Mt Gibson Iron Ore Mine and Infrastructure Project

Extension Hill & Extension Hill North Malleefowl Management Plan

Mount Gibson Mining Limited & Extension Hill Pty Ltd
18 September 2008
Quality Information

Document Mt Gibson Iron Ore Mine and Infrastructure Project: Extension Hill & Extension Hill North Malleefowl Management Plan
Date 18 September 2008
Prepared for Mount Gibson Mining Limited and Extension Hill Pty Ltd

Revision History

<table>
<thead>
<tr>
<th>Revision</th>
<th>Revision Date</th>
<th>Details</th>
<th>Authorised</th>
</tr>
</thead>
</table>
| a        | 11/06/2007    |         | D. Quinlivan  
P. Jones |
| b        | 12/07/2007    | Incorporated comments from MGM and AIH | D. Quinlivan  
P. Jones |
| c        | 14/08/2007    | EPA Submission | D. Quinlivan  
P. Jones |
| d        | 4/09/2008     | Preparation for submission to DEHWA | D. Quinlivan |
| e        | 18/09/2008    | EHPL mark-ups | B. Mackenzie |
| 0        | 18/09/2008    | Submission to DEWHA | B. Mackenzie  
D. Quinlivan |

ATA Environmental, Maunsell Australia and GHD Pty Ltd prepared Revision C of the Mt Gibson Iron Ore Mine and Infrastructure Project – Extension Hill and Extension Hill North Malleefowl Conservation Plan dated 14 August 2007.
Malleefowl Management Plan

Table of Contents

Executive Summary i
1.0 Introduction 1
   1.1 Background 1
   1.2 Structure and Content of this Plan 1
   1.3 Scope of this Plan 1
   1.4 Relevant Legislation 3
      1.4.1 Environment Protection and Biodiversity Conservation Act 1999 3
      1.4.2 Wildlife Conservation Act 1950 3
   1.5 Existing Environment 3
      1.5.1 Bioregional Context 3
   1.6 Site Description 3
   1.7 Malleefowl (Leipoa ocellata) Biology and Ecology 4
      1.7.1 Description of the Species 4
      1.7.2 General Ecology 4
      1.7.3 Habitat 4
      1.7.4 Distribution and Abundance 5
      1.7.5 Regional Populations 5
      1.7.6 Threats to the Species 7
2.0 Potential Development Impact 8
3.0 Approval Conditions 9
4.0 Key Objectives and Targets 10
   4.1 Management Objectives 10
   4.2 Management Principles 11
   4.3 Performance Standards 11
5.0 Management Strategies 12
   5.1 Secure Habitat 12
   5.2 Reduce the Threat of Fire 12
   5.3 Reduce Number of Road Deaths 12
   5.4 Monitoring Malleefowl Abundance 13
   5.5 Predator Control Program 13
   5.6 Establish and Foster Communications with Community Groups 14
   5.7 Review of the Plan 14
6.0 References 17

List of Tables
Table 1 Key Objective and Targets Related to Malleefowl Management 10
Table 2 Malleefowl objectives, targets and performance indicators 14

List of Figures
Figure 1 Layout of the hematite and magnetite mine infrastructure at Extension Hill with the surrounding land tenure. 2
Figure 2 Observations of Malleefowl and/or Malleefowl Mounds in the Region 6
Figure 3 Location of Malleefowl Mounds at the Mt Gibson Minesite 6
Executive Summary

Mount Gibson Mining Limited (MGM) and Extension Hill Pty Ltd (EHPL) are joint proponents of the Mount Gibson Iron Ore Mine and Infrastructure Project (the Project) that has been approved under the Western Australian Environmental Protection Act, 1986 (WA Ministerial Statement 753, 24 October 2008). Under the bilateral agreement with the State and Commonwealth, the Project impact assessment process included assessment of two controlled actions under the Environmental Protection and Biodiversity Conservation Act, 1999 specifically in regards to listed threatened species and communities (sections 18 and 18A) and listed migratory species (sections 20 and 20A) (EPBC 2005/2381). Approval was granted on the 18 December 2007 subject to a series of conditions relating to the listed flora species Darwinia masonii and the listed fauna species Leipoa ocellata. This Malleefowl Management Plan has been prepared comply with Condition 2 in relation to the management and monitoring of Leipoa ocellata (Malleefowl).

The objective of this Malleefowl Management Plan is to maintain the abundance, diversity and productivity of Malleefowl in the vicinity of the Extension Hill mine in the northern and eastern part of the Mt Gibson Ranges.

The desired outcome of this Plan is to ensure that the construction and operation of the mine, services corridor and associated infrastructure will have a minimal impact on the respective Malleefowl populations. Management activities are aimed at the prevention of significant reductions in the number of Malleefowl over the life of the mine in these areas, as well as the reduction in predator population in the district which may lead to an increase in the regional Malleefowl population. Management commitments include:

- Staff will be made aware of the presence and importance of Malleefowl in the Project area
- Clearing of known Malleefowl habitat will be avoided wherever practicable;
- Clearing that will impact on Malleefowl mounds will be undertaken outside the mound building and egg incubation period (ie between April and June) wherever practicable;
- A buffer zone of 250m will be placed around active and inactive mounds (where practicable) and these buffer zones will be operationally restricted access areas.
- Those activities that tend to attract predators to an area such as putrescibles waste disposal, will be carefully managed.
- A predator control program will be implemented to reduce the population of Malleefowl predators focussed on fox eradication.
- MGM and EHPL will collaborate with the local community and interested parties including the Northern Central Malleefowl Preservation Group, Australian Wildlife Conservancy, Australian Bush Heritage Fund and the Department of Environment and Conservation to ensure a regional approach is taken to the management of Malleefowl in the vicinity of the Mount Gibson Ranges.
- The number of active Malleefowl mounds on the Extension Hill Pty Ltd tenements will be monitored annually. The monitoring program is designed to identify changes in the number of active mounds, with a focus on determining the cause of declining activity. That is, if it is mine related or indicative of unfavourable seasonal conditions for nesting. Where it is determined to be a result of direct or indirect mining activity, remedial actions will be investigated and discussed with the North Central Malleefowl Preservation Group and DEC to find ways to reverse the trend or remove the vectors causing the decline.
1.0 Introduction

1.1 Background

Mount Gibson Mining Limited (MGM) and Extension Hill Pty Ltd (EHPL) (the proponents) propose to develop the Mt Gibson Iron Ore Project (the Project) in response to global demand for iron ore. The proposed project is located at Extension Hill and Extension Hill North within the Mt Gibson Ranges 350 km north-east of Perth, 87 km east of Perenjori and 71 km south and west of Paynes Find in Western Australia. The Project layout is shown in Figure 1.

Live Malleefowl (Leipoa ocellata) and active breeding mounds were found in the vicinity of the Mt Gibson Ranges in 2005 (ATA Environmental, 2005a) and through subsequent targeted site searches in 2008. Malleefowl are protected under Commonwealth and WA State legislation. They are listed as Vulnerable under the Commonwealth Environment Protection and Biodiversity Conservation (EPBC) Act 1999 and as a Schedule 1 species under the Western Australian Wildlife Conservation (Specially Protected Fauna) Notice 2008 (Government Gazette, WA 2008).

The Project has been the subject of a Public Environmental Review (PER) process under Part IV of the WA Environmental Protection Act, 1986 with a formal impact assessment being conducted under the bilateral agreement between the State and Commonwealth. A report and recommendations were made by the WA Environmental Protection Authority setting down draft Approval Conditions (EPA Bulletin, 1242, November 2006) and this was followed by environmental approval by the Western Australian Minister for the Environment, 24th October 2007 (MS 753). The Commonwealth approval was finalised on the 18th December 2007 (EPBC 2005/2381). The Project is considered to be a “Controlled Action” under the EPBC 1999 Act.

In preparing this Plan, the proponents have liaised with relevant officers from the DEC, DEWHA, the owners/leasees of properties adjoining the mine site at Mt Gibson and Ninghan Stations and with the North Central Malleefowl Preservation Group.

1.2 Structure and Content of this Plan

The remainder of this Management Plan is structured as follows:

Section 2 Potential Development Impact
Section 3 Approval Conditions
Section 4 Key Objectives and Targets
Section 5 Management Strategies

1.3 Scope of this Plan

This Plan addresses the management of Malleefowl in the vicinity of the mine site and the area covered by the mining leases as part of the Mt Gibson Iron Ore Project. It also covers the sevices corridor that runs from the minesite, 280 km to the Port of Geraldton. It addresses Malleefowl management during the following phases to the project:

- The construction phase of the hematite project, likely to commence immediately following receipt of environmental approvals and lasting 18 months;
- The construction phase of the magnetite project, likely to commence in the 3rd or 4th quarter of 2009 and extending over a two year period;
- The mining and processing operational phase, likely to commence in Jan 2009 and to last a minimum of 20 years; and
- The post-mining phase, following completion of mining and rehabilitation.

The Plan does not address the management of Malleefowl on the Tathra borefield or Geraldton Port components of the project.
Figure 1  Layout of the hematite and magnetite mine infrastructure at Extension Hill with the surrounding land tenure
1.4 Relevant Legislation

1.4.1 Environment Protection and Biodiversity Conservation Act 1999

Malleefowl are listed as Vulnerable under the Environment Protection and Biodiversity Conservation (EPBC) Act 1999 and the Project is considered a Controlled Action (Referral No 2005/2381).

1.4.2 Wildlife Conservation Act 1950

Malleefowl are listed as a Schedule 1 species under the Wildlife Conservation (Specially Protected Fauna) Notice 2008.

1.5 Existing Environment

1.5.1 Bioregional Context

The Mt Gibson Ranges occur on the boundary of the Austin Botanical District of the Eremaean and the Avon Botanical District of the Southwest Botanical Provinces (Beard, 1990). It is located in the Avon Wheatbelt bioregion (McKenzie et al., 2003), but it is near the junction of both the Yalgoo and Coolgardie Interim Biogeographical Regional Assessment (IBRA) bioregions. The region has been recognised for its biological diversity (Vital Options Consulting, 2004).

The Avon Wheatbelt is an area of active drainage dissecting a tertiary plateau in Yilgarn Craton (McKenzie et al., 2003). Systematic fauna surveys of the region have not been conducted and are required for birds, small terrestrial mammals, reptiles and select invertebrate groups across the landscape (McKenzie et al., 2003). ATA Environmental (2005b) undertook a Level 2 fauna assessment of the proposed mining site in 2004.

The adjoining pastoral leases are managed for conservation purposes. The Australian Wildlife Conservancy (AWC) manages the Mt Gibson pastoral lease with an emphasis on habitat recovery for fauna reintroduction. Charles Darwin Reserve (formerly White Wells pastoral lease) is managed by the Australian Bush Heritage Fund (ABHF). The Ninghan pastoral lease is owned by the Pindiddy Aboriginal Corporation (PAC). A portion of Ninghan Station and a small portion of Mt Gibson Station has been identified as an Indigenous Protection Area (IPA) with the management objective for the IPA area being income based on conservation activities rather than pastoral activities. The DEC has also purchased a number of stations in the general vicinity including Kadij Kadiji, Karara, Lochada and Warriedar Stations to meet its objective for a comprehensive, adequate and representative reserve system in the bioregion.

Malleefowl have been recorded in the general vicinity of the Mt Gibson mine site in the Yalgoo, Avon Wheatbelt and Coolgardie Bioregions. Observations of Malleefowl within the bioregions have been recorded by ATA Environmental, North Central Malleefowl Conservation Group, Birds Australia, Professor Harry Recher, WA Museum and Australian Wildlife Conservancy (Figure 2).

1.6 Site Description

The Project mine site has a diverse range of vegetation communities comprising of six woodlands, four mallee, 12 thicket and two heath communities (Bennett Environmental Consulting, 2000). The crests of the Mount Gibson Ranges have different vegetation communities, with Acacia species, Melaleuca species and Allocasuarina acutivalvis subsp. prinsepiana as the dominant taxa.

The woodland plains typically consist of Eucalyptus loxophleba subsp. supralaevis or mallees of E. brachycorys and E. hypochlamydea subsp. hypochlamydea, which are often associated with Callitris glaucophylla and E. loxophleba subsp. supralaevis.

To the west of the Mt Gibson Ranges along the Project services corridor there is an extensive area of sand plain which supports a diverse suite of flora (Bennett Environmental Consulting, 2000).

From a fauna perspective, the habitat can be divided into four broad categories: the flat sand plains, the flat woodlands, slopes and the iron stone ridges. Each of the major habitat types was surveyed for
Malleefowl by ATA Environmental (2005b) in 2004/05. Inactive Malleefowl mounds were predominately found in the thickets towards the base of the hill slopes and on the sand plain to the east of the ironstone range (Figure 3). However, active mounds were spread across the tenements.

### 1.7 Malleefowl (Leipoa ocellata) Biology and Ecology

The National Recovery Plan for Malleefowl (Benshemesh, 2000) provides a detailed description of the species, its conservation status, distribution and abundance, preferred habitat, life history and ecology, and survival threats to Malleefowl. The following section is a summary of the Malleefowl's biology and ecology as it pertains to this Plan.

#### 1.7.1 Description of the Species

Malleefowl (*Leipoa ocellata*) Gould 1840 is a member of the family of mound building birds (Megapodiidae) and it is unique in that it manipulates external heat sources to incubate its eggs (Clark, 1964). It is the only species in the genus *Leipoa*.

Adult males (65-67.5cm) are slightly larger than females (56.5-62.0cm) but are much heavier (1.7-2.1kg versus 1.5-1.6kg).

#### 1.7.2 General Ecology

This relatively large, mostly terrestrial species tends to be sedentary, nesting in the same general area year-after-year (Firth, 1962a; Priddel and Wheeler, 2003). Males display greater nest-site fidelity than females. With the loss of a partner, males tend to continue to use mounds previously utilised, whereas females often relocate to a new mound. Individuals are monogamous, pairing for life, but with the death of a partner, new bonds are quickly established (Priddel and Wheeler, 2003). Outside of the breeding period, birds will range over several square kilometres (Booth, 1987; Benshemesh, 2000). Chicks are independent from hatching and disperse widely, moving up to 2km per day (Benshemesh, 2000). Chicks do not appear to respond to habitat boundaries.

Adult birds feed on seeds, flowers and fruit of shrubs and herbs, but they will also eat invertebrates and fungi. The diet of chicks seems to be very similar to that of the adults (Benshemesh, 2000).

Malleefowl build large mounds of sand, gravel and vegetation, 3-5m wide and over 1m high in which they incubate their eggs. This is mostly done between autumn and spring as a combined effort of the pair intending to use the mound. Once completed, the male then spends most of his time tending the mound, whereas the female spends most of her time foraging. Incubation temperature of the mound is influenced by microbial decomposition of the vegetation, particularly in the early stages, and solar radiation for the entire period. One to twenty-eight eggs are laid (with a mean of 14) between mid-August and mid-February (Firth, 1959; Priddel and Wheeler, 2005). Incubation takes about 60 days (Benshemesh, 2000). Chicks receive no parental assistance once they have hatched. Mortality of chicks is about 80% in their first 10 days (Priddel, 1989). Malleefowl will reuse ‘old’ mounds that have been inactive for a number of years.

#### 1.7.3 Habitat

The habitat requirements of Malleefowl are generally not well understood. A sandy substrate and abundance of leaf litter are clear requirements for the construction of the birds' incubator nests (Firth, 1959, 1962a). Densities of the birds are generally highest in areas of higher rainfall, on more fertile soils (Firth 1962a, Copley and Williams 1995; Benshemesh, 2000) and where shrub diversity is greatest (Woinarski, 1989b). The Malleefowl is now primarily found in semi-arid and arid shrublands and low woodlands dominated by mallee (Firth, 1962a, b). The vegetation is often broombush (*Melaleuca uncinata*; Woinarski, 1989a, b) and scrub pine (*Callitris verrucosa*). They also occur in woodlands dominated by eucalypts such as wandoon (*E. wandoon*), marri (*E. calophylla*) and mallet (*E. astringens*), and in some shrublands dominated by acacias in Western Australia (Johnstone and Storr, 1998).

Density of the canopy cover is an important feature associated with high breeding densities (Firth, 1962a; Benshemesh, 2000), and the best predictor of clutch size is rainfall between May and December (Priddel and Wheeler, 2005). As a consequence, clutch size will vary from year to year. Grazed areas generally have much lower densities (Benshemesh, 2000).
1.7.4 Distribution and Abundance

Malleefowl's geographic distribution includes much of the southern half of Australia from the Great Dividing Range to the west coast (Blakers et al., 1984), and originally as far north as the Tanami Desert (Kimber, 1985). Its geographic range has contracted in recent years, particularly in arid areas and around the periphery of its distribution (Benshemesh, 2000). This is mostly attributed to habitat clearing (Benshemesh, 2000).

1.7.5 Regional Populations

In Western Australia, Malleefowl occur as far north as Carnarvon; throughout most of the southwest corner; in much of the inland semi-arid areas below the 26° latitude; and in the coastal strip of mallee south of the Nullabor Plain between Cocklebiddy and Eucla (Benshemesh, 2000). Johnstone and Storr (1998) recorded the current distribution of Malleefowl from Denham south, including most of the wheatbelt, extending east past Laverton and Norseman and along the coastal strip to Eucla.

Western Australian Museum (WAM) records for Malleefowl found in the region are shown in Figure 2. These data include both WAM specimens and observations. They are also complemented by data from other sources to indicate the known distribution of Malleefowl in the mid-west region.

Hart, Simpson and Associates (2000) conducted a fauna survey in the Mt Gibson area in October 2000 and Professor Emeritus Harry Recher (Edith Cowan University) undertook bird surveys in the area in August/September 2000, September/October 2000, October 2000, August 2001, July 2002 and September 2003 (Recher, pers. comm, 2004). Dell (2001) also conducted bird observations at Mount Gibson in April and August 2001. Both Hart, Simpson and Associates and Professor Harry Recher observed Malleefowl in the region; however, no details on the number of birds or mounds are available. Records provided by Mount Gibson Station (Dell, 2001) indicate that Malleefowl are a rare resident at Mount Gibson Station; however, it was reported that there were a few old mounds present in the area. The exact location of these observations is not known.

Between September 2004 and January 2005 ATA Environmental (2005a) undertook an extensive grid search of the entire proposed mine site and some of the surrounding area. One hundred and thirteen Malleefowl mounds were located within the area searched, of which 15 (13.3 %) were active (Figure 3). In addition, one freshly killed bird and four live birds were sighted during these surveys.
Figure 2  Observations of Malleefowl and/or Malleefowl Mounds in the Region

Figure 3  Location of Malleefowl Mounds at the Project minesite
Based on these data, ATA Environmental (2005a) concluded that the proposed Mt Gibson mine site and surrounds support a breeding population of Malleefowl. Most of the mounds at Mt Gibson were found in thickets, typically on the sand plain and pebbly soils on the slopes or base of the ironstone range. However, mounds were not confined to these areas. In February 2008, a further limited survey was conducted within the key mine footprint of which one active mound was identified (515358mE 6727677mN) that had been previously active out of 9 mounds assessed, three of which had become inactive from a previous active state. No significant site activity had occurred and the change in density of active mounds was attributed to the previously prolonged dry conditions.

1.7.6 Threats to the Species

Fox (and feral dog) predation is one of the major threats to Malleefowl. Cats and raptors, which mostly predate on chicks, are considered another important threat, although of less importance than foxes and feral dogs. Vegetation clearing and the consequential loss of and fragmentation of habitat; grazing and the consequential loss and destruction of habitat; and fires and the consequential loss of habitat have also been recognised as significant contributors to Malleefowl decline across its range (Benshemesh, 2000).

Foxes predate on eggs, chicks and adult birds (Frith, 1962a; Benshemesh and Burton, 1997; Benshemesh and Burton, 1999; Booth, 1987; Brickhill, 1987; Priddel and Wheeler, 1994; Harlen and Priddel, 1992; Short, 2004) and are probably the most significant threat after large scale vegetation clearing or burning (Short, 2004). It is therefore anticipated that an intensive fox baiting program will increase the survival of Malleefowl in the local area (Copley and Williams, 1995; Priddel and Wheeler, 1997).

Frith (1962a) showed that breeding densities for Malleefowl were reduced by 85-90% in areas grazed by sheep compared to similar non-grazed habitats. Other herbivores, such as goats, kangaroos, cattle and rabbits, in large numbers, will also reduce the habitat suitability for Malleefowl and could lead to population declines (Benshemesh, 2000). Grazing is thought to open up habitats and increase predation. Habitat reduction due to clearing or grazing can also result in starvation through a reduction in invertebrates, seeds, flowers and fruits (Benshemesh, 2000).

Fires may eliminate Malleefowl from some areas. Recruitment into burnt areas and the subsequent development of breeding densities, similar to those that existed before the fire, appears to be very slow and requires 30 to 60 years (Benshemesh, 2000).

Malleefowl seem to have little road sense and can be killed by vehicles on roads and tracks. Birds can also be forced to move to adjacent habitats by noise, dust, lights and vibrations (Benshemesh, 2000), all of which will be present on an active mine site. Little is known of diseases that are likely to impact on Malleefowl populations (Benshemesh, 2000).
2.0 Potential Development Impact

During the most recent systematic Malleefowl survey, mounds at Mt Gibson were found in thickets, typically on the sand plain and pebbly soils on the slopes or base of the ironstone range. However, they were not confined to these areas. Therefore, any vegetation clearing or disturbance in vegetated thickets associated with developing a mine site are likely to impact on Malleefowl.

Clearing of vegetation, noise, vibration, vehicle traffic and an increase in feral fox, wild dogs and cat numbers may all impact on Malleefowl at the proposed Mt Gibson mine site. The clearing footprint will accommodate mine infrastructure including the waste dumps and the co-located dry tailing storage facility, the airstrip, the Extension Hill Pit, the crusher and run of mine pads, administration offices and workshops and concentration plant, ancillary services and the service corridor. This clearing may impact on Malleefowl and, in some cases, active mounds.

<table>
<thead>
<tr>
<th>Impacting Activity</th>
<th>Potential Impact on Malleefowl</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vegetation clearing</td>
<td>Will result in a loss of foraging habitat, the loss of active and inactive mounds and will increase the exposure of birds to predators.</td>
</tr>
<tr>
<td>Vehicle traffic</td>
<td>Likely to result in road deaths.</td>
</tr>
<tr>
<td>Noise from mine operations</td>
<td>May shift individuals out of the area.</td>
</tr>
<tr>
<td>Vibrations from mine operations (e.g. blasting)</td>
<td>May shift individuals out of the area (even though blasting will occur at a regular time and only during daylight hours).</td>
</tr>
<tr>
<td>Lighting from night operations</td>
<td>May result in individuals moving out of the area.</td>
</tr>
<tr>
<td>An increase in feral predator numbers in the area</td>
<td>May increase as a result of poor waste management, new permanent water and food sources.</td>
</tr>
</tbody>
</table>

Approximately 61 mounds will be potentially directly or indirectly impacted by the development (approximately 55% of the current known mounds) although only 29% are likely to be directly impacted by the physical project footprint (33) while the others may be impacted by site activities within the 250 m buffer zones for each mound.

This Management Plan incorporates a proactive management approach which will actively manage the Malleefowl population in the vicinity of the Mt Gibson Iron Ore Mine.
3.0 Approval Conditions

The Proponents have made a number of commitments to ensure the Malleefowl population is managed in accordance with the requirements of the *Wildlife Conservation Act 1950* and the *EPBC Act 1999*.

In the Public Environmental Review for the Mount Gibson Iron Ore Mine and Infrastructure Project (ATA Environmental, 2006), the proponent committed to prepare and implement a Malleefowl Conservation Plan (this document) and contribute to a regional feral animal control program (in particular foxes) (commitments 9 and 10).

Condition 2 of the Commonwealth approval to develop the Mt Gibson Iron Ore Project required that a management plan be prepared and implemented, including a monitoring program for the Malleefowl.

Condition 2 states:

2 The person taking the Action must prepare a management plan (or plans) including a monitoring program for the Malleefowl (Leipoa ocellate). The plan must take into account the advice of DEWHA, the Western Australian Department of Environment and Conservation and the Environmental Protection Authority.

   a) The aim of the plan(s) is to manage the impacts of the Action on the Malleefowl and its habitat.

   b) The plan(s) shall be implemented and reviewed throughout the life of the Action.

   c) The plan(s) shall:
      
      i) Establish baseline information on the populations of the Malleefowl in and around the project area, including the services corridor;

      ii) Establish a monitoring program to detect significant impacts and monitor the numbers of individuals and suitable habitat for the Malleefowl in and around the project area, including the services corridor;

      iii) Specify design features, management measures and operating controls to minimise adverse impacts; and

      iv) Identify potential response and mitigation measures in the event that monitoring detects Action-attributable change in the abundance, distribution or reproductive success that is likely to cause significant impact to the viability of the Malleefowl in and around the project area, including the services corridor.

   d) The management plan(s) for the Malleefowl (including the monitoring program) must be approved by the Minister prior to the commencement of ground disturbing activities.

   e) The approved plan(s) must be implemented.

Commitments and conditions relating to the management of vegetation (e.g. habitat protection), fire control and management of fauna are also relevant to the management of Malleefowl. These are addressed in the *Extension Hill and Extension Hill North Environmental Management Plan* submitted under the WA State *Environmental Protection Act, 1986* as a requirement of Ministerial Statement 753, and the associated project Environmental Management System that conforms to ISO 14001.
4.0 Key Objectives and Targets

4.1 Management Objectives

The Proponent’s objectives for the management of Malleefowl in the vicinity of the mine site and services corridor are:

1. To meet the commitments made in the PER and to observe the legislative conditions applied to the project with respect to Malleefowl;
2. To maintain the abundance, diversity, geographic range and productivity of Malleefowl in the vicinity of the mine site;
3. To contribute to and participate in a regional feral animal control program targeting foxes to reduce the threat of predation on the local Malleefowl population;
4. To develop collaborative arrangements with the North Central Malleefowl Preservation Group and other interested parties.

Table 1 Key Objective and Targets Related to Malleefowl Management

<table>
<thead>
<tr>
<th>Objective</th>
<th>Performance Indicators</th>
<th>Data Source</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legislative Compliance</td>
<td>Compliance with Commonwealth and State conditions/commitments for project approval and Commonwealth and State Legislation relating to Malleefowl</td>
<td>Compliance audits</td>
<td>100% Compliance</td>
</tr>
<tr>
<td>Maintain the abundance, diversity, geographic range and productivity of Malleefowl in the vicinity of the mine site and services corridor</td>
<td>Number of active mounds outside the clearing footprint relative to control areas and pre-mining status</td>
<td>Baseline data, Monitoring results, Compliance audits</td>
<td>The number of Malleefowl (as measured by the proxy of the number of active mounds within the general area) outside the clearing area does not fall below 75% of the control adjusted number of active mounds recorded in baseline surveys.</td>
</tr>
<tr>
<td>Contribute to and participate in a regional feral animal control program targeting foxes to reduce the threat of predation on the local Malleefowl population</td>
<td>Number of foxes and wild dogs detected during annual surveys</td>
<td>Monitoring results</td>
<td>The number of foxes and wild dogs detected does not increase during the life of the mine.</td>
</tr>
<tr>
<td>Develop collaborative arrangements with the North Central Malleefowl Preservation Group and other interested parties</td>
<td>Meetings with North Central Malleefowl Preservation Group, AWC, ABHF and DEC to review the conservation of Malleefowl and to implement a collaborative regional approach to the conservation of the species</td>
<td>Records of meeting minutes</td>
<td>Annual meetings with the North Central Malleefowl Preservation Group, ABHF, AWC &amp; DEC to review the conservation of Malleefowl and to implement a collaborative regional approach to the conservation of the species.</td>
</tr>
</tbody>
</table>
4.2 Management Principles

The following principles will guide the implementation of this management plan:

- Staff will be made aware of the presence and importance of Malleefowl in the Project area.
- Clearing or other forms of disturbance in habitat known to be used by Malleefowl will be avoided where possible;
- Any land clearing that will directly impact Malleefowl mounds will be undertaken, wherever possible, between April and June, as this period is outside the mound building and egg incubation period. Clearing outside these times will require further management processes;
- Where feasible, a buffer zone of 250m will be placed around all mounds (both active and inactive) which will be restricted access areas;
- The known Malleefowl mounds on the Mt Gibson tenements and the adjacent ‘control’ site(s) will be monitored annually to determine if they are active;
- Should monitoring programs indicate a decline in the number of active mounds, then every effort will be made to determine the cause, and, if it is mine related, remedial actions will be investigated, discussed with the North Central Malleefowl Preservation Group and DEC, and implemented where possible to address the problem(s);
- A predator control program will be implemented to reduce the population of Malleefowl predators (in particular foxes); and
- The proponent will collaborate with local community and interested parties including the Northern Central Malleefowl Preservation Group, AWC, ABHF and DEC to ensure a regional approach to the conservation of Malleefowl in the vicinity of the Mt Gibson Ranges.

4.3 Performance Standards

Applicable guidelines for terrestrial fauna include the WA EPA Guidance Statement No. 56: *Terrestrial fauna surveys for Environmental Impact Assessments in Western Australia* (EPA, 2004).
5.0 Management Strategies

The National Recovery Plan format for Malleefowl (Benshemesh, 2000) has been adopted in the development of these site-specific management strategies. Some of the initiatives and proposals in the national plan are not relevant at the local scale and have not been included while others have been modified to the local situation.

5.1 Secure Habitat

Justification

The loss of vegetation will contribute to a decline in the number of Malleefowl in the vicinity of the mine site, if compensatory strategies are not put in place.

Actions

- Areas of native vegetation to be cleared will be kept to a minimum. All vegetation clearing in areas where Malleefowl mounds (250m buffer) are known to be present will occur between April and June, outside the mound building and egg incubation period, wherever practical. If it is essential that a Malleefowl mound is cleared between July and March, then additional management procedures will apply, including:
  - Mound inspections by suitably qualified and authorised persons to determine whether it is active (i.e. contains eggs);
  - If eggs are present, then with the approval of DEC, eggs may be removed and incubated in a place approved by DEC (e.g. Perth Zoo, Ongerup Malleefowl Conservatory).
  - Chicks will be released on site unless otherwise approved by DEC.

- Restricted access areas in Malleefowl habitat will be designated and will be clearly identified with appropriate signage displayed around the mine site and on the ground. These zones will include all areas of uncleared vegetation known to contain Malleefowl mounds. Access to any restricted access area will require a permit issued by the Site Environmental Manager.

- The restricted access area system will be discussed in the staff induction program, and signs will be erected at appropriate places on-site to ensure staff and contractors continue to be aware of the need to minimise the disturbance to Malleefowl habitat.

5.2 Reduce the Threat of Fire

Justification

Large scale fires have the potential to kill Malleefowl, destroy mounds and remove Malleefowl habitat.

Action

Frequent fires represent a significant threat to the species as it has the potential to impact on breeding activities. Fire management actions include:

- training of emergency response personnel in fire fighting;
- procurement of site based fire fighting equipment;
- vehicle maintenance safety check to reduce fire hazards;
- fire suppression systems on selected plant and equipment;
- regular fire break maintenance; and
- liaison with neighbours and FESA with regard to bushfires.

5.3 Reduce Number of Road Deaths

Justification

Malleefowl have little ‘road sense’ and, although they are rarely killed on roads, those roads that carry high volumes of traffic (e.g. haul roads, internal mine roads) increase the propensity for Malleefowl road mortality.

Actions

- Warning signs will be erected throughout the site.
- The presence of Malleefowl on the mine site will be discussed in the staff induction programs, pointing out that they often do not get out of harms way early enough to avoid their demise.
Staff and contractors will be required to report the sighting of any live or dead Malleefowl in the vicinity of the Project.

A speed limit of 80kmph will apply to all main internal roads and lower speed limits (50 km/hr) on smaller access tracks.

5.4 Monitoring Malleefowl Abundance

Justification
A life-of-mine monitoring program is necessary to ensure that management practices are achieving the primary objective of no reduction in the number of Malleefowl in the area.

Malleefowl's wariness, cryptic habits and colouration make it difficult to reliably and accurately census their numbers. A suitable proxy measure is, therefore, required. Brickhill (1985), Benshemesh and Emison (1996) and Priddel and Wheeler (2003; 2005) have all used the number of active mounds as an indicator of Malleefowl numbers. This is a relevant proxy to measure the number of Malleefowl in the area, as it directly relates to the number of reproductively active birds in the area and is a good indicator of survival of the local population.

The number of Malleefowl that breed each year varies, as does the clutch size, probably based on the available resources, which is influenced by rainfall in the preceding year. It is, therefore, important to establish a suitable ‘control’ site near the Mt Gibson mine that can be used to interpret natural variations in the number of active mounds independent from mine site impacts.

In addition to establishing a control site to assess natural variations, the areas adjacent to the mine will be monitored. Mining activity (e.g. dust, noise, vibrations and vehicle traffic) may displace Malleefowl off the Extension Hill Pty Ltd mining tenements into adjacent areas. If only the Extension Hill site is monitored, a significant reduction in the number of active Malleefowl mounds may be recorded even though birds have moved to adjacent areas and the impact is minimal. This issue can be addressed by monitoring the number of active mounds in adjacent areas, but this requires that good baseline data are established before mine site construction commences for both the Mt Gibson Ranges area and adjacent areas.

The National Heritage Trust (2007) manual for malleefowl monitoring will be utilised as a key tool in the ongoing assessment of the near mine and local regional populations.

Actions
- The proponents will undertake an annual program to monitor the status of known Malleefowl mounds on its tenements and in the control area(s) during the construction phase and in every second year during normal operations.
- The proponents will provide the results of its Malleefowl monitoring program to DEWHA, DEC and the North Central Malleefowl Preservation Group.
- All Malleefowl deaths on the mine site will be recorded and the data provided to DEWHA and DEC.
- The proponents will establish a protocol for recording sightings of live Malleefowl and mounds on the site. Details of the protocol will be included in the staff and contractors’ induction programs. Data from these recordings will be included in the annual reporting to DEC and to the Commonwealth (DEWHA) in March 2009 and annually there-after.
- The results of the monitoring program will be included in the project’s annual environmental reporting within the State and the Environmental Performance Report to the Commonwealth.

5.5 Predator Control Program

Justification
Predators can have a significant impact on the local population of Malleefowl (Short, 2004). Foxes are thought to be the most significant predator (Short, 2004), but cats and raptors also kill a number of birds, in particular chicks. A reduction in the number of foxes in the vicinity of the mine site could relieve predation pressure on the local population of Malleefowl and result in an increase in the number of individuals in the area.
Actions
- The proponents will contribute to a regional feral animal control program (in particular foxes), the scope and implementation of which will be agreed between the proponents, DEC, AWC, ABHF and Pindiddy Aboriginal Corporation and reported to the Commonwealth (DEWHA).

5.6 Establish and Foster Communications with Community Groups

Justification
The North Central Malleefowl Preservation Group is a local group with the primary objective of preserving the presence of Malleefowl within the bioregion. Australian Wildlife Conservancy, owner of the Mount Gibson Sanctuary (Mt Gibson Station), is a neighbour of the mine. AWC’s objectives are to re-establish plant and animal communities endemic to the area, contribute to threatened species’ recovery programs and to protect ecosystems and landscapes from detrimental processes. Australian Bush Heritage Fund manages Charles Darwin Reserve (White Wells Station) for conservation purposes. The proponent will share its data with these and any other groups interested in protecting and preserving Malleefowl. The actual location of all active Malleefowl mounds will not be published to protect breeding sites.

Actions
- The proponents will liaise with the North Central Malleefowl Preservation Group, AWC and ABHF on a regular basis (at least annually) regarding the actions taken to protect and preserve Malleefowl on its site and within the region.
- The proponents will provide monitoring data and reports to the North Central Malleefowl Preservation Group and other interested stakeholders.

5.7 Review of the Plan

This Management Plan will be reviewed annually during the construction period and every three years during operation. In the event that Malleefowl numbers decline significantly at the mine site and in adjacent areas, but not in the control sites, the Plan will be reviewed immediately. The review will be undertaken in consultation with North Central Malleefowl Preservation Group, AWC, ABHF, DEC and DEWHA. The final approval for any changes to the plan will be sought from the Commonwealth Minister for the Environment, Water, Heritage and the Arts.

Actions
- A compliance audit of the plan and actions performed under the plan will be undertaken prior to the 31st July each year as part of the certification process required by the Commonwealth and this will be submitted to DEHWA as appropriate. A review of the plan will be undertaken annually during the construction stage and every three years after that and any amendments sought through application to the Minister.

Table 2 Malleefowl objectives, targets and performance indicators

<table>
<thead>
<tr>
<th>Objective</th>
<th>Legislative compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Targets</td>
<td>100 % compliance</td>
</tr>
<tr>
<td>Key Performance Indicator</td>
<td>Compliance with Commonwealth and State conditions/commitments for project’s approval and Commonwealth and State Legislation relating to Malleefowl</td>
</tr>
<tr>
<td>Action</td>
<td>Responsibility</td>
</tr>
<tr>
<td>Implement the Malleefowl Management Plan.</td>
<td>Registered Manager / Site Environmental Manager</td>
</tr>
</tbody>
</table>
### Objective 2
Maintain the abundance, diversity, geographic range and productivity of Malleefowl in the vicinity of the mine site

#### Targets
The number of Malleefowl (as measured by the proxy of the number of active mounds within the general area) outside the clearing area does not fall below 75% of the control adjusted number of active mounds recorded in baseline surveys.

#### Key Performance Indicator
Number of active Malleefowl mounds outside the clearing footprint relative to control areas

<table>
<thead>
<tr>
<th>Action</th>
<th>Responsibility</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Areas of native vegetation to be cleared will be kept to a minimum. All vegetation clearing in areas where Malleefowl mounds are known to be present will only occur between April and June, outside the mound building and egg incubation period, where practical.</td>
<td>Registered Manager</td>
<td>HIGH</td>
</tr>
<tr>
<td>Construction on tracks will be kept to a minimum in areas known to contain Malleefowl</td>
<td>Registered Manager</td>
<td>HIGH</td>
</tr>
<tr>
<td>Restricted access areas in Malleefowl habitat will be designated and will be clearly identified in the mine site literature displayed around the site and on the ground with appropriate signs. This will include all areas of uncleared vegetation known to contain Malleefowl mounds. Access to any restricted access area will require a permit issued by the Site Environmental Department.</td>
<td>Environment Manager under direction from the Registered Manager</td>
<td>HIGH</td>
</tr>
<tr>
<td>The restricted access system will be discussed in the staff induction program, and signs will be erected at appropriate places on-site to ensure staff and contractors continue to be aware of the need to minimise the disturbance of Malleefowl habitat.</td>
<td>Environment Manager under direction from the Registered Manager</td>
<td>HIGH</td>
</tr>
<tr>
<td>If a Malleefowl mound is cleared between July and March, the mound will be first inspected to determine whether it contains eggs. If eggs are present and clearing can not be delayed, then with the approval of DEC, eggs will be removed and incubated in a place approved by DEC (e.g. Perth Zoo, Ongerup Malleefowl Conservatory). Chicks will be released on site unless otherwise approved by DEC.</td>
<td>Environment Manager under direction from the Registered Manager</td>
<td>HIGH</td>
</tr>
<tr>
<td>A speed limit of 80kph will apply to all internal roads.</td>
<td>Registered Manager</td>
<td>HIGH</td>
</tr>
<tr>
<td>Implement Fire Management Procedure.</td>
<td>Registered Manager</td>
<td>HIGH</td>
</tr>
<tr>
<td>Warning signs will be erected throughout the site.</td>
<td>Registered Manager</td>
<td>HIGH</td>
</tr>
<tr>
<td>The presence of Malleefowl on the mine site will be discussed in the staff induction, pointing out that they often do not get out of harm’s way early enough to avoid their demise.</td>
<td>Environment Manager under direction from the Registered Manager</td>
<td>HIGH</td>
</tr>
<tr>
<td>Staff and contractors will be required to report the sighting of any live or dead Malleefowl in the vicinity of the Project.</td>
<td>Registered Manager</td>
<td>HIGH</td>
</tr>
<tr>
<td>The proponents will undertake an annual program to monitor the status of known Malleefowl mounds on its tenements and in the control area(s) during the construction phase and in every second year during normal operations.</td>
<td>CEO’s of each company, Registered Manager of the site</td>
<td>HIGH</td>
</tr>
<tr>
<td>The proponents will provide the results of its Malleefowl monitoring program to DEWHA, DEC and the North Central Malleefowl Preservation Group.</td>
<td>CEO’s of each company, Registered Manager of the site</td>
<td>MEDIUM</td>
</tr>
<tr>
<td>All Malleefowl deaths on the mine site will be recorded and the data provided to DEC and to DEWHA.</td>
<td>Environment Manager under direction from the Registered Manager</td>
<td>MEDIUM</td>
</tr>
<tr>
<td>The proponents will establish a protocol for recording sightings of live Malleefowl and mounds on the site. Details of the protocol will be included in the staff and contractors’ induction programs. Data from these recordings will be included in the annual reporting to DEC.</td>
<td>CEO’s of each company, Registered Manager of the site</td>
<td>MEDIUM</td>
</tr>
</tbody>
</table>
### Objective 3
Contribute to and participate in a regional feral animal control program targeting foxes to reduce the threat of predation on the local Malleefowl population

**Targets**
The number of foxes and wild dogs detected does not increase during the life of the mine.

**Key Performance Indicator**
Number of foxes and wild dogs detected during annual surveys

<table>
<thead>
<tr>
<th>Action</th>
<th>Responsibility</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>The proponents will contribute to a regional feral animal control program (in particular foxes), the scope and implementation of which will be agreed between the proponents, DEC, AWC, ABHF and Pindiddy Aboriginal Corporation.</td>
<td>CEO’s of each company, Registered Manager of the site</td>
<td>HIGH</td>
</tr>
</tbody>
</table>

### Objective 4
Develop collaborative arrangements with the North Central Malleefowl Preservation Group and other interested parties

**Targets**
Annual meetings with the North Central Malleefowl Preservation Group, ABHF, AWC and DEC to review the conservation of Malleefowl and to implement a collaborative regional approach to the conservation of the species.

**Key Performance Indicator**
Meetings with North Central Malleefowl Preservation Group, AWC, ABHF and DEC

<table>
<thead>
<tr>
<th>Action</th>
<th>Responsibility</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>The proponents will liaise with the North Central Malleefowl Preservation Group, AWC and ABHF on a regular basis (at least annually) regarding the actions to be taken to protect and preserve Malleefowl on its site and within the region.</td>
<td>CEO’s of each company, Registered Manager of the site</td>
<td>MEDIUM</td>
</tr>
<tr>
<td>The proponents will provide monitoring data and reports to the North Central Malleefowl Preservation Group and other interested stakeholders.</td>
<td>CEO’s of each company, Registered Manager of the site</td>
<td>MEDIUM</td>
</tr>
</tbody>
</table>
6.0 References

ATA Environmental (2006). 


Environmental Protection Authority (2006). Mt Gibson Iron Ore Mine and Infrastructure Project, Report and Recommendations of the Environmental Protection Authority, Environmental Protection Authority, Bulletin 1242, Perth.
Malleefowl Management Plan


APPENDIX 1: Copy of the Commonwealth Approval

Australian Government

Department of the Environment, Water, Heritage and the Arts

Mr Bill Mackenzie
Managing Director
Extension Hill Pty Ltd
PO Box 82
WEST PERTH WA 6872

Date: 13 June 2008
EPBC Ref: 2005/2381
EPBC contact: Neisha Burton
02 6274 2147
Neisha.Burton@environment.gov.au

Dear Mr Mackenzie

Consent to transfer of approval
Mount Gibson Iron Ore Project (EPBC 2005/2381)

I refer to your letter of 22 May 2008 which requests consent to the transfer of approval for mining and processing iron ore from Extension Hill and Extension Hill North within the Mt Gibson Ranges.

I have considered the request in accordance with section 145B of the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) and have decided to consent to the transfer of approval to Mount Gibson Mining Limited and Extension Hill Pty Ltd. The details of my decision are attached. The proposal must be undertaken in accordance with the conditions specified in the original approval. Copies of the approval dated 18 December 2007 are attached for your convenience.

The Department has an active audit program for proposals that have been referred or approved under the EPBC Act. The audit program aims to ensure that proposals are implemented as planned and that there is a high degree of compliance with any associated conditions. You should be aware that your project may be selected for audit by the Department at any time and all related records and documents may be subject to scrutiny. Information about the Department’s Audit Strategy is enclosed.

If you have any questions about this decision, please contact the project manager and quote the EPBC reference number shown at the beginning of this letter.

Yours sincerely

Ms Vicki Middleton
Assistant Secretary
Environment Assessment Branch
CONSENT TO TRANSFER OF APPROVAL

Mount Gibson Iron Ore Project – EPBC No 2005/2381

This consent is given under (Section 145B) of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

<table>
<thead>
<tr>
<th>Proposed transfer of approval</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Transferor (holder of approval)</td>
<td>Mount Gibson Mining Limited</td>
</tr>
<tr>
<td>Transferee (person accepting the transfer of approval)</td>
<td>Mount Gibson Mining Limited; and Extension Hill Pty Ltd</td>
</tr>
<tr>
<td>proposed action</td>
<td>To mine and process iron ore from Extension Hill and Extension Hill North within the Mt Gibson Ranges; the construction and operation of infrastructure associated with the processing and transport of ore, including a pipeline to transport slurry to Geraldton Port and associated port infrastructure.</td>
</tr>
</tbody>
</table>

Person authorised to make decision

<table>
<thead>
<tr>
<th>name and position</th>
<th>Ms Vicki Middleton</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Assistant Secretary</td>
</tr>
<tr>
<td></td>
<td>Environment Assessment Branch</td>
</tr>
</tbody>
</table>

| signature | Vicki Middleton |

| date of decision | 13 June, 2008 |
APPROVAL

Mt Gibson Iron Ore Project (EPBC 2005/2381)

This decision is made under (Section 133) of the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).

Proposed action

| person to whom the approval is granted | Mount Gibson Mining Ltd |
| proposed action | To mine and process iron ore from Extension Hill and Extension Hill North within the Mt Gibson Ranges; the construction and operation of infrastructure associated with the processing and transport of ore, including a pipeline to transport slurry to Geraldton Port and associated port infrastructure. |

Approval decision

| relevant controlling provisions | The approval has effect for: |
| | • Listed threatened species and communities (sections 18 & 18A) |
| | • Listed migratory species (sections 20 & 20A) |

| conditions of approval | This approval is subject to the conditions specified below. |
| expiry date of approval | This approval has effect until 1 January 2030. |

Person authorised to make decision

| name and position | Ms Vicki Middleton |
| Assistant Secretary |
| Environment Assessment Branch |

| signature | Vicki Middleton |

| date of decision | 18 December 2007 |
Conditions
The following conditions apply to the approval of the proposed action:

**Darwinia masonii**
1. The person taking the Action must prepare a management plan (or plans) including a monitoring program for *Darwinia masonii*. The plan(s) must take into account the advice of the Department of the Environment, Water, Heritage and the Arts (DEWHA), the Western Australian Department of Environment and Conservation and the Environmental Protection Authority.
   a) The aim of the plan(s) is to manage the impacts of the Action on *Darwinia masonii* and its habitat.
   b) The plan shall be implemented and reviewed throughout the life of the Action.
   c) The plan shall:
      i) Establish baseline information on the populations of Darwinia masonii within the Mt Gibson Ranges;
      ii) Establish a monitoring program to identify significant impacts and monitor the numbers of individuals and areas of suitable habitat for *Darwinia masonii*;
      iii) Define the scope of studies aimed at understanding the ecology of *Darwinia masonii*;
      iv) Specify design features, management measures and operating controls to minimise adverse impacts to *Darwinia masonii* within the Mt Gibson Ranges; and
      v) Identify potential response and mitigation measures in the event that monitoring detects Action-attributable change in the abundance, distribution or reproductive success that is likely to cause significant impact to the viability of *Darwinia masonii* within the Mt Gibson Ranges.
   d) The management plan(s) for *Darwinia masonii* (including the monitoring program) must be approved by the Minister prior to the commencement of ground disturbing activities.
   e) The approved plan(s) must be implemented.

**Malleefowl (Leipoa ocellata)**
2. The person taking the Action must prepare a management plan (or plans) including a monitoring program for the Malleefowl (*Leipoa ocellata*). The plan must take into account the advice of DEWHA, the Western Australian Department of Environment and Conservation and the Environmental Protection Authority.
   a) The aim of the plan(s) is to manage the impacts of the Action on the Malleefowl and its habitat.
   b) The plan(s) shall be implemented and reviewed throughout the life of the Action.
   c) The plan(s) shall:
      i) Establish baseline information on the populations of the Malleefowl in and around the project area, including the services corridor;
      ii) Establish a monitoring program to detect significant impacts and monitor the numbers of individuals and suitable habitat for the Malleefowl in and around the project area, including the services corridor;
      iii) Specify design features, management measures and operating controls to minimise adverse impacts; and
      iv) Identify potential response and mitigation measures in the event that monitoring detects Action-attributable change in the abundance, distribution or reproductive success that is likely to cause significant impact to the viability of the Malleefowl in and around the project area, including the services corridor.
   d) The management plan(s) for the Malleefowl (including the monitoring program) must be approved by the Minister prior to the commencement of ground disturbing activities.
   e) The approved plan(s) must be implemented.
3. An Environmental Performance Report shall be submitted to DEWHA within 15 months from the date of approval of the Action and each subsequent report 12 months from the date of the previous report. This report shall contain the results of, and the state of implementation of the Darwinia moso and Lepidium ocellata (malleefowl) management plan(s) and monitoring programs (Conditions 1 and 2) and advice as to whether there have been revisions to previously approved plans.

4. If the person taking the Action wishes to carry out any activity otherwise than in accordance with a plan, program or system referred to in this Approval, the person taking the Action must submit for the Minister’s approval a revised version of any such plan, program or system. If the Minister approves a revised plan, program or system so submitted, the person taking the Action must implement that plan, program or system instead of the plan, program or system as originally approved.

5. Within 18 months of the commencement of ground disturbing activities, the person taking the Action must ensure that an independent audit of compliance with the Conditions of this Approval is conducted. The independent auditor must be approved by the Minister. The audit criteria must be agreed by the Minister and the audit report must address the criteria to the satisfaction of the Minister.

6. By 31 July of each year of the development, the Project Manager, Mt Gibson Iron Ore Project, of the person taking the Action (Mount Gibson Mining Ltd), must provide a certificate to the Department indicating whether the person taking the Action has complied with the conditions of this Approval.

7. If the Minister believes that it is necessary or desirable for the better protection of the environment to do so, the Minister may request the person taking the Action to make specified revisions to a plan or program approved pursuant to the Conditions and to submit the revised plan or program for the Minister’s approval. The person taking the Action must comply with any such request. If the Minister approves a revised plan or program pursuant to this condition, the person taking the Action must implement that plan or program instead of the plan or program as originally approved.

8. Within five years of the date of this approval, the person taking the Action must, to the satisfaction of DEWHA, provide evidence that the Action has been substantially commenced. If DEWHA is not satisfied that there has been substantial commencement of the Action, the Action must not thereafter be commenced without the prior approval of the Minister.

Definitions

DEWHA – Commonwealth Department of Environment, Water, Heritage and the Arts.

Ground disturbing activities – any action related construction or commissioning activities within the areas to be disturbed by construction or operation activities associated with the Action, excluding investigatory works such as, but not limited to geotechnical, biological and cultural heritage surveys, baseline monitoring surveys and technology trials.

Minister – Commonwealth Minister for the Environment, Heritage and the Arts.

Significant impact(s) – an impact that is important, notable or of consequence having regard to its context or intensity.