

**Appendix 15.
EIS Cross Reference to TOR**

Table 1 provides the requirements for the Environmental Impact Statement (EIS) outlined in the Fountain Head Gold Project (the 'Project') Terms of Reference (ToR) and where these requirements have been addressed in the Project EIS.

Table 1 – Cross-reference Between the ToR and the EIS

ToR Requirement	EIS Chapter / Section addressing the Requirement
2.2.1 – Overview	
Provide an overview of the objectives of the Proposal	Section 1.3.2
2.2.2 – Historical Environmental Disturbance	
Provide a summary of previous land use/s and the current state of the environment at the Proposal site	Section 1.2.1 Section 3.2 Chapter 4
Clearly describe the disturbances to historical mining components, including infrastructure and landforms, that are part of this Proposal.	Section 3.2
Describe how the Proposal may interact with the pre-existing site conditions	Section 3.2.1
Describe measures that will be implemented as part of the Proposal to manage any significant pre-existing environmental issues at the Proposal site	Section 3.2.1
2.2.3 – Construction and Operation	
The description of the Proposal must include, but not be limited to, detailed maps and graphics illustrations of:	Chapter 3
◆ The location and dimensions of existing disturbance, infrastructure and roads/tracks and natural and modified landforms (including a depiction of these overlaid on aerial photos or high resolution satellite imagery)	Section 3.2.1 Section 3.8.3
◆ The location and approximate dimensions of areas to be disturbed, structures to be built or repurposed, including (as relevant): <ul style="list-style-type: none"> ○ All areas to be cleared or disturbed ○ The open pit ○ Heap leach facility ○ Processing plant ○ Power station and any transmission infrastructure ○ Water storage facilities ○ Roads and service infrastructure ○ Stormwater and drainage infrastructure ○ Buildings and structures ○ Temporary stockpiles of topsoil, waste rock, ore ○ Other significant mine infrastructure 	Section 3.2.1 Section 3.3 Section 3.4 Section 3.5
◆ The Proposal layout overlain with environmental values and existing infrastructure (e.g. roads, railways and pipelines)	Section 3.2.2 Chapter 4
◆ The boundaries of the Proponent's mineral lease(s); any overlapping or adjacent permits (mineral, petroleum or other); and any other interests in land including Native Title (claims or determined), Aboriginal freehold land, and pastoral land	Chapter 3 Section 4.10
Describe design options considered, reasons for selection and how the proposed design avoids and/or mitigates environmental constraints and potential impacts and risks to the surrounding environment including long-term legacy contamination. Outline and justify any trade-offs in the design	Section 3.10

ToR Requirement	EIS Chapter / Section addressing the Requirement
Describe how the Proposal has been designed, or allows for, adaptation to a changing climate e.g. capacity and efficiency of water facilities to allow for potential increase in evaporation and/or large rainfall events	Chapter 3
Describe all elements of the construction phase including:	Chapter 3
<ul style="list-style-type: none"> ◆ Construction methods and any limitation of these in the area of the Proposal 	Section 3.4 Section 3.6.1 Section 3.8.3
<ul style="list-style-type: none"> ◆ Construction materials required – major types, quantities, qualities, sources, storage requirements and potential hazards 	Section 3.4 Section 3.5.4 Section 3.8
<ul style="list-style-type: none"> ◆ An overview of water quality of any controlled discharge (including targets in accordance with ANZG (2018) or otherwise), location of the discharge point/s, and schedule for the discharge 	Section 3.3 Section 3.7.2 Section 4.5 Section 4.6
<ul style="list-style-type: none"> ◆ An assessment of the suitability of the existing evaporation dam, and upgrades, for storing water from the pit 	Section 3.3
<ul style="list-style-type: none"> ◆ Timeframes 	Section 3.2 Section 3.5.1
<ul style="list-style-type: none"> ◆ Any new ancillary infrastructure and upgrades required to service the Proposal, including supply of electricity and road access. 	Section 3.8
Describe all elements of the operations of the Proposal, including:	Chapter 3
<ul style="list-style-type: none"> ◆ Schematic of the operation 	Section 3.2.2 Section 3.5.2 Section 3.6.1
<ul style="list-style-type: none"> ◆ Methods for open pit expansion 	Section 3.5.2 Section 3.5.5
<ul style="list-style-type: none"> ◆ Requirements for dewatering including expected volumes and any expected controlled discharge (as required above for the construction phase) 	Section 3.3
<ul style="list-style-type: none"> ◆ Quantity of material to be mined annually (ore and waste rock) 	Section 3.5.1
<ul style="list-style-type: none"> ◆ Material characterisation (waste rock and ore) and classification (including cut-off grades) and expected volumes of each material type (e.g. non acid-forming, potentially acid-forming) 	Section 3.5.7
<ul style="list-style-type: none"> ◆ Timetable for mining operations 	Section 3.5.1
<ul style="list-style-type: none"> ◆ Processing methods, including the major equipment and chemicals to be used in the heap leach facility and gold processing plant 	Section 3.5.4 Section 3.6.2
<ul style="list-style-type: none"> ◆ Chemicals, reagents and fuel to be used in the heap leach facility and processing circuit (volumes and type of storage) 	Section 3.6.2.9
<ul style="list-style-type: none"> ◆ Processing water requirements (volume and quality; including any distinction between mining and post-mining), sources and storage 	Section 3.7.2.8
Provide relevant information on non-mineral waste and hazardous materials to be used, including but not limited to:	Section 3.7

ToR Requirement	EIS Chapter / Section addressing the Requirement
<ul style="list-style-type: none"> ◆ List and description of potentially hazardous materials to be used or produced and methods for storage, transport, handling, containment, disposal and emergency management of these materials (including fuel) 	Section 3.7.3.3
<ul style="list-style-type: none"> ◆ Descriptions of predicted solid and liquid waste streams, both industrial and domestic, including information on the streams to be disposed in landfill/septic on site and/or transported offsite for recycling, reuse or disposal in a licenced landfill facility 	Section 3.7.3
<ul style="list-style-type: none"> ◆ Describe how the Proposal design conforms with legislation, guidelines, and standards applicable to the Proposal's landfill, sewage treatment and any other waste disposal facilities 	Section 3.7
<p>A water balance (including schematic) and account for the Proposal, based on the Minerals Council of Australia Water Accounting Framework (MCA 2014), incorporating:</p> <ul style="list-style-type: none"> ◆ Predicted water demand requirements for each aspect and all phases of the Proposal (including dust suppression, drinking water, ablutions and sewage treatment, mine water, processing of ore and any other uses) ◆ Proposed water supply sources, volumes and yields (including details of any peak periods and seasonal variations), and required water quality for uses including processing and dust suppression ◆ Proposed water storages and volumes ◆ Pit dewatering requirements ◆ Management of process waters ◆ Options for the recycle and reuse of water 	Section 3.3 Section 3.7.2 Section 3.7.3 Section 3.8.1
<p>Measures for using water sustainably, with reference to International Council on Mining and Metals guidance (ICMM 2017)</p>	Section 3.5.8.3
<p>Describe traffic and transport activities during construction and operation, including but not limited to:</p> <ul style="list-style-type: none"> ◆ Type, size, number and frequency of vehicles and hours of operation ◆ Details on access, haulage routes, vehicle types, volumes of traffic 	Section 3.8.2
<p>Provide relevant information with respect to energy during construction and operation, including but not limited to:</p>	Section 3.8.1
<ul style="list-style-type: none"> ◆ Energy requirements and sources 	Section 3.8.1
<ul style="list-style-type: none"> ◆ Consideration of renewable sources of energy and justification of selected option 	Section 3.8.1.1
<ul style="list-style-type: none"> ◆ Estimate of the greenhouse gases emissions 	Section 3.8.1.2
<ul style="list-style-type: none"> ◆ Measures to maximise energy efficiency and avoid and or reduce greenhouse gas emissions, particularly relating to source and consumption of energy, and consistent with the NT Government's aspirational target of achieving net zero greenhouse gas emissions by 2050 (NT Government 2019). 	Section 7.2.3
<p>Provide a summary, for each phase of the Proposal, of the:</p> <ul style="list-style-type: none"> ◆ Estimated number of people to be employed ◆ Skills base required ◆ Likely sources (local, regional, overseas) 	3.8.4
2.2.4 – Rehabilitation and Closure	
<p>Provide clear descriptions and maps of the mine lease that delineate and define the Proponent's responsibility for rehabilitation of legacy disturbances that may or may not be further disturbed by the Proposal. Provide an explanation of</p>	Section 3.9

ToR Requirement	EIS Chapter / Section addressing the Requirement
which physical components of the Proposal may be used for part of the Hayes Creek Project, and for what period of time, following completion of this Proposal	
As the Proposal has a short life of mine and the closure and rehabilitation approach could be dependent on the Hayes Creek project that is subject to a separate environmental assessment and approvals process, include two conceptual Mine Closure Plans	Section 3.9
Sufficient information is required to demonstrate how mine closure objectives can be met	Section 3.9.1
Proposal-specific closure objectives and an explanation of how they are consistent with closure objectives in leading practice guidelines	Section 3.9
Intended future/next land-use and land tenure arrangements	Section 3.9.2
Stakeholder expectations and an outline of methods (including milestones) for reaching agreement with stakeholders on closure objectives	Chapter 5
A site plan identifying the intended final landforms of the site.	Section 3.9
Intended closure timeframes	Section 1.3.2.2 Section 3.9
Expected post closure monitoring and management arrangements, including identification of how these arrangements would be funded and who would be responsible for them	Section 3.9 Section 9.4.1 Section 9.5.3
Indicative volumes, sources and characterisation of materials required for rehabilitation and closure (e.g. fill, cover materials).	Section 3.9
Methods and processes that will be implemented to address any knowledge gaps associated with specific rehabilitation and closure activities	Section 3.9
For each of the key components, provide the following:	
<ul style="list-style-type: none"> ◆ Closure options: <ul style="list-style-type: none"> ○ Outline all rehabilitation and closure options that have been or are being considered, and where uncertainties remain, outline a process that will be used to decide which closure options will be adopted ○ Evaluate and compare the potential environmental outcomes and the costs, benefits and residual environmental and social risks of the rehabilitation and closure alternatives considered ○ Demonstrate that the selected closure option delivers superior post-closure environmental outcomes over other feasible options. Where backfilling the pit is not the selected closure option, demonstrate that the selected option presents an environmental improvement over the pre-existing conditions at the Proposal site. Demonstrate that there will be no ongoing costs borne by the community and government in future in relation to post-mining land use. This should be demonstrated with respect to the principles of ecologically sustainable development 	Section 3.9
<ul style="list-style-type: none"> ◆ Plans for progressive rehabilitation, including details of any audits and reporting on its progress that would be undertaken 	Section 3.9.3
<ul style="list-style-type: none"> ◆ Explanation of how it contributes to meeting the overall closure objectives 	Section 3.9
Also provide, as relevant to the component:	
<ul style="list-style-type: none"> ◆ The intended dimensions and shape of final landforms and detail on whether they will shed or retain surface water and act as a source or sink to groundwater 	Section 3.9

ToR Requirement	EIS Chapter / Section addressing the Requirement
<ul style="list-style-type: none"> ◆ An assessment of the intended pit lake in accordance with Appendix H of the Western Australian Guidelines for Preparing Mine Closure Plans (DMP & EPA 2015), including density driven exchange between pit lake water and surrounding groundwater. This assessment should be provided as a contingency measure in the instance the Hayes Creek Project does not proceed) 	<p style="text-align: center;">Section 3.5.2 Section 3.9</p>
<ul style="list-style-type: none"> ◆ Methods for topsoil management and soil profile reconstruction, with demonstration of their effectiveness for rehabilitating disturbed areas and ensuring long term stability 	<p style="text-align: center;">Section 3.4 Section 3.7.2.7 Section 3.9.3</p>
<ul style="list-style-type: none"> ◆ A schedule and strategies to be used for revegetation, including species to be used and their source, and identification of any research that may be required to determine appropriate revegetation methods 	<p style="text-align: center;">Section 3.5.3 Section 3.9.1 Section 7.1.3 Section 7.7.3</p>
<ul style="list-style-type: none"> ◆ A conceptual site model including landforms and final structures that are designed to divert, capture, retain and/or treat surface runoff from the site 	<p style="text-align: center;">Section 3.2.2 Section 3.7 Section 3.9</p>
<p>Description of matters that could influence unanticipated or early closure or care and maintenance of the mine, how this may affect rehabilitation objectives, and the contingency and mitigation measures to be implemented</p>	<p style="text-align: center;">Section 3.9</p>
<p>Discussion of the potential risk that the Proposal may create an ongoing environmental, social and/or economic legacy if operations are required to cease ahead of schedule due to unforeseen circumstances, prior to the planned closure and rehabilitation of the site</p>	<p style="text-align: center;">Section 3.9</p>
<p>Describe and discuss the design, measures, maintenance and monitoring to ensure a safe, geochemically and physically stable waste rock stockpile landform. Discuss the potential risk and impact of a worst-case failure affecting the adjacent railway land and operation</p>	<p style="text-align: center;">Section 3.7.1 Section 7.1 Section 7.13</p>
<p>Discussion of the potential risks associated with earthquakes, unusual rainfall events, weeds, fire, flood and climate change</p>	<p style="text-align: center;">Section 7.2 Section 7.4 Section 7.7 Section 7.13</p>
<p><i>2.3.1 – Key Environmental Factors: Hydrological Processes</i></p>	
<p>Provide sufficient information to enable assessment of whether the Proposal is likely to meet the NT EPA’s objective to maintain the hydrological regimes of groundwater and surface water so that environmental values are protected.</p>	<p style="text-align: center;">Section 4.5 Section 4.6 Section 7.4</p>
<p>Characterise and, where appropriate, quantify the current hydrological regime of the Proposal area and receiving waterways that may be impacted by the Proposal, using maps and/or schematic diagrams of flow direction where applicable, including:</p>	<p style="text-align: center;">Section 4.5 Section 4.6</p>
<ul style="list-style-type: none"> ◆ The surface water hydrology, including: <ul style="list-style-type: none"> ○ Major and minor rivers, drainage lines and wetlands (permanent and ephemeral) ○ Surface water flow directions and rates, based on field data and modelled data ○ Water reservoirs (natural and artificial) ○ Beneficial uses 	<p style="text-align: center;">Section 4.5.1</p>
<ul style="list-style-type: none"> ◆ Groundwater aquifers and hydrogeological properties, including: <ul style="list-style-type: none"> ○ Groundwater flows, volumes, yields, and connectivity (considering seasonal variation) of the site and surrounding area of influence 	<p style="text-align: center;">Section 4.6.1</p>

ToR Requirement	EIS Chapter / Section addressing the Requirement
<ul style="list-style-type: none"> ○ Connectivity between the existing pit and the surrounding groundwater environment ○ Groundwater behaviour in the vicinity of the waste rock stockpile ○ Surface connections via springs or recharge zones ○ Local and regional aquifers ○ Depth to water tables, including temporal variation 	
Include a discussion and analysis of how hydrological processes may have been impacted by previous mining.	Section 7.4.1
Identify, quantify and discuss the potential impacts (negative and positive) for all phases of the Proposal (including both closure scenarios ¹), based on appropriate modelling, related to:	Section 7.4.2
<ul style="list-style-type: none"> ◆ Altered surface water flow pathways, volumes and timing (seasonality) for each phase of the Proposal including post-closure 	Section 7.4.2.1
<ul style="list-style-type: none"> ◆ Impacts to the site and consequences of the 1% annual exceedance probability riverine flooding from nearby creeks 	Section 7.4.2.1
<ul style="list-style-type: none"> ◆ Groundwater drawdown during operations and post-mining/closure, indicating the peak drawdown and predictions of post-closure recovery of groundwater levels – predict the time required for full recovery, and give predicted groundwater level contours at four regular intervals from the time of peak drawdown until the time of full recovery 	Section 7.4.2.2
<ul style="list-style-type: none"> ◆ Any uncontrolled discharge to the environment (ground or surface) from the pit lake, post-closure, based on a predicted water balance of the final pit lake 	Section 7.4.4.1
<ul style="list-style-type: none"> ◆ Availability of surface water and groundwater resources to other persons and the environment 	Section 7.4.2.2
Outline the measures for avoiding, mitigating, or offsetting adverse impacts identified above. These may be incorporated into management plans. Address, at a minimum:	Section 7.4.3
<ul style="list-style-type: none"> ◆ Groundwater levels and flows (rate and direction) 	Section 7.4.3
<ul style="list-style-type: none"> ◆ Surface water volumes and flow rates 	Section 7.4.3
<ul style="list-style-type: none"> ◆ Frequency of reporting, intended audience and method of delivery 	Chapter 9
<i>2.3.2 – Key Environmental Factors: Terrestrial Environmental Quality</i>	
Provide sufficient information to enable assessment of whether the Proposal is likely to meet the NT EPA's objective to maintain the quality of land and soils so that environmental values are protected.	Section 4.2 Section 7.1
Describe the terrestrial environmental values within the Proposal area that could be potentially impacted by the Proposal, including:	Section 4.2 7.1.1
<ul style="list-style-type: none"> ◆ Regional and significant topography, geomorphology and geology. 	Section 4.2.1 Section 4.2.2 Section 7.1.1
<ul style="list-style-type: none"> ◆ Soil types and land units, including a summary of expected natural elevations of minerals that could become contaminants if released. 	Section 4.2.3

¹ The only closure scenario currently addressed by the EIS is the Hayes Creek Project not proceeding. Information on the Hayes Creek Project is not adequate at this time to make an assessment. This will be assessed as part of the Hayes Creek Project approval process.

ToR Requirement	EIS Chapter / Section addressing the Requirement
	Section 4.2.4 Section 7.1.1
To provide a baseline, describe the current status of land contamination due to historic land use at the Proposal site, based on a geochemical assessment conducted in accordance with the NT EPA's Environmental Assessment Guidelines for Acid and Metalliferous Drainage (2013a).	Section 3.2.1
Identify, quantify and discuss the potential impacts (negative and positive) for all phases of the Proposal (including both closure scenarios ²), related to:	Section 7.1.2
◆ Erosion of land/soils and the movement of sediment, including the identification of vulnerable areas	Section 7.1.2.1
◆ Spread of weeds	Section 7.1.2.3 Section 7.7.2.4
◆ Possible loss of containment of hazardous substances and subsequent contamination, with reference to the volumes of each hazardous material (including hydrocarbons) to be used/stored on site during operation	Section 3.7.3.3 Section 7.1.2.2
◆ Generation and release of contaminants from mined materials in all phases of the Proposal, including for the long term following closure	Section 7.1.2.2
◆ Long term stability of landforms considering erosion by water or wind and as a result of seismic instability	Section 7.1.2.1 Section 7.1.2.3
The discussion of the latter two points must refer to a material characterisation and the conceptual Mine Closure Plan. The material characterisation should identify the potential for acid, metalliferous and any other non-benign drainage (AMD) from mined materials, including a comprehensive classification of waste rock, tailings and other materials in accordance with the NT EPA's Environmental Assessment Guidelines for Acid and Metalliferous Drainage (2013a). It should include results of investigations to identify the presence of sulfides, other potential contaminants, and naturally occurring radioactive material. The investigation should characterise individual lithologies and the level of homogeneity for each. Spatial distribution and density should be designed to define waste and not limited to sampling from locations intended for ore definition.	Section 3.6.3 Section 3.9
Outline the measures for avoiding, mitigating, or offsetting adverse impacts identified above, and for enhancing or restoring terrestrial environmental quality. These may be incorporated into management plans.	Section 7.1.3
Monitoring and reporting should address, at a minimum: ◆ Waste rock and tailings characterisation updates ◆ Frequency and audience of reporting	Chapter 9
<i>2.3.3 – Key Environmental Factors: Inland Water Environmental Quality</i>	
Provide sufficient information to enable assessment of whether the Proposal is likely to meet the NT EPA's objective to maintain the quality of groundwater and surface water so that environmental values including ecological health, land uses, and the welfare and amenity of people are protected.	Section 4.5 Section 4.6 Section 7.5 Section 7.6
Describe the values associated with the quality of surface water and groundwater within and downstream of the Proposal area that could be potentially impacted by the Proposal, including:	Section 4.5.2 Section 4.5.3

² The only closure scenario currently addressed by the EIS is the Hayes Creek Project not proceeding. Information on the Hayes Creek Project is not adequate at this time to make an assessment. This will be assessed as part of the Hayes Creek Project approval process.

ToR Requirement	EIS Chapter / Section addressing the Requirement
	Section 4.6.3 Section 7.5.1 Section 7.6.1
<ul style="list-style-type: none"> ◆ Declared beneficial uses areas of receiving waters and other downstream users and values (including a map) 	Section 4.6.2 Section 7.5.1 Section 7.6.1
<ul style="list-style-type: none"> ◆ An assessment of baseline water quality, including a comparison with relevant water quality guidelines (e.g. ANZG 2018), and incorporating any additional parameters of relevance to the Proposal site, of: <ul style="list-style-type: none"> ○ Receiving waters (surface and groundwater), including the Margaret River and control sites ○ Water currently in the pit and water storage dam ○ Groundwater (to be dewatered and used for dust suppression and other purposes), water in dams and lakes ○ Water in dams and lakes ○ Surface runoff from existing landforms 	Section 4.5.2 Section 4.5.3 Section 4.6.3
Provide details of the monitoring program and analysis used to characterise baseline water quality, including timing (seasons) and sampling site locations. This is to demonstrate appropriate and sufficient survey effort and to demonstrate that results are not influenced by pre-Proposal activities such as pit lake water level reduction.	Section 4.5.2 Section 4.5.3 Section 4.6.3
Analyse and quantify any impacts to water quality resulting from historic land use at the site.	Section 4.5.2.1 Section 4.5.3 Section 4.6.3
Identify, quantify and/or discuss the potential impacts (negative and positive) for all phases of the Proposal (including both closure scenarios ³), related to:	Section 7.5.2 Section 7.6.2
<ul style="list-style-type: none"> ◆ Any untreated, uncontrolled discharge or seepage of non-benign contaminants (including from AMD and saline drainage) from historical or Proposal-related mine waste storages, including seepage from the pit lane, taking into account pit filling rates and predicted water quality 	Section 7.5.2.2 Section 7.6.2.2
<ul style="list-style-type: none"> ◆ The release of water from the Proposal site through controlled and uncontrolled discharge 	Section 7.5.2 Section 7.6.2
<ul style="list-style-type: none"> ◆ Potential loss of containment of any hazardous substances (including hydrocarbons) 	Section 7.5.2.3 Section 7.6.2.3 Section 7.6.2.4
<ul style="list-style-type: none"> ◆ Uncontrolled runoff or leachate from the heap leach facility during high rainfall events, based on a flood risk assessment. 	Section 7.5.2.2 Section 7.6.2.2
<p>This should be supported by conceptual site models describing sources of potential contaminants, mechanisms for their release, transport pathways, receptors, and fate of any potentially contaminated waters from the Proposal, with reference to the NT EPA Guidelines on Conceptual Site Models (NT EPA 2013e). A conceptual site model should be provided for each phase of the Proposal, including:</p> <ul style="list-style-type: none"> ◆ Preparation, including any dewatering of the existing pit ◆ During mining/processing, including any dewatering 	Section 3.7.2 Section 4.5.1.3

³ The only closure scenario currently addressed by the EIS is the Hayes Creek Project not proceeding. Information on the Hayes Creek Project is not adequate at this time to make an assessment. This will be assessed as part of the Hayes Creek Project approval process.

ToR Requirement	EIS Chapter / Section addressing the Requirement
<ul style="list-style-type: none"> ◆ Post-mining, while pit lake is refilling ◆ At closure ◆ Beyond the expected time of stabilisation (for the case that the Hayes Creek Project does not proceed or is substantially delayed) 	
Outline the measures for avoiding, mitigating, or offsetting adverse impacts identified above and for enhancing or restoring inland water environmental quality.	Section 7.5.3 Section 7.6.3
<p>Provide a draft Water Management Plan to demonstrate that all potential impacts identified above will be sufficiently addressed in accordance with the environmental decision-making hierarchy, including:</p> <ul style="list-style-type: none"> ◆ Strategies for managing stormwater including stormwater drainage infrastructure ◆ The methodology for treating any poor-quality water from the pit, and a predicted schedule for any controlled discharge ◆ Sufficient detail to demonstrate that mine closure strategies will be implemented to avoid impacts to values dependent on good water quality, both during operation and into the long-term following closure ◆ Containment of runoff or leachate from the heap leach facility, along with consideration of the potential for environmental and structural impacts on railway operations and downstream impacts on railway land in a worst-case scenario. ◆ Details of the processes undertaken for internal review of the Plan 	Section 9.3
<p>Address and include a monitoring plan for all phases of the Proposal (including post-closure) for:</p> <ul style="list-style-type: none"> ◆ Pit lake ◆ Groundwater in the vicinity of the Proposal ◆ Surface water in the vicinity of the Proposal and downstream ◆ Frequency and audience of reporting 	Section 9.3
<i>2.3.4 – Key Environmental Factors: Aquatic Ecosystems</i>	
Provide sufficient information to enable assessment of whether the Proposal is likely to meet the NT EPA’s objective to protect aquatic ecosystems to maintain the biological diversity of flora and fauna and the ecological functions they perform.	Section 4.8 Section 7.8
Describe the values of all aquatic ecosystems in the area where hydrological processes and inland water environmental quality may be impacted by the Proposal and at nearby control sites. This is to include:	Section 4.8 Section 7.8.1
<ul style="list-style-type: none"> ◆ A map/s delineating the area of potential impact 	Section 3.2.2
<ul style="list-style-type: none"> ◆ Distribution and abundance or extent of aquatic ecosystems within this area and comparable control areas 	Section 4.8.1 Section 4.8.3
<ul style="list-style-type: none"> ◆ Baseline data of aquatic ecosystems downstream of the Proposal that is sufficiently statistically robust to enable detection of any impacts to these ecosystems in the event of an unplanned pollution event e.g. uncontrolled discharge of contaminated water or hazardous substances from the Proposal 	Section 4.8

ToR Requirement	EIS Chapter / Section addressing the Requirement
Identify, quantify and/or discuss the potential impacts (negative and positive) for all phases of the Proposal (including both closure scenarios ⁴), related to:	Section 7.8.2
<ul style="list-style-type: none"> ◆ Changes, in comparison to baseline data, in the distribution, abundance or health of aquatic ecosystems and their constituent taxa due to (at a minimum): <ul style="list-style-type: none"> ○ Changes to hydrological processes (including reduction or increase in surface water flows or ephemeral pools) ○ Changes in water quality 	Section 7.8.2
Outline the measures for avoiding, mitigating, or offsetting adverse impacts identified above. These may be incorporated into management plans.	Section 7.8.3
Address and include a monitoring plan for, at a minimum:	Section 7.8.5
◆ Water availability (quantity and quality) for any aquatic ecosystems	Section 7.8.5
◆ Distribution, abundance and/or health of aquatic ecosystems and constituent taxa, as applicable	Section 7.8.5
◆ Frequency and audience of reporting	Section 7.8.5 Chapter 9
<i>2.3.5 – Key Environmental Factors: Social, Economic and Cultural Surroundings:</i>	
Provide sufficient information to enable assessment of whether the Proposal is likely to meet the NT EPA's objective to protect the rich social, economic, cultural and heritage values of the Northern Territory.	Section 4.9 Section 4.10 Section 7.9 Section 7.10
Describe, using maps where appropriate, the existing social, economic and cultural values of the region, including:	Section 4.9 Section 4.10 Section 4.11
◆ Population and demographics of the Proposal area and nearby towns, using the most recent statistics	Section 4.9.1
◆ Economy in the region such as tourism and recreation, pastoral and mineral industries	Section 4.9.2
◆ The railway corridor land and operators using the railway	Section 4.11.1
◆ Water users in the area, including the location of groundwater bores in the immediate vicinity and offtake points for surface water users in the vicinity and downstream	Section 4.9.4 Section 4.10.1
◆ Areas listed on Australian Government and Northern Territory Government registers of historic and/or cultural heritage	Section 4.10.2 Section 4.10.3
◆ A description and location of Aboriginal and non-Aboriginal sites, places or objects of historic or cultural heritage value, based on archaeological and/or anthropological survey and any other research	Section 4.10.2 Section 4.10.3
◆ The spiritual or cultural significance of places to Aboriginal people, including those associated with water, and details of any current utilisation of these areas	Section 4.10.2

⁴ The only closure scenario currently addressed by the EIS is the Hayes Creek Project not proceeding. Information on the Hayes Creek Project is not adequate at this time to make an assessment. This will be assessed as part of the Hayes Creek Project approval process.

ToR Requirement	EIS Chapter / Section addressing the Requirement
Identify, quantify and/or discuss the following potential impacts (risks and benefits/opportunities) for all phases of the Proposal (including both closure scenarios ⁵), related to:	Section 7.9.2 Section 7.10.2 Section 7.11.2
<ul style="list-style-type: none"> ◆ Social and economic benefits and impacts in the region, addressed in an Economic and Social Impact Assessment (ESIA) in accordance with NT EPA (2013c) that provides an independent analysis of the social and economic value and potential impacts of the Proposal on a local/regional, NT and national scale, including: <ul style="list-style-type: none"> ○ Overall economic benefit, as expressed by the estimated capital and annual operational expenditure and estimated total revenue ○ Training and employment, including for Aboriginal people ○ Impacts on local accommodation if workers are not accommodated in a mining camp ○ Changes to economic and social activity in regional centres, which may have positive and/or negative impacts on local people during operations and transitioning to mine closure ○ Potential social impacts associated with not achieving the proposed economic benefits ○ Reduction in the availability of water of appropriate quality for other water users (current or future) in the vicinity or downstream ○ Changes to social, cultural and recreational values through potential water contamination, if applicable, pending assessment of inland water environmental quality ○ Potential impacts on existing and future road and rail transport infrastructure and road and rail users from project transport requirements, long term stability of landforms and any discharge of contaminated water 	Section 7.9.2 Section 7.11.2
◆ Biophysical and intangible (e.g. amenity or access) changes to sacred sites, heritage places or other places with identified cultural or social values, including downstream water and land	Section 7.10.2
◆ Potential impacts and risks from blasting activities on people travelling on the AustralAsia Railway.	Section 7.9.2.6
Outline the measures for avoiding, mitigating, or offsetting adverse impacts identified above. These may be incorporated into management plans and are to include:	Section 7.9.3 Section 7.10.3 Section 7.11.3
◆ Strategies for engaging with local Aboriginal communities to facilitate employment including identification of suitable roles, how training may be delivered, and how cultural values would be accommodated	Section 7.9.3.1 Section 7.9.3.2 Section 7.9.3.5 Section 7.10.3
◆ Assessment criteria that will give early warning in the event that management measures are not achieving the expected benefits or are not avoiding negative impacts	Section 7.10.3
◆ Procedures that would be implemented in the event that any items or sites of heritage and/or cultural significance (additional to those identified in the EIS) are identified during implementation of the Proposal	Section 7.10.3

⁵ The only closure scenario currently addressed by the EIS is the Hayes Creek Project not proceeding. Information on the Hayes Creek Project is not adequate at this time to make an assessment. This will be assessed as part of the Hayes Creek Project approval process.

ToR Requirement	EIS Chapter / Section addressing the Requirement
◆ Measures to avoid or minimise a reduction in water of suitable quality available to any other water users	Section 7.9.3.3
◆ Measures to avoid impacts to sacred sites	Section 7.10.3
◆ Measures to avoid impacts to heritage and archaeological sites	Section 7.10.3
◆ An outline of a plan for ongoing communication with stakeholders	Section 7.9.3.5
◆ Timing or communications of blasting activities in relation to train operations e.g. the Ghan train schedule.	Section 7.9.3.3 Section 7.9.3.6
◆ Approach to procurement of goods and services sourced from the local area	Section 7.9.3.1 Section 7.9.3.2
Address, at a minimum, for monitoring and reporting:	Chapter 9
◆ Social and economic benefits and impacts, including ease of identification of impacts and consideration of the concerns of the community about the level of risk of an impact that would trigger remedial action	Section 9.4.1
◆ Water availability (quantity and quality) for other users and downstream aquatic and riparian ecosystems that may have social values	Section 9.4.1
◆ Condition of cultural sites	Section 9.4.1
◆ Regular reporting of changes to economic or social benefits or impacts and ongoing consultation with key stakeholders and associated decisions made	Section 9.4.1