

Item Number	Requirement	Section Addressed
<b>Flora and Vegetation</b>		
1	A Vegetation Condition Mapping survey within M46/518 and M46/519 will be conducted to determine Areas of Good to Very Good vegetation to be affected by the Revised Proposal in accordance with the requirements of Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment, December 2016.	Section 4.3.3.2.6 and Appendix 08
2	Identify and characterise the flora and vegetation in accordance with the requirements of Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment, December 2016. Survey should be designed to inform local and regional context.	Section 4.3.3 and Appendix 08
3	For surveys previously undertaken of the Revised Proposal and adjacent areas, demonstrate how these surveys are relevant and representative of the development envelope and if they are consistent with EPA policy and guidance, and summarise their findings information (including but not limited to, year of survey (eg quadrats, releves, transects, targeted flora and fauna searches), type of survey effort, time and seasonally constraints) in a consolidated report. All conservation significant flora and vegetation will be mapped and provided in shapefile format with relevant information included in the attribute tables. Any survey reports provided will be accompanied by IBSA Data packages prepared in accordance with EPA guidance where the guidelines apply. Ensure database searches and taxonomic identifications are up-to-date. All surveys will be appended to the environmental review documentation.	Section 4.3.3 and Appendix 07
4	Provide a map of the survey effort applied in relation to the study area and development envelope, identifying the direct and indirect impact areas. Survey polygons will be provided in shapefile format with relevant information included in the attribute tables.	Section 4.3.3.1; Figure 4-1 to Figure 4-4
5	Provide a map displaying the current and proposed conservation areas nearby (including but not limited to the areas identified for consideration for the proposed Fortescue Marsh National Park as identified under the State Government’s Plan for our Park initiative).	Section 2.5.1; Figure 2-15
6	Identify and describe the vegetation and significant flora species including groundwater dependent ecosystems that are likely to be present within the development envelope. Include an analysis of the significance of flora and vegetation in local, regional and State contexts as appropriate in accordance with the relevant guidance.	Section 4.3.3 and Section 4.3.4
7	Determine whether any flora species or vegetation identified is consistent with the classification of any Western Australian Biodiversity Conservation Act 2016 or Commonwealth Environment Protection and Biodiversity Conservation Act 1999 listed ecological community, including vegetation listed as priority or threatened by DBCA	Vegetation - 4.3.3.2.3 Flora - 4.3.3.3.1
8	Provide maps depicting the recorded locations of flora and vegetation in relation to the development envelope in accordance with the EPA guidelines.	Figures 4-12 to 4-14, 4-20 and 4-21
9	Undertake an assessment of specific impacts from the proposal on	Section 4.3.5

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	conservation significant values.	
10	<p>Provide a quantitative assessment of impact:</p> <ul style="list-style-type: none"> <li>• For significant flora, this includes; <ul style="list-style-type: none"> <li>- number of individuals and populations in a local and regional context'</li> <li>- numbers and proportions of individuals and populations directly or potentially indirectly impacted, and</li> <li>- numbers/proportions/populations currently protected within the conservation estate (where known).</li> </ul> </li> <li>• For all vegetation units (noting threatened and priority ecological communities and significant vegetation) this includes; <ul style="list-style-type: none"> <li>- area (in hectares) and proportions directly or potentially indirectly impacted, and</li> <li>- proportions/hectares of the vegetation unit currently protected within conservation estate (where known)</li> </ul> </li> </ul>	Section 4.3.4 and 4.3.5
11	Outline any potential impacts to Fortescue Marsh.	Section 4.6.4.2
12	Review and revise the current Roy Hill Iron Ore Vegetation Management Plan (OP-REP-00363) in relation to the requirements of condition 6 of MS 824 and 829 and condition 7 of MS 979 and condition 9 of MS 980 to apply to the whole proposal. This Management Plan will be prepared in accordance with the Instructions on how to prepare EP Act Part IV Environmental Management Plans (EPA, 2016) and will outline the approach to monitoring and managing vegetation health at the Roy Hill Mine.	Appendix 10
13	<p>Provide a report that details the likely success of future rehabilitation activities in establishing self-sustaining areas of rehabilitation, taking into account:</p> <ul style="list-style-type: none"> <li>• evidence of success of rehabilitation undertaken to date in the region;</li> <li>• relevant contemporary scientific evidence;</li> <li>• the types of area to be rehabilitated; and</li> <li>• the scale of rehabilitation activities.es.</li> </ul>	Appendix 43
14	Provide a detailed description of the cumulative impacts associated with the Revised Proposal, including direct impacts from clearing, and indirect impacts from resulting from Proposal activities such as groundwater mounding, saline water for dust suppression, changes in water quality, spread of weeds, fragmentation of vegetation, altered fire regime, and dust	Section 4.3.5.1
15	Discuss, and determine significance of, potential direct, indirect (such as dust, downstream impacts, saline water to dust suppression weed invasion, etc) and cumulative impacts (including in relation to the existing project) to flora and vegetation as a result of the Revised Proposal at a local and regional level.	Section 4.3.5
16	Prepare a Mine Closure Plan, consistent with DMP and EPA Guidelines for Preparing Mine Closure Plans (2015), which includes methodologies to ensure progressive rehabilitation of disturbed land meets closure objectives, including vegetation composed of native species of local provenance.	Appendix 05

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17	Demonstrate application of the mitigation hierarchy to avoid and minimise impacts to flora and vegetation during and post mining.	Section 4.3.6
18	Discuss management measures, outcomes/objectives sought to ensure residual impacts (direct and indirect) are not greater than predicted.	Section 4.3.6
19	Determine and quantify any significant residual impacts by applying the Residual Impact Significance Model (page 11) and the WA Environmental Offsets Guidelines (2014, or any subsequent revisions).	Section 6.2
20	Where significant residual impacts remain, propose an appropriate offsets package that is consistent with the WA Environmental Offsets Policy and Guidelines (or any subsequent revisions).	Section 6.2
21	Where a contribution to the Pilbara Environmental Offsets Fund is proposed to offset the significant residual impacts, provide an impact reconciliation procedure prepared in accordance with the Instruction on how to prepare Environmental Protection Act 1986 Part IV Reconciliation Procedures and Impact Reconciliation Reports and the Template for Environmental Protection Act 1986 Part IV Reconciliation Procedure (or any subsequent revisions).	Appendix 45
22	<p>Maps and spatial data should be provided which defines the following areas across the entire development envelope for the revised proposal and any other areas where impacts (direct and indirect) are predicted to occur:</p> <ul style="list-style-type: none"> <li>• Existing and/or already approved clearing (attributed with the relevant approval, such as the Ministerial Statement number or Native Vegetation Permit reference)</li> <li>• Vegetation condition (e.g. completely degraded, degraded, poor, good, very good, excellent)</li> <li>• Specific flora types proposed to be offset (e.g. riparian vegetation, priority ecological community etc)</li> <li>• Previous or existing offsets, if relevant.</li> </ul>	Appendix 45
23	Demonstrate and document in the ERD how the EPA's objective for this factor can be met.	Section 4.3.7
<b>Subterranean Fauna</b>		
24	Complete a troglofauna survey of the SWIB due to expected groundwater mounding and the presence of suitable habitat for troglofauna in accordance with EPA guidelines. Any survey reports provided will be accompanied by IBSA Data packages prepared in accordance with EPA guidance.	Section 4.5.3.2.2 and Appendix 36
25	Update subterranean fauna desktop assessment to include life of mine water management strategy.	Appendix 37
26	Describe the characteristics of subterranean fauna habitat that may be impacted directly and indirectly by implementation of the proposal during both construction and operations, and describe the significance of these values in a local and regional context. Include relevant geological and hydrological information to determine habitat suitability and connectivity, including inside and outside the impact areas.	Section 4.5.3.2 and 4.5.4

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27	Undertake an assessment of specific impacts from the proposal on conservation significant values, if identified.	Section 4.5.5
28	Provide figure(s) and maps showing the extent of subterranean fauna habitat in relation to the proposal and species distributions.	Figures 4-39 and 4-40 and Appendix 37
29	For species which are likely to be impacted, provide information, including maps of habitat extent and an appropriate explanation of the likely distribution of species within those habitats including evidence to demonstrate whether there is habitat connectivity.	Section 4.5.5 and Appendix 37
30	If found, provide a detailed description of the potential direct, indirect and cumulative impacts to conservation significant subterranean fauna within the Revised Proposal area and on a regional scale.	Section 4.5.5
31	Demonstrate application of the mitigation hierarchy to avoid and minimise impacts to subterranean fauna.	Section 4.5.6
32	Discuss management measures, outcomes/objectives sought to ensure residual impacts (direct and indirect) are not greater than predicted.	Section 4.5.6
33	Describe the residual impacts for the proposal and analyse these impacts to identify and detail any that are significant. Quantify the extent of direct, indirect and cumulative impacts, including percentages, of habitat types to be disturbed or otherwise impacted.	Not Applicable - no significant residual impacts identified. This is outlined in Section 4.5.7
34	Determine and quantify any significant residual impacts by applying the Residual Impact Significance Model (page 11) and the WA Environmental Offsets Guidelines (2014, or any subsequent revisions).	Not Applicable - no significant residual impacts identified.
35	Where significant residual impacts remain, propose an appropriate offsets package that is consistent with the WA Environmental Offsets Policy and Guidelines (or subsequent revisions).	Not Applicable - no significant residual impacts identified.
36	Where a contribution to the Pilbara Environmental Offsets Fund is proposed to offset the significant residual impacts, provide an impact reconciliation procedure prepared in accordance with the Instruction on how to prepare Environmental Protection Act 1986 Part IV Reconciliation Procedures and Impact Reconciliation Reports and the Template for Environmental Protection Act 1986 Part IV Reconciliation Procedure (or any subsequent revisions).	Not Applicable - no significant residual impacts identified.
37	<p>Maps and spatial data should be provided which defines the following areas across the entire development envelope for the revised proposal and any other areas where impacts (direct and indirect) are predicted to occur:</p> <ul style="list-style-type: none"> <li>• Existing and/or already approved clearing (attributed with the relevant approval, such as the Ministerial Statement number or Native Vegetation Permit reference)</li> <li>• Specific fauna habitats of the species proposed to be offset (attributed with the habitat type)</li> </ul>	Not Applicable - no significant residual impacts identified.

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	<ul style="list-style-type: none"> <li>• Previous or existing offsets, if relevant</li> </ul>	
38	Demonstrate and document in the ERD how the EPA's objective for this factor can be met	Section 4.5.7
<b>Terrestrial Fauna</b>		
39	<p>Provide a desktop review and analysis of all surveys of the Revised Proposal area including maps of all the survey areas, the year, type of survey (quadrats, releves, transects, targeted flora and fauna searches), effort, timing, seasonal conditions) undertaken in accordance with EPA Policy and Assessment, Survey guidelines for Australia's threatened mammals. EPBC Act survey guidelines 6.5 (Department of Sustainability, Environment, Water, Population and Communities (DSEWPaC), 2011), Survey Guidelines for Australia's Threatened Bats. EPBC Act survey guidelines 6.1 (Department of the Environment, Water, Heritage and the Arts (DEWHA), 2010); and Survey guidelines for Australia's threatened reptiles. EPBC Act survey guidelines 6.6 (Department of Sustainability, Environment, Water, Population and Communities (DSEWPaC), 2011).</p> <p>The study should include:</p> <ul style="list-style-type: none"> <li>• a justification of how those surveys are relevant and representative of the development envelope and if they were carried out using methods consistent with the EPA policy; and</li> <li>• a comprehensive listing of vertebrate fauna and short range endemic (SRE) invertebrate fauna known or likely to occur in the habitats present, and identification of conservation significant fauna species likely to occur in the area.</li> </ul>	Section 4.4.3.1 and Appendix 11
40	Provide a map of the survey effort applied in relation to the study area and development envelope, identifying the direct and indirect impact areas. Survey polygons will provided as in shapefiles format with relevant information included in the attribute tables. Any survey reports provided will be accompanied by IBSA Data packages prepared in accordance with EPA guidance where the guidelines apply.	Figures 4-26, 4-27 and Appendix 11
41	Specify any MNES being assessed as part of the accredited assessment as likely or known to occur within a 5-kilometre radius surrounding the revised development envelope. This includes the location of the nearest known roosting sites for Ghost Bat and Pilbara leaf-nosed bat.	Table 7-3

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42	<p>For each relevant conservation significant species, identified as likely to occur within the Revised Proposal area, provide:</p> <ul style="list-style-type: none"> <li>• baseline information on distribution (including known occurrences), ecology, and habitat preferences at both the site and regional levels;</li> <li>• 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;</li> <li>• size and the importance of the population from a local and regional perspective and potential percentage loss of the conservation significant species locally due to loss of habitat;</li> <li>• maps illustrating the known recorded locations of conservation significant species in relation to fauna habitat and the proposed disturbance and areas to be impacted.</li> </ul>	Section 4.4.3.4
43	Undertake an assessment of specific impacts from the proposal on conservation significant values.	Section 4.4.5
44	Prepare a Mine Closure Plan, consistent with DMP and EPA Guidelines for Preparing Mine Closure Plans (2015) which includes methodologies to ensure progressive rehabilitation of disturbed land meets closure objectives.	Appendix 05
45	<p>Identify the fauna habitat types within and outside the areas of impact. Consider habitat types that provide important ecological function within the proposal area (e.g. geological features which may support unique ecosystems).</p> <p>Maps of fauna habitat types and habitat types with important ecological function will be included.</p>	Section 4.4.3.2 and 4.4.3.3
46	Discuss known existing threats to the species, with reference to relevant impacts from the proposed action (including taking into consideration any relevant guidelines, policies, plans and statutory provisions).	Section 7.5
47	Identify, describe and quantify the potential residual impacts (direct, indirect and cumulative) to fauna assemblages, habitats, significant species, that may occur following implementation of the proposal after considering and applying avoidance and minimisation measures, in a local and regional context. Provide a table of the proportional extents of each habitat within the study area and Development Envelope, and the predicted amount to be directly and indirectly impacted. This assessment will outline if any MNES listed bat roosting sites may be impacted and include an assessment of any impacts to terrestrial fauna at Fortescue Marsh	Section 4.4.4, 4.4.5 and 7.5
48	Develop a fauna management plan to apply to the Revised Proposal. This Management Plan will be prepared in accordance with the Instructions on how to prepare EP Act Part IV Environmental Management Plans (EPA, 2016) and Environmental Management Plan Guidelines (DoEE, 2014) and will outline the approach to monitoring and managing vegetation health at the Roy Hill Mine. This Management Plan will outline Roy Hill's approach to managing environmental impacts on conservation significant fauna at the Roy	Appendix 35

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	Hill Mine. This will include management and monitoring of MNES species.	
49	Demonstrate application of the mitigation hierarchy to avoid and minimise impacts to terrestrial fauna.	Section 4.4.6
50	Demonstrate that the proposed action is not inconsistent with any relevant policy and guidance, the proposed action is not inconsistent with any relevant Recovery Plan, Threat Abatement Plan and conservation advices.	Section 7.5
51	Determine and quantify any significant residual impacts by applying the Residual Impact Significance Model (page 11) and WA Environmental Offset Guidelines (2014, or any subsequent revisions) and the EPBC Environmental Offsets Policy for MNES.	Section 6.3
52	Where significant residual impacts remain, propose an appropriate offsets package that is consistent with the WA Environmental Offsets Policy and Guidelines (or any subsequent revisions) and the EPBC Act Environmental Offsets Policy for MNES.	Section 6.2
53	Where a contribution to the Pilbara Environmental Offsets Fund is proposed to offset the significant residual impacts, provide an impact reconciliation procedure prepared in accordance with the Instruction on how to prepare Environmental Protection Act 1986 Part IV Reconciliation Procedures and Impact Reconciliation Reports and the Template for Environmental Protection Act 1986 Part IV Reconciliation Procedure (or any subsequent revisions).	MNES offset outlined in Section 6.2
54	<p>Maps and spatial data should be provided which defines the following areas across the entire development envelope for the revised proposal and any other areas where impacts (direct and indirect) are predicted to occur:</p> <ul style="list-style-type: none"> <li>• Existing and/or already approved clearing (attributed with the relevant approval, such as the Ministerial Statement number or Native Vegetation Permit reference)</li> <li>• Vegetation condition (e.g. completely degraded, degraded, poor, good, very good, excellent)</li> <li>• Specific fauna habitats of the species proposed to be offset (attributed with the habitat type e.g. denning, roosting, foraging etc)</li> <li>• Specific flora types proposed to be offset (e.g. riparian vegetation, priority ecological community etc)</li> <li>• Previous or existing offsets, if relevant.</li> </ul>	Section 7.5.4
55	Demonstrate and document in the ERD how the EPA's objective for this factor can be met.	Section 4.4.7
<b>Inland Waters</b>		
56	Characterise the baseline hydrology and hydrogeological regimes and water quality, both in a local and regional context, including but not limited to, water levels, water chemistry, stream flows, flood patterns, and water quantity and quality.	Section 4.6.3
57	Provide a detailed description of the design and location of the Revised Proposal with the potential to impact surface water or groundwater.	Section 2.3 and 2.4

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58	Provide an update of the conceptual model of the surface and groundwater systems incorporating the results of monitoring conducted subsequent to the short term approval for Managed Aquifer Reinjection	Section 2.4.4
59	Provide a conceptual mine water balance over the life of the proposal to discuss the capacity to reuse surplus mine dewater.	Section 2.2.3.1
60	Discuss the potential environmental impacts and benefits of identified surplus water management options (i.e. discharge of excess mine dewater, reuse on site, local water supply, aquifer recharge etc.) and discuss the most appropriate water management strategy for the proposal.	Section 2.2.3.1
61	Analyse, discuss and assess surface water and groundwater impacts. The analysis should include but not be limited to: <ul style="list-style-type: none"> <li>• changes in groundwater levels and changes to surface water flows associated with the proposal;</li> <li>• the nature, extent, and duration of impacts and potential direct and indirect impacts on the environment including impacts to MNES or MNES habitat and Fortescue Marsh; and</li> <li>• cumulative impacts with other projects and referred proposals, for which relevant information is publicly available.</li> </ul>	Section 4.6.5 and 7
62	Undertake an assessment of specific impacts from the proposal on conservation significant values.	Section 4.6.5.4
63	Demonstrate application of the mitigation hierarchy to avoid and minimise impacts to Inland Waters Environmental Quality.	Section 4.6.6
64	Undertake an decant water disposal risk assessment to assess risks of reinjection to MAR and dust suppression.	Section 4.6.5.1.2.4
65	Undertake an assessment of likelihood of encountering Potentially Acid Forming (PAF) materials through mining or dewatering and outline direct or indirect impacts to water quality.	Section 4.6.5.1.1.2
66	Outline proposed management strategies to manage Acid Mine Drainage (AMD) risk.	Section 4.6.6
67	Prepare a Closure Plan consistent with DMP and EPA Guidelines for Preparing Mine Closure Plans (2015), which includes criteria to ensure hydrological regimes and the quality of groundwater and surface water resources are suitable so that any dependant environmental values are maintained post closure.	Appendix 05
68	Determine and quantify any significant residual impacts by applying the Residual Impact Significance Model (page 11) and the WA Environmental Offsets Guidelines (2014, or any subsequent revisions.)	Not Applicable - no significant residual impacts identified.
69	Where significant residual impacts remain, propose an appropriate offsets package that is consistent with the WA Environmental Offsets Policy and Guidelines (or subsequent revisions).	Not Applicable - no significant residual impacts identified.

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70	Where a contribution to the Pilbara Environmental Offsets Fund is proposed to offset the significant residual impacts, provide an impact reconciliation procedure prepared in accordance with the Instruction on how to prepare Environmental Protection Act 1986 Part IV Reconciliation Procedures and Impact Reconciliation Reports and the Template for Environmental Protection Act 1986 Part IV Reconciliation Procedure (or any subsequent revisions).	Not Applicable - no significant residual impacts identified.
71	<p>Maps and spatial data should be provided which defines the following areas across the entire development envelope for the revised proposal and any other areas where impacts (direct and indirect) are predicted to occur:</p> <ul style="list-style-type: none"> <li>• Existing and/or already approved clearing (attributed with the relevant approval, such as the Ministerial Statement number or Native Vegetation Permit reference)</li> <li>• Vegetation condition (e.g. completely degraded, degraded, poor, good, very good, excellent)</li> <li>• Specific flora types proposed to be offset (e.g. riparian vegetation, priority ecological community etc)</li> </ul> <p>62.67. Previous or existing offsets, if relevant.</p>	Not Applicable - no significant residual impacts identified.
72	Demonstrate and document in the ERD how the EPA's objective for this factor can be met.	Section 4.6.7
<b>Greenhouse Gas Emissions</b>		
70	Estimate greenhouse gas emissions direct and indirect from the Revised Proposal for the Roy Hill Iron Ore Mine and assess the relative contribution to regional, state, national and international greenhouse gas emissions	Section 4.7.4 and 4.7.5 and Appendix 42
71	Based on the greenhouse gas emission characteristics, benchmark the emissions from the Revised Proposal for the Roy Hill Iron Ore Mine against comparable iron ore developments.	Section 4.7.4.3
72	<p>Identify and justify contemporary best practice management and mitigation measures that will be implemented to reduce greenhouse gas emissions and improve operational efficiency, including:</p> <ul style="list-style-type: none"> <li>• Summarising how the mitigation hierarchy will be addressed including benchmarking against other facilities where appropriate and where public information is available;</li> <li>• Identifying existing greenhouse gas management and mitigation mechanisms that have been successfully implemented for current operations and that will be continued; and</li> <li>• Identifying relevant contemporary best practice management and mitigation measures, including all reasonable and practicable emission reduction equipment and technologies, that can be implemented over time.</li> </ul>	Section 4.7.6 and Appendix 42
73	Conduct benchmarking against other similar facilities where appropriate and where public information is available.	Section 4.7.5
74	Demonstrate application of the mitigation hierarchy to avoid and minimise impacts to Air Quality.	Section 4.7.6
75	Demonstrate and document in the ERD how the EPA's objective for this factor can be met.	Section 4.7.7