

BHP

Ministers North Derived Proposal

Air Quality Environmental Management Plan

Ministerial Statement 1105

September 2025



Version Control

Version	Description	Key changes	Date
0a	Draft Air Quality Environmental Management Plan internal reviews	New document	04/07/2025
0b	Draft AQ EMP for BNTAC review	New document	04/08/2025
1	Final draft EMP submitted to the EPA	Incorporated feedback from BNTAC	15/09/2025

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Abbreviations and Definitions

Term	Meaning
BHP	BHP Iron Ore Pty Ltd
BNTAC	Banjima Native Title Aboriginal Corporation
CEO	Chief Executive Officer of DWER
Clearing	As defined by Section 51A of the <i>Environmental Protection Act 1986 (WA)</i>
DBCA	Department of Biodiversity, Conservation and Attractions
DWER	Department of Water and Environmental Regulation
EMP	Environmental Management Plan
EPA	Environmental Protection Authority
EP Act	<i>Environmental Protection Act 1986 (WA)</i>
GIS	Geographic Information System
NEPM	National Environment Protection Measure
PM ₁₀	Total of suspended particulate matter less than 10 µm in aerodynamic diameter
PM _{2.5}	Total of suspended particulate matter less than 2.5 µm in aerodynamic diameter
TSP	Total of suspended particulate matter

Executive Summary

Ministers North Air Quality Environmental Management Plan	
Proposal	Ministers North
Proponent	BHP Iron Ore Pty Ltd
Ministerial Statement	Derived Proposal Request – Ministerial Statement 1105 – Pilbara Expansion Strategic Proposal
EMP Purpose	To meet the requirements of implementation conditions of Ministerial Statement 1105 for the Pilbara Expansion Strategic Proposal, being: <ul style="list-style-type: none"> • Condition 6 - Condition Environmental Management Plans • Condition 11 - Air Quality Environmental Management Plan
Key Environmental Factors and EMP Objectives	Air Quality - <ul style="list-style-type: none"> • To maintain air quality and minimise emissions so that environmental values are protected (EPA 2023).
EMP Key Components	Refer to Table 2-1 in Section 2 <i>EMP Components</i> .
Proposed construction date	2026
EMP required pre-construction?	Yes

1 Context, Scope and Rationale

1.1 Pilbara Expansion Strategic Proposal

BHP referred the Pilbara Expansion Strategic Proposal (Strategic Proposal) to the EPA under Part IV of the EP Act on 6 July 2012. Having devised a long-term mine development plan, BHP's aim was to consider a more regional approach to environmental management across all its current and future operations. The Strategic Proposal included new mining operations and future expansions to existing mining operations, and associated infrastructure and activities in the Pilbara. The EPA assessed the Strategic Proposal at the level of Public Environmental Review and published its report on 9 July 2018 (EPA Report 1619, EPA 2018a).

The Minister for Environment issued Ministerial Statement (MS1105) for the Strategic Proposal on 11 July 2019. The Statement states that in the event that the EPA declares a future proposal as identified in EPA Report 1619 and described in Schedule 1 of MS1105 under section 38E to be a derived proposal, the derived proposal may be implemented, subject to the Minister for Environment's identification of relevant conditions under section 45B(3) from the conditions set out in the Statement. The area covered by the Strategic Proposal is identified by Figure 1-1.

The MS1105 approval provides a framework through which future proposals within BHP's Strategic Proposal area may be referred to EPA for assessment as a 'Derived Proposal'. The intent of the Air Quality Environmental Management Plan is for the Ministers North Derived Proposal to meet the requirements of MS1105 Condition 11.

1.2 Ministers North Derived Proposal

The Ministers North Derived Proposal (Ministers North) is located within the boundary of the Strategic Proposal, positioned to the south of the existing Yandi Mining Operations, as identified by Figure 1-1. Ministers North was also identified within the environmental assessments of the Strategic Proposal by BHP (2016) and EPA (2018).

The Ministers North is positioned within a Development Envelope of 5,556.6 ha, within which the mining operations have a planned Indicative Footprint of 2,360ha. The Indicative Footprint comprises 1,848 ha of native vegetation (to be cleared) and 512 ha of existing cleared/disturbed land. The Development Envelope and the Indicative Footprint for Ministers North, together with the conceptual infrastructure layout, are identified by Figure 1-2.

Mining at Ministers North will be undertaken through standard open pit mining techniques (drill, blast, load, haul) with the extracted ore from the Mine Pits to be temporarily stockpiled, prior to transport of the ore to BHP's existing Yandi Mining Operations for processing. Waste rock extracted from the Mine Pits will be disposed of at an Overburden Storage Area (OSA) and through in-pit backfilling. The mining operations will be supported by various standard mining support infrastructure.

Generally, the Derived Proposal includes the following main elements and activities:

- mining above the groundwater level in two mine pits (north and south)
- stockpiling of ore on a Run of Mine (RoM) pad (including mobile crushing units, if required)
- waste rock disposal to Central Overburden Storage Area (OSA), and in-pit backfilling of the mine pits
- infrastructure corridor connecting Ministers North to Yandi, including:

- a dual lane Haul Road with an overpass over a third-party railway
- land bridge over Yandi W5 Mine Pit (existing approved pit) and
- a widening of an existing creek crossing over Marillana Creek watercourse and crossings of other minor watercourses (includes disturbance to watercourse bed/banks)
- infrastructure changes at the existing Yandi Ore Handling Plant (OHP) including a new primary crusher to accommodate the Brockman-type ore supply
- mine access roads to connect various mining infrastructure
- borrow pits¹ to supply civil construction works (roads, RoM)
- laydown areas for equipment storage and construction
- stockpiles for cleared rehabilitation materials (topsoil, subsoil, vegetation)
- temporary and localised minor diversion of drainage lines / watercourses comprising earthworks, earthen bunds, swale drains and/or culverts
- water supply pipelines including water storage (e.g. turkey's nest) and pump stations
- associated infrastructure to support the mine construction and operation including but not limited to administration, workshops, warehouse/storage, vehicle parking, vehicle and equipment wash-down, fuel storage and transfer, explosives storage, power generation and transmission powerlines, services infrastructure, wastewater treatment, and communications.

A full description of the Ministers North proposal, and an assessment of the potential impacts to the recorded environmental values, is provided within the BHP (2025) *Ministers North Derived Proposal Request*.

1.3 Air Quality EMP

BHP has prepared this Air Quality Environmental Management Plan (EMP) for Ministers North to meet the requirements of the implementation conditions for the Strategic Proposal under the MS1105 approval.

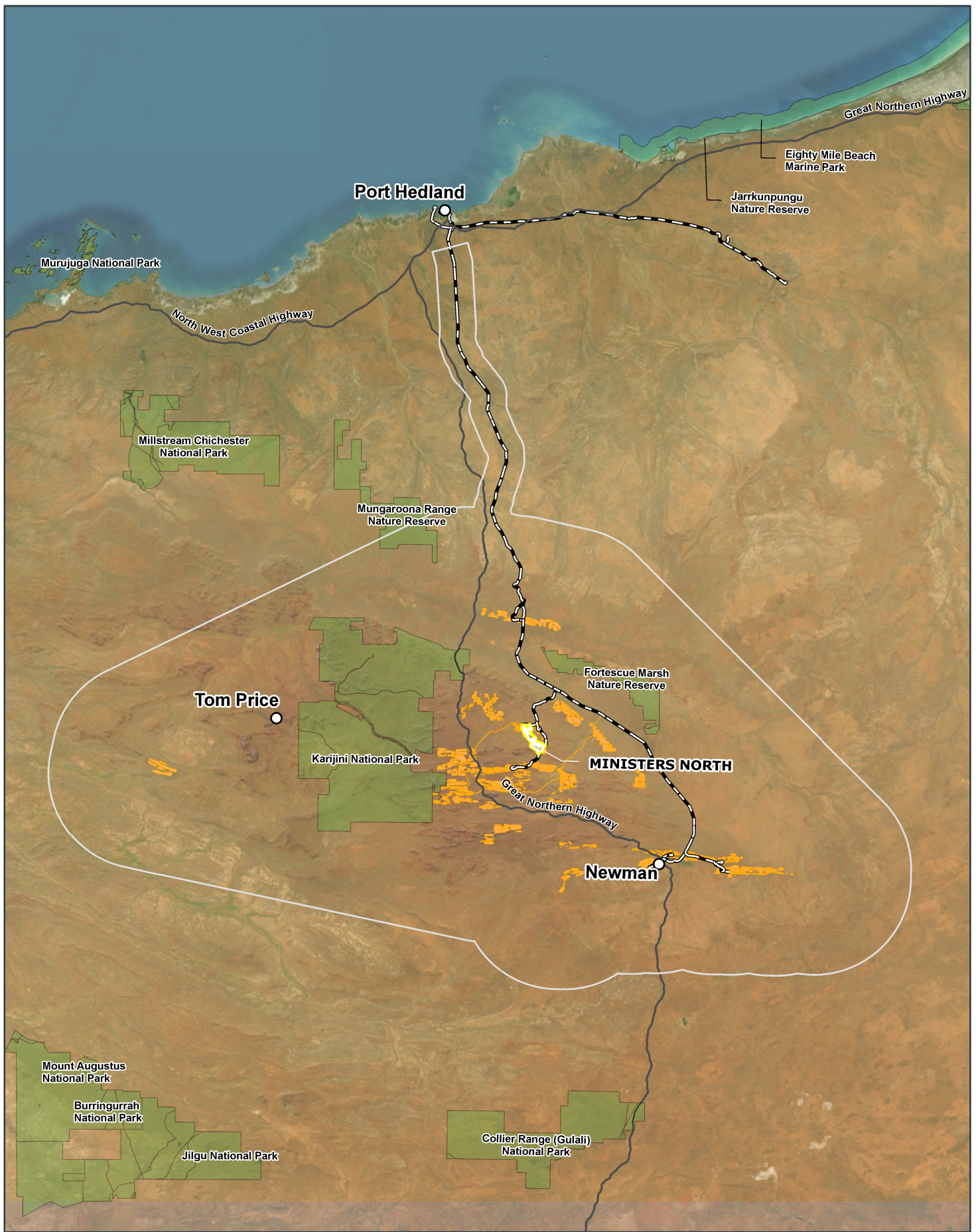
The intent for this EMP is to meet the requirements of the following implementation conditions:

- Condition 6 - Condition Environmental Management Plans.
- Condition 11 - Air Quality Environmental Management Plan.

The scope of this EMP is the mining operations at Ministers North.

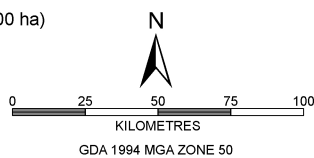
BHP has prepared this EMP to be consistent with the EPA (2024) document *Instructions: How to Prepare Environmental Protection Act 1986 Part IV Environmental Management Plans*.

¹ Suitable areas for borrow pits have been identified and accounted for within the current Development Envelope and Indicative Footprint. However, if constructability requirements identify potential borrow deficits, BHP may seek additional borrow material from outside the Derived Proposal area. Any additional borrow requirements that are identified would be subject to separate Government approvals process.



Legend

- Development Envelope (5,557 ha)
- Indicative Footprint (2,360 ha)
- Strategic Proposal Area (7,650,074 ha)
- Strategic Proposal Full Conceptual Development Scenario (98,500 ha)
- Conservation Area
- Townsite
- Major Roads
- Rail (BHP)



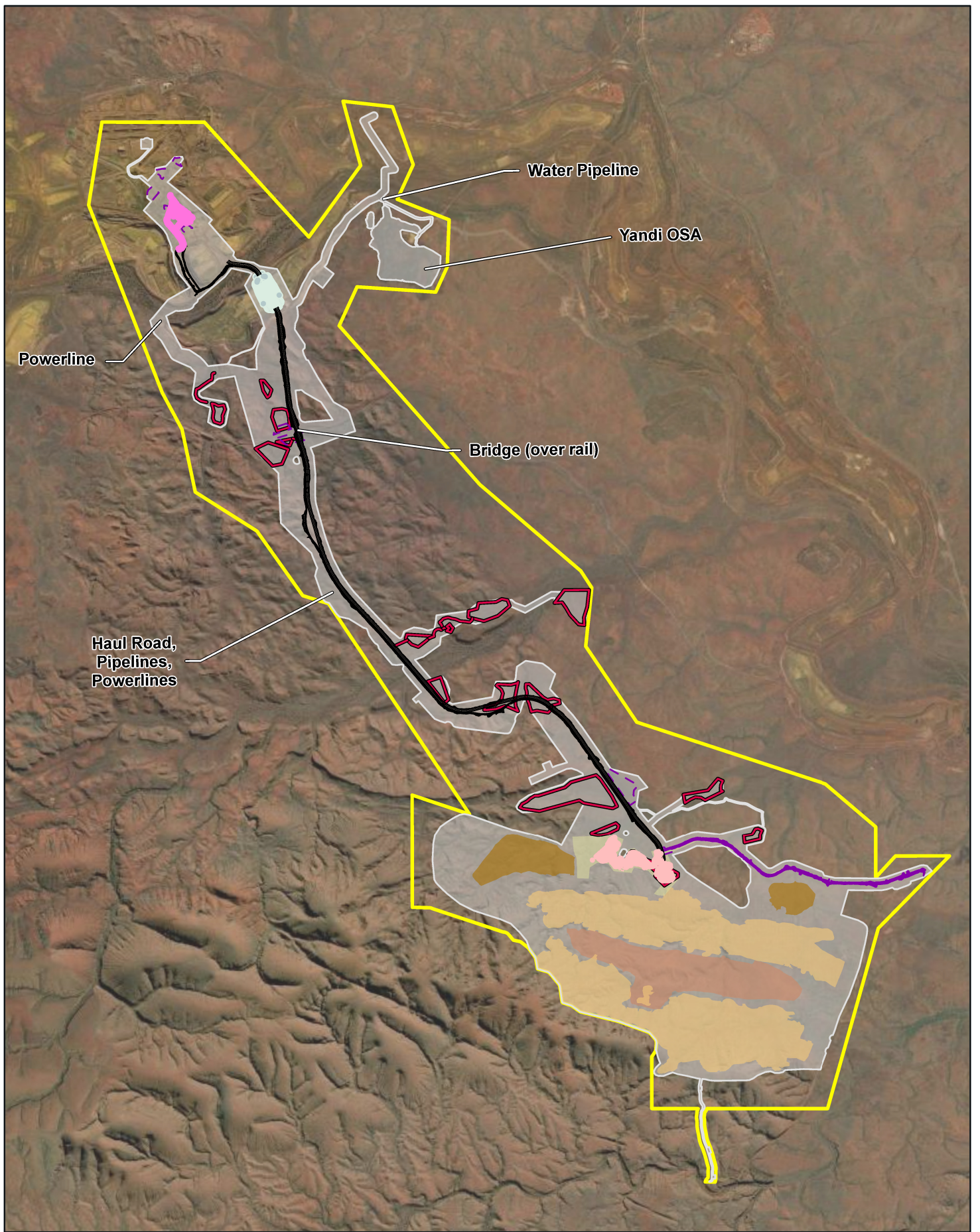
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**MINISTERS NORTH
STRATEGIC PROPOSAL AND
MINISTERS NORTH DERIVED PROPOSAL**

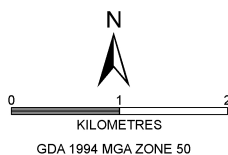
WAIO PLANNING, TECHNICAL & ENVIRONMENT

SCALE @ A4:	1:2,600,000	REQUESTOR:	PROJECTS	FIGURE:	1-1
DATE:	15/09/2025	PREPARED:	GEOMATICS	NO:	A1317-007 RevG
		REVIEWED:			



Legend

- Development Envelope (5,557 ha)
- Indicative Footprint (2,360 ha)
- Indicative Mine Layout**
- Non-Process Infrastructure
- Stockpile
- OSA
- Pit
- Non-Process Infrastructure Layout
- Borrow Pits
- Road
- Pipelines Access Road



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**MINISTERS NORTH
DEVELOPMENT ENVELOPE AND
INDICATIVE FOOTPRINT**

WAIO- PLANNING, TECHNICAL & ENVIRONMENT

SCALE @ A4: 1:70,000 REQUESTOR: PROJECTS FIGURE: 1-2
 DATE: 15/09/2025 PREPARED: GEOMATICS
 REVIEWED: NO: **A1317-003 RevK**

1.4 Key Environmental Factors

The 'Key Environmental Factor' relevant to this EMP is 'Air Quality'. The key variable for this plan is airborne particulates (dust). Other air pollutants are not considered relevant to this Proposal and are therefore not included in this EMP.

Table 1-1 describes the environmental values, proposal activities and potential impacts to air quality addressed in this EMP.

Table 1-1: Key Environmental Values, Proposal Activities and Potential Impacts

Key Environmental Factor	Environmental Values	Proposal Activities	Actual / Potential Impacts
Air Quality (Dust)	Human health and amenity	Land clearing and earthworks for mining development.	Direct impacts - <ul style="list-style-type: none"> Potential for reduction in air quality and amenity at sensitive receptors from the generation of particulate air emissions of dust. Indirect impacts - <ul style="list-style-type: none"> Potential for particulate air emissions of dust to affect the health of adjacent flora and vegetation, and social surroundings values.
	Flora and vegetation Socials surroundings	Mining operations, including blasting, excavation, loading and transport of ore and waste rock materials, and ore processing.	

1.5 Condition Requirements

The following conditions for the Strategic Proposal under the MS1105 approval are relevant to Ministers North:

- Condition 6 - Condition Environmental Management Plan/s (entire condition).
- Condition 11 - Air Quality Environmental Management Plan.

In accordance with Condition 6-1, this EMP has been submitted prior to ground-disturbing activities, and within six (6) months from the date of issue of the Section 45A Notice, to demonstrate that the environmental objectives specified in the conditions referred to in the Section 45A Notice for the proposal will be met. In accordance with Condition 6-4 (2), BHP will continue to implement this EMP until the CEO has confirmed by notice in writing that BHP has demonstrated the objectives specified in the relevant conditions referred to in the Section 45A Notice for the proposal have been met.

BHP has provided the condition requirements of Conditions 6-2, 6-3 and 6-5 to 6-7 in in *EMP Components* (Section 2) and *Reporting* (Section 3), which the EPA (2024) guidance allows for, where there are multiple conditions and/or condition clauses.

Condition 6-8 and 6-9 requirements are addressed in *EMP Adaptive Management* (Section 4).

The relevant sub-clauses of Condition 11 *Air Quality Environmental Management Plan* and how they are addressed within this EMP is outlined in Table 1-2.

Table 1-2: Ministerial Statement 1105 Condition 11

Condition	Applicable to this EMP?	EMP Section
11 Air Quality Environmental Management Plan		
<p>11-1 The proponent shall manage the implementation of the proposal to meet the following environmental objective:</p> <p>(1) maintain air quality and minimise emissions so that environmental values are protected, and in particular:</p> <p>(a) meet recognised air quality standards and criteria, including:</p> <p>(i) National Environment Protection (Ambient Air Quality) Measure for carbon monoxide, nitrogen dioxide, ozone, sulfur dioxide, lead, particles as PM₁₀ and PM_{2.5}; or</p> <p>(ii) other guidelines on a proposal specific basis as determined by the CEO.</p>	Yes	Section 2
	Yes	Section 2
	Yes, in relation to particles PM ₁₀ and PM _{2.5} . Other air pollutants are not considered relevant to this Proposal and are therefore not included in this EMP.	Section 2
	No	N/A
11-2 The proponent shall prepare an Air Quality Management Plan required by condition 6-1 that satisfies the requirements of condition 6-2, to meet the objectives specified in condition 11-1.	Yes	This EMP
11-3 The Air Quality Management Plan required by condition 6-1 shall include provisions required by condition 6-2 to address impacts on air quality, where relevant, including from, but not limited to: dust emissions due to clearing of vegetation; emissions from power plants; mining (including blasting), handling, stockpiling and transport of iron ore; and crushing and screening of materials.	Yes <i>Limited to dust emissions due to clearing of vegetation; mining (including blasting), handling, stockpiling and transport of iron ore; and crushing and screening of materials.</i>	Section 2
11-4 The proponent shall continue to implement the version of the Air Quality Management Plan most recently approved by the CEO until the CEO has confirmed by notice in writing that the plan required by condition 6-1 satisfies the requirements of condition 6-2 to meet the objectives specified in condition 11-1.	Yes	Section 1.5

Condition 5 of the MS1105 approval requires BHP to make this EMP publicly available. To meet this requirement, BHP will publish the EMP on the BHP website as soon as reasonably practicable following endorsement of the EMP by the CEO. Further, the endorsed EMP will be made available to stakeholders, including members of the public, upon request. BHP considers these actions will meet the requirements of Condition 5.

1.6 Rationale and Approach

As outlined by the EPA (2024) guidance document *Instructions: How to Prepare Environmental Protection Act 1986 Part IV Environmental Management Plans*, this section provides a description of the rationale and approach for the components of this EMP.

1.6.1 Management Approach

BHP has applied a risk-based approach to identify and prioritise the components of this EMP. The purpose of the components is to protect the environmental values identified in Table 1-1. In developing the components, BHP has used available scientific information from surveys / studies and has applied learnings from the management of air quality at other BHP mining operations and third-party mining operations in the Pilbara region.

As described in EPA (2024), the term '*Environmental Management Plan*' is used generically to refer to documents that set out management information required as an implementation condition. BHP considers that this EMP meets the requirements of Condition 6 and Condition 11 of the MS1105 approval.

Prior to any ground disturbance activities, BHP implements an internal ground disturbance permit system at the site level to ensure that any legislative and regulatory requirements associated with the environment, Aboriginal heritage and land tenure relevant to the area, are met.

1.6.2 Rationale

Table 1-3 describes the rationale for the EMP components identified in Section 2, including:

- Management objectives.
- Survey / study findings.
- Key assumptions and uncertainties.
- Rationale for choice of management actions.

Table 1-3: Rationale for EMP Components

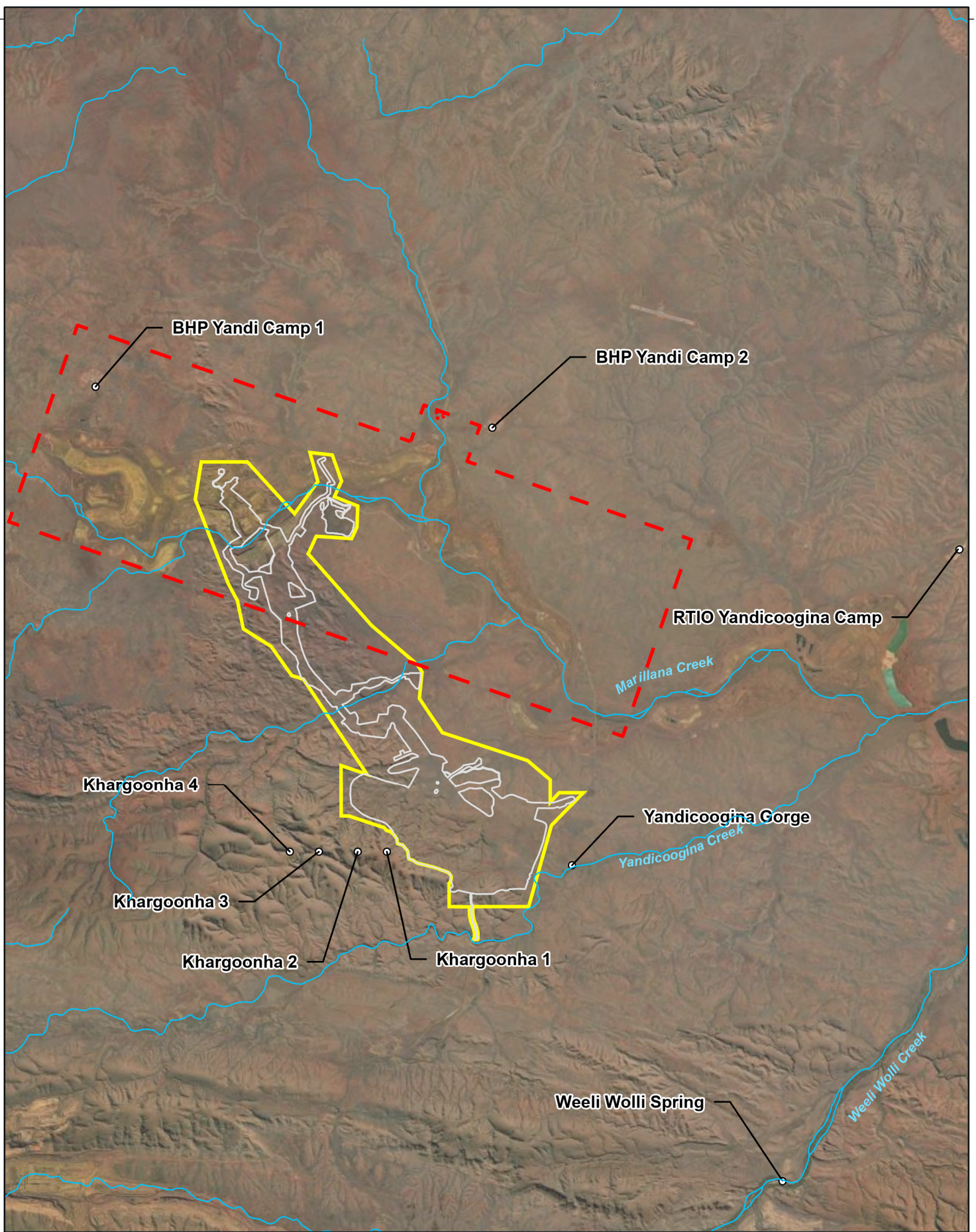
Surveys / Studies	Survey / Study Findings	Key Assumptions and Uncertainties	Risk-based Approach and Rationale for Indicators / Management Actions
<p>Environmental Values: Human health and amenity, flora and vegetation, and social surroundings.</p> <p>EMP Objective: Minimise potential direct and indirect impacts to air quality.</p>			
<p>The surveys / studies used to inform the EMP components related to air quality are listed below (in date order, with the most recent listed first):</p> <p>Ministers North</p> <ul style="list-style-type: none"> Environmental Technologies & Analytics (2024) <i>Ministers North - Dust Modelling</i>. <p>Pilbara Expansion Strategic Proposal</p> <ul style="list-style-type: none"> Pacific Environment Operations (2015) <i>Pilbara Strategic Environmental Assessment - Cumulative Air Quality Assessment</i>. <p>In addition to the above, this EMP is additionally informed by BHP's long-term air quality monitoring network across the existing mining operations, comprising both ambient air quality monitoring stations and weather stations (including wind direction and wind speed).</p>	<p>Air Quality Values</p> <ul style="list-style-type: none"> The EPA (2018) noted in its assessment of the Strategic Proposal that the Pilbara is naturally dusty environment as a result of the semi-arid landscape, with environmental monitoring demonstrating natural exceedances of air quality standards at various times. The EPA (2018) concluded that impacts from particulate air emissions of dust are not considered to threaten the environmental values of the Pilbara region, as the environment is naturally subjected to high dust levels and effective management measures can be implemented to avoid and reduce impacts. The behaviour of particulate dust emissions is influenced by a number of variables including local and regional factors, dust sources and conditions that affect its dispersion. The location of dust generation in the mining area, the amount of dust generated, topography, climate and meteorological characteristics and surrounding vegetation are key factors to understanding dust behaviour. Key findings relevant to the dust modelling by Environmental Technologies & Analytics (2024) were: <ul style="list-style-type: none"> The key sources of particulate air emissions from the Derived Proposal are considered to be: <ul style="list-style-type: none"> Mechanical earthworks involving land clearing and works on existing cleared/disturbed land Wind erosion over cleared/disturbed land surfaces. Mining operations including blasting, excavation, and the loading and transport of ore and waste rock materials. Mining operations account for approximately 50 % of total particulate air emissions, with 40 % of particulate emissions from a combination of ore transport and ore processing. Wind erosion over cleared land accounts for the remaining 10 % of particulate air emissions The key receptor locations/values in the vicinity of the Ministers North (≤ 15 km radius) for the consideration of potential impacts from particulate air emissions include the Weeli Wolli Spring, Yandicoogina Gorge, Khargoonha Cultural Heritage Area, BHP's Yandi Mining Operations Camp 1 and Camp 2², and the Rio Yandi Mining Operations Camp, as identified by Figure 1-3. 	<p>Assumptions</p> <ul style="list-style-type: none"> This EMP (and the information presented within) pertains only to air quality, as identified during the environmental assessment of Ministers North as requiring management. The assessment of the Strategic Proposal by BHP (2016) outlined that air quality impacts from mining operations would be managed through appropriate dust management practices (standard controls and leading controls). The assessment of the Strategic Proposal by EPA (2018) concluded that the objectives for air quality are likely to be achieved where management and monitoring is undertaken in accordance with the EPA's recommended implementation conditions (i.e. MS1105 approval, Condition 11 to implement an Air Quality EMP). In consideration of the survey / study effort, it is reasonable to believe that all air quality values have been appropriately identified and quantified. The air quality outcomes are unlikely to be substantially different from those predicted by the air quality assessment. The results of the air dispersion modelling assessment are assumed to be conservative as the modelling is based on the highest potential mining year, representing the greatest total annual movement of ore and waste. The modelled exceedances at the receptor sites of Yandicoogina Gorge and Khargoonha 1 (TSP, PM₁₀) should be viewed in the context of these receptors being heritage/recreation locations containing permanent ecological values, however, human visitation to these receptor locations is occasional / short-term. The modelled exceedances at the receptor sites of Yandi Camp 1 (TSP) should be viewed in the context of this receptor being for medium-term human occupation, highly disturbed (i.e. limited ecological value) and an existing operating mine site. An exceedance of the air quality criteria limits for TSP, PM₁₀ or PM_{2.5} does not infer that the environment or human health will be impacted, but rather, the criteria identify limits within which the outcomes for the environment and human health can be achieved. Progressive and post-mining rehabilitation of cleared land areas (in accordance with a Mine Closure Plan) will 	<p>Type of Components</p> <ul style="list-style-type: none"> In accordance with Condition 11, this EMP shall include components required by Condition 6 to address the impacts to air quality. BHP has chosen objective-based components to address the requirements of Condition 6 and meet the objectives specified in Condition 11. Objective-based components have been chosen on the basis that risk-based management actions are appropriate to satisfy the objectives of Condition 11. <p>Rationale for Choice of Management Actions</p> <ul style="list-style-type: none"> The assessment of the Strategic Proposal by BHP (2016) outlined that air quality impacts from mining operations would be managed through appropriate dust management practices (standard controls and leading controls). The air quality modelling outcomes do not identify a significant risk of impact of particulate air emissions to receptors. Whilst it is acknowledged the modelling anticipates a number of exceedances of the air quality criteria for TSP, PM₁₀ or PM_{2.5}, these exceedances are inclusive of background emissions. The Derived Proposal in isolation, will not result in exceedances, with the only exception being TSP at Yandicoogina Gorge. The extent of modelled exceedances do not indicate that a significant environmental impact is likely to occur. BHP's long-term air quality monitoring network across the existing mining operations, comprising both ambient air quality monitoring stations and weather stations, will assist to inform air quality management at Ministers North (e.g. high-risk weather conditions). The Yandi OHP will include infrastructure installed to minimise particulate air emissions from ore processing (loading, crushing, screening) including dust suppression water sprays, physical containment via covers and hoods and curtains, and dust extraction via fans and baghouses. The Yandi OHP is excluded from the scope of the Ministers North Derived Proposal (other than specific inclusions of the Ministers North Proposal e.g. new primary crusher for Brockman-style ore). The Yandi OHP will be regulated through separate statutory processes. The cross-reference identification of the Yandi OHP in this EMP is for completeness only; this EMP is not intended as a mechanism for duplicative regulation of the Yandi OHP.

² BHP Yandi Camp 2 is no longer in operation (demolished and rehabilitated) however was included as a receptor for consistency with historic dust modelling.

Surveys / Studies	Survey / Study Findings	Key Assumptions and Uncertainties	Risk-based Approach and Rationale for Indicators / Management Actions
	<ul style="list-style-type: none"> ○ When considering cumulative (background) emissions, modelling indicates: <ul style="list-style-type: none"> - No exceedances of the PM_{2.5} air quality criteria at any of the identified sensitive receptors. - TSP and PM₁₀ concentrations remain below the corresponding air quality criteria at the Weeli Wolli Spring, Khargoonha 2, Khargoonha 3, Khargoonha 4, Yandi Camp 2 and Rio Tinto Yandi Camp receptors. - Exceedances of the 24-hour average TSP air quality criteria at Yandicoogina Gorge (14 days), Khargoonha 1 (2 days) and Yandi Camp 1 (2 days). - Exceedances of the 24-hour average PM₁₀ air quality criteria at the Yandicoogina Gorge (11 days) and Yandi Camp 1 (2 days). 	<p>reduce the long-term risk of wind-generated particulate air emissions.</p> <p>Uncertainties</p> <ul style="list-style-type: none"> • Whilst atmospheric dispersion models represent a simplification of the many complex processes involved in determining ground-level concentrations of substances, the modelling is considered sufficiently robust given the input of reliable ambient monitoring data and meteorological data. Residual uncertainties in the model are not expected to substantially alter modelled predictions. • Mine planning has projected the year-on-year mining rate and total materials movement. The mining rate and total materials movement in any year during mining may vary from those modelled. 	

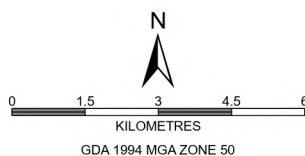
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Legend

- Development Envelope (5,557 ha)
- Indicative Footprint (2,360 ha)
- Yandi MS Boundary
- Watercourse
- Air Quality Model Receptor



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**MINISTERS NORTH
AIR QUALITY EMISSIONS
MODELLING RECEPTOR LOCATIONS**

WAIO- PLANNING, TECHNICAL & ENVIRONMENT

SCALE @A4: 1:155,000	REQUESTOR: PROJECTS	FIGURE: 1-3	
DATE: 5/09/2025	PREPARED: GEOMATICS	NO: A1317-032 RevD	
	REVIEWED:		

2 EMP Components

BHP has provided detail of the EMP components in Table 2-1, as per the preferred approach outlined in the EPA (2024) guidance document *Instructions: How to Prepare Environmental Protection Act 1986 Part IV Environmental Management Plans*.

In addition to Table 2-1, air quality management relating to Category 12 or 70 'Screening etc. of material' to allow for mobile crushing and screening units, and Category 5 'Processing or beneficiation of metallic or non-metallic ore' to enable the processing of Brockman-type ores at Yandi will be regulated pursuant to Part V of the *Environmental Protection Act 1986*, as regulated by the Department of Water and Environmental Regulation (DWER). Licence applications will include relevant information on air quality emission sources, proposed controls, and management strategies, consistent with DWER guidance and operational requirements.

Table 2-1: Objective-based Components

Purpose: To meet the requirements of Condition 6 and the objectives specified in Condition 11 of Ministerial Statement 1105.

Rationale: Objective-based components best meet intent of Condition 11 of MS1105

EPA Factor and Objective:	Air Quality - <i>"To maintain air quality and minimise emissions so that environmental values are protected"</i> (EPA 2023)
Key Environmental Values:	Human health and amenity, flora and vegetation, and social surroundings
EMP Objectives	Minimise potential direct and indirect impacts to air quality.
Key Impacts and Risks:	Reduction in air quality and amenity at sensitive receptors from the generation of particulate air emissions of dust. Potential for particulate air emissions of dust to affect the health of adjacent flora and vegetation, and social surroundings values.

Objective-based Components			
Risk-based Management Actions	Measurable Management Targets to determine the effectiveness of the Risk-based Management Actions	Monitoring to measure the effectiveness of Management Actions against Management Targets	Verification and Reporting (refer to Section 3 for DWER management action and target 'non-conformance' reporting and annual compliance reporting requirements)
Induction containing environmental awareness information in place.	Personnel complete the site induction.	Site access control system monitors induction status.	Online induction records and reports.
Minimise the area of unvegetated surface and reduce the potential for particulate air emissions by implementing a progressive land clearing approach that aligns with operational requirements.	Land cleared only if essential to enable safe and efficient delivery of operational requirements.	Review of internal ground disturbance permit applications. Site inspections to check land clearing requirements. Land clearing monitored via quarterly land clearing data and annual land disturbance reconciliation process (spatial footprint and hectares).	Site inspection records, annual land disturbance reconciliation process results, and internal ground disturbance permits.
Reduce the long-term risk of wind-generated particulate air emissions through progressive and post-mining rehabilitation of cleared land areas.	Progressive rehabilitation to be completed in accordance with the Progressive Closure Plan (once developed), consistent with other operational sites across WAIO.	Progressive rehabilitation performance to be tracked against relevant completion criteria.	Reporting will be undertaken in accordance with the annual environment report (AER).
Apply water to exposed land surfaces to minimise the generation of particulate air emissions, including: <ul style="list-style-type: none"> Haul roads and mine access roads, and During construction of the Overburden Storage Area, excluding final outer surfaces to avoid salt accumulation that may affect rehabilitation outcomes. Dust suppression chemicals added to the water, if required and appropriate, to enhance dust control effectiveness.	Water being used to dampen exposed land areas.	Visual monitoring undertaken to confirm dust suppression is occurring and the effectiveness of dampening of exposed land areas.	Site inspection records and records of dust suppression chemicals being used (if required)
Light vehicle speed limits restricted on unsealed access roads, and speed limit signage installed, to reduce particulate air emissions.	Light vehicle speed limits demarcated through signage.	Presence of speed limit signage verified via site inspections and/or site traffic management plans.	Inspection records and/or site plans.

3 Reporting

BHP must report to the CEO in accordance with Ministerial Statement 1105 when Management Actions are not implemented, Management Targets are not achieved, Trigger or Threshold Criteria are exceeded, or on detection of other non-conformances, as detailed in Table 3-1. No Trigger or Threshold Criteria are proposed for this EMP.

Table 3-1: Regulatory Reporting Requirements

Action or Criteria	Reporting Time	Condition	Condition Details
Non-achievement of a Management Target.	Report the non-achievement in writing to the DWER CEO within twenty-one (21) days of the non-achievement being identified.	Condition 6-5	<p>If monitoring, tests, surveys or investigations indicate non-achievement of management target(s) specified in a Condition Environmental Management Plan(s), the proponent shall:</p> <ul style="list-style-type: none"> (1) report the non-achievement in writing to the CEO within twenty-one (21) days of the non-achievement being identified; (2) investigate to determine the cause of the management target(s) not being achieved; (3) provide a report to the CEO within ninety (90) days of the nonachievement being reported as required by condition 6-5(1). The report shall include: <ul style="list-style-type: none"> (a) the cause(s) of the management targets not being achieved; (b) the findings of the investigation required by condition 6-5(2); (c) details of revised and/or additional management actions to be implemented to prevent non-achievement of the management target(s); and (d) relevant changes to proposal activities.
Management Action not implemented.	Report the failure to implement the management action in writing to the CEO within seven (7) days of identification.	Condition 6-6	<p>If monitoring, tests, surveys or investigations indicate that one or more management actions specified in a Condition Environmental Management Plan(s) has not been implemented, the proponent shall:</p> <ul style="list-style-type: none"> (1) report the failure to implement the management action(s) in writing to the CEO within seven (7) days of identification; (2) investigate to determine the cause of the management action(s) not being implemented; (3) investigate to determine the potential environmental harm or alteration of the environment that occurred due to the failure to implement the management action(s); (4) provide a report to the CEO within twenty-one (21) days of the reporting required by condition 6-6(1). The report shall include: <ul style="list-style-type: none"> (a) the cause of the failure to implement the management actions; (b) the findings of the investigations required by conditions 6-6(2) and 6-6(3); (c) relevant changes to proposal activities; and

Action or Criteria	Reporting Time	Condition	Condition Details
			(d) measures to prevent, control or abate the environmental harm which may have occurred.
Trigger Criteria and/or Threshold Criteria exceedance.	Report the exceedance in writing to the CEO within seven (7) days of the exceedance being identified;	Condition 6-6	<p>In the event that monitoring, tests, surveys or investigations indicates exceedance of trigger criteria and/or threshold criteria specified in a Condition Environmental Management Plan(s), the proponent shall:</p> <p>(1) report the exceedance in writing to the CEO within seven (7) days of the exceedance being identified;</p> <p>(2) immediately implement the trigger level actions and/or threshold contingency actions specified in the Condition Environmental Management Plan(s) and continue implementation of those actions until the trigger criteria and/or threshold criteria are being met and implementation of the trigger level actions and/or threshold contingency actions are no longer required;</p> <p>(3) investigate to determine the cause of the trigger criteria and/or threshold criteria being exceeded;</p> <p>(4) identify additional measures required to prevent the trigger criteria and/or threshold criteria being exceeded in the future;</p> <p>(5) investigate to determine potential environmental harm or alteration of the environment that occurred due to threshold criteria being exceeded; and</p> <p>(6) provide a report to the CEO within ninety (90) days of the exceedance being reported. The report shall include:</p> <p>(a) details of any trigger level actions or threshold contingency actions implemented;</p> <p>(b) the effectiveness of the trigger level actions or threshold contingency actions implemented, monitored and measured against trigger criteria and threshold criteria</p> <p>(c) the findings of the investigations required by conditions 6-7(3) and 6-7(5);</p> <p>(d) additional measures to prevent the trigger or threshold criteria being exceeded in the future; and</p> <p>(e) measures to prevent, control or abate the environmental harm or alteration of the environment which may have occurred.</p>
Annual compliance reporting	Annually by 1 October each year	Condition 4-6	The proponent shall submit to the CEO a Compliance Assessment Report annually by 1 October each year addressing compliance in the previous financial year, or as otherwise agreed in writing by the CEO. In accordance with sub-clause (2), the report shall identify all potential

Action or Criteria	Reporting Time	Condition	Condition Details
			<p>non-compliances and describe corrective and preventative actions taken.</p> <p>Condition 6-3, the failure to implement one or more management actions, the exceedance of a threshold criteria (regardless of whether threshold contingency actions have been or are being implemented in accordance with condition 6-7(2)), and/or comply with the requirements of a Condition Environmental Management Plan(s) represents non-compliance with these conditions.</p>

4 EMP Adaptive Management and Review

4.1 Adaptive Management Approach

BHP applies an 'Adaptive Management Framework' for implementing management measures identified in this EMP; being an approach consistent with the EPA (2024) guidance document *Instructions: How to Prepare Environmental Protection Act 1986 Part IV Environmental Management Plans*. Adaptive management is a structured, iterative process to decision making. BHP's framework embeds a cycle of monitoring, reporting and implementing change where required. The framework allows for an evaluation of the management and mitigation measures so that they are progressively improved and refined, or alternative solutions adopted, in order to ensure that the environmental objectives and outcomes within the EMP are achieved. The key steps of BHP's adaptive management approach are depicted in Figure 4-1.

As this EMP is a requirement of the MS1105 implementation conditions, where BHP identifies that this EMP should be revised arising from information gained through the adaptive management approach, BHP will seek the endorsement of the CEO prior to the implementation of the revised EMP.

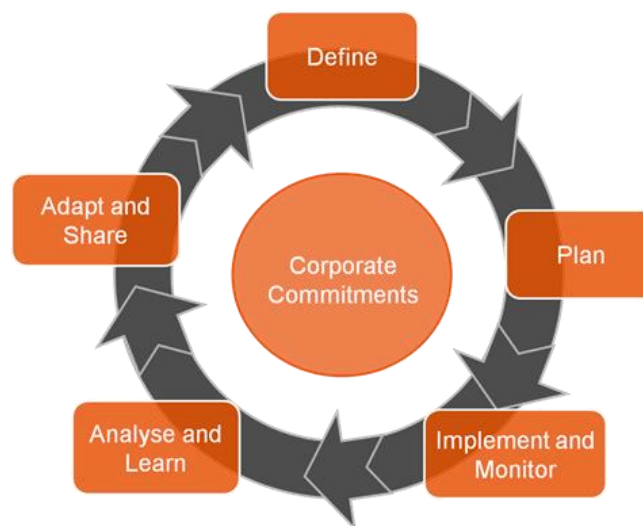


Figure 4-1: BHP's Adaptive Management Approach

4.2 Review and Revision of this EMP

BHP will review this EMP (and revise the EMP, if required), to ensure that it achieves the identified environmental objectives and meets the implementation condition requirements of the MS1105 approval.

A review by BHP may arise from the following:

- Where initiated by BHP to revise management actions or changes to proposal activities if management targets are not being achieved, as required by Condition 6-2 (13).
- Where initiated by BHP as part of the adaptive management process, as permitted by Condition 6-8(1).
- Where directed by the CEO in accordance with Condition 6 of the MS1105 approval (Condition 6-8(2)).

- If triggered by and outcome from implementation of this EMP (e.g. if management targets are not achieved and/or management actions not implemented).

Changes to this EMP may arise from the following:

- Government publishes new or amend guidance/policy relevant to this EMP.
- BHP proposes to add and/or amend EMP components following a change to the proposal (mining operations) and/or the implementation conditions.
- The CEO confirms by notice in writing that it has been demonstrated that the objective and/or outcome in the relevant condition is being met (and will continue to be met) and therefore certain requirements within this EMP are no longer required to be implemented.

In accordance with Condition 6, BHP will implement the latest revision of this EMP, which the CEO has confirmed by notice in writing, satisfies the implementation condition requirements.

5 Stakeholder Consultation

As part of the mine planning and environmental assessment processes for Ministers North, BHP has consulted with key stakeholders on the environmental values relevant to this EMP, notably including:

- Environmental Protection Authority
- Department of Water and Environmental Regulation (DWER)
- Banjima People (via the Banjima Native Title Aboriginal Corporation).

Table 5-1 provides a summary of consultation undertaken by BHP with key stakeholders on the environmental values relevant to this EMP.

BHP will continue to consult with Government agencies and the Banjima People, where relevant, in relation to the implementation (and revision) of this EMP.

Table 5-1: Stakeholder Consultation

Stakeholder	Date	Items Discussed	BHP Response and Outcome
Environmental Protection Authority (EPA) (includes EPA Services division of DWER)	August 2025	Pre-referral discussion introducing the Derived Proposal and key environmental factors, including Air Quality.	BHP considered feedback provided during the engagement in relation to Air Quality, including consideration of conditional management plans. In response, BHP has provided a fit-for-purpose management plan for Air Quality.
Department of Water and Environmental Regulation (DWER) (Part V Licensing)	July and August 2025	BHP introduced the scope of the upcoming Ministers North Works Approvals, noting two works approvals may be required. One for the crusher replacement at Yandi and associated tie ins to Ore Handling Plant 3 (OHP3) and the other for works associated with the haul road / infrastructure corridor.	BHP to continue discussions with DWER on the licensing requirements at routine meetings.
Banjima People (via Banjima Native Title Aboriginal Corporation (BNTAC))	August and September 2025	BNTAC provided comments on the Draft Air Quality EMP (Version 0b) relating to the proposed dust management practices and monitoring.	BHP has considered the comments from BNTAC and amended the EMP, where relevant. BHP will provide BNTAC with a written response to each comment and continue to engage through regular engagement routines.

6 EMP Changes

As outlined within Section 3 *EMP Adaptive Management and Review*, this EMP may be revised. Table 6-1 provides a summary description of the revisions made to this EMP following submission to the EPA for assessment.

Table 6-1: Summary of EMP Changes

Revision	Date	Description EMP Change(s)
1	September 2025	Final draft submitted to the EPA for assessment

7 References

- BHP Iron Ore Pty Ltd (2016) *Pilbara Public Environmental Review Strategic Proposal*. Report prepared by Hashim S, Reilley L and Hill Faskel F of BHP Iron Ore Pty Ltd (formerly as BHP Billiton Iron Ore Pty Ltd). March 2016.
- BHP Iron Ore Pty Ltd (2025) *Ministers North Derived Proposal Request Ministerial Statement 1105*
- Environmental Protection Authority (2018) *Pilbara Expansion Strategic Proposal*. Report and recommendations of the Environmental Protection Authority. Report 1619. July 2018.
- Environmental Protection Authority (2023) *Statement of Environmental Principles, Factors, Objective and Aims of EIA*. April 2023.
- Environmental Protection Authority (2024) *Instructions: How to Prepare Environmental Protection Act 1986 Part IV Environmental Management Plans*. March 2024.
- Environmental Technologies & Analytics Pty Ltd (2024) *Ministers North - Dust Modelling*. Report prepared by Graham A of Environmental Technologies & Analytics Pty Ltd for BHP Iron Ore Pty Ltd. Version 1 (Final). October 2024.
- Pacific Environment Operations Pty Ltd (2015) *Pilbara Strategic Environmental Assessment - Cumulative Air Quality Assessment*. Report prepared by Lam S, Gowrisanker L, Villamizar J and Perez D of Pacific Environment Operations Pty Ltd for BHP Iron Ore Pty Ltd (formerly as BHP Billiton Iron Ore Pty Ltd). Revision 2. September 2015.

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