

Dr Michael Ruane
Director
Reward Minerals Ltd
PO Box 1104
NEDLANDS WA 6909

Our Ref: CMS16158
Enquiries: Ben Miles, 6145 0833
Email: ben.miles@epa.wa.gov.au

Dear Dr Ruane

**LAKE DISAPPOINTMENT POTASH PROJECT – PUBLIC ENVIRONMENTAL
REVIEW – ASSESSMENT NO. 2087**

The Environmental Scoping Document (ESD) (Alfresco Doc No: 2016-1477275222092) specifying the scope and content of the Public Environmental Review (PER) document for the above proposal was considered by the Environmental Protection Authority (EPA) at Meeting No. 1094 on 20 October 2016. The ESD has been approved as providing an acceptable basis for the preparation of the PER document.

Guidelines for preparing a PER document are available on the EPA website (www.epa.wa.gov.au).

During the preparation of the PER document you are encouraged to consult with the Office of the Environmental Protection Authority assessment officer for the proposal, Ben Miles, who can be contacted on telephone number 6145 0833. Please quote the above "Our Ref" on any further correspondence.

Yours sincerely



Dr Tom Hatton
CHAIRMAN

25 October 2016

ENVIRONMENTAL SCOPING DOCUMENT

PROPOSAL NAME:	Lake Disappointment Potash Project
ASSESSMENT NUMBER:	2087
LOCATION:	320 kilometres (km) east of Newman
LOCAL GOVERNMENT AREA:	Shire of East Pilbara
PROPONENT:	Reward Minerals Ltd
PUBLIC REVIEW PERIOD:	6 WEEKS

1. Introduction

The above 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; and
- 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 4 weeks.

This ESD has been prepared by the EPA in consultation with the proponent, decision-making authorities and interested agencies consistent with EPA Environmental Assessment Guideline (EAG) 10 – *Scoping a proposal*. ESDs prepared by the EPA are not subject to public review. The ESD will be available on the EPA website (www.epa.wa.gov.au) upon endorsement and must be appended to the PER document.

2. The proposal

The proposal is to abstract potassium-rich brines from sediments associated with Lake Disappointment to produce sulphate of potash via solar evaporation of harvested salts. The proposal is situated approximately 320km east of Newman, in the Pilbara (see Figure 1).

The proposal includes the construction and use of associated mine infrastructure including evaporation ponds, water supply borefield, processing plant, offices, workshop, accommodation, and roads. Waste salt would be stored in stockpiles on the Lake Disappointment playa (a Directory of Important Wetlands in Australia site). Potash product would be transported by road to Newman and then on to shipping facilities at Port Hedland or Geraldton.

Table 1 Key Proposal Characteristics

Summary of the proposal		
Proposal Title	Lake Disappointment Potash Project	
Proponent Name	Reward Minerals Ltd	
Short Description	The proposal is to abstract potassium-rich brines from sediments associated with Lake Disappointment to produce sulphate of potash via solar evaporation of harvested salts.	
Element	Location	Proposed Extent (Revised Proposal)
Mine and associated infrastructure	Figure 1	Disturbance of up to 7,250 hectares (ha) of which 436.5 ha is vegetated with the remaining land forming part of the playa surface of Lake Disappointment.
Groundwater abstraction (for ore processing and operational purposes)	Figure 1	Up to 3.1 GL per year

3. Preliminary key environmental factors and scope of work

The key proposal characteristics in Table 1 have informed the identification of the preliminary key environmental factors for the proposal, in accordance with EAG 8 – *Environmental 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 2.

To provide context to the preliminary key environmental factors, Table 2 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 2 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. Potential impacts associated with proposals are to be considered at a local and regional scale, including evaluation of cumulative impacts (if any). The discussion should provide details of measures proposed to avoid, manage or mitigate adverse impacts of project implementation.

This includes whether environmental offsets are required by application of the mitigation hierarchy, consistent with the WA Environmental Offsets Guidelines (August, 2014).

The EPA expects that the proponent will consider all relevant contemporary policy documents, including revisions or updates of the policy documents listed and any new, relevant policy that is published during the development of the PER.

Table 2 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	<ul style="list-style-type: none"> • Clearing of native vegetation, • Brine abstraction, groundwater abstraction for other operational purposes • Excavation, haulage and stockpiling of ore and overburden, • Vehicle movements and potential alteration to water (surface and ground) quality, quantity and flows.
Potential impacts and risks	<ul style="list-style-type: none"> • Direct clearing of vegetation • Altered fire regime • Introduction and spread of weeds or plants from outside the local area • Dust deposition on vegetation • Groundwater abstraction • Alteration to surface water flows
Required work	<ol style="list-style-type: none"> 1. Undertake flora and vegetation surveys in accordance with the requirements of EPA Guidance Statement No. 51 and the Technical Guide – Flora and Vegetation Surveys for Environmental Impact Assessment in areas that are likely to be directly or indirectly impacted as a result of the proposal, including fringing samphires, groundwater dependent ecosystems (GDE) and aquatic flora. This should include a description of the surveys undertaken, the baseline data collected, and the environmental values identified. Where prior surveys are included, provide a literature review and justification to demonstrate those surveys are relevant, representative of the current proposal, and were conducted consistent with EPA policy. 2. Describe the existing flora and vegetation within the development envelope including its relevance within a wider regional context. 3. Include maps that illustrate the known recorded locations of conservation significant species and communities in relation to the proposed disturbance and areas to be impacted 4. Conduct a detailed analysis of vegetation units to establish local and regional conservation significance of each vegetation unit. Identify those units which are likely to be groundwater dependent ecosystems (GDE) or influenced by changes to surface water and groundwater regimes. Provide details of the methodology used in the identification and mapping of vegetation communities. 5. Assess the potential direct and indirect impacts associated with the proposal on the flora and vegetation within the development envelope. This should be a quantitative assessment that addresses numbers and proportions of individuals, populations and associations in the local and regional context; especially those species and communities of conservation significance as

	<p>defined in Guidance Statement 51.</p> <ol style="list-style-type: none"> 6. Provide comprehensive mapping of vegetation units and significant flora in relation to the proposed disturbance, including maps depicting vegetation boundaries overlaying aerial photography. Figures should show the likely spatial extent of loss of vegetation units from both direct and indirect impacts, particularly altered hydrology and dust. 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. Complete EPA’s checklist for documents submitted for Environmental Impact Assessment (EIA) on terrestrial biodiversity. 9. To the extent that significant residual impacts cannot be avoided, reduced, mitigated, or subsequently restored – identify appropriate offsets. 10. Outline the outcomes/objectives, management, monitoring, trigger and contingency actions, to ensure impacts (direct and indirect) are not greater than predicted. 11. Provide a statement of how the proponent considers the EPA’s objective for this factor has been addressed.
<p>Relevant policy</p>	<p><u>EPA Policies and Guidance</u></p> <p>EPA. 2000. <i>Environmental Protection of Native Vegetation in Western Australia</i>. Position Statement No. 2. Perth, Western Australia.</p> <p>EPA. 2002. <i>Terrestrial Biological Surveys as an Element of Biodiversity Protection</i>. Position Statement No. 3. Perth, Western Australia.</p> <p>EPA. 2004. <i>Environmental Protection of Wetlands</i>. Position Statement No. 4. Perth, Western Australia.</p> <p>EPA. 2004. <i>Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment in Western Australia, No. 51</i>. Guidance for the Assessment of Environmental Factors. Perth, Western Australia.</p> <p>EPA and Department of Parks and Wildlife. 2015. <i>Technical Guide – Flora and Vegetation Surveys for Environmental Impact Assessment</i>. Perth, Western Australia.</p> <p>EPA Checklist for documents submitted for Environmental Impact Assessment on marine and terrestrial biodiversity.</p> <p><u>Other Policies and Guidance</u></p> <p>Department of Water. 2013. <i>Western Australian water in mining guideline</i>. Water licensing delivery series. Report No.12. Perth, Western Australia.</p>
<p>Subterranean Fauna</p>	
<p>EPA objective</p>	<p>To maintain representation, diversity, viability and ecological function at the species, population and assemblage level.</p>
<p>Relevant aspects</p>	<p>Groundwater abstraction for borefield. Changes to water quality and quantity from abstraction, and infiltration of the returned brine.</p>
<p>Potential impacts and risks</p>	<p>Direct and indirect mortality and loss of habitat through sub-surface disturbance abstraction of groundwater and infiltration of the returned brine.</p>

<p>Required work</p>	<ol style="list-style-type: none"> 12. Conduct studies and surveys within areas to be impacted and in surrounding areas in accordance with EPA guidance. 13. Present the results of the subterranean fauna surveys and discuss the direct and indirect impacts to subterranean fauna species and habitat in accordance with EPA guidance. Include figures (maps) and tables to summarise the results and illustrate the areas of impact in relation to subterranean fauna species and habitat. 14. Assessment of impacts (direct and indirect) to subterranean fauna taxa and assemblages at a local and regional scale. For species which are likely to be impacted, provide information including maps and figures to demonstrate habitat connectivity beyond the areas of impact. 15. 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 on subterranean fauna. 16. Outline the outcomes/objectives, management, monitoring, trigger and contingency actions, within environmental management plan(s), to ensure impacts (direct and indirect) are not greater than predicted. 17. Demonstrate in the PER how the EPA's objective for this factor can be met. 18. Complete the EPA Checklist for documents submitted for <i>EIA of proposals that have the potential to significantly impact on Sea and Land Factors</i> for the factor Subterranean Fauna.
<p>Relevant policy</p>	<p><u>EPA Policies and Guidance</u></p> <p>EPA. 2007. <i>Sampling methods and survey considerations for subterranean fauna in Western Australia, Guidance Statement No. 54a</i>. EPA, Perth</p> <p>EPA. 2013. <i>Environmental Assessment Guideline for Consideration of subterranean fauna in environmental impact assessment in Western Australia, Environmental Assessment Guideline No. 12</i>. EPA, Perth</p> <p>EPA checklist for documents submitted for <i>EIA of proposals that have the potential to significantly impact on Sea and Land Factors</i></p> <p><u>Other Policies and Guidance</u></p> <p>Department of Water. 2013. <i>Western Australian water in mining guideline. Water licensing delivery series. Report No.12</i>. Perth, Western Australia.</p>
<p>Terrestrial Fauna</p>	
<p>EPA objective</p>	<p>To maintain representation, diversity, viability and ecological function at the species, population and assemblage level.</p>
<p>Relevant aspects</p>	<ul style="list-style-type: none"> • Clearing of fauna habitat for excavation and infrastructure, • alterations and disruptions to surface water flows, • vehicle movement, • lighting, • noise and vibration and • waste disposal.
<p>Potential impacts and risks</p>	<ul style="list-style-type: none"> • Direct loss and fragmentation of fauna and fauna habitat from vegetation clearing, changes to surface water patterns and abstraction of water. • Direct impacts to fauna from increased vehicle strikes, and as a result of construction and operation of the mine. • Direct impact through attraction of fauna to evaporation ponds, entrapment of

	<p>fauna in open excavations;</p> <ul style="list-style-type: none"> • Indirect impacts to fauna may occur as a result of: <ul style="list-style-type: none"> ○ altered fire regimes due to clearing of native vegetation; ○ groundwater drawdown; ○ dust, noise and vibration; ○ light impacts on nocturnal species; ○ altered surface and groundwater regimes; ○ changes to feral animal populations; ○ introduction or spread of weed species; and ○ restriction or removal of access to breeding habitat, foraging/dispersal habitat or water sources.
<p>Required work</p>	<p>19. Conduct studies and surveys in accordance with EPA guidance, including for terrestrial vertebrate fauna, invertebrate SRE fauna and aquatic invertebrate fauna, within areas to be impacted and in surrounding areas, including the haul road. Conduct Level 2 surveys in areas not previously surveyed that are likely to be directly or indirectly impacted as a result of the proposal.</p> <p>20. Targeted surveys for conservation significant fauna and fauna that are known or likely to occupy restricted habitats in the project area (short range endemic invertebrates, restricted reptile species) should be conducted in accordance with EPA guidance.</p> <p>21. For each relevant conservation significant species, , provide:</p> <ul style="list-style-type: none"> • baseline information on their abundance (including known occurrences), distribution, ecology, and habitat preferences at both the site and regional levels • information on the conservation value of each habitat type from a local and regional perspective, including the percentage representation of each habitat type on site in relation to its local and regional extent; • if a population of a conservation significant species is present on the site, its size and the importance of that population from a local and regional perspective and potential percentage loss of the conservation significant species locally due to loss of habitat; and • maps illustrating the known recorded locations of conservation significant species and short-range endemic invertebrates in relation to the proposed disturbance and areas to be impacted. <p>22. Provide comprehensive mapping of fauna habitats (including rare or unusual habitat types) in relation to the proposed disturbance and a comprehensive listing of fauna likely to occur in habitats within the areas to be cleared or indirectly impacted. Figures showing the likely extent of loss of the habitat types from both direct and indirect impacts.</p> <p>23. Undertake a quantitative analysis of the extent of loss (worst-case) of habitat, including areas in hectares and percentages of habitat types to be impacted (directly and indirectly), to assist in the determination of significance of impacts to fauna. The analysis should include identification and mapping of the known regional distribution of conservation significant species and an evaluation of the impact of activities, including assessment of condition, for conservation significant species.</p> <p>24. Description (including figures) of the expected direct and indirect impacts to vertebrate and SRE invertebrate fauna and their associated habitat from all aspects of the proposal.</p>

	<p>25. Discussion of potential impacts to terrestrial fauna, as a result of implementation of the proposal, with particular regard to State listed threatened fauna and EPBC Act listed threatened and/or migratory species, and provision of quantitative data on impacts of the proposal to species of conservation significance.</p> <p>26. Description of impacts resulting from fauna, both native and feral, that may be attracted to the evaporation ponds.</p> <p>27. Provide a detailed description of the potential direct and indirect (including downstream) impacts to species within the proposal area as a result of dewatering, alterations and disruptions to surface water flows, groundwater drawdown and changes in water quality Discuss proposed management, monitoring and mitigation methods to be implemented, any statutory or policy basis for the methods and demonstrating that the design of the proposal has addressed the mitigation hierarchy in relation to impacts on fauna.</p> <p>28. Outline the outcomes/objectives, management, monitoring, trigger and contingency actions, within environmental management plan(s), to ensure impacts (direct and indirect) are not greater than predicted..</p> <p>29. Demonstrate in the PER how the EPA's objective for this factor can be met.</p> <p>30. Complete the EPA Checklist for documents submitted for EIS on terrestrial biodiversity.</p>
<p>Relevant policy</p>	<p><u>EPA Policies and Guidance</u></p> <p>EPA. 2002. <i>Terrestrial Biological Surveys as an Element of Biodiversity Protection</i>. Position Statement No. 3. EPA Perth</p> <p>EPA. 2004. <i>Terrestrial Fauna Surveys for Environmental Impact Assessment in Western Australia</i>. Guidance Statement No. 56. EPA, Perth</p> <p>EPA. 2009. <i>Sampling of Short range endemic Invertebrate Fauna for Environmental Impact Assessment in Western Australia</i>. Guidance Statement No. 20. EPA, Perth</p> <p>EPA& DEC. 2010. <i>Technical Guide - Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment</i>. EPA and DEC, Perth</p> <p>EPA Checklist for documents submitted for Environmental Impact Assessment on marine and terrestrial biodiversity.</p> <p><u>Other Policies and Guidance</u></p> <p>Department of Water. 2013. <i>Western Australian water in mining guideline</i>. Water licencing delivery series. Report No.12. Perth, Western Australia.</p>
<p>Hydrological Processes</p>	
<p>EPA objective</p>	<p>To maintain the hydrological regimes of groundwater and surface water so that existing and potential uses, including ecosystem maintenance are protected.</p>
<p>Relevant aspects</p>	<p>Surface water diversions and groundwater abstraction (borefield).</p>
<p>Potential impacts and risks</p>	<ul style="list-style-type: none"> ○ Impacts to natural surface water flows as a result of implementation and placement of associated infrastructure. ○ Impacts to any groundwater dependent ecosystems and subterranean fauna, as a result of groundwater drawdown.
<p>Required work</p>	<p>31. Characterise the baseline hydrological and hydrogeological regimes, both in a local and regional context, including, but not limited to, water levels, stream flows, flood patterns, and water quantity and quality. This is to include a</p>

	<p>detailed description of the geological framework within the zone to be impacted by groundwater abstraction and any interdependence between surface and groundwater features/bodies.</p> <p>32. Model the impact of different flooding scenarios during operations and post-closure on infrastructure and final landforms.</p> <p>33. Investigate groundwater drawdown due to ground water abstraction associated with the proposal.</p> <p>34. Identify borefield locations and design requirements to meet project needs (water supply & extraction of brine), expected abstraction over life of project, and sustainability of borefields.</p> <p>35. Assess nature, extent and duration of potential impacts of groundwater abstraction with a focus on possible impacts on creeks, soaks/wetlands, groundwater dependent ecosystems.</p> <p>36. Establish potential impacts and consequences that proposed mine infrastructure could have on existing surface drainage.</p> <p>37. Analyse, discuss and assess surface water and groundwater impacts. The analysis should include:</p> <ul style="list-style-type: none"> • changes in groundwater levels and changes to surface water flows associated with the proposal; • the nature extent and duration of impacts; and • changes in water quality (including modelling plumes) associated with the proposal. <p>38. Identify any mine waste water discharges in the site water circuit (balance) and establish possible impacts these may have on the environment.</p> <p>39. Discuss the proposed management, monitoring and mitigation to prevent significant adverse impacts to groundwater and surface water hydrology as a result of implementing the proposal.</p> <p>40. Demonstrate and document in the PER how the EPA's objective for this factor can be met.</p>
Relevant policy	<p><u>Other Policy and Guidance</u></p> <p>Barnett et al. 2012. <i>Australian Groundwater Modelling Guidelines. Waterlines Report</i>. National Water Commission. Canberra, ACT.</p> <p>Department of Water. 2013. <i>Western Australian Water in Mining Guideline</i>. Water licensing delivery report series. Report No. 12. Perth, Western Australia.</p> <p>Department of Water. 2013. <i>Pilbara Groundwater Allocation Plan. Water resource allocation and planning report series</i>. Report No 55. Perth, Western Australia.</p>
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	<p>Construction and operation of proposal including abstraction of groundwater from borefield.</p> <p>Post closure aspects such as waste landforms will be addressed under the Rehabilitation and Decommissioning factor.</p>
Potential impacts and risks	<ul style="list-style-type: none"> • Contamination of surface and groundwater from waste landforms or brine.

Required work	<p>41. Characterise the hydrological processes within the Development Envelope and determine what effect the proposal will have on surface water and groundwater quality.</p> <p>42. Characterise the surface water and groundwater quality, both in a local and regional context</p> <p>43. Provide a detailed description of the design and location of the revised proposal with the potential to impact surface water or groundwater quality.</p> <p>44. Analyse, discuss and assess potential surface water and groundwater quality impacts, including changes in groundwater chemistry associated with the proposal.</p> <p>45. Discuss the proposed management, monitoring and mitigation to ensure impacts on inland water quality are not greater than predicted as a result of implementing the proposal.</p> <p>46. Demonstrate and document in the PER how the EPA's objective for this factor can be met.</p>
Relevant policy	<p><u>Other Policies and Guidance</u></p> <p>ANZECC. 2000. <i>Australian and New Zealand Guidelines for Fresh and Marine Water Quality</i>. Canberra, ACT.</p> <p>Barnett et al. 2012. <i>Australian Groundwater Modelling Guidelines. Waterlines Report</i>. National- Water Commission. Canberra, ACT.</p> <p>DoW. 2013. <i>Western Australia Water in Mining Guideline. Water licensing delivery report series</i>. Report No. 12. Perth, Western Australia.</p> <p>Government of WA. 2004. <i>State Water Quality Management Strategy Document No. 6</i>. Perth, Western Australia.</p>
Heritage	
EPA objective	<p>To ensure that historical and cultural associations, and natural heritage, are not adversely affected.</p>
Relevant aspects	<p>Clearing and excavation for mining activities. Alteration to hydrological processes.</p>
Potential impacts and risks	<ul style="list-style-type: none"> • Clearing of or alterations to sites of cultural significance • Prevention or change to access to a site.
Required work	<p>47. Characterise the heritage and cultural values of proposed disturbance areas and any other areas that may be indirectly impacted to identify sites of significance and their relevance within a wider regional context.</p> <p>48. Conduct Aboriginal heritage surveys, with the appropriate Aboriginal people who have knowledge of the heritage places within the area and who have appropriate cultural standing to be able to speak for this area, to identify Aboriginal sites of significance and identify concerns in regard to impacts from proposed mining operations.</p> <p>49. Provide a description of the heritage values within the Development Envelope and provide a figure(s) of the heritage locations and proposed disturbance in a manner that is acceptable to traditional owners.</p> <p>50. Assess the impacts of the proposal on heritage sites and/or cultural associations as a result of implementation of the proposal, including those arising from changes to the environment which may impact on ethnographic and archaeological heritage significance. This assessment will be conducted in</p>

	<p>accordance with <i>EPA Guidance Statement 41</i>.</p> <p>51. Predict the residual impacts on heritage, for direct, indirect and cumulative impacts after considering avoidance and minimisation measures.</p> <p>52. Outline the outcomes/objectives, management, monitoring, trigger and contingency actions to ensure impacts to heritage (direct and indirect) are not greater than predicted.</p> <p>53. Demonstrate and document in the PER how the EPA's objective for this factor can be met.</p>
Relevant policy	<p><u>EPA Policies and Guidance</u></p> <p>EPA. 2004. <i>Assessment of Aboriginal Heritage</i>. Guidance for the Assessment of Environmental Factors No. 41. Perth, Western Australia.</p> <p><u>Other Policies and Guidance</u></p> <p>Department of Aboriginal Affairs and Department of Premier and Cabinet. 2013. <i>Aboriginal Heritage - Due Diligence Guidelines, Version 3.0</i>. Perth, Western Australia.</p>
Rehabilitation and Decommissioning (Integrating Factor)	
EPA objective	To ensure that premises are decommissioned and rehabilitated in an ecologically sustainable manner.
Relevant aspects	Clearing of large areas of native vegetation, final landform design and disposal of waste.
Potential impacts and risks	<ul style="list-style-type: none"> Residual impact from waste landforms, implementation and groundwater drawdown.
Required work	<p>54. Provide an assessment on the physical and chemical characteristics of waste landforms.</p> <p>55. Assess potential impacts to groundwater, surface water and soil quality from AMD and waste landforms.</p> <p>56. Prepare a conceptual Rehabilitation and Mine Closure Plan consistent with the DMP and EPA (2015) <i>Guidelines for Mine Closure Plans</i>. The Plan should include but not be limited to:</p> <ul style="list-style-type: none"> Topsoil management. Retention or reuse of cleared vegetation material. Return of species and communities (where feasible) consistent with the pre-existing composition of the affected area Timeframes for rehabilitation, including sequencing of operations, and progressive rehabilitation. <p>57. Describe and document in the PER how the EPA's objective for this factor can be met.</p>
Relevant policy	<p><u>EPA Policies and Guidance</u></p> <p>EPA. 2006. <i>Rehabilitation of Terrestrial Ecosystems</i>. Guidance Statement No.6. Perth, Western Australia.</p> <p>EPA. 2013 <i>EPA involvement in mine closure</i>. Environmental Protection Bulletin No 19. Perth, Western Australia.</p> <p>DMP and EPA. 2015. <i>Guidelines for Preparing Mine Closure Plans</i>. Perth, Western Australia.</p> <p><u>Other Policies and Guidance</u></p>

	<p>Department of Industry Tourism and Resources (2007) <i>Leading Practice Sustainable Development Program for the Mining Industry - Managing Acid and Metalliferous Drainage</i>.</p> <p>Department of Environment Regulation (DER). 2014. <i>Assessment and Management of Contaminated Sites</i>. Perth, Western Australia.</p>
Offsets (Integrating Factor)	
EPA objective	To counterbalance any significant residual environmental impacts and/or uncertainty through the application of offsets.
Relevant aspects	Land clearing and disturbance for permanent infrastructure, groundwater abstraction and contamination / changed habitat quality.
Potential impacts and risks	Potential residual significant environmental impacts on flora, vegetation and fauna habitat.
Required work	<p>58. Describe the residual impacts for the proposal and analyse these impacts to identify and detail any that are significant.</p> <p>59. If the proposal is likely to have any significant residual environmental impacts, identify environmental offsets, consistent with the requirements in the:</p> <ul style="list-style-type: none"> • WA Environmental Offsets Guidelines, which includes the use of the WA Environmental Offsets Calculation Spreadsheet (where significantly impacted threatened species or ecological communities have been assigned IUCN criteria) and EPA Environmental Protection Bulletin No.1: Environmental Offsets. <p>60. Develop offset strategy following application of the 'mitigation hierarchy'.</p>
Relevant policy	<p><u>EPA Policies and Guidance</u></p> <p>EPA. 2014 <i>Environmental Offsets</i>. Environmental Protection Bulletin No. 1. Perth, Western Australia.</p> <p><u>Other Policies and Guidance</u></p> <p>Government of Western Australia. 2011. <i>WA Environmental Offsets Policy</i>. Perth, Western Australia.</p> <p>Government of Western Australia. 2014. <i>WA Environmental Offsets Guidelines</i>. Perth, Western Australia.</p>

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, Traditional Owners 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.

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.

- Landforms – including a description of the proposal in the context of local and regional scale impacts to the variety, integrity, ecological functions, and environmental values of the landforms.
- Amenity - including outcomes of consultation with interested parties and assessment of potential impacts.

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 3 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 3 Assessment Timeline

Key Stages of Assessment	Agreed Completion Date
EPA approval of ESD	20 October 2016
Proponent submits first adequate draft PER document	February 2017
Office of the Environmental Protection Authority (OEPA) provides comment on first adequate draft PER document	March 2017
Proponent submits adequate revised draft PER document	April 2017

EPA authorises release of PER document for public review	Late April 2017
Proponent releases authorised PER document for public review	Early May 2017
Public review of PER document	Mid June 2017
EPA provides Summary of Submissions	Early July 2017
Proponent provides Response to Submissions	Early August 2017
OEPA reviews the Response to Submissions	Early September 2017
OEPA assesses proposal for consideration by EPA	Mid October 2017
Preparation and finalisation of EPA assessment report (including two weeks consultation on draft conditions with proponent and key Government agencies)	Mid November 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 EPA has identified the authorities listed in Table 4 as DMAs for the proposal. Additional DMAs may be identified during the course of the assessment.

Table 4 Decision-making authorities

Decision-making authority	Relevant legislation
Minister for Environment	Part IV of the <i>Environmental Protection Act 1986</i> <i>Wildlife Conservation Act 1950</i>
Minister for Water	<i>Rights in Water and Irrigation Act 1914</i>
Minister for Mines	<i>Mining Act 1978</i>
Minister for Aboriginal Affairs	<i>Aboriginal Heritage Act 1972</i>
Chief Executive Officer - Department of Environment Regulation	Part V of the <i>Environmental Protection</i>

	<i>Act 1986</i>
Shire of East Pilbara	<i>Building Act 2011 (Building permit)</i>
Chief Dangerous Goods Officer, DMP	<i>Dangerous Goods Safety Act 2004</i>
State Mining Engineer – Department of Mines and Petroleum	<i>Mines Safety and Inspection Act 1994</i>
Director, Environment Division – Department of Mines and Petroleum	<i>Mining Act 1978</i>

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.

Figure 1 – Development Envelope



Figure 2 – Regional Location

