.

## 4 Offsets Delivery, Reconciliation and Reporting

### 4.1 Notifiable Actions

To ensure the cumulative impact of the activities under the Program meet the Program Matters Objectives and Outcomes over the life of the Program, a validation process is described in Part C of the Program.

The first step in the validation process is for BHP Billiton Iron Ore to decide whether a proposed activity is a Notifiable Action (as defined in the Program and Assurance Plan) and therefore requires a Validation Notice. A Notifiable Action is an activity that is considered likely to impact on a Program Matter based on the proposed activity meeting one or more of the triggers defined in the Assurance Plan.

For an action to require a Validation Notice, the action must:

- be within the scope of the Program; and
- meet one or more of the Notifiable Action triggers.

For each Notifiable Action, a validation process is implemented to ensure the cumulative impact of the activities under the Program continue to meet the Program Matter Outcomes. A Validation Notice will be issued prior to undertaking activities associated with a Notifiable Action to demonstrate that the Notifiable Action complies with the requirements of the Program and attainment of Program Matter Outcomes. The matters that must be addressed in a Validation Notice are detailed in Section 8 of the Program. Notifiable Actions will vary in scale and environmental impact, so the scope of information presented in the Validation Notice will vary on an activity-by-activity basis.

As set out in the Assurance Plan, details on the future activity such as proposed infrastructure, mining activity, footprint and mine life will be defined in the Validation Notice. Along with IAR baseline and contemporary environmental data, this information will inform quantification of direct and indirect impacts and application of the mitigation hierarchy.

### 4.2 Offsets Determination

Determination of residual adverse impact to Program Matters will be conducted as part of the validation process, having regard to:

- the Program Matters relevant to the Notifiable Action; and
- the area of impacted habitat and the ecological value of habitat features of the relevant Program Matter/s.

If the validation process determines there is a residual adverse impact to one or more Program Matters, BHP Billiton Iron Ore will, in the Validation Notice:

- describe the residual adverse impact/s, including an estimate of the direct disturbance area and indirect impacts;
- outline the objective/s of the offset project/s, consistent with the scope of actions to offset impacts stated in the Program and Assurance Plan;
- outline how the offset project/s, will maintain or enhance distribution and conservation status of the relevant Program Matters; and
- commit to submitting offset projects with measurable project milestones, including justification for those milestones.

Within six months of issue of the Final Validation Notice, BHP Billiton Iron Ore will submit offset project descriptions to the Department for review and agreement. BHP Billiton Iron Ore will consult with registered and key stakeholders on the offset projects prior to submitting the project for agreement.

All offset project/s submitted to the Department will:

- specify the timeframe for implementing the project,
- set out the project objectives and outcomes to maintain or enhance the distribution and conservation status of the relevant Program Matter/s and comply with the milestones set out in the Validation Notice;
- outline how the project meets the offset principles in the *EPBC Act Environmental Offsets Policy (2012)* (or subsequent Commonwealth environmental offset policy) and, where applicable, the project is consistent with the *Environmental Offsets Policy* assessment guide.
- demonstrate how the project:
  - implements relevant recovery plans, conservation advice and threat abatement plans;
  - contributes to any regional conservation program; and
  - where relevant, supplements and/or supports the objectives of other agreed BHP Billiton Iron Ore offset projects for the same Program Matter/s.
- outline the outcomes of consultations with stakeholders in designing the project;
- outline the short, medium and long-term implementation arrangements for the project;
- outline project monitoring, reporting and performance evaluation by suitably qualified experts;
- include commitments to secure and protect the offset area. Unless a suitable state-based mechanism is proposed, this is to include a conservation agreement under s305 of the EPBC Act;
- identify management triggers and corrective actions for reasonably foreseeable project risks, including where project outcomes may not be achieved; and
- specify whether the project will be delivered directly by BHP Billiton Iron Ore or through a nominated conservation offset fund established to implement a regional conservation program, e.g. the Pilbara Environmental Offsets Fund.

BHP Billiton Iron Ore will implement offset project/s agreed by the Department. If BHP Billiton Iron Ore wishes to modify an agreed offset project the proposed varied offset project must be agreed by the Department before the offset project, as varied, may be implemented.

BHP Billiton Iron Ore will publish agreed offset projects, and varied agreed offset projects, within one month of agreement to the project by the Department.

Design, agreement to, variation and implementation of offset projects will be reported in accordance with Section 4.5.

### 4.3 Offsets Calculation

An estimation of residual impact will be presented in the respective Validation Notice, and will be based on the area of impacted habitat and ecological value of habitat features for the relevant Program Matters. The offset project submitted to the Department for agreement will convert the results of the residual impact assessment into a quantifiable offsets outcome. The offsets outcome will be derived through application of the EPBC Act Offsets Policy and *Environmental Offsets Policy* assessment guide.

### 4.4 Offsets Funding

Based on offsets agreed with the Department in accordance with Section 4.2, specific funding allocations will be made within either the activity project capital expenditure budget for offsets scheduled to be delivered during



project construction or in the activity operational budget for offsets scheduled to be delivered during project operation.

## 4.5 Annual Environmental Report

BHP Billiton Iron Ore produces an Annual Environmental Report for all of its environmental obligations under State and Commonwealth legislation.

As a minimum, the Annual Environmental Report will contain:

- Notifiable Actions identified under the Program during the period covered by the report;
- Details of activities within the scope of the Program which commenced during the period covered by the report but were determined to be not notifiable;
- Status of implementation (planned start date, action commenced and planned completion date; and action completed) of all Notifiable Actions;
- Status of offsets implemented for each Notifiable Action including monitoring and continuous improvement outcomes where applicable;
- Assets divested through the process described in Section 2.1 of the Program;
- Disturbance areas associated with all actions, implemented since the Approval. Both the annual disturbance and the total disturbance (since the Approval) will be included;
- Details and outcomes of audits undertaken during the period covered by the report;
- Summary of any impacts that have prejudiced attainment of the Program Matter Outcomes relevant to each Notifiable Action, and corrective actions taken; and
- Deviations from the Program or from key management commitments contained in a Validation Notice.

## 4.6 Offsets Reconciliation

In preparing the Annual Environmental Report, BHP Billiton Iron Ore will reconcile residual adverse impacts by applying the following steps:

- Step1: Prior to ground disturbance an assessment of native vegetation condition, occurrence of Program Matters and/or habitat of conservation value to Program Matters is undertaken.
- Step 2: The vegetation and topsoil is cleared in accordance with the relevant internal ground disturbance controls.
- Step 3: Annual recording and mapping of new disturbance is undertaken.
- Step 4: The total area disturbed within the scope of the Program is calculated using a geographical information system (GIS).
- Step 5: The total number of hectares disturbed over the reporting period and a cumulative total against the Program, for each Validation Notice.

## 5 Adaptive Implementation

As outlined in the Program, adaptive management is a key principle for BHP Billiton Iron Ore's management of impacts to Program Matters. It is a systematic process for continually improving and implementing management practices and performance through monitoring, evaluation and corrective action.

Fundamental to the Program's adaptive implementation approach are the Assurance Plan and Offsets Plan and the review processes described in Section 6. Adaptive implementation has been embedded in this Offsets Plan to ensure that management of Protected Matters continues to meet the Program Matter Objectives and Outcomes..

Key aspects of the approach are shown in Figure 2 and include:

- Objectives and Outcomes identified in the Assurance Plan (Section 2.1) for each Program Matter;
- The validation process triggered by a Notifiable Action. The validation process includes the Offsets Reconciliation Procedure as detailed in Section 4.6;
- Conducting research activities to better understand Program Matters, for example, undertaking a research program on the behaviour and roosts of Ghost bats;
- Monitoring and annual reporting during implementation of the activities over the life of the Program. This will include coordination, scheduling, auditing and reporting on Program activities to maximise continuous improvement opportunities;
- Five yearly and voluntary reviews of the Assurance Plan and Offsets Plan which will be informed by new science and policy, contemporary guidance, new listings, new matters, monitoring and reporting data from implemented Notifiable Actions, and data from existing BHP Billiton Iron Ore projects. The five yearly review will evaluate the effectiveness of offsets delivered under the Program;
- The five yearly review will include a review of key risks to the effective implementation of the Program. The review will also consider monitoring and precautionary corrective actions to mitigate reasonably foreseeable long-term risks. An example of a strategic risk is the expanding distribution of cane toad in northern Western Australia and the associated impacts on native fauna; and
- Based on these reviews and unless otherwise determined, the Assurance Plan and Offsets Plan will as a minimum be updated and submitted to the Minister for approval every five years.

Adaptive management also includes the implementation of corrective actions if environmental monitoring or reviews indicates that Program Matter Outcomes have not/may not be met and to ensure that the Implementation and Validation Framework remains fit for purpose over the life of the Approval Decision. Corrective actions may include modification of the Assurance Plan, Offsets Plan and Validation Notices, in addition to on-ground actions, to ensure Program Matter Outcomes are met. Corrective action will be determined on a case by case basis, taking into account the Program Matter, location and impacts associated with the Program.

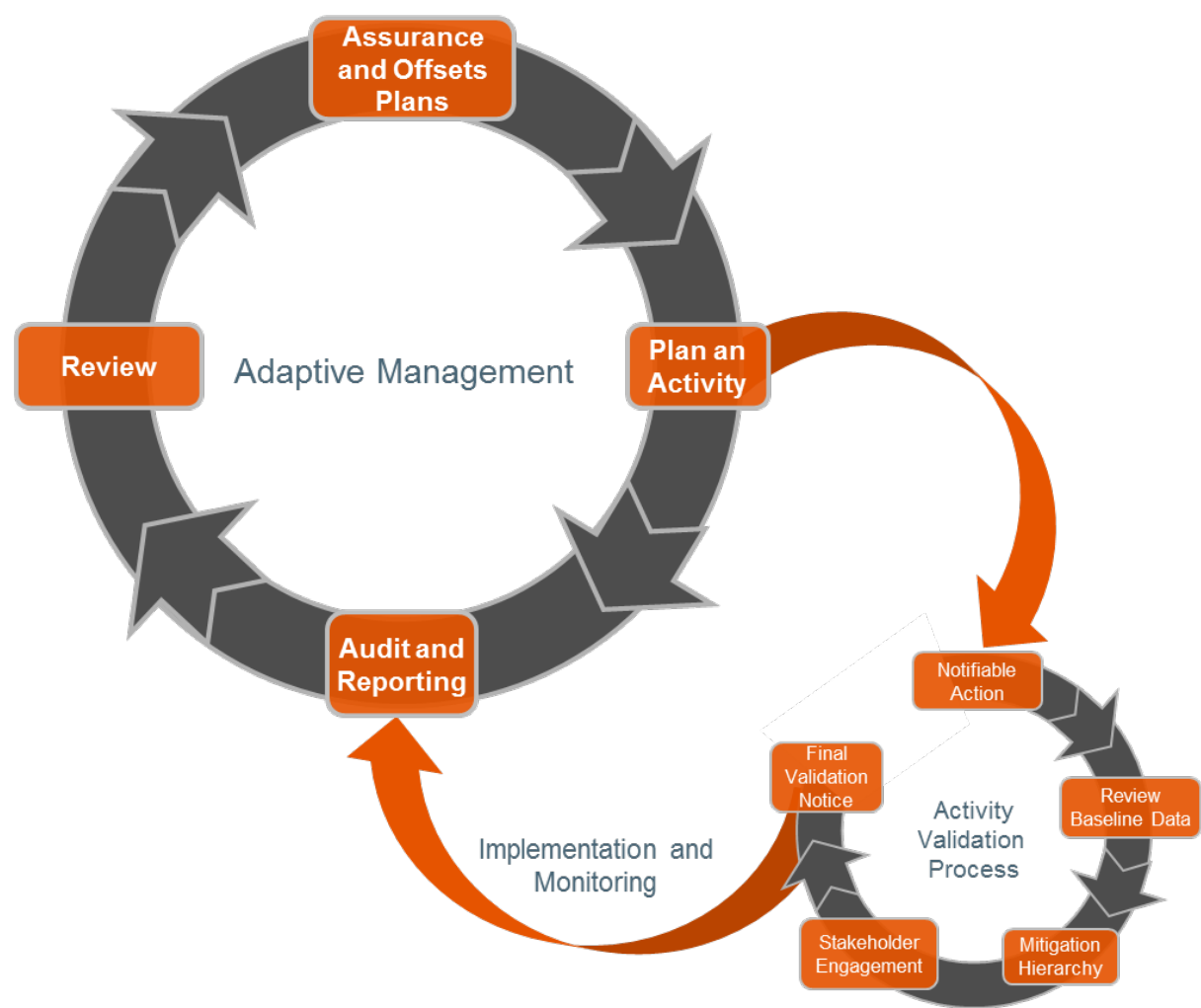


Figure 2. The Pilbara Strategic Assessment Adaptive Management Process

## 6 Audit and Review

### 6.1 Compliance Tracking and Auditing

BHP Billiton Iron Ore will track compliance against the Approval conditions and Program commitments at a regional scale and against Validation Notices at a local / site-scale. The validation process described in the Assurance Plan ensures that Program Matters Outcomes will be achieved by implementing the mitigation hierarchy.

The Company maintains an ISO 14001 compliant Environmental Management System which is independently certified. BHP Billiton Iron Ore has set out its approach to managing environmental compliance and risk in its internal procedure *How we Manage Environmental Compliance and Risk*. The processes defined in this procedure have been developed to comply with the requirements of Clause 4.3.1 of ISO 14001 Environmental Management Systems. The procedure applies to all environment risks / impacts whether strategic, operational, compliance or technical in nature.

Key processes outlined in the procedure include:

- Risk management;
- Baseline and impact assessment;
- Legal and corporate obligations;
- Land disturbance approval process; and
- Internal and external audits.

BHP Billiton Iron Ore currently use the software package CMO online database tool to administer and report against its legal and corporate obligations. The process used to report on legal and corporate environmental obligations to both internal and external stakeholders is described in a separate procedure, *How We Report Environmental Compliance and Risk*.

The controls for environmental risk are verified through both internal and external audits. BHP Billiton Iron Ore will conduct regular compliance audits and will report the Program outcomes in the Annual Environmental Report, described further in Section 4.5. External audits undertaken by the Western Australian Department of Mines, Industry Regulation and Safety and the Department of Water and Environmental Regulation on specific approvals, permits, management plans, licenses or facilities are typically undertaken on a biennial basis. BHP Billiton Iron Ore typically undertakes selective internal audits on individual operations, internal assurance processes (monitoring and reporting data, corporate policy compliance, procedures) and sustainability reporting on an annual basis.

In line with Approval conditions, independent compliance audits will be conducted by BHP Billiton Iron Ore, or as requested by the Minister. If an audit is requested by the Minister, the terms of reference for the audit are to be approved by the Minister prior to the commencement of the audit, and the report will address the criteria to the satisfaction of the Minister.

### 6.2 Five Yearly Review of this Offsets Plan

As set out in Section 4.1 of the Program, BHP Billiton Iron Ore will undertake a comprehensive five yearly review of this Offsets Plan as part of the adaptive management process. The purpose of the five yearly review is to:

- Ensure that implementation of this Plan is effective;
- Demonstrate whether or not outcomes and objectives for Program Matters are being met; and
- Support an update of Assurance and Offsets Plans.

The Offsets Plan will be reviewed against contemporary offsets policy and practice and MNES guidance to ensure that it remains an effective framework for identifying, quantifying and meeting offsets requirements for Notifiable Actions so as to achieve/maintain Program Matters Outcomes.

In accordance with the EPBC Act, BHP Billiton Iron Ore will consider the following plans and advice as they apply to offsets for relevant MNES:

- legislative instruments;
- threat abatement plans;
- conservation advice;
- recovery plans; and/or
- equivalent guidance material or policy statements.

Should guidance material relevant to a particular activity be released after the date of a Validation Notice for a particular Notifiable Action issued to the Department, BHP Billiton Iron Ore is not required to consider that guidance in delivering the offset but may have regard to that material in implementation of the action where practicable and possible.

## 7 Governance

BHP Billiton Iron Ore has an internal environmental governance hierarchy (Figure 4) that enables the business to meet its environmental objectives and legal compliance requirements and provides for continual improvement in environmental performance. The governance hierarchy has been developed in accordance with relevant international, national and state policies and agreements.

BHP Billiton's environmental governance hierarchy comprises three tiers: Corporate level, Asset level (business, e.g. Iron Ore) and Operations (site level). At the Corporate level, BHP Billiton's Corporate Charter – *Our BHP Billiton Charter* – identifies the values that underpin business activities. Measurable, minimum performance standards are defined in Our Requirements documents. These standards apply to all Assets and support the development and implementation of BHP Billiton Iron Ore's EMS. BHP Billiton's *Our Requirements Environment and Climate Change* (BHP Billiton, 2016c) is the key guidance document for environmental management across all operations. BHP Billiton reports its corporate-wide sustainability performance in the BHP Billiton Annual Sustainability Report.

At the Asset level, BHP Billiton Iron Ore's Health, Safety and Environmental Management System (EMS), which includes regional strategies and plans, is the governance system that addresses environmental outcomes for the Pilbara region.

Site-specific management, monitoring and reporting is undertaken in a manner consistent with Corporate- and Asset-level governance documents. Management plans, procedures and registers are examples of the internal controls that underpin day-to-day operational activities. BHP Billiton Iron Ore publicly reports its environmental compliance performance in its AER in accordance with relevant environmental approval conditions.

The BHP Billiton Iron Ore Manager Approvals is responsible for implementing of the Offsets Plan. This responsibility includes:

- Determining whether an activity is a Notifiable Action based on the Notifiable Action triggers set out in the Assurance Plan;
- Meeting offset requirements in accordance with this Offsets Plan;
- Approval to issue draft and final Validation Notices as set out in Section 3 of the Assurance Plan;
- Preparation of the Annual Environmental Report.

The BHP Billiton Iron Ore General Managers are responsible for the provision of offset funding as set out in Section 4.4.

The President BHP Billiton Iron Ore is responsible for approving the Annual Environmental Report.

BHP Billiton Iron Ore will ensure these governance roles are undertaken by suitably qualified senior BHP personnel in the future in the event of any organisational or structural changes.



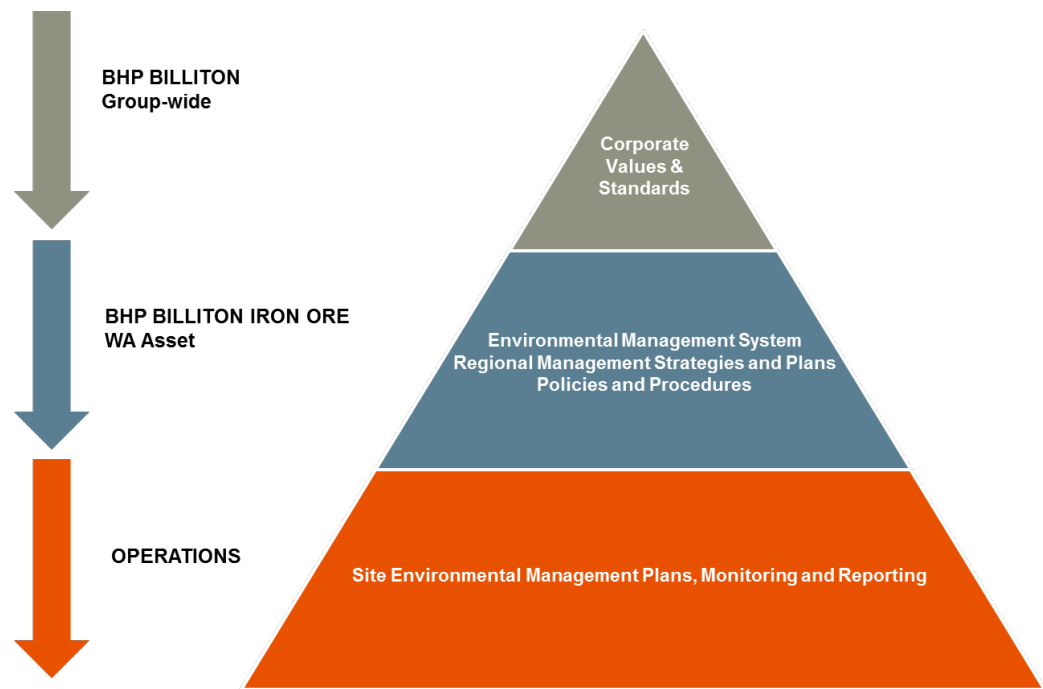


Figure 3: BHP Environmental Governance Hierarchy