TELLUS

Sandy Ridge Project
Draft Environmental Scoping Document

31 March 2016

INVITATION

The Environmental Protection Authority (EPA) invites people to make a submission on this draft Environmental Scoping Document (ESD). The environmental impact assessment process is designed to be transparent and accountable, and includes specific points for public involvement, including opportunities for public review of environmental documentation. In releasing this document for public submissions, the EPA advises that no decisions have been made to allow this proposal to be implemented.

Tellus Holdings Ltd is proposing to develop the Sandy Ridge Facility (the Proposal) within the Goldfields region of Western Australia. The Proposal is to develop a kaolin open cut mine and use the mine voids for the secure storage and isolation of hazardous, intractable and low level radioactive waste using world best practice storage and isolation supported by a site specific safety case.

In accordance with Western Australian Government procedures the EPA's *Environmental Assessment Guideline for Scoping a proposal* (EAG 10), and *Environmental Assessment Guideline for Application of a significance framework in the environmental impact assessment process* (EAG 9), an ESD describes the proposal, identifies the preliminary key (most important) environmental factors or issues, outlines the work to be undertaken to predict the environmental impacts, and identifies the relevant policy context. The draft ESD is available for a public review period of 2 weeks from **31st March** closing on **14th April.**

Why write a submission?

A submission is a way to provide information, express your opinion and put forward your suggested course of action – including any alternative approach. It is useful if you indicate any suggestions you have to improve the draft ESD.

Submissions from government agencies and from the public will assist the EPA to identify any additional preliminary key factors/issues that should be included in the draft ESD and the type and extent of any additional works to be carried out. The proponent will be required to provide adequate responses to points raised in submissions. In making its decision to approve the ESD, the EPA will consider the information in submissions, the proponent's responses and other relevant information.

Submissions will be treated as public documents unless provided and received in confidence, subject to the requirements of the *Freedom of Information Act 1992.*

Why not join a group?

If you prefer not to write your own submission, it may be worthwhile joining with a group or other groups interested in making a submission on similar issues. Joint submissions may help to reduce the workload for an individual or group, as well as increase the pool of ideas and information. If you form a small group (up to 10 people) please indicate all the names of the participants. If your group is larger, please indicate how many people your submission represents.

Developing a submission

When making a submission you should be aware that in accordance with EAG 10 and the *Environmental Impact Assessment Administrative Procedures 2012*, the draft ESD focuses on the form, content, preliminary key environmental factors and the work required to identify or predict the direct, indirect and cumulative impacts of the proposal on the environment. The actual impacts themselves will be addressed in the Public Environmental Review document which will be available for public review later in the assessment process. You may agree or disagree with, or provide a submission on, the general issues discussed in the draft ESD or the specific proposal. It helps if you give reasons for your conclusions, supported by relevant information.

When making comments on the draft ESD:

- suggest other preliminary key (most important) environmental factors or any additional works you consider appropriate;
- clearly state your point of view giving reasons for your conclusions;
- indicate the source of your information where applicable; and
- suggest recommendations or alternatives.

Points to keep in mind.

By keeping the following points in mind, you will make it easier for your submission to be analysed:

- a summary of your submission is helpful;
- dot point format is useful including your issue and your recommendations;
- refer each point to the appropriate section, page and if possible paragraph in the draft ESD;
- if you discuss different sections of the draft ESD, keep them distinct and separate, so there is no confusion as to which section you are considering; and
- attach any factual information you may wish to provide and give details of the source. Please make sure your information is accurate.

Where to get copies of the draft Environmental Scoping Document

The document/s may be accessed through the EPA consultation hub at https://consultation.epa.wa.gov.au or directly from the proponent's website at www.tellusholdings.com.

Printed and CD copies of this document may also be obtained from:

Tellus Holdings Ltd
Suite 2, Level 10,
151 Castlereagh Street
Sydney NSW 2000
Telephone No. (08) 8257 3395
Email: info@tellusholdings.com

at a cost of $10 (includes postage and handling) for hard copies; CD copies are free of charge.

How to make a submission

Submissions should be made through the EPA consultation hub at https://consultation.epa.wa.gov.au

Alternatively, written submissions can be posted to:

Chairman, Environmental Protection Authority,

Locked Bag 10, EAST PERTH, WA 6892.

Remember to include:

- Proposal Title and CMS 15087 / Assessment 2057
- your name and address;
- date of your submission; and
- whether you want your submission to be confidential.

The closing date for submissions is: **14th April.**

The EPA's website http://epa.wa.gov.au/ contains information about the environmental impact assessment process of which the draft ESD is part, should you have any queries. However, if you have any questions on how to make a submission, please ring the Office of the Environmental Protection Authority on 6145 0800 (quoting the Sandy Ridge Project and CMS 15087 / Assessment 2057).

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ENVIRONMENTAL SCOPING DOCUMENT

PROPOSAL NAME:	**SANDY RIDGE PROJECT**
ASSESSMENT NUMBER:	**2057**
LOCATION:	**APPROXIMATELY 75 KILOMETRES NORTH–EAST OF KOOLYANOBBING**
LOCAL GOVERNMENT AREA:	**SHIRE OF COOLGARDIE**
PROPONENT:	**TELLUS HOLDINGS LTD**
PUBLIC REVIEW PERIOD:	**10 WEEKS**
EPBC REFERENCE NO.:	**2015/7478**

1 INTRODUCTION

The proposal is being assessed by the Environmental Protection Authority (EPA) under Part IV of the *Environmental Protection Act 1986* (EP Act) at the level of Public Environmental Review (PER). This Environmental Scoping Document (ESD) sets out the requirements for the environmental review of the proposal. The purpose of an ESD is to:

- Provide proposal-specific guidelines to direct the proponent on the preliminary key environmental factors or issues that are to be addressed during the environmental review and preparation of the environmental review report.
- Identify the required work that needs to be carried out.
- Outline the timing of the environmental review.

The proponent must conduct the environmental review in accordance with this ESD and then report to the EPA in an environmental review report (PER document). As well as the proposal-specific requirements for the environmental review identified in this ESD, the PER document must also address the generic information requirements listed in section 10.2.4 of the EPA's *Environmental Impact Assessment (Part IV Divisions 1 and 2) Administrative Procedures 2012* (Administrative Procedures). When the EPA is satisfied that the PER document adequately addresses both of these requirements, the proponent will be required to release the document for a public review period of 10 weeks.

This ESD has been prepared by Aurora Environmental for Tellus Holdings Ltd (the proponent) in consultation with the EPA, decision-making authorities and interested agencies consistent with EPA *Environmental Assessment Guideline (EAG) 10 — Scoping a proposal*. This ESD is subject to a public review period of two weeks. The ESD will be available on the EPA website (www.epa.wa.gov.au) upon endorsement and must be appended to the PER document.

1.1 Assessment under bilateral agreement

The proposal has been referred and determined to be a controlled action under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and is being assessed under the Bilateral Agreement between the Commonwealth of Australia and the State of Western Australia made under Section 45 of that Act. The relevant matters of national environmental significance (MNES) for this proposal are:

- The environment because the proposal is a nuclear action (s21 and 22A).

This ESD is inclusive of work required to be carried out and reported on in the PER document in relation to MNES. The PER will include a section identifying MNES and discussing how those matters have been addressed within the PER, including identifying any offsets that would be appropriate.

Schedule 4 of the *Environmental Protection and Biodiversity Conservation Regulations 2000* lists the matters to be addressed in a draft PER under the EPBC Act. The following requirements will be addressed in the PER:

General information

- The title of the action;
- The full name and postal address of the designated proponent;

- How the action relates to any other actions (of which the proponent should reasonably be aware) that have been, or are being, taken or that have been approved in the region affected by the action;
- The current status of the action; and
- The consequences of not proceeding with the action.

Environmental record of person proposing to take the action

- Details of any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against:
  - the person proposing to take the action; and
  - for an action for which a person has applied for a permit, the person making the application.

Information Sources

- For information given in a draft PER, the draft must state:
  - the source of the information;
  - how recent the information is;
  - how reliability of the information was tested and
  - what uncertainties (if any) are in the information.

2 THE PROPOSAL

2.1 Introduction

The subject of the ESD is the proponent's proposal to develop the Sandy Ridge Project (the Proposal) (Figure 1). The Proposal is to develop a kaolin open cut mine and use the mine voids for the secure storage and isolation of hazardous, intractable and low level radioactive waste using best practice storage and isolation safety case.

The Proposal is located approximately 75 kilometres (km) north-east of Koolyanobbing, Western Australia (Figure 1). Access is via a 100 km road to the Intractable Waste Disposal Facility (IWDF) Mount Walton East (Crown Reserve No. 44102) that extends northward from the Boorabbin Siding on Great Eastern Highway; a 4.5 km westwards section along an existing road; and a 5.3 km northwards section of new site access road into the development envelope (Figures 2 and 3).

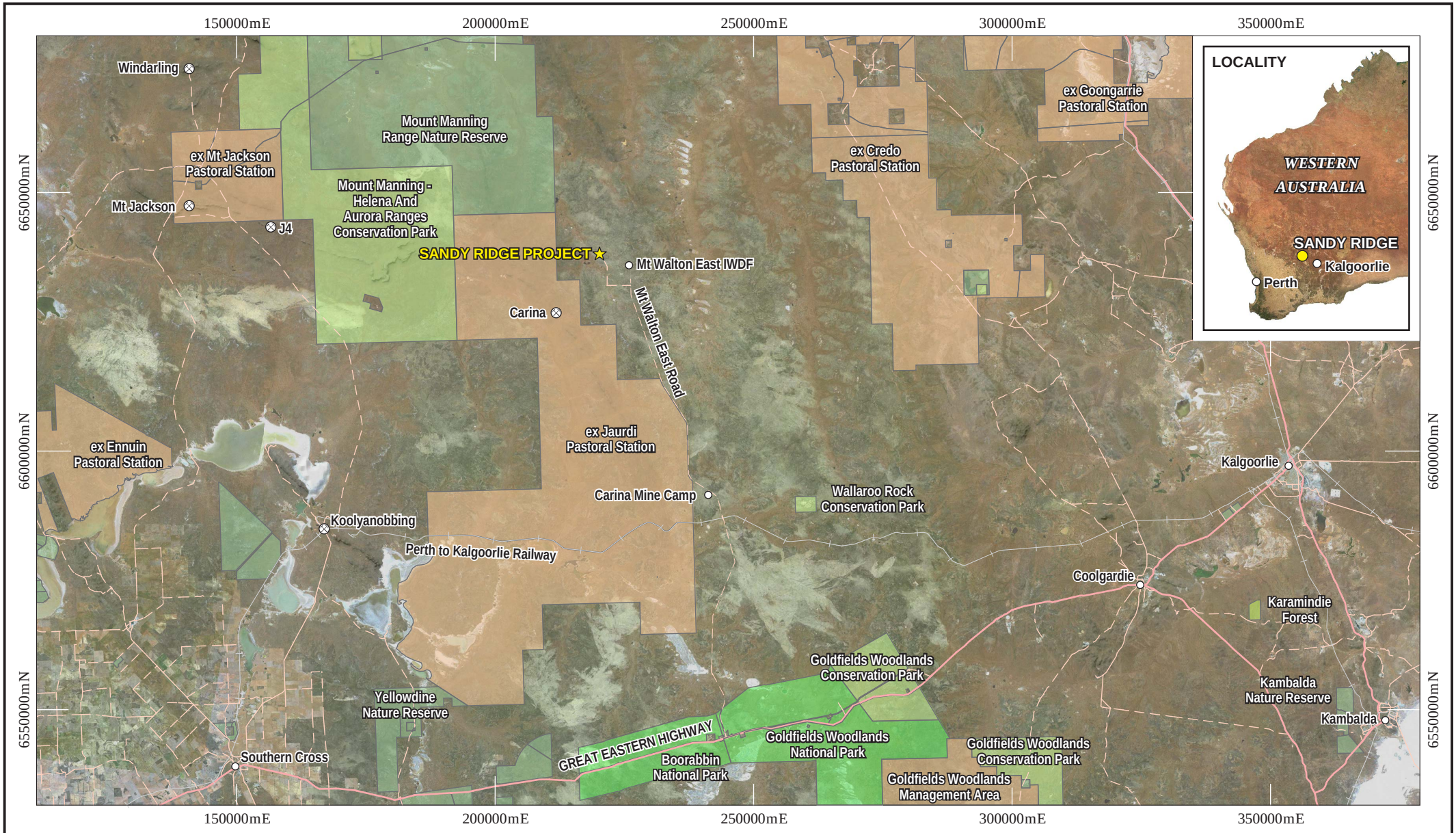
There are no sensitive receptors within 5 km of the location of the Proposal. The nearest operation is the Class V IWDF Mount Walton East located approximately 6 km to the east, which operates on a campaign basis and does not have permanent residents. The nearest mining camp is the Carina Iron Ore Mine Accommodation Camp located approximately 52 km to the south east of Sandy Ridge

The location of the Sandy Ridge Project has been specifically chosen to meet the requirements of International and National codes relating to the siting of a near surface geological repository. These site characteristics include:

- **Geologically stable** — the development envelope sits within the Archean Yilgarn Block and is geologically typical of areas overlying deeply weathered granite domes. It has very low seismicity (no earthquakes have been recorded at Sandy Ridge) and no volcanic or tectonic activity.
- **Natural geological barrier** — the clay bed is laterally extensive (80 km long and 40 km wide), has been stable for approximately 20 million years and is up to 36 m thick. This is capped by erosion resistant silcrete and laterite layers typically 4 to 6 metres thick in total.
- **Semi-arid desert Mediterranean climate** — averages just over 250 mm of rainfall per annum and evaporation is greater than 2,000 mm per annum. This means very little rainfall occurs across the site and generally water will evaporate before it infiltrates.
- **No surface water receptors** - there are no channels or creeks in the development envelope.
- **Very little (if any) surface water runoff** – Due to the low rainfall, high evaporation, permeable upper soil profile and gently sloping topography, significant rainfall events infiltrate quickly. There is a low likelihood of surface flows in the local catchments and any flows are short-lived and local in nature.
- **Lack of commercial mineral deposits** – there is no evidence to suggest that there is potential for economic mineral or hydrocarbon deposits beneath the kaolin deposit.
- **Topography** – the development envelope is flat to gently undulating and suitable for the construction of infrastructure and heavy vehicle movement.
- **Absence of Population** – located in an area with no population, the nearest population centre is a non-permanent camp approximately 52 km away.

- **Agricultural land use** – there is no potential for medium to high value agriculture.
- **Environmental values** – the environmental values of the development envelope are currently unknown and will be determined through investigation.
- **Heritage –**no special cultural or historical significance has been identified through a completed heritage study and consultation with stakeholders familiar with the area.
- **No flooding** – the development envelope is not subject to flooding, nor is it predicted to be in the future. The site is at very low risk of encountering cyclones.
- **Very low rates of erosion** – the development envelope is not subject to the erosive forces of high winds or rain due to the climate, soil types and topography and has been stable for thousands of years.

It can be concluded on the basis of the characteristics described above, that there is little credible risk to human health or the environment from suitably conditioned and packaged hazardous or intractable wastes that might be stored and isolated in appropriately designed disposal cell at Sandy Ridge.



Legend:
- Iron Ore Mine
- Rail
- Major Road
- Minor Road

DPaW Managed Lands:
- Conservation Park
- Former Leasehold
- National Park
- Nature Reserve
- State Forest

Client: TELLUS

0 20km
Scale 1:1,000,000
MGA94 (Zone 51)
CAD Ref: g2294_ESD_001.dgn
Date: Dec 2015 | Rev: B | A4

Aurora environmental

Author: C. Dorrington | AE Ref: THO2014-003
Drawn: CAD Resources ~ www.cadresources.com.au
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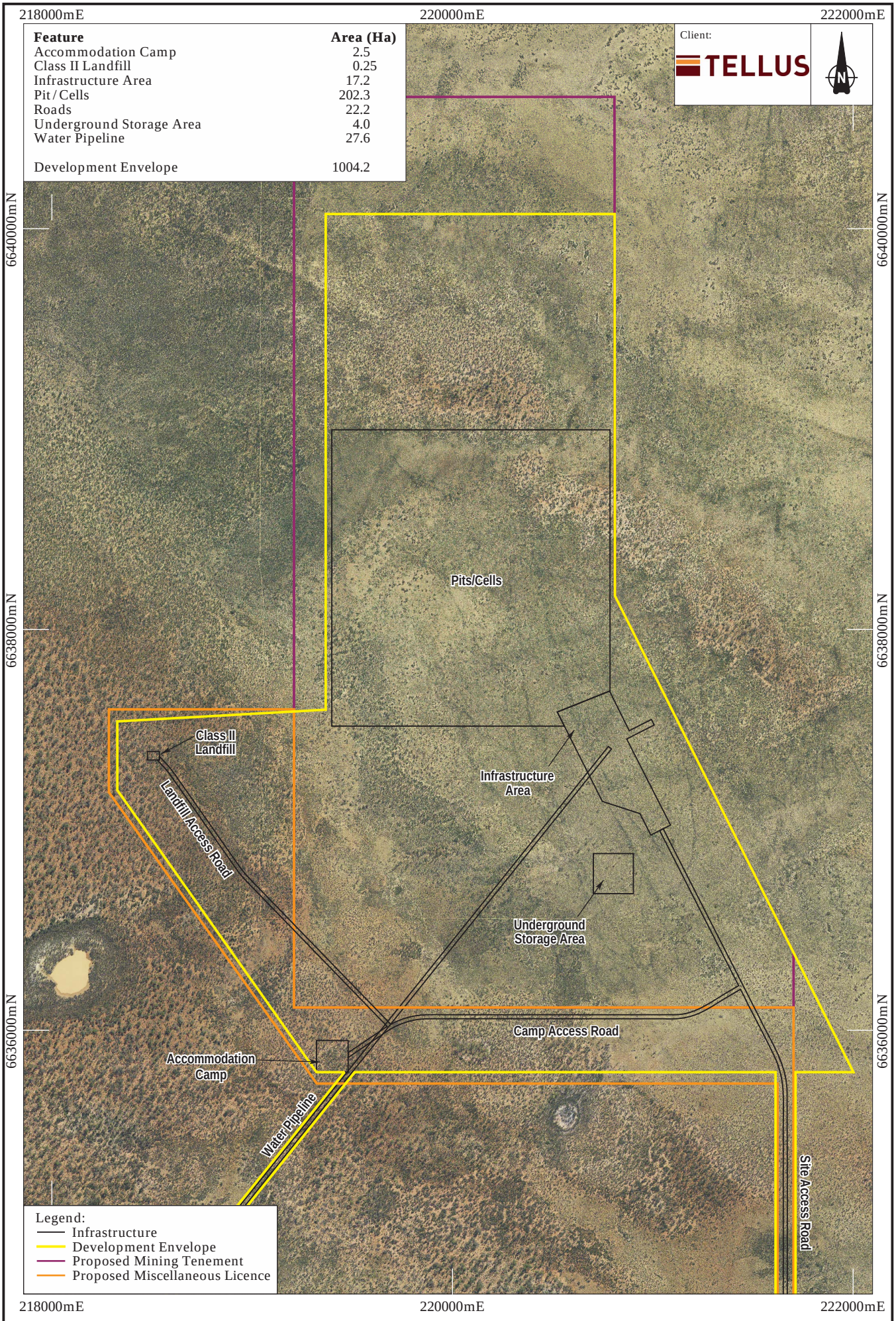
Sandy Ridge Project

Regional Location

Environmental Scoping Document

Figure: **1**



0 400m
Scale 1:25,000
MGA94 (Zone 51)
CAD Ref: g2294_ESD_F004.dgn
Date: October 2015 | Rev: B | A4

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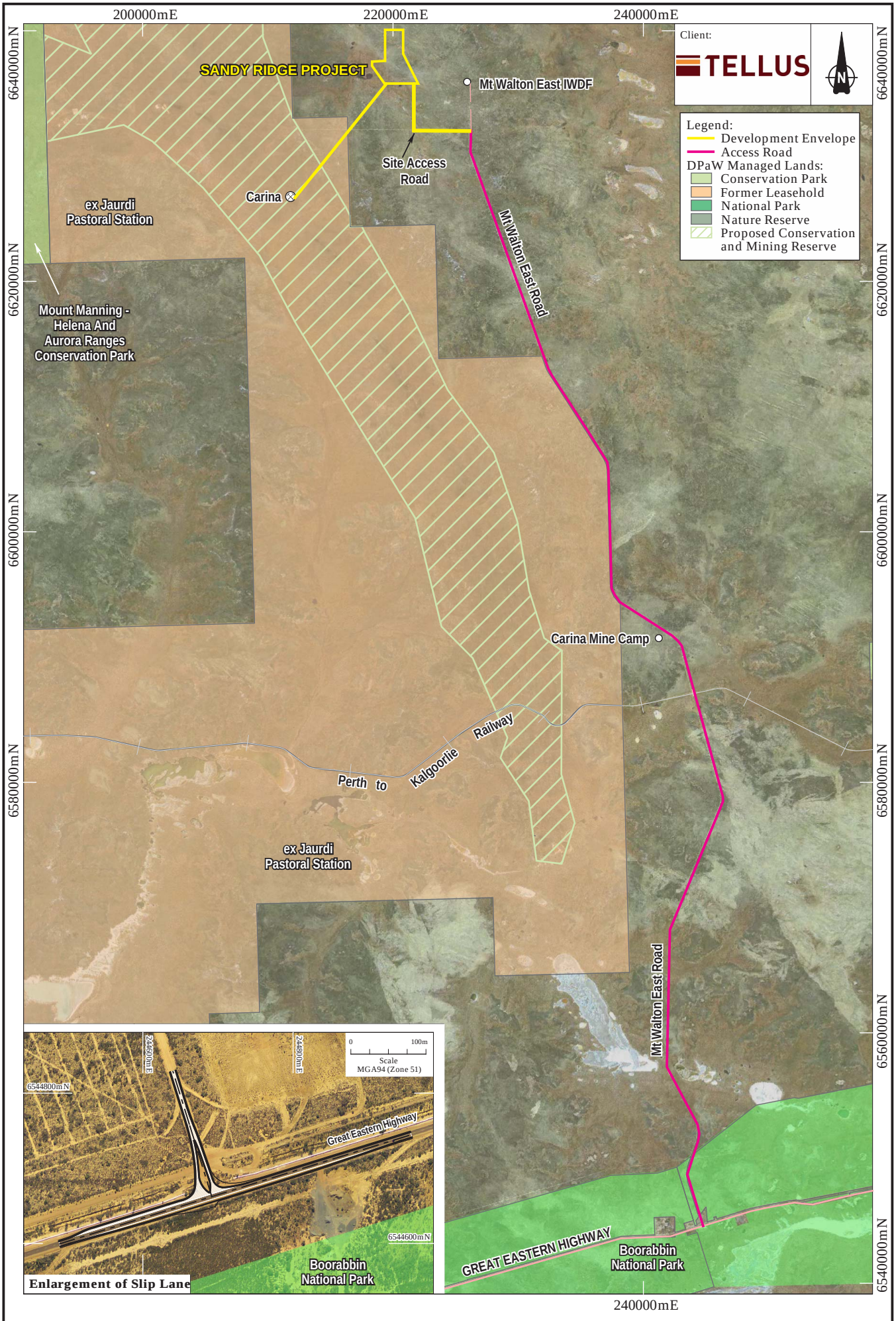
Sandy Ridge Project

Development Envelope

Environmental Scoping Document

Figure: **2**



0 5km
Scale 1:400,000
MGA94 (Zone 51)

CAD Ref: g2294_ESD_005.dgn
Date: December 2015 | Rev: B | A4

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Sandy Ridge Project

Access to Sandy Ridge

Environmental Scoping Document

Figure: **3**

2.2 Elements of the Proposal

The proposal would produce up to 290,000 tonnes per annum (tpa) of kaolin through the development and operation of open cut mine pits. The ore would be processed via an onsite processing plant and the kaolin products transferred from Sandy Ridge to the domestic market or to Fremantle Port for export overseas. All overburden would be returned to the pits, and topsoil returned and the surface revegetated.

The waste aspect of the proposal involves disposing of up to 100,000 tpa of intractable, hazardous and low level radioactive wastes in the mine voids (herein referred to as 'cells') over a 25 year period (i.e. 2,500,000 tonnes in total). Wastes would be accepted from across Australia with indicative transport routes into Western Australia shown on Figure 4. Transport of waste is not part of the proposal as it will be addressed under the appropriate legislation, guidelines and codes such as; *Radiation Safety (Transport of Radioactive Substances) Regulations 2002* (Western Australia), *Environmental Protection (Controlled Waste) Regulations 2004*, Transport of Dangerous Goods by Road or Rail (Commonwealth of Australia, 2014), *National Environment Protection (Movement of Controlled Waste between States and Territories) Measure 1998* and the Code for Safe Transport of Radioactive Material (ARPANSA, 2014).

Cells would be filled in layers with multiple sections in each layer. Each layer would be divided into sections containing wastes of similar characteristics. Each section will be backfilled, compacted and all air pockets/voids excluded. Each layer will be compacted, until approximately 7m below the ground surface, where a thick capping layer of low permeability clay will be installed to prevent water ingress into the cell. Following this more backfilling and a clay domed cap would be situated on the top of the cell, to shed any landing rainfall. During the waste disposal process a roof canopy is positioned over the cell to exclude rainfall prior to the thick capping layer being installed.

Likely chemical wastes to be disposed of in the cells include; arsenic or arsenic containing compounds, cyanide inorganic compounds, chromium (VI) compounds, lead or lead compounds, spent pot liners, soils contaminated with heavy metals, asbestos and pesticides, hydrocarbon wastes and phosphates from the agricultural industry. Likely radioactive wastes to be disposed of in the cells within specific shafts include those that can meet the <3,700 Becquerel per gram and < 30 years half–life criteria. These radioactive wastes are generally generated by; medical research and industry, operation of research facilities (e.g. laboratory coats, overshoes, gloves), Naturally Occurring Radioactive Materials (NORMs) occurring on pipework and scale from industry, oil spills containing NORMs and orphan sources (i.e. gauges and instrumentation). Wastes which will not be disposed of into cells include; infectious materials, nuclear material, uncertified waste, putrescible waste and gases.

Infrastructure required to support the mining and waste disposal operation include; access roads, mine infrastructure (process plant, offices, warehouses, hardstands, weighbridges, explosives magazine etc.), water pipeline, Class II landfill (for putrescible waste generated at the site), accommodation camp, ore and overburden stockpiles, mobile plant, water tanks, power generators and sewerage treatment systems.

0 100km

Scale 1:10,000,000
MGA94 (Zone 52)

CAD Ref: g2294_ESD_006.dgn

Date: October 2015 | Rev: A | A4

Aurora environmental

Author: C. Dorrington | AE Ref: THO2014-003

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Sandy Ridge Project

Indicative Transport Routes

Environmental Scoping Document

Figure: 4

Table 2–1 outlines the key physical and operational elements of the proposal.

Table 2–1: Key proposal characteristics

SUMMARY OF THE PROPOSAL		
Proposal title	Sandy Ridge Project	
Proponent name	Tellus Holdings Ltd	
Short description	The Proposal is to develop a kaolin open cut mine and use the voids resulting from mining for the secure storage and isolation of hazardous, intractable waste and low level radioactive waste using best practice storage and isolation safety case. The Proposal is located approximately 75 km north-east of Koolyanobbing, Western Australia (Figure 1).	
PHYSICAL ELEMENTS		
Element	**Location**	**Proposed Extent Authorised**
Pits/Cells	Figure 2	Clearing no more than 202.3 hectares (ha) within 1004.2 ha development envelope
Mine Infrastructure	Figure 2	Clearing no more than 17.2 ha within 1004.2 ha development envelope
Accommodation Camp	Figure 2	Clearing no more than 2.5 ha within 1004.2 ha development envelope
Class II Landfill	Figure 2	Clearing no more than 0.25 ha within 1004.2 ha development envelope
Underground storage area	Figure 2	Clearing no more than 4 ha within 1004.2 ha development envelope
Access Roads	Figure 3	Clearing no more than 22.2 ha within 1004.2 ha development envelope.
Water pipeline	Figure 2 and 3	Clearing no more than 27.6 ha within 1004.2 ha development envelope
Total disturbed area		Clearing no more than 276.05 ha within 1004.2 ha development envelope
OPERATIONAL ELEMENTS		
Element	**Location**	**Proposed Extent Authorised**
Ore Processing	Kaolin Plant, Figure 2, coordinates: 220800mE, 6637520mN	Processing of no more than 290,000 tpa
Class IV and Class V waste disposal	Pits/Cells, Figure 2 coordinates: 219920mE, 6638195mN	Disposal of no more than 100,000 tpa. Average amount per annum 66,000 t. Maximum amount disposed 2,500,000 t over a 25 year period.
Class II Landfill for waste generated on the site.	Class II Landfill, Figure 2 coordinates: 218507mE, 6637370mN	Disposal of no more than 500 tpa

SUMMARY OF THE PROPOSAL		
Water Use	Water Tanks, Figure 2 coordinates: 220770mE, 6637430mN	0.18 GL/year sourced from water tanks onsite that are supplied via a water pipeline from the Mineral Resources Carina Iron Ore Mine.

2.3 Potential Impacts of the Proposal

The aspects of the Proposal which pose potential significant risks to the environment include the handling and storage of hazardous, intractable and radioactive waste. The construction and operation of the mine and waste facility have the potential to impact; flora and vegetation, land and soils, terrestrial fauna, inland waters environmental quality and human health. Tellus plan to manage each aspect of the project to ensure any potential impacts to these key environmental factors are as low as reasonably practicable.

2.4 Operation and Closure

The project lifecycle includes mining and disposal of wastes until approximately year 25, monitoring and rehabilitation of waste cells until year 45, and following this an institutional control period (ICP) will apply. The ICP will ensure the wastes stored in the geological repository are undisturbed for a period of time until they no longer pose a risk to human activities conducted on the surface of the waste cells. The ICP is yet to be agreed with the Radiological Council of Western Australia.

Tellus will provide ample financial provisioning to the State to cover any environmental monitoring required during the ICP. It is envisaged that funding will be deposited into an Escrowed Fund established by Tellus through an impost built into waste charges. The level of funding will be determined based on the estimated cost of monitoring during the ICP with an allowance based on an independent risk assessment for rehabilitation works during the ICP.

3 PRELIMINARY KEY ENVIRONMENTAL FACTORS AND SCOPE OF WORK

The key proposal characteristics in Table 2–1 have informed the identification of the preliminary key environmental factors for the proposal, in accordance with *EAG 8 Environmental principles, factors and objectives*. The preliminary key environmental factors for this proposal and the EPA's objective for each of those factors are identified in Table 3–1.

To provide context to the preliminary key environmental factors, Table 3-1 also identifies the aspects of the proposal that cause the factors to be key factors, and the potential impacts and risks likely to be relevant to the assessment. All of this in turn has informed the work required to be conducted in the environmental review.

Finally Table 3–1 identifies the policy documents that establish how the EPA expects the environmental factors to be addressed in the environmental review and the PER document that follows. In addition to these policy documents, the following EPA policies apply to the proposal and environmental impact assessment process:

- EAG 1 *Defining the key characteristics of a proposal* (EPA, 2012)
- EAG 8 *Environmental principles, factors and objectives* (EPA, 2015)
- EAG 9 *Application of a significance framework in the environmental impact assessment process* (EPA, 2013)
- EAG 17 *Preparation of Management Plans under Part IV of the Environmental Protection Act 1986* (EPA, 2015).

Impacts associated with proposals are to be considered at a local and regional scale, including evaluation of cumulative impacts, and provide details of proposed management/mitigation measures. This includes whether environmental offsets are required by application of the mitigation hierarchy, consistent with the Government of Western Australia (2014) WA Environmental Offsets Guidelines.

Table 3–1: Preliminary key environmental factors and required work

FLORA AND VEGETATION	
EPA objective	To maintain representation, diversity, viability and ecological function at the species, population and community level.
Relevant aspects	• Handling and storage of hazardous and intractable waste. • Creation of development elements including mine pits. • Fire protection measures. • Blasting generating dust. • Use of saline water for dust suppression. • Introduction of weeds. • Failure of waste cell containment and generation of leachate. • Construction and operation of a water pipeline from Carina pit to the infrastructure area.
Potential impacts and risks	• Direct clearing of native vegetation. • Gamma radiation exposure to flora and vegetation. • Radon emanating from waste cells. • Altered fire regime, and lack of flowering. • Changed hydrology (quality and quantity of surface water) and effects on downstream vegetation. • Dust deposition on vegetation and subsequent smothering inducing death. • Uptake of saline water from dust suppression. • Introduction and spread of weeds that compete with native vegetation. • Transpiration of leachate from waste cell and the subsequent death of vegetation. • Potential for fire and loss of vegetation. • The construction and operation of the water pipeline could directly (e.g. clearing) and indirectly (e.g. leak of saline water) impact native flora and vegetation.
Required work	1. Undertake flora and vegetation surveys in accordance with the requirements of EPA Guidance Statement No. 51 in areas that are likely to be directly or indirectly impacted as a result of the proposal. This should include a description of the surveys undertaken, the baseline data collected, and the environmental values identified. 2. Describe the existing flora and vegetation within the development envelope including its relevance within a wider regional context. The development envelope includes: pit/cells area, mine infrastructure area, underground storage area, accommodation camp, Class II landfill, water pipeline corridor and access roads. 3. Assess the direct and indirect impacts associated with the proposal on the flora and vegetation within the development envelope. A quantitative analysis of the likely extent of these impacts on vegetation units and conservation significant flora species (as defined in Guidance Statement 51, page 29). Analysis of impacts on vegetation to include: • The area (in ha) of each vegetation unit to be impacted (directly and indirectly) in a 'worst case' scenario.

	• The total area (in ha) of each vegetation unit within the development envelope. • A summary of the known regional distribution of vegetation units. • Identification of vegetation units which may be a component of Threatened or Priority Ecological Communities. • Identification of any significant species and if present, an analysis of impacts on conservation significant species to include: - The number of plants, and number of populations of plants, to be impacted (directly and indirectly) in a 'worst case' scenario. - The total number of plants and populations within the local area/study area. - A summary of the known populations of the species including distribution, number of populations and the number of plants or an estimate of the number of plants. 4. Address the potential for environmental impacts on Department of Parks and Wildlife managed lands and values including; Former Jaurdi Pastoral Lease, Mount Manning Range Nature Reserve and Mount Manning — Helena–Aurora Ranges Conservation Park. 5. Provide figure(s) showing the extent of clearing or predicted extent of loss of vegetation and conservation significant flora species from both direct and indirect impacts (including, but not limited to, changed hydrology and dust). 6. Assess potential radiation impacts on flora and vegetation using the Environmental Risk from Ionising Contaminants: Assessment and Management (ERICA) tool. Australian specific data should be used where available. 7. Provide a discussion of the proposed management, monitoring and mitigation methods to be implemented demonstrating that the design of the proposal has addressed the mitigation hierarchy in relation to impacts (direct and indirect) on flora and vegetation and consideration of alternatives. 8. Outline the outcomes/objectives, management, monitoring, trigger and contingency actions, to ensure impacts (direct and indirect) are not greater than predicted. 9. Complete EPA's checklist for documents submitted for Environmental Impact Assessment (EIA) on terrestrial biodiversity. 10. To the extent that significant residual impacts cannot be avoided, reduced, mitigated, or subsequently restored – identify appropriate offsets. 11. Provide a statement of how the proponent considers the EPA's objective for this factor has been addressed.
Relevant policies	The following relevant policies and any future revisions apply: *Relevant EPA policies and guidelines* • Checklist for documents submitted for EIA on marine and terrestrial biodiversity. • Position Statement 2: Environmental Protection of Native Vegetation in Western Australia, Perth, Western Australia (EPA, 2000). • Position Statement 3: Terrestrial Biological Surveys as an Element of Biodiversity Protection, Perth, Western Australia (EPA, 2002). • Guidance Statement No. 51: Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment in Western Australia June 2004, Perth, Western Australia (EPA, 2005). • Environmental Offsets Policy, Perth, Western Australia (Government of Western Australia, 2011). • Environmental Offsets Guidelines, Perth, Western Australia (Government of Western

	Australia, 2014). • Technical Guide – Flora and Vegetation Surveys for Environmental Impact Assessment (EPA and Department of Parks and Wildlife, 2015). *Relevant Commonwealth policies and guidelines* • *Environment Protection and Biodiversity Conservation Act 1999* Environmental Offsets Policy (DSEWPAC, 2012). • Outcomes–based Conditions Policy *Environment Protection and Biodiversity Conservation Act 1999* — Draft (Commonwealth of Australia, 2015).
Relevant technical guidelines	The following relevant technical guidelines and any future revisions apply: • A review of existing Australian radionuclide activity concentration data in non-human biota inhabiting uranium mining environments. Technical Report 167 (Australian Radiation Protection and Nuclear Safety Agency (ARPANSA), 2014).
TERRESTRIAL ENVIRONMENTAL QUALITY	
EPA objective	To maintain the quality of land and soils so that the environment values, both ecological and social, are protected.
Relevant aspects	• Handling and storage of hazardous and intractable waste. • Creation of mine pits. • Rehabilitation.
Potential impacts and risks	• Sterilisation of minerals beneath the cells. • Degradation of stockpiled soils over time. • Gamma radiation exposure on surrounding soils. • Radon emanating from waste cells. • Soil contamination from leaks/spills. • Subsidence and instability of waste cell allowing infiltration of water and generation of leachate. • Change in landform to surrounding landscape.
Required work	12. Conduct a baseline soils assessment of the development envelope which includes recommendations for soil handling to minimised degradation of stockpiled soils. 13. Conduct long term (10,000 years) Landform Evolution Modelling of behaviour and performance of landforms and associated containment systems, including waste cell capping systems, modelled under a range of climatic events. 14. Assess potential impacts on the surrounding environment if leachate was generated from the waste cells. 15. Assess potential radiation impacts on surrounding soils/land using the Environmental Risk from Ionising Contaminants: Assessment and Management (ERICA) tool. Australian specific data should be used where available. 16. Provide details of the engineering design of waste cells to minimise risk of environmental exposure to as low as reasonably achievable. The design of waste cells would ensure long term encapsulation of wastes that reduces any risks to the environment and environmental values to an acceptable level. 17. Provide a graphical conceptual representation of the final landform within the pit/cells

	area once all cells have been filled and capped. 18. Provide evidence of the stability of the site from a geotechnical and geochemical perspective. Include a subsidence monitoring program upon closure of a cell. 19. Show how the proposal will meet the requirements of the National Waste Policy, and State Waste Strategy, including but not limited to: • The need for a large class V facility in Western Australia; • The benefit and risks of the facility receiving waste from all of Australia; • How the facility would not result in an increased production of hazardous waste; • The volumes and types of waste it will receive and if other treatment options are available for these wastes; • The potential for recycling of wastes at the facility; and • Reducing the viability of the site for future disposal of Class V wastes through the disposal of Class IV waste. 20. Describe the proposed management, monitoring and mitigation methods to be implemented demonstrating that the design of the proposal has addressed the mitigation hierarchy in relation to impacts (direct and indirect) on soils/land. 21. Provide a Mine Closure Plan. Rehabilitation and closure management and mitigation measures should be described in a Mine Closure Plan. A final mine closure plan should be provided as an appendix to the PER and prepared in accordance with the Guidelines for Preparing Mine Closure Plans jointly prepared by the DMP and the EPA. 22. Provide a Waste Facility Decommissioning and Closure Management Plan as an appendix to the PER to describe the closure of the waste cells. 23. Provide a Radioactive Waste Management Plan as an appendix to the PER to describe the high-level management to be implemented to mitigate the risks associated with radioactive waste. 24. Outline the outcomes/objectives, trigger and contingency actions to ensure impacts (direct and indirect) are not greater than predicted. 25. Provide a statement of how the proponent considers the EPA's objective for this factor has been addressed.
Relevant policy	The following relevant policies and any future revisions apply: *Relevant EPA policies and guidelines* • Guidance for the Assessment of Environmental Factors. Rehabilitation of Terrestrial Ecosystems. No. 6 (EPA, 2006). • Environmental Protection Bulletin No. 19 EPA involvement in mine closure (EPA, 2015). • Guidelines for Preparing Mine Closure Plans, Perth, Western Australia (EPA & DMP, 2015). *Relevant Commonwealth policies and guidelines* • National Waste Policy: Less Waste, More Resources (Department of the Environment, Water, Heritage and the Arts, 2009). • Outcomes–based Conditions Policy Environment Protection and Biodiversity Conservation Act 1999 — Draft (Commonwealth of Australia, 2015).
Relevant technical guidelines	The following relevant technical guidelines and any future revisions apply: • Leading practice sustainable development program for the mining industry (DRET, 2008).

TERRESTRIAL FAUNA	
EPA objective	To maintain representation, diversity, viability and ecological function at the species, population and assemblage level.
Relevant aspects	• Handling and storage of hazardous and intractable waste. • Creation of development elements including mine pits. • Fire protection measures. • Generation of noise from blasting. • Presence of infrastructure (e.g. water pond, landfill, mine voids). • Failure of waste cell containment and generation of leachate.
Potential impacts and risks	• Direct clearing of habitat resulting in the loss or fragmentation of fauna habitat. • Gamma radiation exposure to fauna. • Radon emanating from waste cells. • Temporary or permanent hearing loss to fauna in the vicinity of blasting. • Displacement of fauna, increased predation and competition for resources. • Increase in feral fauna and pests attracted to the water and food resources at the site. • Injury or death from fauna ingress into pit/cell. • Injury or death of fauna from collision (i.e. vehicle strike) with waste carrier, vehicles and equipment. • Generation of void space and subsequent collapse/instability of the waste cell, leading to exposure of fauna on the waste cell surface. Exposure may range from injury to death. • Potential for fire and loss of fauna/fauna habitat.
Required work	26. Conduct a Level 1 Fauna Survey in accordance with the requirements of Guidance Statement 56 to provide a comprehensive listing of fauna known or likely to occur in the habitat present, and identification of conservation significant fauna species likely to occur in the development envelope. 27. A Level 2 Fauna Survey will be conducted in accordance with Guidance Statement 56 (EPA, 2004) if the Level 1 Survey indicates that a survey at this level is justified. 28. Conduct a Targeted Malleefowl Survey. 29. Describe the terrestrial fauna within the development envelope including its relevance within a wider regional context. 30. Provide a description of all direct and indirect impacts including fire. 31. Assess potential radiation impacts on terrestrial fauna using the Environmental Risk from Ionising Contaminants: Assessment and Management (ERICA) tool. Australian specific data should be used where available. 32. Discussion of the proposed management, monitoring and mitigation methods to be implemented demonstrating that the design of the proposal has minimised impacts on terrestrial fauna and habitat. 33. Outline the outcomes/objectives, trigger and contingency actions to ensure impacts (direct and indirect) are not greater than predicted. 34. Complete EPA's checklist for documents submitted for Environmental Impact Assessment (EIA) on terrestrial biodiversity.

	35. To the extent that significant residual impacts cannot be avoided, reduced, mitigated, or subsequently restored – identify appropriate offsets. 36. Provide a statement of how the proponent considers the EPA's objective for this factor has been addressed.
Relevant policy	The following relevant policies and any future revisions apply: *Relevant EPA policies and guidelines* • Checklist for documents submitted for EIA on marine and terrestrial biodiversity. • EPA Position Statement No. 3 Terrestrial Biological Surveys as an Element of Biodiversity Protection (EPA, 2002). • Guidance Statement No. 56 Terrestrial Fauna Surveys for Environmental Impact Assessment in Western Australia June 2004 (EPA, 2004). • Guidance Statement No. 20 Sampling of Short Range Endemic Invertebrate Fauna for Environmental Impact Assessment (EPA, 2009). • Technical Guide – Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment. Technical report of the Environmental Protection Authority and the Department of Environment and Conservation (Hyder et al., 2010). • Environmental Offsets Policy, Perth, Western Australia (Government of Western Australia, 2011). • Environmental Offsets Guidelines, Perth, Western Australia (Government of Western Australia, 2014). *Relevant Commonwealth policies and guidelines* • *Environment Protection and Biodiversity Conservation Act 1999* Environmental Offsets Policy (DSEWPAC, 2012). • Outcomes–based Conditions Policy Environment Protection and Biodiversity Conservation Act 1999 — Draft (Commonwealth of Australia, 2015). • Guide for Radiation Protection of the Environment. RPS G–1 (ARPANSA, 2015). • National Recovery Plan for Malleefowl *Leipoa ocellata* (Benshemesh, 2007). • Survey Guidelines for Australia's Threatened Birds. EPBC Act survey guidelines 6.2 (Department of the Environment, Water, Heritage and the Arts, 2010). • Outcomes–based Conditions Policy Environment Protection and Biodiversity Conservation Act 1999 — Draft (Commonwealth of Australia, 2015).

INLAND WATERS ENVIRONMENTAL QUALITY	
EPA objective	To maintain the quality of groundwater and surface water, sediment and biota so that the environmental values, both ecological and social, are protected.
Relevant aspects	Handling and storage of hazardous and intractable waste.
Potential impacts and risks	• Leak/spill from waste package may contaminate surface water runoff and groundwater. • Generation of leachate from waste package may contaminate surface water runoff and groundwater.
Required work	37. Conduct a hydrogeological assessment to determine the presence of an aquifer. 38. Conduct a hydrology assessment to assess impacts to surface water runoff and surface water bodies. 39. Conduct modelling to assess the potential for a leachate plume to develop. 40. Conduct long term (10,000 years) Landform Evolution Modelling of behaviour and performance of landforms and associated containment systems, including waste cell capping systems, modelled under a range of climatic events. 41. Describe the existing hydrogeological and hydrological setting of the development envelope. 42. Describe how waste will be contained within the cells. 43. Describe the impacts from this proposal on the associated inland water quality including direct and indirect impacts. 44. Assess the impacts to water quality from sourcing water from the Carina Iron Ore Mine over 25 years. 45. Provide a graphical conceptual representation of the final landform within the pit/cells area once all cells have been filled and capped. 46. Provide a Mine Closure Plan. Rehabilitation and closure management and mitigation measures should be described in a Mine Closure Plan. A final mine closure plan should be provided as an appendix to the PER and prepared in accordance with the Guidelines for Preparing Mine Closure Plans jointly prepared by the DMP and the EPA. 47. Provide a Waste Facility Decommissioning and Closure Management Plan as an appendix to the PER to describe the closure of the waste cells. 48. Provide a Radioactive Waste Management Plan as an appendix to the PER to describe the high-level management to be implemented to mitigate the risks associated with radioactive waste. 49. Outline the outcomes/objectives, management, monitoring, trigger and contingency actions to ensure impacts (direct and indirect) are not greater than predicted. 50. Provide a statement of how the proponent considers the EPA's objective for this factor has been addressed.
Relevant policy	The following relevant policies and any future revisions apply: *Relevant EPA policies and guidelines* • Guidance for the Assessment of Environmental Factors. Rehabilitation of Terrestrial Ecosystems. No. 6 (EPA, 2006). • Guidelines for Preparing Mine Closure Plans, Perth, Western Australia (EPA & DMP, 2015)

	• Environmental Protection Bulletin No. 19 EPA involvement in mine closure (EPA, 2015). *Relevant Commonwealth policies and guidelines* • Outcomes–based Conditions Policy *Environment Protection and Biodiversity Conservation Act 1999* — Draft (Commonwealth of Australia, 2015).
Relevant technical guidelines	The following relevant technical guidelines and any future revisions apply: • Leading practice sustainable development program for the mining industry (DRET, 2008). • Water Quality Protection Notes, Perth, Western Australia (DoW, various published dates). • Operational Policy No.5.12 – Hydrogeological reporting associated with a groundwater well licence, Perth, Western Australia (DoW, 2009).
HUMAN HEALTH	
EPA objective	To ensure that human health is not adversely affected.
Relevant aspects	• Handling and storage of hazardous and intractable waste. • Failure of waste cell containment structures.
Potential impacts and risks	• Leak/spill during; unpacking of waste, temporary storage, handling or placement in cell. • Radiation exposure (internal exposure pathways and external exposure pathways) to workers during unpacking of waste, temporary storage, handling or placement in cell. • Radon emanating from waste cells. • Generation of void space and subsequent collapse/instability of the waste cell, leading to exposure of humans on the waste cell surface. Exposure may range from injury to death. • Dust emission from kaolin mining and subsequently the handling and processing of materials on site. • Potential for fire and loss of life.
Required work	51. Define and model the radiation exposure pathways (internal exposure pathways and external exposure pathways); provide exposure estimates of the workforce and any other identified critical groups, during operation and post closure. 52. Conduct long term (10,000 years) Landform Evolution Modelling of behaviour and performance of landforms and associated containment systems, including waste cell capping systems, modelled under a range of climatic events. 53. Conduct a desktop assessment of the radionuclides and metals likely to be present in the geology of the development envelope, based on an interpretation of the site geology, exploration drilling data previously collected, and publically available geophysical mapping. The assessment should explain if naturally occurring radionuclides and metals are likely to be of environmental significance or detrimental to human health during the development of the project and throughout operations. 54. Conduct an assessment of potential impacts to human health. 55. Conduct an assessment of risks to human health from bush tucker consumption in the region from radiological sources and other contaminants. This should be based upon local diet, determined through consultation with the local community. 56. Discuss the proposed management (including fire management measures), monitoring and mitigation methods to be implemented demonstrating that the design of the proposal has addressed the mitigation hierarchy in relation to impacts on human health. 57. Outline the outcomes/objectives, management, monitoring, trigger and contingency

	actions to ensure impacts (direct and indirect) are not greater than predicted. 58. Provide information on how the proposal will be compliant with the *Food Act 2008* and Australian Drinking Water Quality Guidelines and prepare a Drinking Water Quality monitoring and compliance plan. 59. Provide information on management of asbestiform materials should they be found during construction of the proposal, or if they are received at the site. 60. Provide details of the engineering design of waste cells to minimise risk of human exposure to as low as reasonably achievable. The design of waste cells would ensure long term encapsulation of wastes that reduces any risks to human health, the environment and environmental values to an acceptable level. 61. Provide details of the engineering design of waste cells to show best practice design for containment of wastes. This will draw on international best practice and expertise in encapsulating similar wastes around the world. 62. Undertake an independent peer review of the engineering design of waste cells to confirm best practice design has been met. 63. Provide a graphical conceptual representation of the final landform within the pit/cells area once all cells have been filled and capped. 64. Provide a Mine Closure Plan. Rehabilitation and closure management and mitigation measures should be described in a Mine Closure Plan. A final mine closure plan should be provided as an appendix to the PER and prepared in accordance with the Guidelines for Preparing Mine Closure Plans jointly prepared by the DMP and the EPA. 65. Provide a Waste Facility Decommissioning and Closure Management Plan as an appendix to the PER to describe the closure of the waste cells. 66. Provide a Radioactive Waste Management Plan as an appendix to the PER to describe the high-level management to be implemented to mitigate the risks associated with radioactive waste. This will include details of how radioactive waste is handled, stored, monitored in accordance with relevant legislation and policies. 67. Prepare and provide an Operating Strategy for the proposal. The Operating Strategy will be prepared to an appropriate level and include a high level description of components and where necessary detail elements such as waste acceptance criteria to facilitate environmental assessment. The Operating Strategy will provide details of how waste is handled, stored, monitored accordance with *Environmental Protection (Controlled waste) Regulations 2004*. 68. Provide information on wastewater management on site. 69. Provide an Emergency Response and Management Plan as an Appendix to the PER to describe the management actions to be implemented to respond to an emergency. 70. Provide a statement of how the proponent considers the EPA's objective for this factor has been addressed.
Relevant policy	The following relevant policies and any future revisions apply: *Relevant EPA policies and guidelines* • Guidance Statement No. 55: Guidance for the assessment of environmental factors – Implementing best practice in proposals submitted to the environmental impact assessment process, Perth, Western Australia (EPA, 2003). • Guidance Statement No. 3 Separation Distances between Industrial and Sensitive Land Uses (EPA, 2005). • Guidance for the Assessment of Environmental Factors. Rehabilitation of Terrestrial

	Ecosystems. No. 6 (EPA, 2006). • Consideration of environmental impacts from noise (EAG13) (EPA, 2014). • Guidelines for Preparing Mine Closure Plans, Perth, Western Australia (EPA & DMP, 2015). • Environmental Protection Bulletin No. 19 EPA involvement in mine closure (EPA, 2015). *Relevant Commonwealth policies and guidelines* • Outcomes–based Conditions Policy *Environment Protection and Biodiversity Conservation Act 1999* — Draft (Commonwealth of Australia, 2015). • National Environment Protection (Movement of Controlled Waste between States and Territories) Measure 1998 (as amended) (NEPC, 1998).
Relevant technical guidelines	The following relevant technical guidelines and any future revisions apply: <u>National</u> • Code of Practice for the near-surface disposal of radioactive waste in Australia (NHMRC, 1992). • Classification and Disposal of Radioactive Waste in Australia – Consideration of Criteria for Near Surface Burial in an Arid Area. Technical Report Series No. 152 (ARPANSA, 2010). • Leading practice sustainable development program for the mining industry (DRET, 2008). • Australian Drinking Water Guidelines (NHMRC, as amended 2015). <u>State</u> • Landfill Waste Classification and Waste Definitions (DEC, 1996 as amended 2009). • Assessment and Management of Contaminated Sites (DER, 2014). • Managing naturally occurring radioactive material (NORM) in mining and mineral processing – Guidelines: - NORM–4.1 Controlling dust strategies - NORM–5 Dose assessment. (DMP, 2010). • Guidelines for the Assessment, Remediation and Management of Asbestos–Contaminated Sites in Western Australia (Department of Health, 2009).
HERITAGE	
EPA objective	To ensure that historical and cultural associations, and natural heritage, are not adversely affected.
Relevant aspects	Clearing of vegetation of cultural significance. Excavating land of cultural significance. Storage of waste underground.
Potential impacts and risks	Disturbance to aboriginal heritage sites and / or cultural associations within the development envelope.
Required work	71. Identify sites of cultural significance. 72. Assess potential impacts on any heritage sites and / or cultural associations in accordance with EPA (2004) *Assessment of Aboriginal Heritage guidelines*. 73. If heritage sites and/or cultural associations are identified, and are likely to be impacted, propose management measures to avoid or minimise impacts. If this is not possible

	propose restoration measures or offset any impacts. 74. Provide a statement of how the proponent considers the EPA's objective for this factor has been addressed.
Relevant policy	The following relevant policies and any future revisions apply: *Relevant EPA policies and guidelines* • Guidance Statement No. 41 Assessment of Aboriginal Heritage (EPA, 2004). *Relevant Commonwealth policies and guidelines* • Outcomes–based Conditions Policy *Environment Protection and Biodiversity Conservation Act 1999* — Draft (Commonwealth of Australia, 2015).
Relevant technical guidelines	The following relevant technical guidelines and any future revisions apply: • Aboriginal Heritage – Due Diligence Guidelines. Version 3.0. (DAA & DPC, 2013).
OFFSETS (INTEGRATING FACTOR)	
EPA objective	To counterbalance any significant residual environmental impacts or uncertainty through the application of offsets.
Relevant aspects	Residual environmental impacts or uncertainty resulting from implementation of proposal and subsequent application of mitigation hierarchy to reduce impacts and/or uncertainty.
Potential impacts and risks	• Waste will be buried underground in perpetuity. • Disturbance to native vegetation (direct and indirectly). • Impacts to significant species or communities. • Loss or alteration of terrestrial fauna habitat. • Changes in fauna movement as a result of changes in habitat connectivity. • Alterations to hydrological processes, quality and quantity associated with surface and/or groundwater that may sustain conservation significant terrestrial fauna.
Required work	75. All residual (following management) risks and impacts from the proposal to be considered in terms of their significance, and whether the proposal will result in significant residual impacts that require offsetting in accordance with the Western Australian Government's offset policy and guidelines. 76. Provide a statement of how the proponent considers the EPA's objective for this factor has been addressed.
Relevant policy	The following relevant policies and any future revisions apply: *Relevant EPA policies and guidelines* • Environmental Offsets Policy, Perth, Western Australia (Government of Western Australia, 2011) • Environmental Offsets Guidelines, Perth, Western Australia (Government of Western Australia, 2014). • Environmental Protection Bulletin No. 1 – Environmental offsets (EPA, 2014). *Relevant Commonwealth policies and guidelines*

	• *Environment Protection and Biodiversity Conservation Act 1999* Environmental Offsets Policy (DSEWPAC, 2012). • Outcomes–based Conditions Policy *Environment Protection and Biodiversity Conservation Act 1999* — Draft (Commonwealth of Australia, 2015).
REHABILITATION AND DECOMMISSIONING (INTEGRATING FACTOR)	
EPA objective	To ensure that premises are decommissioned and rehabilitated in an ecologically sustainable manner.
Relevant aspects	• Rehabilitation of the site. • Decommissioning of the site. • Revegetation of clay caps. • Long-term management of the site.
Potential impacts and risks	• Waste cell subsides allowing infiltration of water and generation of leachate. • Topsoil is degraded and unable to support a functioning ecosystem. • Erosion/ gullies/ deep rooted vegetation create cracks in the clay capping which allows water to infiltrate and generate leachate from the stored waste. • Vegetation does not grow and is unable to support a functioning ecosystem. • Fauna does not return to the vegetation and therefore a functioning ecosystem is not achieved. • Long term impacts to Human Health, Terrestrial Environmental Quality and Inland Waters Environmental Quality.
Required work	77. Conduct long term (10,000 years) Landform Evolution Modelling of behaviour and performance of landforms and associated containment systems, including waste cell capping systems, modelled under a range of climatic events. 78. Provide a graphical conceptual representation of the final landform within the pit/cells area once all cells have been filled and capped. 79. Provide a Mine Closure Plan. Rehabilitation and closure management and mitigation measures should be described in a Mine Closure Plan. A final mine closure plan should be provided as an appendix to the PER and prepared in accordance with the Guidelines for Preparing Mine Closure Plans jointly prepared by the DMP and the EPA. 80. Provide a Waste Facility Decommissioning and Closure Management Plan as an appendix to the PER to describe the closure of the waste cells. 81. Provide a Radioactive Waste Management Plan as an appendix to the PER to describe the high-level management to be implemented to mitigate the risks associated with radioactive waste. 82. Provide a statement of how the proponent considers the EPA's objective for this factor has been addressed.
Relevant policy	The following relevant policies and any future revisions apply: *Relevant EPA policies and guidelines* • Guidance for the Assessment of Environmental Factors. Rehabilitation of Terrestrial Ecosystems. No. 6 (EPA, 2006) • Guidelines for Preparing Mine Closure Plans (EPA & DMP, 2015).

	• Environmental Protection Bulletin No. 19 EPA involvement in mine closure (EPA, 2015). *Relevant Commonwealth policies and guidelines* • Outcomes–based Conditions Policy *Environment Protection and Biodiversity Conservation Act 1999* — Draft (Commonwealth of Australia, 2015).
Relevant technical guidelines	The following relevant technical guidelines and any future revisions apply: • Leading practice sustainable development program for the mining industry (DRET, 2008).

4 STAKEHOLDER CONSULTATION

The EPA expects that the proponent will consult with stakeholders who are interested in, or affected by, the Proposal. This includes decision-making authorities (DMAs), other relevant State government departments and local government authorities, environmental non-government organisations and the local community.

The proponent must document the stakeholder consultation undertaken and the outcomes, including any adjustments to the proposal and any future plans for consultation. This is to be addressed in a specific section of the PER document and, in addition, key outcomes of consultation are to be reported against the preliminary key environmental factors as relevant.

It is expected that as a part of the consultation with DMA's there will be discussion around each agency's specific regulatory approvals, and a demonstration that other factors can be managed by another regulatory body.

The first phase of stakeholder consultation for the Proposal has been completed which included providing information to key government stakeholders including the following:

- Government Departments; Mines and Petroleum, Finance, Lands, Environment Regulation, State Development, Aboriginal Affairs, Fire and Emergency Services, and Health (Radiation Health Branch).
- Principal Policy Advisors to the; Minister for Finance and Mines and Petroleum, Minister for Environment and Heritage.
- Chairman of the EPA and Office of the EPA personnel.
- Commonwealth Department of the Environment.
- Australian Radiation Protection and Nuclear Safety Agency (ARPANSA).
- Regional politicians (of all political parties).
- Local governments; Coolgardie, Southern Cross and Kalgoorlie-Boulder.
- The local communities of Coolgardie and Kalgoorlie (February 2016).
- Local aboriginal families, Goldfields Land and Sea Council and local politicians.

A specific focus meeting regarding the ESD was held on 14 October 2015 and attended by the; Department of Lands, Department of Environment Regulation, Department of Mines and Petroleum and the Commonwealth Department of the Environment. Several other departments were invited to this meeting but were unable to attend; Radiation Health Branch of the Department of Health, Department of Parks and Wildlife, Department of Water and Department of Aboriginal Affairs.

The stakeholders to be consulted in the future regarding the proposal are listed in Table 4–1.

Table: 4–1: Future consultation planned with stakeholders and DMAs

Stakeholder and DMAs	Approximate Timeframe
Commonwealth Minister for Environment	April 2016
Department of Mines and Petroleum (Resources Safety)	March 2016
Radiological Council of Western Australia	March 2016

In addition to consultation listed in Table 4–1 Tellus will continue informing all key decision making authorities and interested parties throughout the preparation of the PER and post submission of the PER. Information will be provided via the Tellus website (http://www.tellusholdings.com/) and regular news updates will be emailed to interested people.

5 OTHER FACTORS OR MATTERS

During assessment of proposals, other factors or matters will be identified as relevant to the proposal, but not of significance to warrant further assessment by the EPA, or impacts can be regulated by other statutory processes to meet the EPA's objectives.

These factors do not require further work as part of the environmental review, or detailed discussion and evaluation in the PER document, although they must be included in the PER document in a summarised, tabular format noting that the PER document will be subject to public review.

In some circumstances other factors, while not being considered as preliminary key environmental factors, may require greater emphasis in the PER document. This may be due to high public interest or at the request of another stakeholder, so that the potential impacts and management measures associated with the other factor are sufficiently articulated for the public review. For this assessment, the other factor of Amenity, in relation to noise, dust and visual, needs to be concisely described and discussed in the PER document.

Impacts to visual amenity of people utilising the existing and proposed reserve system (including the Mount Manning Range Nature Reserve, Mount Manning — Helena–Aurora Ranges Conservation Park and the Former Jaurdi Pastoral Lease) will be assessed in terms of:

- Impacts to nature based tourism, that is travel routes and the use of public viewpoints in the existing and proposed reserve system; and
- Impacts to scientific study in the existing and proposed reserve system.

Furthermore following consultation with Department of Health and Department of Lands on health and land matters, Tellus will make the following commitment in the PER:

Prior to ground disturbance Tellus will conduct detailed baseline soil sampling in accordance with Department of Health and Department of Lands requirements.

Matters in relation to the water source and viability of this source for the project life will be described in the PER specifically addressing:

- the site water demand, and agreements in place to secure the water source over the project life.
- assess the viability of using the Carina Iron Ore Mine as a water source for 25 years.

It is also important that the proponent be aware that other factors or matters may be identified during the course of the environmental review that were not apparent at the time that this ESD was prepared. If this situation arises, the proponent must consult with the EPA to determine whether these factors and/or matters are to be addressed in the PER document, and if so, to what extent.

6 AGREED ASSESSMENT TIMELINE

Table 6–1 sets out the timeline for the assessment of the proposal agreed between the EPA and the proponent. Proponents are expected to meet the agreed timeline, and in doing so, provide adequate, quality information to inform the assessment.

Table 6–1: Assessment timeline

Key Stages of Assessment	Agreed Completion Date
EPA approval of ESD	May meeting
Proponent submits first adequate draft PER document	6 June 2016
Office of the Environmental Protection Authority (OEPA) provides comment on first adequate draft PER document	20 July 2016
Proponent submits adequate revised draft PER document	18 August 2016
EPA authorises release of PER document for public review	1 September 2016
Public review of PER document	2 September 2016 – 11 November 2016
EPA provides Summary of Submissions	1 December 2016
Proponent provides Response to Submissions	29 December 2016
OEPA reviews the Response to Submissions	13 February 2017
OEPA assesses proposal for consideration by EPA	3 April 2017
Preparation and finalisation of EPA assessment report (including two weeks consultation on draft conditions with proponent and key Government agencies)	19 May 2017

If any stage in the agreed timeline is not met or inadequate information is submitted by the proponent, the timing for the completion of subsequent stages of the process will be revised. Equally, where the EPA is unable to meet an agreed completion date in the timeline, the proponent will be advised and the timeline revised.

The proponent should refer to EPA's EAG 6 — Timelines for environmental assessment of proposals for information regarding the responsibilities of proponents and the EPA for achieving timely and effective assessment of proposals.

7 DECISION–MAKING AUTHORITIES

At this stage the authorities listed in Table 7–1 have been identified as DMAs for the proposal. Additional DMAs may be identified during the course of the assessment.

Table 7–1: Decision-making authorities

Authority	Legislation
Minister for Environment	*Environmental Protection Act 1986* *Wildlife Conservation Act 1950*
Minister for Water	*Rights in Water and Irrigation Act 1914*
Minister for Mines and Petroleum	*Mining Act 1978*
Minister for Health	*Radiation Safety Act 1975*
Minister for Lands	*Land Administration Act 1997*
Commonwealth Minister for Environment	*Environment Protection and Biodiversity Conservation Act 1999*
Department of Environment Regulation	*Part V of the Environmental Protection Act 1986* *Environmental Protection (Controlled Waste) Regulations 2004* *Environmental Protection Regulations 1987*
Department of Mines and Petroleum	*Mining Act 1978* *Dangerous Goods and Safety Act 2004* *Dangerous Goods Safety (Storage and handling of non-explosives) Regulation 2007* *Mines Safety and Inspection Act 1994* *Mines Safety and Inspection Regulations 1995*
Radiological Council of Western Australia	*Radiation Safety Act 1975* *Radiation Safety (Transport of Radioactive Substances) Regulations 2002*
Department of Aboriginal Affairs	*Aboriginal Heritage Act 1972*
Shire of Coolgardie	*Planning Development Act 2005*

8 PARALLEL PROCESSING

The EP Act constrains DMAs from making any decision that could have the effect of causing or allowing the proposal to be implemented. However, the proponent is encouraged to pursue other approvals in parallel with the EPA's assessment noting that the constraint only relates to making an approval decision.

9 PER DOCUMENT

When the EPA is satisfied with the standard of the PER document (refer to section 4.4 of EAG 6) it will provide written authorisation for the release of the document for public review. The proponent must not release the PER document for public review until this authorisation is provided.

The proponent is responsible for advertising the release and availability of the PER document in accordance with instructions that will be issued to the proponent by the EPA. The EPA must be consulted on the timing and details for advertising.