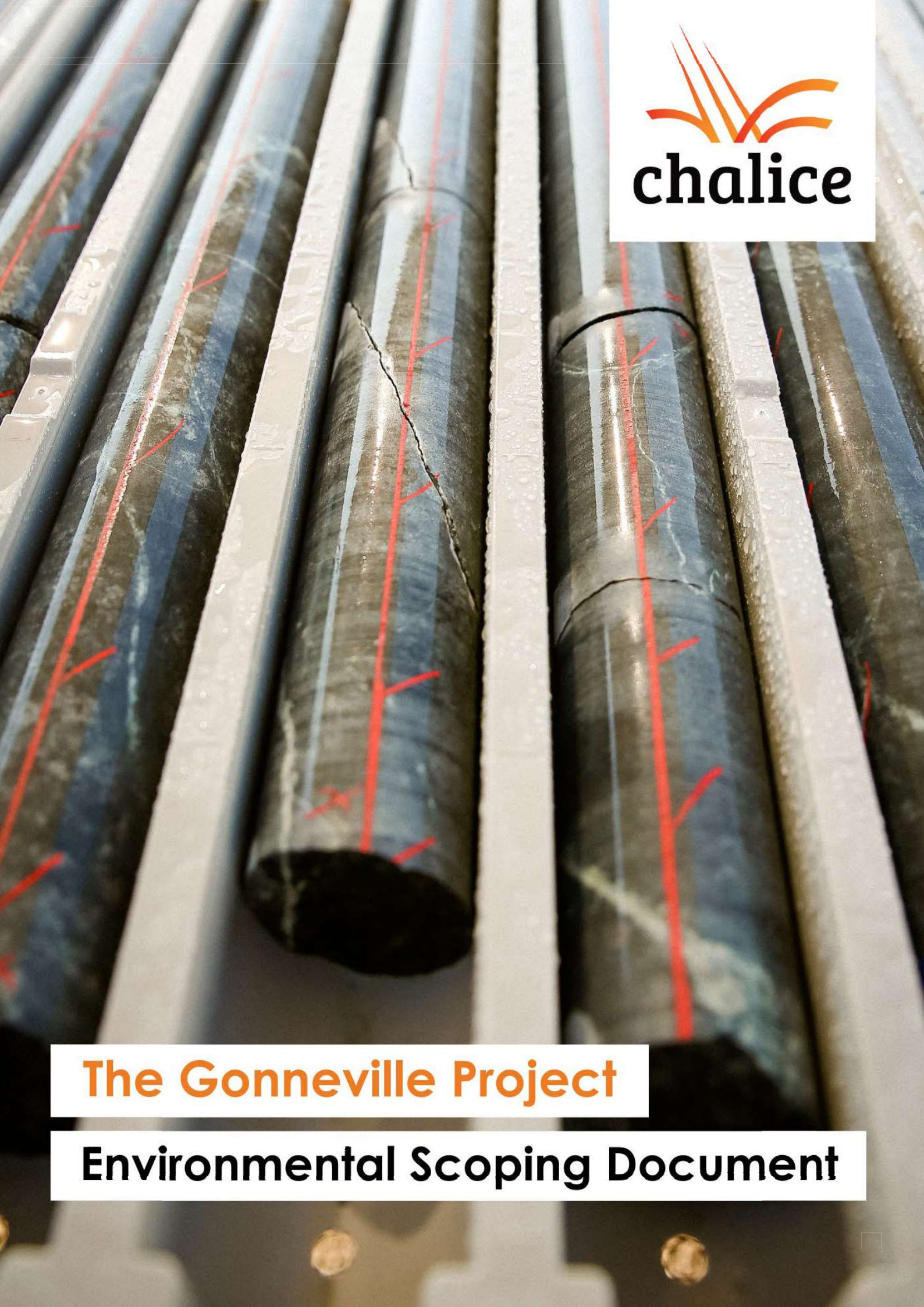


chalice

The Gonneville Project

Environmental Scoping Document

Document Control

Version	Change	Date
Draft 1	First Draft for regulator review	8 May 2024
Draft 2	Version revised to address Matters Raised by Green Energy Division of DWER (16 May 2024)	27 May 2024
Draft 3	Version revised to address comments from Green Energy Division of DWER and external agencies (1 August 2024)	16 August 2024
Draft 4	Revision post further consultation with Green Energy Division of DWER and external agencies (5 September 2024)	16 September 2024
Version 1	Final version Addresses comments received from EPA Deputy Chair (4 October 2024) and further consultation on GHG factor	7 November 2024

Contents

1. Introduction

The Environmental Protection Authority (EPA) has determined that the Gonneville Nickel-Copper-Platinum Group Element (PGE) Project (the Proposal) is to be assessed under Part IV of the *Environmental Protection Act 1986* (EP Act). The EPA has determined the Proposal be assessed at the level of Public Environmental Review (PER).

The purpose of the Environmental Scoping Document (ESD) is to define the form, content, indicative timing and procedure of the environmental review, required by Section (s.) 40(3) of the EP Act.

Chalice Mining Limited (the Proponent, Chalice) has prepared this draft ESD according to the procedures in the EPA's Procedures Manual (EPA 2021a).

The EPA requires the proponent to undertake the environmental review according to the procedures in the EPA's Administrative Procedures and Procedures Manual (EPA 2021b), and the Instructions and Template: How to prepare an Environmental Review Document (EPA 2021c).

Chalice will undertake a review of the Environmental Review Document (ERD) to ensure the requirements of the relevant EPA instructions, templates and guidance have been met. The ERD will include a scoping checklist that identifies the section(s) and page number of the ERD indicating where both all the dot points in the scoping checklist on page 5 of the ERD Template (2021c) and the requirements of this ESD can be found.

Table 1 General Proposal and proponent information

Proposal information	
Proposal name	Gonneville Nickel-Copper-Platinum Group Element (PGE) Project
Proponent	Chalice Mining Limited
Assessment number	APP-0025218
Local Government area	Shire of Toodyay, Shire of Chittering, City of Wanneroo
Public review period	Environmental Review Document – 8 weeks

1.1 Indicative timing of the environmental review

Table 2 sets out the indicative outline of the timing of the environmental review (indicative timeline) agreed between the EPA and the proponent.

Table 2 Indicative outline of the timing of the environmental review

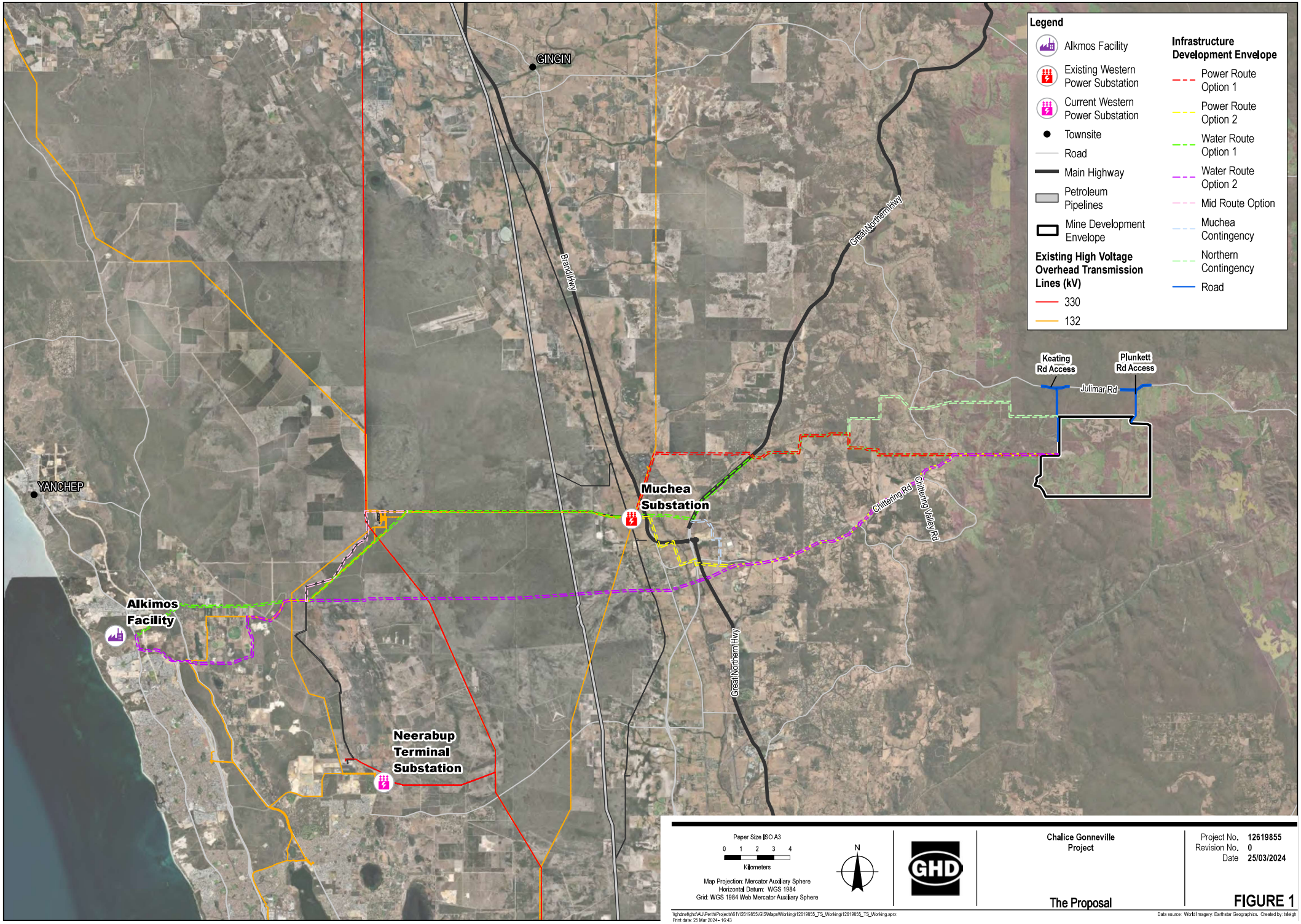
Key assessment milestone	Date
EPA approves Environmental Scoping Document	November 2024
Proponent submits first draft Environmental Review Document	December 2025
EPA provides comment on first draft Environmental Review Document (6 weeks from receipt of ERD)	February 2026
Proponent submits revised draft Environmental Review Document	April 2026
EPA authorises release of Environmental Review Document for public review (2 weeks from EPA approval of ERD)	June 2026
Proponent releases Environmental Review Document for public review for 8 weeks	June 2026
Close of public review period	August 2026
EPA provides Summary of Submissions (3 weeks from close of public review period)	September 2026
Proponent provides Response to Submissions	December 2026
EPA reviews the Response to Submissions (4 weeks from receipt of Response to Submissions)	January 2027
EPA prepares draft assessment report and completes assessment (6 weeks from EPA accepting Response to Submissions)	March 2027
EPA finalises Assessment report (including two-week consultation on draft conditions) and gives report to Minister (6 weeks from completion of assessment)	May 2027

1.2 Commonwealth Government approvals

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 by public environment report.

The controlled action provisions relevant for the Proposal are:

- Listed threatened species and communities (s.18 & s.18A)
- Listed migratory species (s.20 & s.20A)
- Commonwealth land (sections 26 and 27A)


Legend
Alkmos Facility
Existing Western Power Substation
Current Western Power Substation
Townsite
Road
Main Highway
Petroleum Pipelines
Mine Development Envelope
Existing High Voltage Overhead Transmission Lines (kV)
330
132
Infrastructure Development Envelope
Power Route Option 1
Power Route Option 2
Water Route Option 1
Water Route Option 2
Mid Route Option
Muchea Contingency
Northern Contingency
Road
GINGIN
YANCHEP
Brand Hwy
Great Northern Hwy
Keating Rd Access
Plunkett Rd Access
Julimar Rd
Muchea Substation
Chittering Rd
Chittering Valley Rd
Alkimos Facility
Neerabup Terminal Substation
Paper Size ISO A3
0 1 2 3 4
Kilometers
Map Projection: Mercator Auxiliary Sphere
Horizontal Datum: WGS 1984
Grid: WGS 1984 Web Mercator Auxiliary Sphere
N
GHD
Chalice Gonneville Project
The Proposal
Project No. 12619855
Revision No. 0
Date 25/03/2024
FIGURE 1
Data source: World Imagery: Earthstar Geographics. Created by: tsleigh

2. Form and Content (required work)

The EPA requires that the form of the report on the environmental review required under s. 40 of the EP Act is in accordance with the Instructions and Template: How to prepare an Environmental Review Document (EPA 2021c).

The EPA requires that the content of the ERD is in accordance with the Instructions and Template: How to prepare an Environmental Review Document (EPA 2021c). Other guidance documents relevant to the preparation of the ERD include:

- Instructions on how to prepare *Environmental Protection Act 1986* Part IV Environmental Management Plans (Environmental Protection Authority, October 2021d).
- Western Australia Environmental Offsets Policy (GoWA 2011).
- Western Australia Environmental Offsets Guidelines (GoWA 2014).
- Environmental Impact Assessment (EIA) (Part IV divisions 1 and 2) Procedures Manual (EPA 2021b).
- Statement of Environmental Principles, Factors and Objectives (EPA 2023a).
- Instructions on how to prepare an Environmental Review Document (EPA 2021c).
- Instructions on how to identify the content of a proposal (EPA 2024a).

The EPA also requires that the environmental review includes the Proposal specific additional content outlined in Section 2.2.

2.1 Preliminary key environmental factors

The following preliminary key environmental factors were identified in the record of the level of assessment and will be addressed in the ERD:

1. Landforms
2. Flora and vegetation
3. Terrestrial environmental quality
4. Terrestrial fauna
5. Inland waters
6. Air quality
7. Greenhouse gas emissions
8. Social surroundings

2.2 Specific additional work required for assessment of proposal

The general form and content of the ERD will be in accordance with the Instructions and Template: How to prepare an Environmental Review Document (EPA 2021c).

Table 3 outlines the specific additional work required for assessment of the Proposal as it relates to the preliminary key environmental factors.

Table 3 Proposal specific additional required work

Work Item and Description
All Environmental Factors
Work to be consistent with the requirements in the Instructions and Template: How to prepare an Environmental Review Document and provided for each factor: « factor objective « relevant policies and guidance « receiving environment « potential environmental impacts « mitigation « assessment and significance of residual impact « environmental outcomes Work required to inform the ERD will be conducted in accordance with the requirements of the most recent EPA Environmental Factor Guidelines, Technical Guidance, and other relevant guidelines at the time the ERD is published for each preliminary key environmental factor, and a consolidated report of the surveys and/or investigations undertaken will be provided for each factor. Where previous investigations or surveys are relied upon, justification will be provided to demonstrate that they are relevant and consistent with EPA guidance. The ERD will demonstrate how the mitigation hierarchy of avoid, minimise, mitigate has been applied during the design stages of the Proposal. This includes consideration for the co-location of infrastructure corridors where practical and detailed justification where infrastructure corridors are not proposed to be co-located. For each preliminary key environmental factor, the ERD will consider relevant recovery plans, conservation advices and/or threat abatement plans for conservation significant species, communities, habitat (supporting, significant, and critical to the survival of the species), and ecosystems that are known to occur, or are likely to occur in the vicinity of the proposal area. Any instances where published guidance is not followed must be justified. The ERD will discuss the proposed management, monitoring and mitigation to ensure impacts on all environmental factors are not greater than predicted as a result of implementing the Proposal. Proposed management, monitoring and mitigation measures will be discussed in the context of how they support the achievement of environmental outcomes. The ERD will demonstrate and document how the EPA's objective for each factor can be met and provide environmental outcomes that are consistent with the EPA's Interim Guidance on environmental outcomes and outcomes-based conditions.
Landforms
1. Characterise the Quindalup parabolic dune system in terms of variety, integrity, ecological importance, scientific importance, rarity and social importance. This characterisation will be for extent of the landform in its entirety and the portion within the Infrastructure Development Envelope.

Flora and vegetation	
2.	In accordance with EPA guidance and Methods for Survey and Identification of Western Australian Ecological Communities (DBCA 2024), conduct surveys to identify and characterise the flora and vegetation of the Development Envelope in both a local and regional context. Clarify and justify the quantification of the local and regional context used in the assessment. If multiple surveys have been undertaken to support the assessment, a consolidated report should be provided including the integrated results of the surveys, relevant to the proposal area. If previous surveys are relied on for context, justification should be provided to demonstrate that they are relevant and consistent with EPA guidance. Where surveys have not been undertaken consistent with the guidance provide a justification for any variation.
3.	In addition to current EPA guidance and instructions, the vegetation and environmental values of Bush Forever sites 383, 380, 290, 130 and 129 are to be characterised in a local and regional context consistent with State Planning Policy 2.8 – Bushland Policy for the Perth Metropolitan Region Appendix 1 and 2, and the relevant EPA guidance.
4.	An assessment of the potential impacts on flora and vegetation within adjacent and nearby conservation reserves resulting from introduction and/or spread of *Phytophthora* dieback and weeds, changes in hydrology and hydrogeology, that takes into consideration the compounding effects of a drying, warming climate on vegetation health and condition.
Terrestrial environmental quality	
5.	Undertake a soils and waste characterisation study for the Mine Development Envelope (MDE) (refer Figure 1) including mapping of the soil-landform associations and a materials balance presenting both volumes of materials required for rehabilitation and materials available for rehabilitation.
6.	Undertake a soils and historic site contamination characterisation study for the Infrastructure Development Envelope (IDE).
7.	Identify potentially hazardous materials and soils (i.e., dispersive radioactive etc.). For material identified within these two categories, relevant management actions are to be devised, including mitigation and monitoring as appropriate.
8.	Provide a conceptual design of the tailings storage facility (TSF) in accordance with the Tailings storage facilities in Western Australia Code of Practice (DMP, 2013) that is set back at a sufficient distance from sensitive environmental receptors and allows for the commissioning of groundwater monitoring infrastructure, underdrainage and recovery bores (if required) within the MDE. Undertake a geotechnical assessment of the TSF area to determine the stability, geochemical characteristics and permeability of the TSF base material.
9.	Conduct preliminary, long term landform evolution modelling of behaviour and performance of mine waste landforms including TSF and waste rock landform.
10.	Develop preliminary mine closure completion criteria and provide information on the post-mining land use and proposed methods for rehabilitation.

11.	Undertake a comprehensive geochemical assessment of waste rock materials including: a. Representative sampling of drill cores from the deposit that are chemically analysed to determine whether ore and waste rock materials will be potentially acid-forming (PAF) materials. The sampling of the drill core should be undertaken using methodologies recommended by the Australian Joint Ore Reserves Committee (*www.jorc.org*) b. Kinetic testing of sufficient samples of drill cores from the deposit to determine the rate at which leachable acidity and metals are released from ore and mine wastes over time. c. Determine the leachability of nickel and cobalt from oxidised non-acid forming (NAF) mine wastes under a range of pH conditions. d. Assess the risk of nickel and cobalt from the NAF wastes bioaccumulating through plants and entering the terrestrial food web through grazing animals and insects.
Terrestrial fauna	
12.	In accordance with EPA guidance identify and characterise the significant vertebrate and invertebrate fauna and fauna habitats relevant to the Proposal in a local and regional context. Describe in detail their known ecology, likelihood of occurrence, habitats and known threats.
13.	Undertake targeted black cockatoo surveys, including tree hollow assessment. Determination of suitability must include an assessment of hollow characteristics such as entrance diameter, hollow width, hollow depth, floor structure, etc. Undertake surveys for other ground-dwelling significant fauna that may be directly or indirectly impacted by the Proposal to inform the Proposal's impacts to breeding sites, home ranges, connectivity and available habitat, and inform monitoring, mitigation and management measures.
14.	Describe the impacts of the Proposal on genetic and functional (ecological) connectivity of significant terrestrial fauna at a local and regional scale.
Inland waters	
15.	Characterise the baseline hydrological and hydrogeological regimes in a local and regional context, including but not limited to, catchment boundaries, water quantity and quality, stream flows and flood patterns, water levels, aquifer recharge and discharge mechanisms, aquifer connectivity and surface water/groundwater interaction. Include a detailed description of the geological framework within the zone to be impacted by groundwater abstraction and any interdependence between surface and groundwater features/bodies. Include, where relevant, influences on water availability.
16.	Characterise the human beneficial uses of surface water and groundwater that may be directly or indirectly impacted by the Proposal, including rural and recreational and Public Drinking Water Source Protection Areas including the Priority 1 Gnangara Groundwater Management Area. Identify avoidance and mitigation measures to address any potential impacts to any Public Drinking Water Source Protection Areas.
17.	Conduct hydrogeological investigations and analysis to identify the predicted groundwater drawdown during mine dewatering. The investigation is to include groundwater drawdown contours for mine operations and post-closure.
18.	Conduct waste characterisation study to determine if leaching from mine waste materials has the potential to contaminate inland waters.

19.	Conduct hydrogeological investigations and analysis to characterise the potential for seepage from mine waste landforms (including TSF and waste rock landform) to contaminate inland waters.
20.	If identified that a mine pit lake will be present post closure, investigate the short and long-term environmental risks including potential human health impacts associated with mine pit lakes post-closure.
21.	Characterise the water supply for the Proposal in relation to water abstraction, dewatering and process water reuse, including an assessment of the water quantities required for the construction and operational phases of the Proposal.
Air quality	
22.	Characterise the potential sources of air emissions and prepare an emissions inventory for contaminants of potential concern (CoPCs) arising from the Proposal, including but not limited to dust.
23.	Conduct atmospheric dispersion modelling in accordance with the Air Quality Modelling Guidance Notes (DoE, 2006) and draft Guideline: Air emissions (DWER, 2019) to predict ground level concentrations of CoPCs. Consider modelling results in conjunction with other analysis tools similar to those described in the draft Guideline: Dust emissions (DWER, 2021b). Assess the impacts to air quality, including a comparison of predicted ground level concentrations of CoPCs with appropriate standards at sensitive receptors, and considering ambient air quality and cumulative air emission sources in the local and regional airshed. Impacts to surrounding receptors, flora and vegetation, and the conservation and amenity values of nearby reserves from atmospheric dust emissions from the Proposal should also be assessed.
24.	Demonstrate that dust and gaseous emissions to air resulting from the proposal will not impact on surrounding receptors, flora and vegetation, and the conservation and amenity values of nearby reserves. Where this is not considered practical, clearly articulate why this is not practical and outline suitable mitigation measures for these impacts. The mitigation measures should be prepared in accordance with EPA Guidance and A guideline for managing the impacts of dust and associated contaminants from land development sites, contaminated sites remediation and other related activities (DEC 2011).
Greenhouse gas emissions	
25.	Discuss how the required actions and obligations under the *National Greenhouse and Energy Reporting Act 2007* and the Commonwealth Safeguard Mechanism of the proposal will meet EPA's objective.
Social surroundings (Heritage)	
26.	Characterise the areas and objects that are of particular significance to First Nations peoples and communities, including the Whadjuk People, potentially impacted by the Proposal, and detail the process used to engage with relevant First Nations People, including the Whadjuk People, and how they have been consulted with respect to the potential impacts of the Proposal.

Social surroundings (Amenity)	
27.	Conduct a landscape and visual impact assessment (LVIA) to characterise the visual landscape character and scenic quality values, and impacts of the Proposal during construction, operations and post-closure, in accordance with the Western Australian Planning Commission (2007) Visual Landscape Planning in Western Australia: a manual for evaluation, assessment, siting and design. Include photo-montages and assessment of visual impacts at representative visual receptor locations.
28.	Conduct a detailed noise assessment for the Proposal that considers noise impacts on surrounding sensitive receptors, Julimar State Forest, Moondyne Nature Reserve and Avon Valley National Park and demonstrates that noise, including air blast levels, can be managed such that it complies with the Environmental Protection (Noise) Regulations 1997 at sensitive receptor locations and with regards to air blast levels.
29.	Provide a social impact assessment that characterises and assesses the potential impacts of the Proposal on the recreational, amenity, and social values adjacent to the development envelope with particular emphasis on the Julimar State Forest, Moondyne Nature Reserve, Avon Valley National Park and their associated trails.
Other factors	
30.	In accordance with Technical Guidance – Subterranean Fauna Surveys for EIA (EPA 2021d), conduct a desktop study, habitat assessment and basic subterranean fauna survey to identify and characterise the subterranean fauna and habitats in a local and regional context. Where further information is required based on the results of the studies, conduct a detailed or targeted survey.

2.3 Cumulative impact assessment

The ERD will include a cumulative impact assessment to assess the Proposal's contribution to impacts on relevant environmental values. The boundaries for each factor that will inform the extent of consideration for cumulative impacts are summarised in Table 4.

Table 4 Extent of consideration for cumulative impact assessment

Preliminary Environmental Factor	Value	Activity	Boundaries
Landforms	Landforms	Clearing Construction of water pipeline infrastructure (IDE)	Consideration of the impacts to the Quindalup parabolic dune system based on the entire known extent of the landform.
Flora and vegetation	Native vegetation extent	Clearing	Impacts on flora and vegetation values will be assessed by reviewing native vegetation extent and conservation significant flora and vegetation, at both local and regional scales. For the purposes of defining extents, the following boundaries are to be considered: - 10km buffer (local extent) - 50km buffer (regional extent – clipped to bioregional boundaries). Other publicly available data will be used to provide regional context for cumulative impact to native vegetation communities. Regional impacts to vegetation communities will consider the distribution of corresponding floristic community types within 50 km and at the bioregional level.
	Conservation significant flora	Clearing	
	Conservation significant vegetation	Clearing	
	Biodiversity values of Julimar State Forest, Moondyne Nature Reserve and Avon Valley National Park	Clearing adjacent to Julimar State Forest and Moondyne Reserve Abstraction of water adjacent to Julimar State Forest	Julimar State Forest, Moondyne Nature Reserve and Avon Valley National Park.

Preliminary Environmental Factor	Value	Activity	Boundaries
		and Moondyne Reserve Operation of mining adjacent to Julimar State Forest and Moondyne Reserve (excavation, ore handling, processing, storage of tailings and waste rock)	
Terrestrial fauna	Conservation significant fauna habitat	Clearing of habitat	Impacts on terrestrial fauna values will be assessed by reviewing fauna habitats, at both local and regional scales. For the purposes of defining extents, the following boundaries are to be considered: - 10km buffer (local extent) - 50km buffer (regional extent – clipped to bioregional boundaries). If the development envelope is within 12 km of black cockatoo breeding or roosting habitat, assess the cumulative impacts to foraging habitat within 6 km and 12 km of the roosting and nesting habitat.
	Biodiversity values of Julimar State Forest, Moondyne Nature Reserve and Avon Valley National Park	Clearing of fauna habitat adjacent to Julimar State Forest and Moondyne Reserve Abstraction of water adjacent to Julimar State Forest and Moondyne Reserve Operation of mining adjacent to Julimar State Forest	Julimar State Forest, Moondyne Nature Reserve and Avon Valley National Park.

Preliminary Environmental Factor	Value	Activity	Boundaries
		and Moondyne Reserve (excavation, ore handling, processing, storage of tailings and waste rock)	
Terrestrial environmental quality	Soil quality	Mining (excavation, ore handling, processing, export and storage of tailings and waste rock)	If the proposal results in significant impacts to land and soli quality outside the development envelope, an assessment of other land use activities impacting land and sold quality will be undertaken. The Proposal's contributions to those cumulative impacts will be assessed.
Inland Waters	Aquatic Fauna Water Quality	Abstraction of water during construction and operation. Operation of mining (excavation, storage of tailings and waste rock) Pit lake formation post-closure.	Impacts to aquatic fauna and water quality of downstream receptors will be assessed both from sources within the Development Envelope and also in the context of other impacts occurring within the Julimar Creek and Bannister Creek sub-catchments, downstream of the MDE.
	Biodiversity values of Julimar State Forest, Moondyne Nature Reserve and Avon Valley National Park		Impacts to aquatic fauna, water quality and environmental water availability for the reserves will be assessed both from sources within the Development Envelope and also in the context of other impacts occurring within the catchment.
Social surroundings	Amenity	Construction and operations (excavation, ore handling, processing, export and storage of tailings and waste rock)	Impacts to identified sensitive receptors of the Proposal will be assessed in the context of other sources of noise, dust, light overspill and reduction in aesthetic values that may impact the identified sensitive receptors.

Preliminary Environmental Factor	Value	Activity	Boundaries
	Amenity and recreational values of Julimar State Forest, Moondyne Nature Reserve and Avon Valley National Park	Clearing adjacent to Julimar State Forest and Moondyne Reserve (excavation, ore handling, processing, storage of tailings and waste rock), Construction and operations adjacent to Julimar State Forest and Moondyne Reserve (excavation, ore handling, processing, export and storage of tailings and waste rock)	Impacts of the Proposal will be assessed in the context of other sources of noise, dust and other activities that may impact the amenity of users of the reserves.
	Heritage	Clearing Construction and operation of power and water route infrastructure through registered Aboriginal heritage sites	Impacts to heritage sites, values, and/or cultural associations will be assessed in the context of other potential impacts to the identified registered Aboriginal heritage sites. The following boundaries will also be considered: - 10km buffer (local extent) - 50km buffer (regional extent – clipped to bioregional boundaries)
Air quality	Air quality	Construction and operations (excavation, ore handling, processing, export and storage of tailings and waste rock)	Impacts to identified sensitive receptors of the Proposal will be assessed in the context of other potential air quality impacts that may impact the identified sensitive receptors.
Greenhouse gas emissions	Greenhouse gas	Clearing	Consideration of proposed project emissions in the context

Preliminary Environmental Factor	Value	Activity	Boundaries
		Emissions from diesel power supply during construction Emissions from electricity supplied by the South West Interconnected System (SWIS) Vehicle and equipment usage during construction and operations	of the cumulative emissions produced within Western Australia.

2.4 Holistic Assessment

The ERD will include a holistic impact assessment to assess the Proposal's contribution to impacts on relevant environmental values. The assessment will apply the EPA's principles and the EPA's objectives for identified environmental factors and will include:

- An outline of the connections and interactions between environmental factors or values that in combination have the potential to have a significant effect on the environment.
- A diagram of the links between the identified environmental factors or values.
- A summary of the potential combined environmental effects.
- A summary of any additional mitigation measures proposed to mitigate combined environmental effects.
- A summary of any significant residual combined environmental effects
- A summary of any proposed additional environmental outcomes for the Proposal on the environment as a whole, and any proposed conditions for consideration by the EPA.
- A summary of the environmental effect on the proposal on the Environment as a whole.

The holistic impact assessment will also give a specific emphasis to environmental values of Julimar State Forest, Moondyne Nature Reserve and Avon Valley National Park.

2.5 Offsets

If the Proposal requires an offset due to significant residual impacts following the application of the mitigation hierarchy, the following details will be provided in the ERD;

- Identify and quantify the significant residual impacts and proposed offsets, including completing the offset template (refer Appendix 1 of the WA Offsets Guidelines) and the residual impact significance model table (refer Page 11 of the WA Environmental Offsets Guideline).
- For proposed offset provide details including:
  - objectives and outcomes

- description of actions to be undertaken
- specific and measurable success criteria
- timelines and milestones
- monitoring to assess offset implementation
- reporting details and timing
- financial arrangements
- risks and contingency measures
- governance arrangements including responsibilities and legal obligations
- Provide evidence of consultation on offset with relevant stakeholders

- Assess whether and how the proposed offset will counterbalance the significant residual impact.
- Demonstrate consideration of the six Principles outlined in the WA Environmental Offsets Policy and WA Environmental Offset Guideline.
- Outline how the EPA's Public Advice: Considering environmental offsets at a regional scale (EPA 2024c) has been considered in the development of the proposed offset, including the following details:
  - how the seven guiding values outlined in the Public Advice have been considered during the development of the proposed offset
  - how the proposed offset aligns with the recommended priorities outlined in the Public Advice
- Outline how the offset aligns with relevant plans and policies, such as recovery plans.
- Where an offset relates to impacts on a Bush Forever area, demonstrate consideration of the Offsets Criteria outlined in the State Planning Policy 2.8 – Bushland Policy for the Perth Metropolitan Region.
- Provide evidence that supports the success or viability of the offset (include as an appendix where required).

2.6 Stakeholder consultation

Since the discovery of the Gonneville deposit in 2020, Chalice has sought to actively and transparently engage with local communities to keep stakeholders informed about the Project, to build relationships and better understand issues most relevant to the community. This has included landowners, local community groups and representatives, local shires, local businesses and government in the Chittering, Toodyay, Goomallling and Northam local government areas.

Chalice will continue to consult with stakeholders who are affected by or are interested in the Proposal. This includes the decision-making authorities (see section 3), other relevant state (and Commonwealth) government agencies and local government authorities, Traditional Owners, the local community and environmental non-government organisations.

Chalice will document the following in the ERD:

- Identified stakeholders.
- The process of stakeholder engagement for the Proposal, including ongoing consultation.

« The outcomes of consultation with stakeholders, including summary of discussions, issues raised, outcomes and whether issues raised were resolved or outstanding.

3. Decision making authorities

The Proponent has identified the State decision-making authorities listed in Table 5 for this Proposal. Additional decision-making authorities may be identified during the course of the assessment.

Table 5 Decision making authorities and processes.

Decision-making authority	Legislation or Agreement regulating the activity	Approval required
Department of Planning, Lands and Heritage (DPLH)	*Aboriginal Heritage Act 1972*	**Impacts to Aboriginal Heritage** « s. 18 consent to impact a registered Aboriginal heritage site application for a permit under Section 18 of the Aboriginal Heritage Act, if there is any identified impact to Aboriginal Heritage Sites.
	Land Administration Act 1997	**Access and use of crown land** « s. 79 lease of Crown land (note: approval of Minister for Mines also required under section 16 Mining Act 1978) « s. 91 licence over Crown land « s. 144 easement over Crown land
Department of Water and Environmental Regulation (DWER)	*Environmental Protection Act 1986 Part V*	**Emissions as a result of construction and operation of the Proposal** « Works Approval « Environment Licence for controlled work or prescribed activities
Department of Water and Environmental Regulation (DWER)	*Rights in Water and Irrigation Act 1914*	**Abstraction of Groundwater for use during construction** « 5C Licence to take groundwater « 26D Licence for the construction of wells

Decision-making authority	Legislation or Agreement regulating the activity	Approval required
		« s. 17 permit to interfere with beds and banks
Department of Biodiversity, Conservation and Attractions (DBCA)	*Biodiversity Conservation Act 2016*	**Impacts to Threatened species and ecological communities** « s.40 authorisation « Required to take or disturb threatened species (critically endangered, endangered or vulnerable) « s.45 authorisation « Required to modify the occurrence of a threatened ecological community
	Conservation and Land Management Act 1984	**Access and use of land vested in the conservation estate** « Permit/lease/licence in respect of State forests, timber reserves, national parks, conservation parks, nature reserves, and land vested in Conservation and Parks Commission
Department of Energy, Mines, Industry Regulation and Safety (DEMIRS)	*Mining Act 1978*	**Impacts to landform stability, post mining land use, native vegetation (required for any mining-related disturbance within tenements.)** « Mining Proposal (MP) « Mine Closure Plan (MCP) **Tenure** « Granting mining lease, general purpose lease, miscellaneous licence or other Mining Act tenure.
	Work Health and Safety Act 2020 *Work Health and Safety (Mines) Regulations 2022*	**Mining operations (mine safety)** « Mining commencement notice « Mine safety management system

Decision-making authority	Legislation or Agreement regulating the activity	Approval required
	Dangerous Goods Safety Act 2004	**Storage and handling of dangerous goods**
Department of Health	*Health Act 1911*	**Health (Treatment of Sewage and Disposal of Effluent and Liquid Waste) Regulation 1974** « treatment of sewage intended to serve a building that is not a single dwelling or any other building that produces more than 540 litres of sewage per day
Shire of Toodyay	*Building Act 2011*	**Construction of accommodation and administration buildings** « s 76 authority to grant building permit (i.e. worker accommodation, offices etc.)
	Planning and Development Act 2005	**Authority to approve development application / planning approval**
Shire of Chittering	*Planning and Development Act 2005*	**Authority to approve development application / planning approval**
Shire of Wanneroo	*Planning and Development Act 2005* *State Planning Policy 2.8 - Bushland policy for the Perth Metropolitan Region*	**Authority to approve development application / planning approval**

Table 6 Other statutory decision-making process which can mitigate potential impacts on the environment

Environmental impact	How is the impact regulated by other decision-making process(es)?	Limit(s) of the decision-making process(es) to regulate the impact	Likely environmental outcome of decision-making process(es), and consistency with EPA objective	Conditions, enforcement, and review process required by decision-making process(es)	Stakeholder engagement in decision-making process(es)
Disturbance to known Aboriginal heritage sites	The *Aboriginal Heritage Act 1972* allows for the preservation of Aboriginal heritage and culture – both places and objects. This process is for assessing and authorising impacts on sites where significant Aboriginal heritage is present. This will ensure the EPA factor objective for Social Surroundings, in regards to Aboriginal heritage, is met for the preservation of places and objects.	TBC	TBC	TBC	TBC

Environmental impact	How is the impact regulated by other decision-making process(es)?	Limit(s) of the decision-making process(es) to regulate the impact	Likely environmental outcome of decision-making process(es), and consistency with EPA objective	Conditions, enforcement, and review process required by decision-making process(es)	Stakeholder engagement in decision-making process(es)
Emissions of noise, dust and waste material	It is expected that this Proposal will trigger a Part V EP Act works approval and licence to regulate potential impacts and emissions from the Proposal. The construction and operational phases of the Proposal have the potential to generate considerable noise and dust emissions, both of which are likely to be managed under this legislation. This will enable the EPA factor objectives for Terrestrial Environmental Quality, Inland Waters, Social Surroundings and Air Quality to be met.	TBC	TBC	TBC	TBC
Abstraction of groundwater for use during construction	Licences to manage the location and volume of groundwater abstracted for water supply are required for the Proposal under the *Rights in Water and Irrigation Act 1914* (RIWI Act). Licences include monitoring and reporting requirements against licence conditions. The requirements of the license required under the RIWI Act will mitigate impacts to the Flora and Vegetation and Inland Waters factors.	TBC	TBC	TBC	TBC

Environmental impact	How is the impact regulated by other decision-making process(es)?	Limit(s) of the decision-making process(es) to regulate the impact	Likely environmental outcome of decision-making process(es), and consistency with EPA objective	Conditions, enforcement, and review process required by decision-making process(es)	Stakeholder engagement in decision-making process(es)
Water quality and soil quality impacts due to pollution (e.g. acid sulphate soils)	The Proposal could cause potential impacts to water quality and soil quality. The Proposal will be assessed under Part V of the EP Act to ensure such potential impacts are minimised and do not result in significant impacts.	TBC	TBC	TBC	TBC
Impacts to the stability of the landscape	Before any disturbance is undertaken for the Proposal, a Mining Proposal will be lodged with DEMIRS. The Mining Proposal will include outcomes for key DEMIRS factors; including biodiversity, water resources, land and soils, and rehabilitation and mine closure, to ensure that the impacts on these factors are mitigated to an acceptable level. The Mining Proposal will include an outcome that the landscape will be safe, stable and non-polluting.	TBC	TBC	TBC	TBC

Environmental impact	How is the impact regulated by other decision-making process(es)?	Limit(s) of the decision-making process(es) to regulate the impact	Likely environmental outcome of decision-making process(es), and consistency with EPA objective	Conditions, enforcement, and review process required by decision-making process(es)	Stakeholder engagement in decision-making process(es)
Clearing of native vegetation	Partially regulated under the Mining Act 1978. A Mining Proposal will be required to be lodged with DEMIRS prior to clearing being undertaken. The Mining Proposal will specify outcomes relating to the key DEMIRS factor of Biodiversity and include requirements for topsoil and sub-soil stripping, as well as the minimisation of the clearing footprint. Mitigating impacts relating to the clearing of native vegetation will aid in achieving the EPA's factor objectives for Flora and Vegetation and Terrestrial Fauna.	TBC	TBC	TBC	TBC

Environmental impact	How is the impact regulated by other decision-making process(es)?	Limit(s) of the decision-making process(es) to regulate the impact	Likely environmental outcome of decision-making process(es), and consistency with EPA objective	Conditions, enforcement, and review process required by decision-making process(es)	Stakeholder engagement in decision-making process(es)
Introduction and spread of weeds and dieback	A Mining Proposal and Mine Closure Plan are required to be lodged with DEMIRS and will include outcomes for the key DEMIRS factors of Biodiversity and Land and Soils. Weed and dieback management requirements will be included in the Mining Proposal and Mine Closure Plan. Mitigating impacts relating to the introduction and spread of weeds and dieback will aid in achieving the EPA's factor objective for Flora and Vegetation.	TBC	TBC	TBC	TBC
Change to the post mining land use	An approved Mining Proposal and Mine Closure Plan will ensure factors defined in DEMIRS Environmental Objectives – Policy for Mining (DMIRS 2020) are met.	TBC	TBC	TBC	TBC
Impacts to threatened flora, fauna and ecological communities	The provisions of the *Biodiversity Conservation Act 2016* will meet the EPA's objectives with respect to flora and revegetation; and terrestrial fauna.	TBC	TBC	TBC	TBC

Environmental impact	How is the impact regulated by other decision-making process(es)?	Limit(s) of the decision-making process(es) to regulate the impact	Likely environmental outcome of decision-making process(es), and consistency with EPA objective	Conditions, enforcement, and review process required by decision-making process(es)	Stakeholder engagement in decision-making process(es)
Clearing of threatened or priority flora	The *Biodiversity Conservation Act 2016* allows for the management of activities which impact on threatened flora and fauna. It will enable threatened and priority species to be identified and avoided, where practicable. This will ensure that the EPA factor objectives for Flora and Vegetation and Terrestrial Fauna are met.	TBC	TBC	TBC	TBC

Environmental impact	How is the impact regulated by other decision-making process(es)?	Limit(s) of the decision-making process(es) to regulate the impact	Likely environmental outcome of decision-making process(es), and consistency with EPA objective	Conditions, enforcement, and review process required by decision-making process(es)	Stakeholder engagement in decision-making process(es)
Contamination of soils, groundwater and surface water (hydrocarbon spills)	A Dangerous Goods Licence sets standards for the way in which dangerous goods are stored on site. These standards are aimed at ensuring dangerous goods are stored safely and in such a way that will not result in impacts to the environment. Having a Dangerous Goods Licence ensures potential spills and combustion risks from the Proposal are mitigated. A Dangerous Goods licence (in combination with the Part V approvals) will meet the objectives of the EPA for the Flora and vegetation, Terrestrial Fauna, Terrestrial Environmental Quality and Inland Waters factors by minimising the risk of contamination of soils and water, and protecting flora and vegetation, and terrestrial fauna by minimising the risk of fire. The Dangerous Goods Licence will ensure the appropriate handling, storage and use of materials that if handled incorrectly, could have significant impacts on the environment.	TBC	TBC	TBC	TBC

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