TELLUS

Fauna Management Plan

Sandy Ridge

Effective Date: 13th June 2019

Version Date: 23rd May 2025

Version 2

Document Control

The signatures below certify that this management plan has been reviewed and accepted and demonstrates that the signatories are aware of all the requirements contained herein and are committed to ensuring their provision.

	Name	Signature	Position	Date
Prepared by	Nick Croston		KASA Consulting	23/05/2025
Reviewed by	Nathan Jardine		Environmental Manager	23/05/2025
Approved by	Pascoe Murison		Executive General Manager - Operations	23/05/2025

Amendment Record

This management plan is reviewed to ensure its continuing relevance to the systems and process that it describes. A record of contextual additions or omissions is given below:

Section No.	Context	Version	Date
	Issued for Use	0	13/06/2019
Various	Updated for operational phase	1	30/05/2022
Various	Administrative revision to update references from MS 1078 to MS 1234	2	23/05/2025

Company Proprietary Information

The electronic version of this management plan is the latest version. It is the responsibility of the individual to ensure that any paper material is the current version.

The printed version of this management plan is uncontrolled.

Disclaimer

Contents

ABBREVIATIONS

Term	Definition
BC Act	Biodiversity Conservation Act 2016 (WA)
EPBC 2015/7478	Australian Government Ministerial Approval of the Sandy Ridge Facility
BMP	Bushfire Management Plan
CEMP	Construction Environmental Management Plan
CFMP	Construction Fauna Management Plan
DAWE	Department of Agriculture, Water and the Environment
DBCA	Department of Biodiversity, Conservation and Attractions
DWER	Department of Water and Environmental Regulation
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Cwlth)
EMS	Environmental Management System
EP Act	Environmental Protection Act 1986 (WA)
EPA	Environmental Protection Authority (WA)
FMP	Fauna Management Plan
FVMP	Flora and Vegetation Management Plan
HSE	Health, Safety and Environment
HSECQ	Health, Safety, Environment, Compliance and Quality
ha	hectares
IBSA	Index of Biodiversity Surveys for Assessments
km	kilometres
LLW	Low-level Radioactive Wastes
PER	Public Environmental Review
the Facility	Sandy Ridge Facility
SRE	Short-Range Endemic
Tellus	Tellus Holdings Ltd
CEO	The Chief Executive Officer of the Department of the Public Service of the State responsible for the administration of Section 48 of the Environmental Protection Act 1986, or his delegate.
tpa	tonnes per annum
VCP	Vegetation Clearing Procedure
DBCA	Department of Biodiversity, Conservation and Attractions (WA)
MS 1078	WA Government Approval of the Sandy Ridge Facility (Ministerial Statement 1078)
MS 1234	WA Government Approval of the Sandy Ridge Facility (Ministerial Statement 1234)
WA	Western Australia

RELEVANT MANAGEMENT PLANS

Additional aspects and impacts related to flora and vegetation management are included in the following management plans.

Document No.	Management Plan	Aspect / Impact Related to Leachate
SR-11-MPL-006	Sandy Ridge - Flora & Vegetation Management Plan	Clearing
SR-09-MPL-005	Sandy Ridge - Bushfire Management Plan	Fire
SR-09-MPL-003	Sandy Ridge - Waste Facility Decommissioning Closure Management Plan	Revegetation and rehabilitation
SR-10-MPL-005	Sandy Ridge - Emergency Response Plan	Emergency Response
SR-09-MPL-006	Sandy Ridge - Traffic Management Plan	Traffic

DOCUMENT STRUCTURE

The structure of this Fauna Management Plan (FMP) is based on the template requirements as per 'Instructions on how to prepare Environmental Protection Act 1986 Part IV Environmental Management Plans' (WA EPA, 2021).

The table below provides a list of the requirements as set out in WA EPA (2021) and shows where these requirements are addressed within this FMP.

Reference (as per WA EPA Oct 2021)	Template Requirement (as per WA EPA Oct 2021)	Location in FMP
-	Document control	Page 2
-	Executive Summary	Page 7
1.	Context, scope and rationale	Section 1
1.1	Proposal	Section 1.1.
1.2	Key environmental factors	Section 1.2.
1.32.3	Condition requirements	Section 1.3.
1..4	Rationale and approach	Section 1.4
2.	EMP components	Section 2
3.	Adaptive management and review of the EMP	Section 3.
4	Stakeholder consultation	Section 4.
5.	Changes to EMP	Section 5

EXECUTIVE SUMMARY

Aspect	Summary
Title of Proposal:	Sandy Ridge Facility
Proponent Name:	Tellus Holdings Pty Ltd
Ministerial Statement No.:	Ministerial Statement 1234 (MS 1234)
Purpose of the Management Plan:	To provide a foundation for the management of impacts / risks to fauna and fauna habitats in accordance with best practice and legal requirements during construction and operation of the Sandy Ridge Facility.
Key environmental Factor/s:	Terrestrial fauna.
Key Environmental Objectives:	To minimise impacts to terrestrial fauna.
Condition Clauses:	Condition B3-1 through B3-2.
Key Components of this Management Plan:	The key components of this plan include those outlined in Condition B3 1 through Condition B3-2 of MS 1234.
Project Status:	Construction: Completed October 2020 Operations: Commenced July 2020

1 CONTEXT, SCOPE AND RATIONALE

1.1. Proposal

Tellus Holdings Ltd. (Tellus) owns and operates the Sandy Ridge Facility (the Facility, the Project or the Site), which is Australia's only operating commercial scale near-surface geological repository for Class IV and V wastes. At the Site, kaolin is mined for later use (i.e., for cell capping, or for potential export to Asia or the domestic ceramics market), and then Class IV and V, intractable and low-level radioactive wastes (LLW) are disposed of within the void spaces created because of the mining operations. The Facility is located approximately 75 kilometres (km) north-east of Koolyanobbing, in the Shire of Coolgardie (Figure 1 1).

The Facility was granted WA government Ministerial Approval on 26 June 2018 under Ministerial Statement 1078 (MS 1078) and Federal approval by the Commonwealth Government Department of Agriculture, Water and the Environment (DAWE), under the Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act) on 7 January 2019 (EPBC2015/7478).

In 2021, Tellus referred a proposal to the WA EPA under Section 38 of the Environmental Protection Act 1986 to align the tonnage of waste received at the gate with the disposal tonnage permitted within the waste cells—i.e., up to 280,000 tonnes per annum (tpa).

This referral resulted in a significant amendment to the approved proposal and the subsequent issue of Ministerial Statement 1234 on 13 December 2024. Ministerial Statement 1234 supersedes MS 1078 and MS 1152 and authorises the implementation of the updated proposal as assessed under EPA Report 1767 (Assessment No. 2309).

Condition B3-1 of MS 1234 establishes environmental objectives relating to the protection of terrestrial fauna, including minimising the risk of injury or mortality, preventing increases in feral animal populations, and excluding fauna from operational areas. Condition B3-2 requires the implementation of the Sandy Ridge Fauna Management Plan, approved by the CEO of DWER.

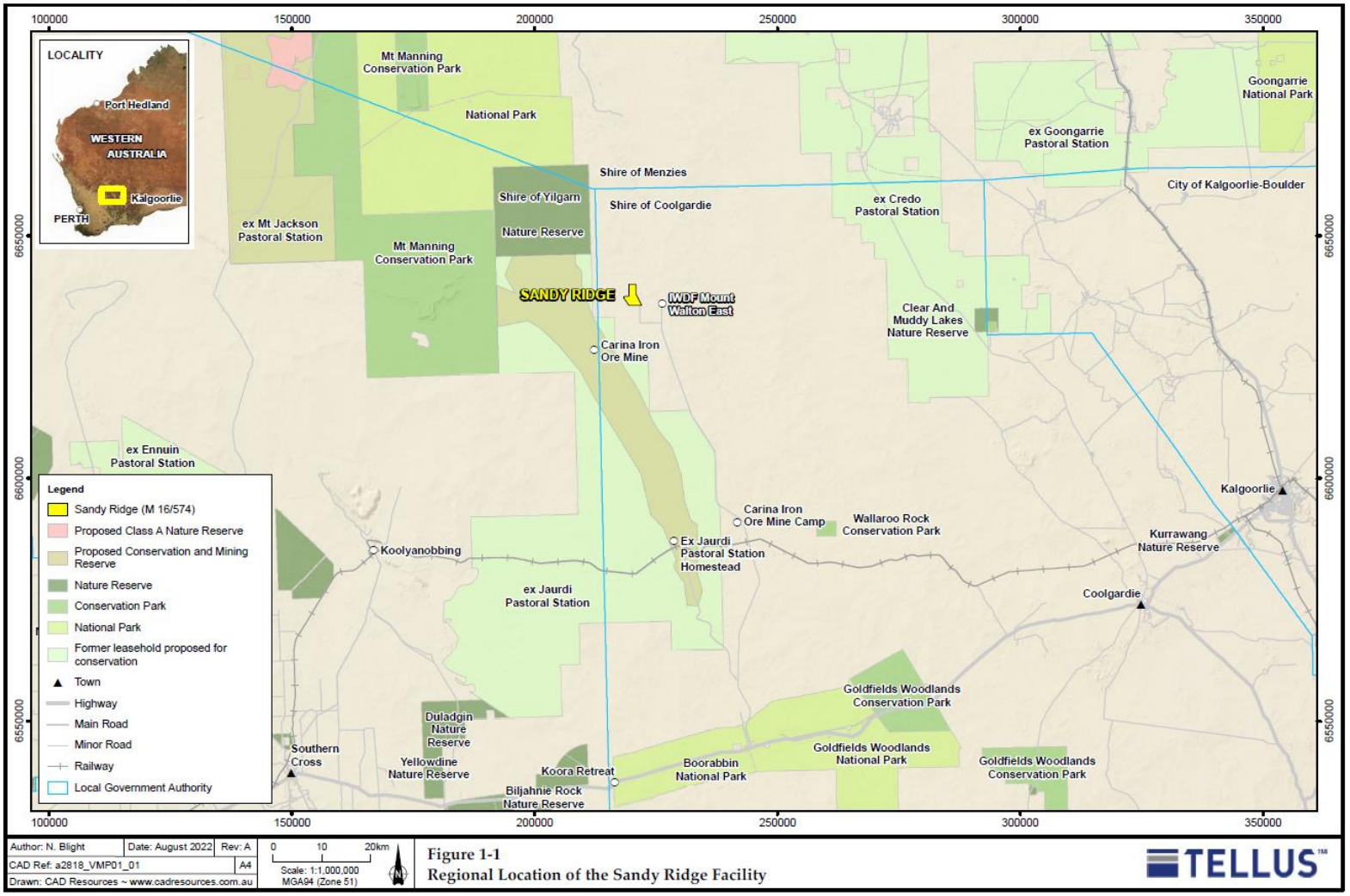
This plan was originally established as a Construction Environmental Management Plan (CEMP) under MS 1078. It was renamed the Construction Fauna Management Plan (CFMP) following consultation with DWER and approved on 25 June 2019. Following completion of construction, the CFMP was updated to reflect operational risks and commitments made in the 2021 referral. It is now referred to as the Fauna Management Plan and aligns with the requirements of MS 1234.

The authorised extent of physical and operational elements of the Facility are listed in Table 1 1.

Table 1-1: Authorised Extent of Physical and Operational Elements

Element	Proposed Extent
Physical elements	
Overall Project Development Envelope	1,061 ha
Mine pits/waste cells	Clearing up to 202.3 hectares (ha) of native vegetation within the development envelope
Associated infrastructure	Clearing up to 73.75 ha of native vegetation within the development envelope
Operational elements	
Class IV and V wastes accepted at gate	Up to 280,000 tonnes per annum
Temporary waste storage on surface	Up to 15,000 tonnes
Maximum temporary storage time	Up to 12 months
Waste (including treated waste) disposed to waste cells	Up to 280,000 tonnes per annum
Water abstraction	Up to 0.18 gigalitres per annum

Figure 1-1: Regional location of the Sandy Ridge Facility



1.2. Key Environmental Factor – Terrestrial Fauna

This section discusses the potential impacts on Terrestrial Fauna during the operation of the Facility, given that there is some approved clearing that is planned to be progressively undertaken in the Mining Area to develop future cells. To date, approximately 49 ha (of the 202.3 ha approved in MS 1234) have been cleared in the Mining Area.

1.2.1. Proposed Activities and Potential Impacts

1.2.1.1. Clearing

Direct impacts on fauna from ongoing operations will be predominantly from loss of fauna foraging, breeding, roosting, sheltering and/or dispersal habitat due to clearing of vegetation within the development envelope. Almost all native fauna relies on native vegetation to provide food, shelter and breeding sites. The removal of vegetation can potentially reduce the capacity of habitat to support fauna and may result in the displacement of fauna. MS 1234 has approved a total of 276.05 ha of native vegetation to be removed, of which:

- Up to 202.3 ha of native vegetation for mine pits/waste cells within a 1061 ha development envelope
- Clearing up to 73.75 ha of native vegetation for associated infrastructure within a 1061 ha development envelope

This includes approximately 15 ha of open woodland habitat and 261 ha of shrubland habitat which accounts for approximately 12% and 28% of these habitat types within the development envelope, respectively (Figure 1-2 and Figure 1-3. The fauna habitat types in the development envelope are abundant and in very good condition within adjacent areas, indicating that the fauna assemblages present in the development envelope would also be abundant in adjacent areas. Most fauna species are not confined to a specific habitat type and given the presence of large areas of suitable adjoining habitat, the proposed clearing would not have a significant impact on fauna habitats, nor would it act to fragment fauna habitat.

During the operational phase clearing of vegetation will be periodic. Tellus has submitted a Works Approval application in 2021 to construct and operate a further three waste cells (Cells 2 to 4) at the Facility to provide waste storage for the next 2 to 6 years and up to 40 ha of native vegetation clearing is expected for development of these. Approximately 25.6 ha of this approved clearing was completed in 2024 and 2025 to enable construction of Cell 2. Future mining of new cells would be carried out in campaigns on a frequency commensurate with the volume of wastes to be isolated. The frequency of mining campaigns over the Facility's anticipated 25-year operating period is likely to be one or two cells every year; however, the actual frequency will be dependent on the depth of mining in each area and the timing and frequency of waste deliveries.

1.2.1.2. General operations

Direct impacts on fauna may also include fauna deaths from direct interaction with vehicles, infrastructure and equipment. This may include, for example, vehicle collisions on the access road and on site, as well as fauna being crushed because of taking refuge in infrastructure and equipment or drowning in containment ponds. Vehicle strikes can pose a risk to some wildlife, particularly but not exclusively to ground dwelling species, including the conservation significant Malleefowl. Although some mortality may occur because of direct interactions, this is likely to be limited to individuals, and it is not expected that collisions from fauna would affect a species at a local or regional population level.

Figure 1-2: Fauna habitat types within the mine infrastructure area, access road and water pipeline route

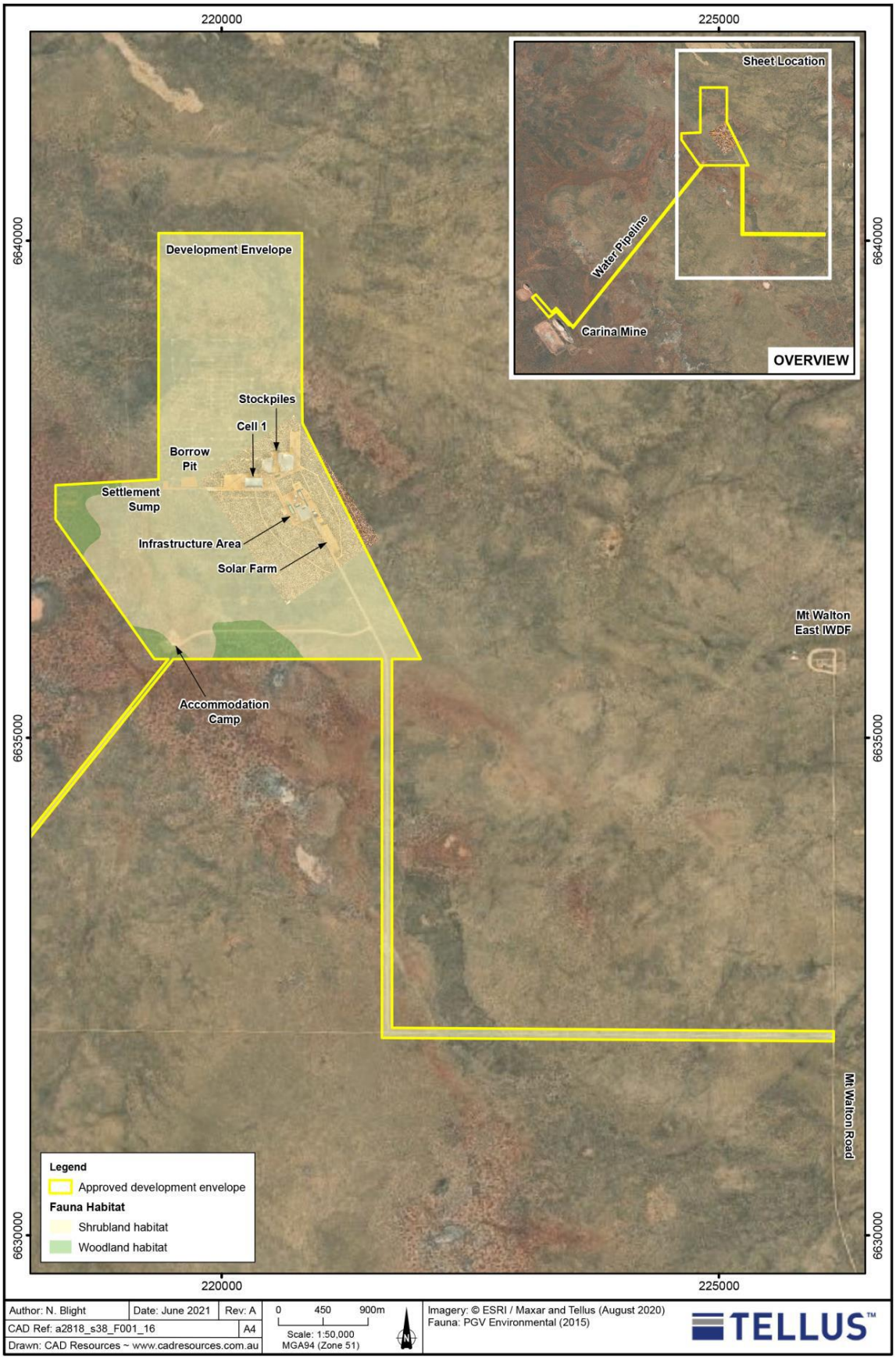
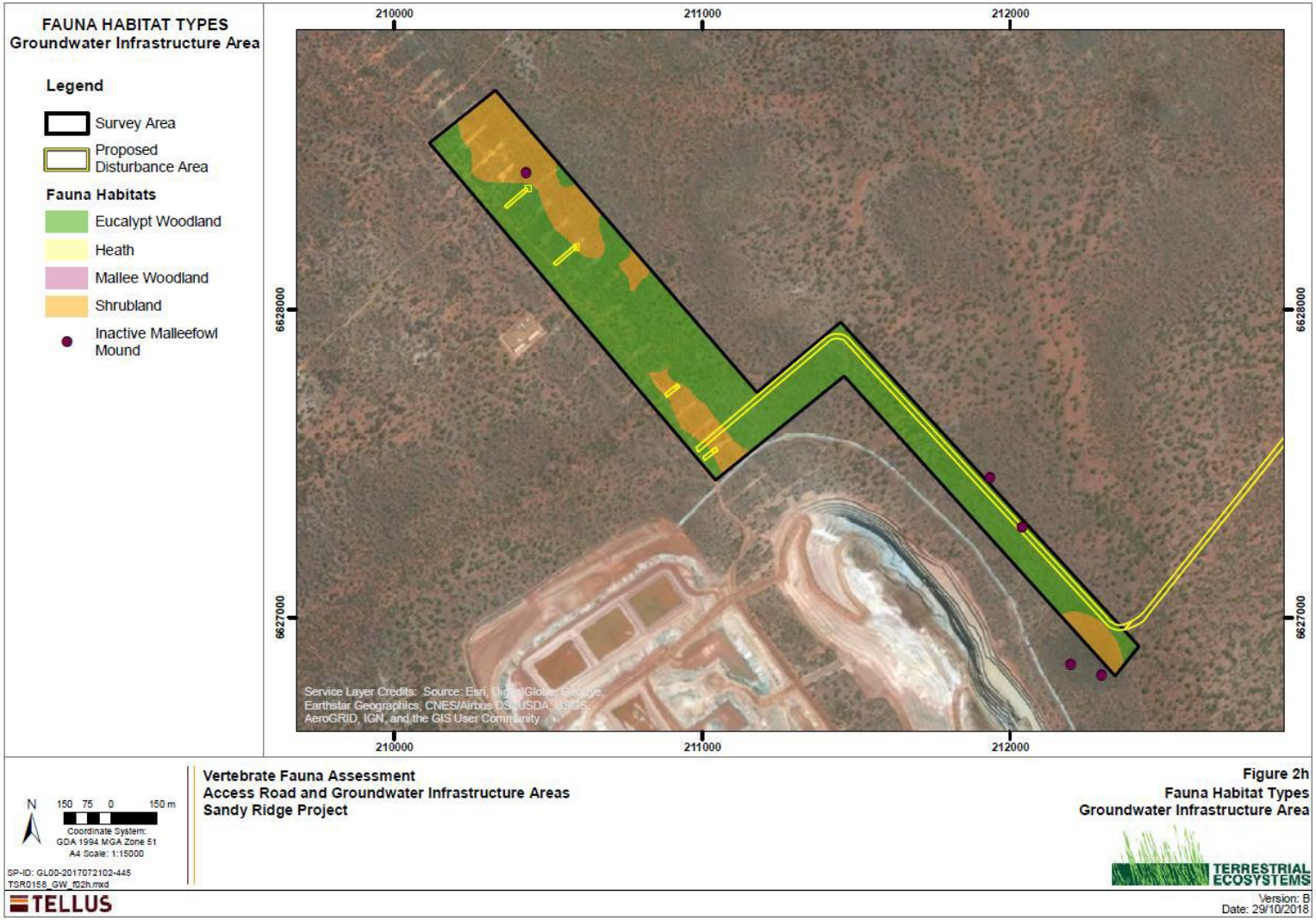


Figure 1-3: Fauna habitat types within the groundwater infrastructure area



Operations will also result in an increase in light within the development envelope from buildings and associated infrastructure and machinery potentially affecting nocturnal fauna, thereby disrupting their movement and behaviour.

Operational activities (e.g., vehicle movement, periodic cell excavation and development) would also result in an increase in noise and vibration levels; however, the remote nature of the site and vast areas of similar habitat in the vicinity are anticipated to cause minimal impact to terrestrial fauna.

1.2.1.3. Displacement and predation

An increase in development and human activity is also often associated with an increase in the abundance of introduced species such as the house Mouse (*Mus musculus*), Cat (*Felis catus*), Wild Dog (*Canis lupus*), Fox (*Vulpes vulpes*) and Rabbit (*Oryctolagus cuniculus*). Increased opportunities for sourcing food and water could lead to an increase in the presence of feral fauna numbers in operational areas (e.g., water storage ponds and Class II landfill) and in areas adjacent to other infrastructure such as the campsite.

Some mammal species are very sensitive to introduced predators and the decline of many mammals in Australia has been linked to predation by the Fox (*Vulpes vulpes*), and to a lesser extent the Feral Cat (*Felis catus*) (Burbidge & McKenzie, 1989). Introduced grazing species such as the Rabbit (*Oryctolagus cuniculus*), Goat (*Capra hircus*), Camel (*Camelus dromedaries*) and domestic livestock can degrade habitats as well as alter the structure and diversity of vegetation that may be a food source for other species and outcompete native species.

Increased numbers of feral fauna species may have an adverse impact upon native species (e.g., injury, illness, death or displacement) through predation and competition. However, given that displaced fauna would reside within similar habitat outside the perimeter fencing, the disruption to ecological processes is considered to be minor, and unlikely to affect fauna species at a population level.

1.2.1.4. Fire

Alteration of the natural fire regime as a result of improved access and increased human activity associated primarily with flammable liquids, combustible materials and hot machinery may pose a risk of fire within the development envelope. Bushfires in this region are mostly started by lightning and while infrequent, under extreme weather conditions they can be large in scale, intense and burn all vegetation types. Fire can result in the loss of fauna habitat and death to some individuals. Similarly, increased fire frequency can lead to alterations to native ecosystems by impacting species regeneration.

Fire prevention and management measures would be implemented to minimise bushfires and, therefore, protect native flora species. Fire management controls are described in the following management plans:

- Bushfire Management Plan
- Emergency Response Plan

1.2.1.5. Other potential impacts

The potential for radiation exposure was assessed using the ERICA software tool (Hygiea Consulting, 2016). Four exposure scenarios were modelled using ERICA Tier 2 assessments and the modelled dose rates for all organisms are below the threshold dose rate of 10 mGy/h. External gamma dose rate on surface post closure (minimum cover of 7 m) are negligible, even if all radioactive waste (2,500,000 tonnes) are high activity concentration radium scales at an activity concentration of 17,800 Bq/g radium (Ra-226 and Ra-228 combined).

The scenario of fauna being impacted due to interaction with voids that may form due to subsidence of waste cells was risk assessed and considered highly unlikely to occur.

Due to the very low likelihood of impacts to fauna occurring from radiation exposure and interaction with voids they have not been discussed below. Indirect impacts will be avoided / minimised via the provisions outlined in Section 2.

1.2.2. Site Specific Environmental Values of Terrestrial Fauna

This section discusses the environmental values of terrestrial fauna within the development envelope.

1.2.2.1. Fauna habitat

The development envelope is located in the Southern Cross IBRA Subregion. The Southern Cross IBRA Subregion is characterised as a weathered plain comprising gently undulating uplands dissected by broad valleys with bands of low greenstone hills. The subregion is characterised by a diverse eucalypt woodland and low heaths.

Four regional vegetation associations occur within the development envelope (refer Section 1.2.2). Each of the four regional vegetation associations that occur within the development envelope have greater than 97% of their pre-European extent remaining in the Southern Cross IBRA Subregion. Direct clearing of each vegetation association would represent clearing less than 1% of their current remaining extent; therefore, cumulative clearing for the Project would not have a significant impact on fauna habitat at a regional level.

Two fauna habitat types occur within the development envelope, open woodland and shrubland. Terrestrial Ecosystems (2018) reported that these fauna habitat types represented in the project area are abundant and in very good condition in adjacent areas. Therefore, the species and fauna assemblages present in the project area will also be present and abundant in adjacent areas.

The project area does not provide any important ecological linkages or fauna movement corridors, as they are part of a large and relatively undisturbed area. The fauna habitats and their distribution within the development envelope are shown in Figure 1-2 and Figure 1-3.

1.2.2.2. Conservation-significant fauna species

The results of previous surveys (refer Section 1.4.2) have identified 114 birds, 35 mammals, six amphibians and 88 reptiles as potentially occurring within the development envelope and vicinity. Fourteen fauna species listed under the BC Act and/or EPBC Act or by DBCA have been recorded or are predicted to occur within the development envelope or within the locality. Of these, two have been recorded within the development envelope:

- Malleefowl (*Leipoa ocellata*) listed as Vulnerable under the Biodiversity Conservation Act 2016 (BC Act) and the EPBC Act
- Woma Python (*Aspidites ramsayi*) Priority 1 under the BC Act

These species are discussed further below.

The following four listed species may possibly occur within the development envelope:

- Central Long-eared Bat (*Nyctophilus major tor*) (P3)
- Western Rosella (Mallee) (*Platycercus icterotis xanthogenys*) (P4)
- Fork-tailed Swift (*Apus pacificus*) (MI)
- Peregrine Falcon (*Falco peregrinus*) (OS)

The remaining species are considered unlikely to occur within the development envelope due to a lack of suitable habitat. For reference, photographs of the above species are provided in Appendix A, Plate A-1 through Plate A-6.

Note that the Rainbow Bee-eater (*Merops ornatus*) was recorded within the development envelope during surveys for the PER. This species was previously listed as Migratory under the BC Act and EPBC Act. This species has recently been de-listed from both the BC Act and the EPBC Act.

1.2.2.3. Malleefowl (Leipoa ocellata)

No Malleefowl, their tracks or active breeding mounds were observed within the development envelope during targeted baseline surveys. Old mounds were evident, with 63 identified during the survey in/nearby the Mining Area and 5 in the groundwater infrastructure area (Figure 1-3). Mounds were of various ages and in varying states of degradation. Most were little more than circular raised areas of gravel, potentially unused for decades or centuries.

Five mounds were large (up to 9 m wide, 0.5 m high and 0.3 m deep) and distinctive although not recently used (Plate A-1). Mounds were found where the soils were a gravelly loam, with the mounds themselves being composed largely of lateritic gravel. One disused mound was removed to install the production bore access track.

Malleefowl can be expected to return to the development envelope and surrounding areas as a breeding species at a low density when the vegetation has matured as it favours gravelly soils for mound construction, however these lie mostly outside the development envelope.

1.2.2.4. Woma Python (Aspidites ramsayi)

Woma pythons are known to be present in the area with three known sightings since operations started. Terrestrial Ecosystems (2018) reported:

> *"This python was once common in a crescent shaped distribution from Shark Bay through the wheatbelt to Kitchener. The Western Australian Museum has records of them being caught in the vicinity of the Great Eastern Highway from around Southern Cross and east toward Coolgardie (Thompson & Thompson, 2006). The published literature indicates it is now only found around Shark Bay and east of Kalgoorlie. Terrestrial Ecosystems is aware of another small population on the sand plain near the project area, in habitat like that in the project area. It is therefore potentially near the project area in low numbers, but because of the abundance of similar habitat in adjacent areas, any impacts on this species are unlikely to be significant in a regional context."*

1.2.2.5. Introduced species

Several feral fauna species have been recorded by others within the vicinity of the development envelope. These include the Goat (*Capra hircus*), Wild Dog (Canis lupus), Dromedary or One-humped Camel (*Camelus dromedarius*), Red Fox (*Vulpes vulpes*), Cat (*Felis catus*), Rabbit (*Oryctolagus cuniculus*) and House Mouse (*Mus musculus*).

1.2.2.6. Short-Range Endemic Invertebrates

From two surveys undertaken by Bennelongia in 2017 (Bennelongia, 2017) and 2018 (Bennelongia, 2018), a total of 175 animals of at least 30 species from Short-Range Endemic (SRE) groups were recorded. Based on the expected ranges of the recorded species based on habitat, the small, proposed area of impact, the extent of and connectivity of habitats within the Develop Envelope and the surrounding landscape and the absence of relict or specialist habitats, it was concluded that the Project was likely to have minimal impact on SRE species. SRE are therefore not discussed further in this FMP.

1.2.3. Index of Biodiversity Surveys for Assessments (IBSA)

If any further biological surveys are conducted on-site related to MS 1234, survey data will be submitted in accordance with IBSA requirements.

1.3. Condition Requirements

This section lists the conditions of approval (as they relate to terrestrial fauna) from the Western Australian Government for the Sandy Ridge Facility. There are no conditions of approval regarding terrestrial fauna attached to the approval from the Australian Government (EPBC 2015/7478).

The conditions of approval in MS 1234 and how they are addressed in this FMP are provided in Table 1-2.

Table 1-2: Conditions of approval attached to MS 1234

Condition No.	Condition	Compliance – FMP
B3-1	The proponent must ensure the implementation of the proposal achieves the following environmental objectives: 1. Avoid where practicable, or otherwise minimise, the risk of physical injury or mortality on native fauna from construction and operation activities; 2. The proponent shall ensure there is no significant increase in population of feral animals because of implementing the proposal; 1. The proponent shall construct and maintain a boundary fence or other appropriate exclusion device to prevent terrestrial fauna access to operational areas	Section 2, Table 2-2 – the objective of this FMP.
B3-2	To ensure the objectives of condition B3-1 and condition C5 are met, the proponent must implement the Sandy Ridge Fauna Management Plan (Version 1, 30 May 2022), or subsequent versions approved by the CEO.	Section 5.

1.4. Rationale and Approach

1.4.1. Environmental Outcomes and Objectives

In accordance with Condition B3-1 of MS 1234 Tellus is required to manage the implementation of the proposal to meet the following environmental objectives for terrestrial fauna:

- Avoid where practicable, or otherwise minimise, the risk of physical injury or mortality on native fauna from construction and operation activities

To demonstrate compliance with these objectives Tellus has committed to achieve the following environmental outcomes:

- No deaths of conservation significant species resulting from Sandy Ridge operational activities
- No more than 276.05 ha of native vegetation is cleared for the Project

1.4.2. Survey and Study Findings

Several fauna assessments have been undertaken on the development envelope and surrounding area. These assessments have been used to develop the FMP. They include:

- Level 1 Vertebrate Fauna Assessment for the Sandy Ridge Project (Terrestrial Ecosystems, 2016) – included in Appendix A.8 of the PER

- Tellus Holdings Limited: Sandy Ridge Project Malleefowl Assessment (M.J & A.R Bamford Consulting Ecologists, 2016) – included in Appendix A.8 of the PER
- Vertebrate Fauna Assessment – Access Road and Groundwater Infrastructure Areas (Terrestrial Ecosystems, 2018) – included as Appendix C of the Request for a Change to Proposal under the Section 45C of the EP Act

1.4.3. Key Assumptions and Uncertainties

Key assumptions used to develop the FMP include:

- The Rainbow Bee-eater (*Merops ornatus*) was previously listed as Migratory under the BC Act and EPBC Act. This species has recently been de-listed from both the BC Act and the EPBC Act
- Six conservation-significant species are considered to possibly occur within the development envelope or vicinity – Fork-tailed Swift (*Apus pacificus*), Central Long-eared Bat (*Nyctophilus major tor*), Western Rosella (*Platycercus icterotis xanthogenys*), Peregrine Falcon (Falco peregrinus), Malleefowl (*Leipoa ocellata*) and Woma Python (*Aspidites ramsayi*).

Risks to terrestrial fauna were assessed in detail using a risk-based approach in the PER (refer to Section 8 of the PER). The risk assessment identified hazards and the nature of the hazard (beneficial, neutral, adverse); evaluated the likelihood of the hazard occurring; and evaluated the consequence of the potential impacts (scale, geographic extent, duration, ecological and social sensitivity, reversibility, cumulative effects and likelihood of occurrence, etc.). The risks identified in the risk assessment as they relate to terrestrial fauna are those that are identified for mitigation / management within this FMP (refer to Section 2).

No conservation significant fauna species were observed across the clearing activities of approximately 50 ha during construction activities (July 2019). Given the extremely low fauna activity observed, Tellus amended the original CEMP management plan to:

- increase the allowable time between the pre-clearing inspection taking place and clearing occurring from 7 days to 60 days, and
- require known Malleefowl mounds to be inspected within a day prior to commencement of clearing in that area

This amendment was made on the rationale that impacts to Malleefowl is the highest risk for vegetation clearing activities at Sandy Ridge. Malleefowl mounds have been identified in the initial inspections of areas proposed to be cleared. Re-inspecting mounds on the day before clearing is scheduled will verify that no Malleefowl have started to use the mound. If Malleefowl activity is observed, clearing will be halted until the situation is assessed in consultation with DBCA.

2 EMP COMPONENTS

2.1. Terrestrial Fauna Provisions / Requirements

The terrestrial fauna provisions / requirements that will be implemented during operation of the Sandy Ridge Facility are listed in Table 2-2. These include:

- Condition B3-1 through Condition B3-2 of MS 1234
- Commitments made by Tellus in the PER and previously approved management plans as applicable
- Best practice mitigation / management measures

2.2. Roles and Responsibilities

Roles and responsibilities as they relate to these provisions / requirements are detailed below.

Table 2-1: Roles and responsibilities

Role	Responsibilities
Chief Operations Officer	• Ensure that the Facility is adequately resourced to implement the FMP
Facility Manager	• Ensure environmental management strategies, plans, programs and associated procedures are implemented in accordance with the requirements of this FMP • Ensure adequate operational resources are available on a day-to-day basis to ensure the FMP is implemented effectively and maintained • Make changes to the plant, stop or suspend operations as required to meet environmental obligations
Environment Manager WA	• Ensure environmental management strategies, plans, programs and associated procedures are developed to support implementation of the requirements of this FMP • Provide leadership, advice and support to the Facility to ensure that the FMP is understood, implemented effectively and maintained • Ensure environmental approval outcomes are managed with appropriate systems at a high standard that is consistent with company and government expectations and reasonable expectations of the broader community • Ensure that the required monitoring and reporting, including environmental auditing, is undertaken and reported to the COO • Provide notification/information where environmental incidents/events have occurred liaising with the COO • Ensure the timely review and assessment of environmental monitoring, auditing and inspection outcomes to ensure identification and implementation of continual improvement with regards to this FMP
Environmental Scientist – WA	• Assist the Environment Manager – WA to fulfill their duties
Employees (incl. contractors)	• Manage their activities (incl. supervision of visitors) in an environmentally responsible manner and in line with this FMP • Stop works if impact to the fauna is suspected or known. – Report any environmental concerns, opportunities for improvement, near misses or incidents to their supervisor ASAP

Table 2-2: Provisions / requirements of FMP

General: Objective-based Measures
Condition B3-1 MS 1234: *The proponent shall manage the implementation of the proposal to meet the following environmental objectives:* • *Avoid where practicable, or otherwise minimise, the risk of physical injury or mortality on native fauna from construction and operation activities;* • *The proponent shall ensure there is no significant increase in population of feral animals as a result of implementing the proposal; and* 1. *The proponent shall construct and maintain a boundary fence or other appropriate exclusion device to prevent terrestrial fauna access to operational areas*

Target	Management actions	Monitoring / Verification	Timing	Reporting
Implementation of the FMP revision approved by DWER CEO	The FMP references the following documents as controls for minimising direct and indirect impacts to flora and vegetation. The FVMP and these subordinate documents shall therefore be maintained and implemented: • Vegetation Clearance Procedure • Bushfire Management Plan	• Undertake an annual compliance audit against MS 1234 and key subordinate documents	Annually	Annual Compliance Assessment Report required by MS 1234
All personnel made aware of FMP commitments relevant to their role and activities	Inform personnel of FMP revisions and obligations via relevant communication avenues, e.g.: • Induction / onboarding process. • Weekly toolbox talks • Daily pre-start • Operation weekly meetings, etc	• Maintain induction and training record • Maintain a record of communications, e.g., email, transmittal, daily pre-start form, toolbox form, meeting minutes, etc	As required	Annual Compliance Assessment Report required by MS 1234 (non-conformances will be investigated / rectified as per Section 3.2).
Minimise impacts to conservation significant fauna species associated with Vegetation Clearing: **No non-compliance's with vegetation clearing procedure.**	All personnel will be made aware of clearing practices through induction and training process. Permit system is to be followed to minimise impacts on flora. Clearing to be undertaken in accordance with the current, approved Vegetation Clearing Procedure which includes: • Conduct pre-clearing surveys prior to any ground disturbance to determine if there are any signs of fauna (particularly conservation significant fauna) activity within the area proposed for clearing and relocate any identified fauna prior to clearing • Conduct pre-clearing inspections of any Malleefowl mounds within the area to be cleared and maintain 50 m clearing buffer around any active mounds • Clearing permits authorised for all clearing activities • Clearing areas flagged prior to clearing commencing • Audit implementation of clearing procedure	• Inspection (prior to vegetation clearing) as per VCP, to check fauna protections within the Clearing Permit, remain appropriate • Monitoring (daily during vegetation clearing) as per the VCP, to ensure the Clearing Permit is being implemented correctly • Survey (post vegetation clearing) as per the VCP, to verify the disturbance extent is within the Clearing Permit's approved disturbance extent	As required	• Record any conservation significant fauna species sightings in an electronic database • Report mortalities of conservation-significant species to WA Government • Monthly environmental compliance report prepared. Include results of inspections and monitoring. Identify any improvement opportunities or non-conformances (refer to Table 2-5) • Annual report prepared in relation to compliance with FMP (refer to Table 2-5)

Target	Management actions	Monitoring / Verification	Timing	Reporting
Minimise impacts to conservation significant fauna species associated with General Site Operations: **No fatalities due to interactions with Project activities and equipment.**	• Design water storage ponds to reduce fauna accessibility and incorporate deterrent devices, as appropriate • Construct artificial water bodies and drains with non-slippery sides and install egress points so that animals that enter a water body can escape • Maintain boundary fencing around operational areas to exclude fauna • Implement dust management controls to minimise dust generation • Maintain equipment as per manufacturers requirements to minimise noise and vibration • Minimise lighting impacts on fauna through implementation of applicable requirements of AS/NZS 4282:2019 Control of the obtrusive effects of outdoor lighting • Educate personnel during inductions and regular toolbox meetings regarding the potential presence of conservation-significant species and feral animals • Manage waste and rubbish appropriately to ensure fauna have no access to scraps or rubbish • Implement Traffic Management Plan. With regards to fauna, the plan will include measures to reduce the incidence of fauna strike, such as: - Preventing unauthorised driving off designated access roads - Limiting night-time driving - Restricting vehicle speeds • Implement vehicle strike procedure (refer Section 2.3) in event of vehicle/fauna collision	• Monthly inspection of the integrity of fencing around mine infrastructure areas (and other areas with fencing) • Weekly inspection of the integrity of rubbish bins. Ensure rubbish bins are emptied on a regular basis • Monthly compliance with equipment maintenance schedules • Daily visual site inspections to include dust generation and fauna sightings • Periodic noise and vibration monitoring (as required)	As required	• Record any conservation significant fauna species sightings in an electronic database • Report mortalities of conservation-significant species to WA Government • Monthly environmental compliance report prepared. Include results of inspections and monitoring. Identify any improvement opportunities or non-conformances (refer to Table 2-5) • Annual report prepared in relation to compliance with FMP (refer to Table 2-5)
Minimise impacts to conservation significant fauna species associated with displacement and predation: **No net increase in feral fauna numbers on-site.**	• Implement control measures (i.e., physical or chemical) if feral fauna numbers increase on-site	• Monthly monitoring of the presence of feral fauna on-site. If numbers increase, determine most appropriate control measures to use in consultation with the Department of Biodiversity, Conservation and Attractions (DBCA)	Monthly	• Record feral fauna species sightings in an electronic database • Monthly environmental compliance report prepared. Include results of inspections and monitoring. Identify any improvement opportunities or non-conformances (refer to Table 2-5) • Annual report prepared in relation to compliance with FMP (refer to Table 2-5)
Minimise impacts to conservation significant fauna species associated with fire: **No fires initiated from site activities.**	• Develop and implement Bushfire Risk Management Plan and Emergency Response Plan. Reduce fire related impacts to fauna within development envelope by (among other measures): – Developing fire breaks around assets (prevention) – Assigning designated smoking areas (prevention) – Prohibiting open flames within 20 m of flammable material (prevention) – Ensuring that any hot works to be undertaken are done so only with a permit (prevention) – Undertaking bushfire load assessments annually to assess bushfire potential and the need for pro-active controls (prevention) – Implementing bushfire suppression techniques in case of bushfire (suppression)	• Daily site and housekeeping inspections • Annual bushfire load assessment	As required	• Record fire incidents in electronic database • Monthly environmental compliance report prepared. Include results of inspections and monitoring. Identify any improvement opportunities or non-conformances (refer to Table 2-5) • Annual report prepared in relation to compliance with FMP (refer to Table 2-5)

2.3. Vehicle Strike Procedure

The following actions must be followed if an animal is struck by a vehicle or equipment when undertaking work at the Sandy Ridge Facility:

1) Immediately notify Sandy Ridge Facility Manager and Environmental Scientist
2) Provide details on incident -location, date and time, circumstance of incident, and species (if known). Include photographs for confirmation and identification
3) Sandy Ridge personnel to log vehicle strike as incident in electronic database
4) If species is a conservation-significant species, Environmental Scientist to fill in details on Conservation-significant Fauna Report Form and submit to DBCA (refer to DBCA website)
5) Sandy Ridge personnel to dispose of carcass (via burial)
6) Sandy Ridge Facility Manager to investigate cause of incident to reduce likelihood of reoccurrence
7) Environment Manager to review and approve close-out of electronic database incident and investigation

2.4. Inspections and Monitoring

Site inspections and monitoring will be undertaken by a suitably qualified person.

Specific environmental inspections, including timing and responsibilities are provided in Table 2-3. The findings (including photographs) of the environmental inspections/audits will be recorded on an Environmental Inspection Checklist housed within an Environmental Management System (EMS), Appendix I. Any improvement opportunities or non-conformances will be reported monthly via the EMS.

Table 2-3: Fauna inspections

Requirement	Timing
Inspect vegetation clearing boundaries to ensure they are intact.	Monthly.
Inspect adherence to the designated traffic access and transport routes (this may include observation from strategic locations).	Weekly.
Inspect artificial water bodies and drains for trapped fauna.	Daily.
Inspect integrity of rubbish bins. Ensure rubbish bins are emptied on a regular basis.	Weekly.
Inspect integrity of fencing around mine infrastructure areas.	Monthly.
Inspect integrity and effectiveness of fauna deterrent devices and egress facilities incorporated into water storage ponds.	Weekly.

Specific monitoring requirements, including timing and responsibilities are provided in Table 2-4. The results of the monitoring will be kept in a written record within the EMS. This will include reporting opportunities or non-conformances on a monthly basis.

Table 2-4: Fauna monitoring requirements

Requirement	Timing
Monitoring of vegetation clearing.	Prior to commencement of clearing. Monthly inspections of approved clearing boundaries until cessation of construction activities.
Monitoring of feral fauna.	Ongoing. Monitor presence of feral fauna on-site. If numbers increase, determine most appropriate control measures to use in consultation with DBCA (refer to Table 2-2).

2.5. Reporting

Fauna sightings will be reported through the monthly Environmental Report. This report will be prepared by the HSECQ department within Tellus. The report will outline compliance with the management controls on-site, the results of inspections and monitoring, and any improvement opportunities or non-conformances.

Annual auditing and subsequent reporting will also be undertaken to ensure compliance with this FMP. Auditing and reporting will be consistent with the Compliance Assessment Plan for the Facility. This report will be prepared by the HSECQ department within Tellus. A summary of reporting requirements required under this FMP is provided in Table 2-5.

Table 2-5: Fauna reporting requirements

Requirement	Timing
Report sightings/mortalities of conservation-significant species to WA Government.	As required.
Prepare environmental report in relation to compliance with environmental management controls on site. Include results of inspections and monitoring. Identify any improvement opportunities or non-conformances	Monthly.
Prepare annual report in relation to compliance with the FMP (consistent with Compliance Assessment Plan).	Annually.
Report pollution incidents resulting in offsite impacts to the appropriate agency within the WA Government.	As required.
Record complaints and stakeholder interactions.	As required.

3 ADAPTIVE MANAGEMENT AND FMP REVIEW

3.1. Review

As per Condition 11-5 and Condition 11-6 of MS 1078, this FMP will be reviewed and revised periodically.

At a minimum, this FMP will be revised to address terrestrial fauna management aspects related to rehabilitation and closure no less than five (5) years prior to the rehabilitation of the first cell.

3.2. Continuous Improvement

Continuous improvement aims to reduce impacts by embedding a cycle of monitoring, reporting, and implementing change (where required). The adaptive management approach involves adjusting management and mitigation measures to meet the outcomes and objectives based on what is learned from the:

- Evaluation of monitoring data
- Review of assumptions and uncertainties
- Re-evaluation of Project-related risks
- Increased understanding of the ecological regime
- External changes during the life of the Project

Continuous improvement of this FMP will be achieved by the ongoing evaluation of environmental management performance against environmental policies, objectives and targets for the purpose of identifying opportunities for improvement. The continuous improvement process will be designed to:

- Identify areas of opportunity for improvement of environmental management and performance
- Determine the cause or causes of non-conformances and deficiencies
- Develop and implement a plan of corrective and preventative action to address any non-conformances and deficiencies
- Verify the effectiveness of the corrective and preventative actions
- Document any changes in procedures resulting from process improvement
- Make comparisons with objectives and targets

3.3. Change Management

Further refinements in this FMP may result from changes identified during future works and operations. Any changes will be managed in accordance with Tellus' Change Management procedure.

3.4. Inductions, Training and Competencies

Tellus is responsible for ensuring staff and contractors are informed, trained and competent to be onsite and to undertake work in a manner that minimises impacts on the environment and community. A register of training records and competencies is maintained in an electronic database. The following are the key mechanisms used to ensure awareness and competency when onsite.

3.4.1. Visitors' induction

Visitors will undergo a visitor's induction, which will outline the overarching environmental, health and safety requirements. The nominated Tellus contact for the visitor will be responsible for the actions and conduct of their visitors and will reinforce any relevant environmental requirements.

Visitors will be accompanied at all times by the nominated Tellus contact unless specific direction is provided, and the visitor will be restricted from performing work duties on-site. Inductions are administered and recorded via an electronic database.

3.4.2. Site induction

Prior to commencing any work duties on site, personnel will undergo a site-specific online induction. The site-specific induction includes information about site operations as well as associated health, safety, environment and community requirements. The induction also provides key environmental impacts and aspects and mitigation measures.

Individuals are required to complete the online induction HSE before they attend site. Inductions are administered and recorded via an electronic database.

3.5. Incident / Non-conformance Management

Management of an environmental incident or non-conformance that has caused or threatens to cause material or significant harm to the environment will be conducted in accordance with the incident investigation procedure.

Incidents and non-conformances associated with MS 1234 must be reported to DWER within seven days of being known (Condition 4-5, MS 1234).

Further refinements may result from detailed design refinement or changes identified during construction. Any design changes or changes in the scope of works will be managed using Tellus' Change Management procedure.

4 STAKEHOLDER CONSULTATION

A summary of the stakeholder and government authority consultation completed to date which has informed the FMP is presented in Table 4-1. Consultation will continue with the relevant stakeholders and government agencies where there is a variation to the FMP. This consultation will be documented in the subsequent revisions of the FMP.

Table 4-1: Stakeholder consultation summary

Stakeholder/government authority	Date	Summary
Environmental Protection Authority Services	1 November 2017	Tellus submits proposed Targeted Flora Survey Plan to Environmental Protection Authority Services.
Environmental Protection Authority Services	3 November 2017	Environmental Protection Authority Services provides feedback on the Targeted Flora Survey Plan to Tellus from Terrestrial Ecosystems Branch.
DWER EPA Services	2 March 2018	Tellus summarises consultation between Tellus and Environmental Protection Authority Services of DWER with the objective of avoiding duplication of a Targeted Survey for potentially conservation-significant flora at Sandy Ridge.
DWER EPA Services	14 March 2019	Meeting to provide status update on the development of management plans required to be submitted prior to commencing ground disturbance at Sandy Ridge. Tellus advised conditions 10-5 and condition 11-2 are understood to require submission, not approval of management plans prior to ground disturbance.
DWER EPA Services	2 April 2019	DWER EPA Services recommends that FMP is compiled as per the template provided in 'Instructions on how to prepare Environmental Protection Act 1986 Part IV Environmental Management Plans' WA EPA 2018.
DWER EPA Services	3 April 2019	Tellus requests deviation from provisions table in Section 2 of 'Instructions on how to prepare Environmental Protection Act 1986 Part IV Environmental Management Plans' WA EPA 2018. Deviation required to include additional subject matter. DWER EPA Services accepts proposed deviation.
Dr Mike Bamford	August 2019	Consultation on appropriate timeframes for pre-clearing site inspections to inform this document revision.

5 DOCUMENT REVISION

At a minimum, this FMP will be revised to address fauna management aspects related to rehabilitation and closure no less than five years prior to the rehabilitation of the first cell.

Subsequent revisions of the FMP will be issued to DWER for comment and approval.

A table of changes to this FMP from the previous revision is shown in Table 5 1.

Table 5-1: Changes to FMP

Complexity of changes	☒ Minor revisions	☐ Moderate revisions	☒ Major revisions	
Number of key environmental factors:	☐ One	☐ 2 to 3	☒ > more than 3	
Date revision submitted to EPA:	23/05/2025			
Proponent's operational requirement timeframe for approval of revision:	☐ < one month	☐ < six months	☐ > six months	☒ None
Reason for timeframe:				

Section No.	Context	Version	Date
	Issued for Use	0	13/06/2019
Various	Updated for operational phase	1	30/05/2022
Various	Administrative revision to update references from MS 1078 to MS 1234	2	23/05/2025

6 REFERENCES

Bennelongia. (2017). *Sandy Ridge Facility – Short-Range Endemic Invertebrates.*

Bennelongia. (2018). *Sandy Ridge Facility – Access Road and Groundwater Abstraction: Short Range Endemic Invertebrates Assessment .*

Hygiea Consulting. (2016). *Sandy Ridge Facility – Radiological Risk Assessment: Fauna & Flora .*

M.J & A.R Bamford Consulting Ecologists. (2016). *Tellus Holdings Limited: Sandy Ridge Project, Malleefowl Assessment.*

Terrestrial Ecosystems. (2016). *Level 1 Vertebrate Fauna Assessment for the Sandy Ridge Project.*

Terrestrial Ecosystems. (2018). *Vertebrate Fauna Assessment – Access Road and Groundwater Infrastructure Areas.*

Thompson & Thompson. (2006). *Reptiles of the Western Australian Goldfields.* Thompson, S. A., and G. G. Thompson.

APPENDIX A: PRIORITY FAUNA PLATES

Plate A-1: Malleefowl (*Leipoa ocellata*) (top) and Malleefowl mound (bottom)

Plate A-2: Woma (*Aspidites ramsayi*)

Plate A-3: Fork-tailed Swift (*Apus pacificus*)

Plate A-4: Peregrine Falcon (*Falco peregrinus*)

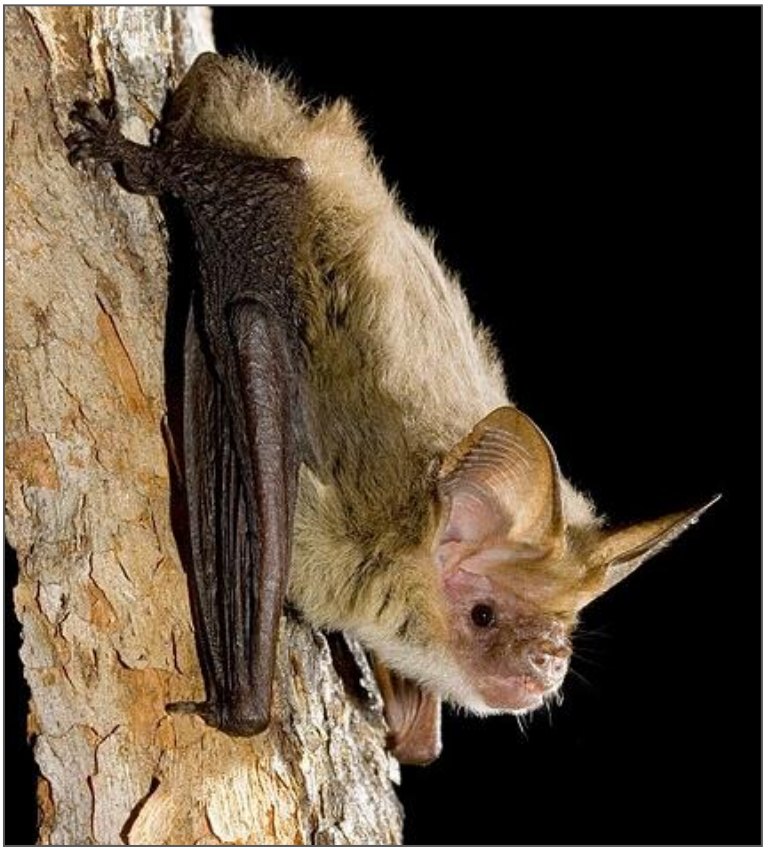


Plate A-5: Central Long-eared Bat (*Nyctophilus major tor*) (P3)

Plate A-6: Western Rosella (Mallee) (*Platycercus icterotis xanthogenys*) (P4)