

ENVIRONMENTAL SCOPING DOCUMENT

Proposal name:	Limestone and Sand Quarry
Proponent:	Moresreel Pty Ltd (Trading as Doyles Lime Service)
Assessment number:	2095
Location:	Lot 1002 Preston Beach Road North, Preston Beach
Local Government Area:	Shire of Waroona
Public review period:	Environmental Review Document – 4 weeks

1. Introduction

The Environmental Protection Authority (EPA) has determined that the above proposal is to be assessed under Part IV of the *Environmental Protection Act 1986* (EP Act).

The purpose of the Environmental Scoping Document (ESD) is to define the form, content, timing and procedure of the environmental review, required by s. 40(3) of the EP Act. This ESD has been prepared by the EPA in consultation with the proponent, decision-making authorities and interested agencies consistent with the EPA's *Procedures Manual*.

Form

The EPA requires that the form of the report on the environmental review required under s. 40 (Environmental Review Document, ERD) is according to the [Environmental Review Document template](#).

Content

The EPA requires that the environmental review includes the content outlined in sections 2 to 6 of this ESD.

Timing

Table 1 sets out the timeline for the assessment of the proposal agreed between the EPA and the proponent.

Table 1 Assessment timeline

Key assessment milestones	Completion Date
EPA approves Environmental Scoping Document	17 May 2019
Proponent submits first draft Environmental Review Document	2 September 2019
EPA provides comment on first draft Environmental Review Document <i>(6 weeks from receipt of ERD)</i>	14 October 2019
Proponent submits revised draft Environmental Review Document	11 November 2019
EPA authorises release of Environmental Review Document for public review <i>(2 weeks from EPA approval of ERD)</i>	25 November 2019
Proponent releases Environmental Review Document for public review for 4 weeks	2 December 2019
Close of public review period <i>(Plus 2 weeks for Christmas/New Year period)</i>	13 January 2020
EPA provides Summary of Submissions <i>(3 weeks from close of public review period)</i>	3 February 2020
Proponent provides Response to Submissions	2 March 2020
EPA reviews the Response to Submissions <i>(4 weeks from receipt of Response to Submissions)</i>	30 March 2020
EPA prepares draft assessment report and completes assessment <i>(6 weeks from EPA accepting Response to Submissions)</i>	11 May 2020
EPA finalises assessment report (including two weeks consultation on draft conditions) and gives report to Minister <i>(6 weeks from completion of assessment)</i>	22 June 2020

Procedure

The EPA requires the proponent to undertake the environmental review according to the procedures in the *Administrative Procedures* and the *Procedures Manual*, including requirements for public review.

This ESD has not been released for public review. The ESD will be available on the EPA website (www.epa.wa.gov.au) upon endorsement and must be appended to the ERD.

2. The proposal

The subject of this ESD is the construction and operation of a limestone and sand quarry (13.9 hectares) at Lot 1002 Preston Beach North Road, Preston Beach in the Shire of Waroona. The proposal would involve screening and crushing of the limestone, and grading and maintenance of Preston Beach North Road for access. The regional location of the proposal is and the development envelope encompassing the physical elements of the proposal is delineated in Figure 1.

The key characteristics of the proposal are set out in Tables 2 and 3. The key proposal characteristics may change as a result of the findings of studies and investigations conducted and the application of the mitigation hierarchy by the proponent.

Doyles Lime Service previously referred a proposal for the construction and operation of a limestone and sand quarry at Lots 1001 and 1002 Preston Beach Road North, Preston Beach to the EPA. The limestone development at Lot 1001 was proposed to be approximately 200 metres (m) from Lake Pollard, which is a Conservation Category and Ramsar wetland. The EPA decided not to assess the proposal and provided public advice on 16 March 2016. That proposal was remitted back to the EPA for assessment due to uncertainties about the hydrological predictions. On 15 February 2016 Doyles Lime Service requested to formally withdraw the proposal on Lots 1001 and 1002 Preston Beach Road North, Preston Beach. On 10 May 2015, the EPA formally terminated the environmental impact assessment of that proposal. A modified proposal was referred to the EPA on 5 August 2016.

Table 2 Summary of the proposal

Proposal title	Limestone and Sand Quarry, Lot 1002 Preston Beach Road
Proponent name	Moresreel Pty Ltd (trading as Doyles Lime Service)
Short description	The proposal would involve construction and operation of a limestone and sand quarry at Lot 1002 Preston Beach Road North, Preston Beach in the Shire of Waroona. Extracted limestone would be screen and crushed using a mobile crusher. Grading and maintenance of Preston Beach North Road is also required for access.

Table 3 Location and proposed extent of physical and operational elements

Element	Location	Proposed extent
<i>Physical elements</i>		
Limestone and sand quarry	Figure 1	Clearing up to 13.9 ha of native vegetation within a 29.3 ha development envelope.

Transport route/quarry access	Figure 1	<u>Lot 1002 Road Access</u> Clearing up to 0.6 ha of native vegetation within a 29.3 ha development envelope. <u>Preston Beach Road North</u> Clearing up to 0.7 ha of native vegetation within a 29.3 ha development envelope.
Operational elements		
Water abstraction		Up to 5000 kilolitres per annum

3. Preliminary key environmental factors and required work

The preliminary key environmental factors for the environmental review are:

1. Inland Waters (formerly Hydrological Processes and Inland Waters Environmental Quality)
2. Flora and Vegetation
3. Terrestrial Fauna
4. Social Surroundings

Table 3 outlines the work required for each preliminary key environmental factor and contains the following elements for each factor:

- **EPA factor** and **EPA objective** for that factor.
- **Relevant activities** – the proposal activities that may have a significant impact on that factor.
- **Potential impacts and risks** to that factor.
- **Required work** for that factor.
- **Relevant policy and guidance** – EPA (and other) guidance and policy relevant to the assessment.

Table 4 Preliminary key environmental factors and required work

Inland Waters	
EPA objective	To maintain the hydrological regimes and quality of groundwater and surface water so that environmental values are protected.
Relevant activities	Excavation of sand and the limestone ridge to within 4 m above the water table, and groundwater abstraction for proposal activities including dust suppression.

Potential impacts and risks	Removal of the limestone ridge potentially removes winter rain storage capacity, and may have subsequent impacts to hydrological processes and water quality of the nearby conservation significant wetlands and the Yalgorup National Park.
Required work	<ol style="list-style-type: none"> 1. Provide a detailed description of the design and location of the proposal with the potential to impact surface water or groundwater. 2. Develop a conceptual model of the hydrogeological system including recharge and discharge mechanisms, aquifer connectivity, surface water/groundwater interaction and water chemistry; in particular, the potential for winter rainfall storage at the limestone ridges and groundwater movement to Lake Pollard. 3. Conduct hydrogeological investigations, fit for purpose modelling and analysis to detail baseline hydrology and predictions of change (quality, level and flows) and impact as a result of (stage 1) removal of vegetation and (stage 2) long term loss of deep soil profile and increased evapotranspiration of re-vegetation on shallow groundwater in relation to water dependent ecosystems (most specifically Lake Clifton, Lake Pollard and Martins Tank) and the Yalgorup National Park, and include any potential impacts on westerly groundwater flows and wetland values to the west of the quarry. Provide a sensitivity analysis of the predictions from the modelling undertaken. 4. Map the extent, magnitude and rate of changes in hydrology (addressing groundwater levels, flows, quality and surface water inputs) as a result of (stage 1) removal of vegetation and (stage 2) long term loss of deep soil profile and increased evapotranspiration of re-vegetation on shallow groundwater in relation to water dependent ecosystems and most specifically Lake Clifton, Lake Pollard and Martins Tank, and include potential impacts to the westerly groundwater flow and wetland values to the west of the quarry. Fit for purpose geochemical modelling (e.g. PHREEQC) should be utilised where appropriate to support any risk assessment process. 5. Map habitats, flora and fauna vulnerable to changes in hydrology (drawdown or groundwater level increase and water quality changes) in relation to predicted hydrogeological change, including interdunal swale habitats to the west of the proposed works. 6. Use the results of the modelling and other steps to identify if there are risks of changes in both increased and reduced discharge on lake levels and lake water quality, including the risk of acid sulphate soils. Also identify the risks of changes on the interdunal habitats to the west of the proposed works. 7. Provide a volumetric pre and post development conceptual water balance.

	<p>8. Analyse, discuss and assess surface water and groundwater impacts. The discussion should include:</p> <ul style="list-style-type: none"> • changes in groundwater levels and changes to surface water flows associated with the proposal • changes to water quality • the nature, extent and duration of impacts • impacts on environmental values of significant receptors, including but not limited to conservation significant wetlands (Lake Pollard and Martins Tank Lake) and the Yalgorup National Park. <p>9. Discuss the proposed management, monitoring and mitigation to prevent groundwater and surface water impacts, at local and catchment scale, as a result of implementing the proposal.</p> <p>10. Demonstrate in the ERD how the EPA's objective for this factor will be met.</p> <p>11. Determine and quantify any significant residual impacts by applying the Residual Impact Significance Model (page 11) and WA Offset Template (Appendix 1) in the WA Environmental Offsets Guidelines (2014).</p> <p>12. Where significant residual impacts remain, propose an appropriate offsets package that is consistent with the WA Environmental Offsets Policy and Guidelines. Spatial data defining the area of significant residual impacts should also be provided (e.g. vegetation type, vegetation condition, specific fauna species habitat).</p>
Relevant policy and guidance	<p><i>EPA Policies and Guidance</i></p> <p>Environmental Factor Guideline – Inland waters (EPA 2018)</p> <p>Environmental Factor Guideline – Flora and vegetation (EPA 2016)</p> <p>Environmental Factor Guideline – Terrestrial fauna (EPA 2016)</p> <p>EPA Report 1359 – <i>Strategic Environmental Advice on the Dawesville to Binningup Area</i> (EPA 2010)</p> <p><i>Other Policies and Guidance</i></p> <p>Peel coastal groundwater allocation plan: Groundwater-dependent ecosystems Environmental Water Report Series Report No. 27 (Department of Water 2015)</p> <p>Peel coastal groundwater allocation plan: Water resource allocation and planning report series, Report No. 66 (Department of Water 2015)</p> <p>Water Quality Protection Note 15: Extractive Industries near sensitive water resources (Department of Water 2013)</p> <p>WA Environmental Offsets Policy (Government of Western Australia 2011)</p>

	WA Environmental Offsets Guidelines (Government of Western Australia 2014).
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Flora and Vegetation	
EPA objective	To protect flora and vegetation so that biological diversity and ecological integrity are maintained.
Relevant activities	Clearing of 15.2 ha of degraded to good condition vegetation for construction of the quarry, and access road upgrade.
Potential impacts and risks	Removal of vegetation for construction of the quarry and access road upgrade, and potential indirect impacts to flora and vegetation in the Yalgorup National Park.
Required work	<p>13. Identify and characterise flora and vegetation in accordance with the requirements of EPA Guidance. The survey should take into account areas that are likely to be indirectly impacted as a result of the proposal (including by any reduction in groundwater), including the proposed access road upgrade and Yalgorup National Park and in buffer vegetation between the proposal area and Lake Pollard. Particular consideration should be given to the potential occurrences of the Priority 3 ecological community 'Tuart (<i>Eucalyptus gomphocephala</i>) woodlands of the Swan Coastal Plain'.</p> <p>If multiple surveys have been undertaken to support the assessment, a consolidated report should be provided including the integrated results of the surveys. Where surveys were undertaken prior to scoping, justification should be provided to demonstrate that they are relevant and consistent with EPA Guidance. Ensure species database searches and taxonomic identifications are up-to-date.</p> <p>14. Undertake baseline mapping of weed affected areas in any area likely to be directly or indirectly impacted by the proposal.</p> <p>15. Provide an analysis of the vegetation and significant flora species present and likely to be present within the development envelope and indirect impact areas outside of the development envelope.</p> <p>16. Provide figures of the proposed clearing and predicted indirect impact to vegetation (specifically any groundwater dependent ecosystems) and significant flora species including threatened/priority ecological communities, threatened/priority flora, and significant flora and significant vegetation as defined by EPA guidance.</p> <p>17. Discuss, and determine significance of, potential direct and indirect impacts to significant flora and vegetation as a result of the proposal at a local and regional level.</p>

	<p>18. Discuss the implications of upgrading Preston Beach North Road in context of existing EPA policies, in particular Strategic Environmental Advice on the Dawesville to Binningup Area (Report 1359).</p> <p>19. Demonstrate that all practicable measures have been taken to reduce both the area of the proposed disturbance footprint and the development envelope based on proposal design and understanding of the environmental impacts.</p> <p>20. Discuss proposed management, monitoring and mitigation methods to be implemented demonstrating that the proposal has addressed the mitigation hierarchy in relation to impacts on flora and vegetation. Both groundwater monitoring and vegetation health monitoring should be implemented in the area of predicted drawdown to ensure that ecological functions of plant communities are maintained.</p> <p>21. Discuss management measures and outcome/objectives sought to ensure residual impacts (direct and indirect) are not greater than predicted.</p> <p>22. Discuss the residual impacts, if any, including as appropriate, monitoring programmes to measure residual impacts, and management programmes to further mitigate these residual impacts and to deal with circumstances where outcomes fall short of intended objectives.</p> <p>23. Provide an assessment on the physical and chemical characteristics of soil and soil profiles to be disturbed by the proposal, with particular focus on the ability to use such soil materials in post-mining rehabilitation works.</p> <p>24. Prepare a Rehabilitation and Closure Plan consistent with the DMP and EPA (2015) <i>Guidelines for Preparing Mine Closure Plans</i>. The Plan should include but not be limited to:</p> <ul style="list-style-type: none"> • Closure objectives and completion criteria addressing post mining landforms and soil profile design, native vegetation and habitat for conservation significant flora and fauna and base the conclusions on the availability of suitable substrates • Establish and measure vegetation and fauna reference and analogue sites to inform completion criteria. <p>25. Demonstrate that the proposal has been designed to avoid and minimise impacts including the placement of any access roads and infrastructure within vegetated areas and that placement has had regard to utilising existing areas of disturbance.</p> <p>26. Describe the proposed rehabilitation methodology, including but not limited to:</p> <ul style="list-style-type: none"> • Topsoil management • Retention or reuse of vegetative material
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	<ul style="list-style-type: none"> • Return of species and communities (where feasible) consistent with the pre-existing composition of the affected area • Timeframes for rehabilitation, including sequencing of excavation and progressive rehabilitation. <p>27. Identify completion criteria, including criteria for reconstructed soils and soil profiles (identification and profile reconstruction), landform stability, drainage/erosion control and species and communities.</p> <p>28. Demonstrate in the ERD how the EPA's objective for this factor will be met.</p> <p>29. Determine and quantify any significant residual impacts by applying the Residual Impact Significance Model (page 11) and WA Offset Template (Appendix 1) in the WA Environmental Offsets Guidelines (2014).</p> <p>30. Where significant residual impacts remain, propose an appropriate offsets package that is consistent with the WA Environmental Offsets Policy and Guidelines. Spatial data defining the area of significant residual impacts should also be provided (e.g. vegetation type, vegetation condition, specific fauna species habitat).</p>
Relevant policy and guidance	<p><i>EPA Policies and Guidance</i></p> <p>Environmental Factor Guideline – Flora and vegetation (EPA 2016)</p> <p>Environmental Factor Guideline – Terrestrial fauna (EPA 2016)</p> <p>Technical Guide – <i>Flora and Vegetation Surveys for Environmental Impact Assessment</i> (EPA and Department of Parks and Wildlife 2015)</p> <p>EPA Report 1359 – <i>Strategic Environmental Advice on the Dawesville to Binningup Area</i> (EPA 2010)</p> <p>Environmental Protection Bulletin No. 12 – <i>Swan Bioplan - Peel Regionally Significant Natural Areas</i> (EPA 2013)</p> <p><i>Guidelines for Preparing Mine Closure Plans</i> (DMP & EPA 2015)</p> <p>Guidance Statement No. 6 – <i>Rehabilitation of Terrestrial Ecosystems</i> (EPA 2006)</p> <p><i>Other Policies and Guidance</i></p> <p>WA Environmental Offsets Policy (Government of Western Australia 2011)</p> <p>WA Environmental Offsets Guidelines (Government of Western Australia 2014)</p> <p>Western Australian Planning Commission – <i>South Metropolitan Peel – Sub-Regional Planning Framework</i>.</p>

Terrestrial Fauna	
EPA objective	To protect terrestrial fauna so that biological diversity and ecological integrity are maintained.
Relevant activities	Clearing of 15.2 ha of degraded to good condition vegetation, crushing and screening of excavated materials, transport of excavated products, and access road upgrade.
Potential impacts and risks	Potential impacts to conservation significant fauna and removal of fauna habitat for construction of the quarry and access road upgrade, and potential indirect impacts to fauna in the Yalgorup National Park.
Required work	<p>31. In accordance with EPA Guidance:</p> <ul style="list-style-type: none"> Carry out a desktop study of previous surveys and regional studies to predict the expected fauna assemblage of the proposal area and determine the level of survey required. Conduct a Level 1 fauna survey including local and regional mapping of habitats (including rare or unusual habitat types) inside and outside of the development envelope. Where existing local information is inadequate or incomplete, comprehensive Level 2 fauna surveys are required. Where conservation significant fauna have been identified in the desktop study or surveys, Level 2 targeted surveys are required. Identify potential impacts to conservation significant fauna species within the development envelope and immediate surrounds. Include mapping of the locations of any conservation significant fauna in relation to the proposal and fauna habitat. Assess the likelihood of the habitats to support short-range endemic (SRE) invertebrate species. If the area is prospective for these species, undertake SRE invertebrate fauna sampling as per EPA Guidance. Include mapping of the locations of any known and potential SRE invertebrate species in relation to the proposal and fauna habitat. Prepare a comprehensive listing of fauna species likely to occur in habitats to be directly or indirectly impacted. <p>32. Where the results from previous surveys are relied on for context, justification should be provided to demonstrate that they are relevant, representative of the development envelope, and were carried out using methods consistent with EPA Guidance.</p> <p>33. Consider habitat types that provide important ecological function within and adjacent to the proposal area e.g. riparian vegetation, wetlands, areas of conservation significance or geological features</p>

	<p>which may support unique ecosystems. Particular consideration should be given the following:</p> <ul style="list-style-type: none"> • Discuss the predicted level and significance of impacts to the Conservation Category and RAMSAR wetland Lake Pollard including hydrology, aquatic fauna and migratory waterbirds. Where significant impacts to Lake Pollard are identified, surveys for aquatic fauna and migratory waterbirds may be required. <p>34. Assess direct and indirect impacts on fauna, conservation significant fauna and fauna habitats, including percentages of habitat types to be impacted within the proposal area and on a regional scale. Provide figures showing the likely extent of loss of habitat types and the extent of habitat areas expected to recover from both direct and indirect impacts. Particular consideration should be given to the following:</p> <ul style="list-style-type: none"> • impacts on the threatened western ringtail possum, including potential direct impacts from traffic on roads and operations • impacts to herpetofauna, which may include targeted surveys to priority reptile species <i>Ctenotus ora</i> and <i>Lerista lineata</i>. <p>35. Predict the residual impacts from the proposal on terrestrial fauna, including SRE fauna, for direct and indirect impacts after considering and applying avoidance and minimisation measures.</p> <p>36. Discuss proposed management, monitoring and mitigation measures to be implemented for the proposal to ensure residual impacts are not greater than predicted.</p> <p>37. Demonstrate in the ERD how the EPA's objective for this factor will be met.</p> <p>38. Determine and quantify any significant residual impacts by applying the Residual Impact Significance Model (page 11) and WA Offset Template (Appendix 1) in the WA Environmental Offsets Guidelines (2014).</p> <p>39. Where significant residual impacts remain, propose an appropriate offsets package that is consistent with the WA Environmental Offsets Policy and Guidelines. Spatial data defining the area of significant residual impacts should also be provided (e.g. vegetation type, vegetation condition, specific fauna species habitat).</p>
<p>Relevant policy and guidance</p>	<p><i>EPA Policies and Guidance</i></p> <p>Environmental Factor Guideline – Terrestrial fauna (EPA 2016)</p> <p>Environmental Factor Guideline – Flora and vegetation (EPA 2016)</p> <p>Guidance Statement No. 56 – <i>Terrestrial Fauna Surveys for Environmental Impact Assessment in WA</i> (EPA 2004)</p> <p>Technical Guide – <i>Flora and Vegetation Surveys for Environmental Impact Assessment</i> (EPA and Department of Parks and Wildlife 2015)</p>

	<p>Guidance Statement No. 20 – <i>Sampling of Short Range Endemic Invertebrate Fauna for Environmental Impact Assessment in Western Australia</i> (EPA 2009)</p> <p>Technical Guide – <i>Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment</i> (EPA 2010)</p> <p>EPA Report 1359 – <i>Strategic Environmental Advice on the Dawesville to Binningup Area</i> (EPA 2010)</p> <p>Other Policies and Guidance</p> <p>WA Environmental Offsets Policy (Government of Western Australia 2011)</p> <p>WA Environmental Offsets Guidelines (Government of Western Australia 2014)</p> <p>Western Australian Planning Commission – <i>South Metropolitan Peel – Sub-Regional Planning Framework</i>.</p>
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Social Surroundings	
EPA objective	To protect social surroundings from significant harm.
Relevant activities	Excavation of sand and limestone, crushing and screening of excavated materials, and transport of excavated products from site.
Potential impacts and risks	Operational activities could cause noise, dust and visual impacts at the nearby wetlands, and the Yalgorup National Park, thus impacting visitors to the area.
Required work	<p>40. Characterise the land use and amenity values of the Yalgorup National Park and Lots 1000, 3045, 2657, 2275 and 2240 immediately north of the proposal (recently acquired for inclusion in the national park), particularly noting the sensitive receptors and important areas for human use that could be affected by noise and dust emissions, visual amenity issues and alterations to the landforms from excavation of the limestone ridge. Include relevant maps to show the locations of the sensitive receptors likely to be affected by the proposal.</p> <p>41. Characterise noise impacts on sensitive receptors via a noise assessment in accordance with EPA Guidance. Demonstrate that noise can be managed such that it complies the <i>Environmental Protection (Noise) Regulations 1997</i> at sensitive receptor locations.</p> <p>42. Characterise the environment by providing baseline data of dust emissions and assess the potential for dust impacts at sensitive receptor locations.</p> <p>43. Characterise the environment by providing a description of the visual landscape character and scenic quality values and provide maps of the visual landscape units that may potentially be visually affected. This</p>

	<p>should include, but not limited to: landforms; vegetation; waterways (including wetlands) and can be undertaken by way of 3-dimensional modelling and/or photographs.</p> <p>44. Identify and discuss the potential sources and impacts of noise, dust and alteration to landforms from the proposal. In particular, address potential impacts to the Yalgorup National Park, the properties proposed for future inclusion to the national park, and the impacts on the Lake Pollard walk trail.</p> <p>45. Identify and discuss any impacts on the future use of the access way by the Department of Biodiversity Conservation and Attractions (DBCA) staff and visitors to the national park.</p> <p>46. Identify the types and sizes of trucks, and the road upgrades required to accommodate operations and ensure the safety of other road users and campers using the Martin Tank campsite. Demonstrate how the road will be maintained to provide for the ongoing safety of road users and campers using the Martin Tank campsite.</p> <p>47. Design and undertake a visual impact assessment (VIA) for before, during and after the proposed excavation activities, to assess the impacts of the proposal on visual amenity in accordance with the Western Australian Planning Commission (2007) <i>Visual Landscape Planning in Western Australia: a manual for evaluation, assessment, siting and design</i>, and in consultation with the DBCA.</p> <p>48. The VIA will identify and describe the aspects of the proposal which may potentially affect the visual landscape character and scenic quality values both temporarily and permanently, using agreed (by the EPA, in consultation with the DBCA) reference and vantage points of surrounding areas including travel routes and use area's viewer positions and perceptions.</p> <p>49. Predict the residual amenity impacts from the proposal on the landscape sensitive receptors and important areas for human use after considering and applying avoidance and minimisation measures. Impact predictions are to include, but not be limited to:</p> <ul style="list-style-type: none"> • The likely extent, severity and duration of the impacts from noise, dust, light-spill, and alterations to the landscape, landform and to amenity • Simulations/modelling of the predicted residual impacts from the proposal, including changes to the landscape from the agreed reference and vantage points. <p>50. Identify management and mitigation measures for the proposal including closure and rehabilitation outcomes to ensure residual impacts are not greater than predicted. The ERD is to include:</p> <ul style="list-style-type: none"> • A description of the management and mitigation measures
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	<ul style="list-style-type: none"> • Management zones and strategies for managing visual landscape character relative to each stage of the proposed operation • Environmental management plans outlining the environmental outcomes/objectives, other key regulatory requirements; management actions, monitoring (including methodology, frequency, location and rational), trigger criteria, contingency actions, review, reporting, and consultation. <p>51. Demonstrate in the ERD how the EPA's objective for this factor will be met.</p>
Relevant policy and guidance	<p><i>EPA Policies and Guidance</i></p> <p>Environmental Factor Guideline – Social surroundings (EPA 2016)</p> <p>Guidance Statement No. 3 – <i>Separation Distance Between Industrial and Sensitive Land Uses</i> (EPA 2005).</p> <p><i>Other Policies and Guidance</i></p> <p>Western Australian Planning Commission – <i>Visual Landscape Planning in Western Australia: a manual for evaluation, assessment, siting and design</i>.</p>

4. Other environmental factors or matters

The EPA has identified the following other environmental factors or matters relevant to the proposal that must be addressed during the environmental review and discussed in the Environmental Review Document:

1. Subterranean fauna – including outcomes of consultation with the DBCA and consideration of potential for karst.
2. Landforms – including outcomes of consultation with interested parties and assessment of potential impacts.
3. Air Quality – the ERD will include the following works for greenhouse gas emissions:
 - a. Characterise the greenhouse gas emission key sources from the proposal and estimate the expected annual Scope 1 (direct) greenhouse gas emissions.
 - b. Provide details of any mitigation measures designed to avoid or minimise greenhouse gas emissions during the implementation of the proposal.
4. Other matters – demonstrate how the proposal is consistent with other relevant government environmental policy and guidance for the area, including the Western Australian Planning Commission's South Metropolitan Peel – Sub Regional Planning Framework (2018).

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 ERD, and if so, to what extent.

5. Stakeholder consultation

The proponent must consult with stakeholders who are affected by, or are interested in the proposal. This includes the decision-making authorities (see section 6), other relevant state government agencies and local government authorities, in particular the DBCA, the local community and environmental non-government organisations.

The proponent must document the following in the ERD:

- identified stakeholders
- the stakeholder consultation undertaken and the outcomes, including decision-making authorities' specific regulatory approvals and any adjustments to the proposal as a result of consultation
- any future plans for consultation.

6. Decision-making authorities

At this stage, the EPA has identified the authorities listed in Table 4 as decision-making authorities (DMAs) for the proposal. Additional DMAs may be identified during the course of the assessment.

Table 5 Decision-making authorities

Decision-making authority	Relevant legislation
1. Minister for Environment	<i>Wildlife Conservation Act 1986</i>
2. Minister for Water	<i>Rights in Water and Irrigation Act 1914</i>
3. Chief Executive Officer, Department of Water and Environmental Regulation	Part V of the <i>Environmental Protection Act 1986</i>
4. Chief Executive Officer, Shire of Waroona	<i>Local Government Act 1995</i>
5. Chairman, Western Australia Planning Commission	<i>Planning and Development Act 2005</i> <i>Peel Region Scheme</i>

Figure 1 – Regional location and development envelope