



**Minister for the Environment; Community Services; Homelessness**

Statement No. 1264

**STATEMENT THAT A SIGNIFICANT AMENDMENT TO AN APPROVED PROPOSAL  
MAY BE IMPLEMENTED  
(*Environmental Protection Act 1986*)**

**OPTIMISED MARDIE PROJECT – REVISED PROPOSAL**

**Proposal:** The Proposal is to develop a solar salt and sulphate of potash production plant and associated export facility at Mardie, approximately 80 km south-west of Karratha. The proposal includes two seawater intakes, brine discharge, evaporation and crystalliser ponds, processing plant, causeway, trestle jetty with associated dredge channel, offshore disposal of dredge material, and supporting infrastructure.

**Proponent:** Mardie Minerals Pty Ltd  
Australian Company Number 152 574 457

**Proponent address:** Level 2, 1 Altona Street  
West Perth WA 6005

**Assessment number:** 2500

**Report of the Environmental Protection Authority: 1795**

**Introduction:** The proposal is a significant amendment to the existing ‘Optimised Mardie Project’ approved proposal which was agreed to be implemented under Ministerial Statement 1211.

Pursuant to section 45 of the *Environmental Protection Act 1986*, it is now agreed that:

1. the significant amendment proposal described and documented in the proponent’s Proposal Content Document (September 2025), may be implemented;
2. Ministerial Statement 1211 for the existing ‘Optimised Mardie Project’ approved proposal is superseded under section 40AA(6)(b) of the *Environmental Protection Act 1986*; and
3. the implementation of the significantly amended proposal (being the existing approved proposal as amended by the significant amendment proposal) is subject to the following implementation conditions and procedures.

Published on:

**Conditions and procedures**

**Part A: Proposal extent**

**Part B: Environmental outcomes, prescriptions, and objectives**

**Part C: Environmental management plans and monitoring**

**Part D: Compliance and other conditions**

## PART A: PROPOSAL EXTENT

### A1 Limitations and extent of proposal

A1-1 The proponent must ensure that the proposal is implemented in such a manner that the following limitation or maximum extents / capacities / ranges are not exceeded:

Proposal element	Location	Maximum extent
Physical elements		
<b>Development envelope</b>	Figure 1	Terrestrial <b>development envelope</b> not to exceed 19,763 ha.
	Figure 4	Marine <b>development envelope</b> not to exceed 53 ha.  Dredge <b>development envelope</b> not to exceed 307.5 ha.  Combined area of concentrator ponds and crystalliser ponds not to exceed 11,368 ha.
<b>Disturbance footprint</b>	Figure 1	Terrestrial <b>disturbance</b> not to exceed 13,476 ha within 19,763 ha <b>development envelope</b> .
Direct <b>disturbance</b> of native vegetation	Figure 1	Clearing of no more than 3,014 ha vegetation in ' <b>Good</b> ' to ' <b>Excellent</b> ' <b>condition native vegetation</b> .  Clearing of no more than 863 ha <b>landward samphire</b> .  Clearing of no more than 330 ha of <b>coastal samphire</b> .
Impacts on <b>PEC</b> and Mangrove Habitat	Figure 2	No more than 145 ha direct <b>disturbance</b> and 20 ha indirect impacts to Horseflat <b>PEC</b> .  No more than 13 ha of direct <b>disturbance</b> to mangrove habitat outside of the <b>RRDMMA</b> .  No direct <b>disturbance</b> within the <b>RRDMMA</b> .
Direct <b>disturbance</b> to Algal mats	Figure 4	No more than 880 ha of direct impact to algal mats.

Proposal element	Location	Maximum extent
Capital Dredging	Figure 3	No more than 355,000 cubic metres, directly <b>disturbing</b> no more than 65 <b>ha</b> within the 307.5 <b>ha</b> dredge <b>development envelope</b> .
Offshore Dredge Spoil Disposal	Figure 6	Capital dredging of no more than 355,000 cubic metres, directly <b>disturbing</b> no more than 30.3 <b>ha</b> at Dredge Material Placement Area <b>DMPA4</b> .
Foraging habitat for the Pilbara leaf-nosed bat ( <i>Rhinonictoris aurantia</i> )	Figure 1	Clearing no more than 3,254 <b>ha</b> .
Foraging habitat for the Northern coastal free-tailed bat ( <i>Ozimops cobourgianus</i> )	Figure 1	Clearing no more than 1,186 <b>ha</b> .
Habitat for the Pilbara Olive Python ( <i>Liasis olivaceus barroni</i> )	Figure 1	Clearing no more than 6 <b>ha</b> .
Foraging habitat for the Northern Quoll ( <i>Dasyurus hallucatus</i> )	Figure 1	Clearing no more than 80 <b>ha</b> .
<b>Zone of High Impact</b> (e.g. marine)	Figure 3 Figure 6	Marine <b>Zone of High Impact</b> to be no more than 121 <b>ha</b> at the dredge channel, and 355 <b>ha</b> at the offshore dredge spoil disposal <b>DMPA4</b> .
Level of ecological protection areas (marine environmental quality)	Figure 4	<b>Moderate Ecological Protection Area (MEPA)</b> not to exceed 53.9 <b>ha</b> .  <b>Low ecological protection area (LEPA)</b> not to exceed 20.2 <b>ha</b> .
Distance between crystallisers and Mardie pool	Figure 1	Minimum distance of 1000 metres to be maintained between crystalliser ponds and Mardie pool.
Drainage corridors	Figure 1	Minimum of two drainage corridors of a minimum of 200 metres wide to be established and aligned with existing natural drainage lines.
<b>Operational elements</b>		
Groundwater abstraction	Figure 7	Groundwater abstraction not to exceed 0.7 <b>GL per annum</b> .

Proposal element	Location	Maximum extent
Marine discharge rate	Figure 4	<b>Brine discharge</b> not to exceed 5.5 <b>GL per annum</b> with a specific gravity of no more than 1.25 via diffuser.
Seawater intake	-	Seawater intakes to be fitted with four-sided screens designed to ensure a rate not exceeding 0.15 metres per second through the screen. Primary seawater intake is to not exceed 180 <b>GL per annum</b> .
Airstrip	Figure 1	To be utilised for <b>emergencies</b> only.
Offshore maintenance dredge spoil disposal	Figure 6	Within <b>DMPA4</b> only.
Timing elements		
Mine life	-	Up to 61 years from issue of this statement.
Seawater intake	-	Abstract seawater from primary and secondary intake only when tides are at or <b>above Mean Sea Level</b> .

## PART B – ENVIRONMENTAL OUTCOMES, PRESCRIPTIONS AND OBJECTIVES

### B1 Benthic communities and habitats

B1-1 The proponent must ensure the implementation of the proposal achieves the following environmental outcomes:

- (1) no direct loss of benthic communities and habitats from **dredging activities** outside of the dredge **disturbance footprint** defined in Figure 3 and the boundary of **DMPA4** defined in Figure 6;
- (2) no **irreversible loss** of benthic communities and habitats outside of the authorised **Zone of High Impact** as spatially defined in Figure 3 and Figure 6;
- (3) no **detectable** decrease from the baseline state of benthic communities and habitats outside of the authorised **Zone of Moderate Impact** as spatially defined in Figure 3 and Figure 6;
- (4) no **detectable** decrease in the health, extent of coverage, or species diversity of intertidal benthic communities more than 100 m seaward of the pond walls as shown in Figure 2 and as described and recorded in the **BCHMMP**;
- (5) **adverse impacts** to intertidal benthic communities attributable to groundwater processes are confined to an area within 100 m of the pond wall defined in Figure 2 and as described and recorded in the BCHMMP; and
- (6) no long-term (greater than five (5) years) net **detectable** loss of algal mat outside of the proposal footprint.

B1-2 The proponent shall ensure the implementation of the proposal achieves the following environmental objectives:

- (1) no development that would have an **adverse impact** on the ecological function of the **RRDMMA** or the maintenance of ecological processes which sustain mangrove habitats within the **RRDMMA** (shown in Figure 2);
- (2) no development that would have an **adverse impact** on the ecological processes or habitats that sustain the bluespotted emperor (*Lethrinus punctulatus*) fishery; and
- (3) no adverse impacts to the health, diversity, and extent of benthic communities and habitat (including subtidal macroalgae) as a result of changes to surface water, groundwater quality, groundwater regimes, and marine environmental quality associated with the proposal.

B1-3 The proponent must:

- (1) implement the **BCHMMP** environmental management plan, with the purpose of ensuring the benthic communities and habitat environmental outcomes in conditions B1-1 and B3-1(1) to (3) and the environmental objectives in condition B1-2 are achieved, monitored and substantiated;
- (2) the **BCHMMP** environmental management plan, must include:
  - a) specific measures to monitor the health and biodiversity of benthic communities, in addition to monitoring of extent;
  - b) specific measures to monitor, whether there are **adverse impacts** on ecological process or habitats that sustain the bluespotted emperor (*Lethrinus punctulatus*) fishery and prawn fishery;
  - c) best practice management, mitigation and **contingency measures** and remediation actions, including commitments to amend and reduce operations to ensure environmental outcomes and objectives are achieved; and
  - d) the relationship between the **BCHMMP** environmental management plan and the **GMMP** environmental management plan and how these plans work together to ensure overlapping and holistic impacts are managed and monitored, to ensure the environmental outcomes and objectives relevant to both plans are achieved;
- (3) include an independent expert peer review of the BCHMMP environmental management plan within three (3) years or once preliminary results from the Mardie Project Marine Intertidal Research Offset Program have been released, whichever occurs sooner, for the purpose of reviewing whether the plan remains fit for purpose for achieving, monitoring and substantiating outcomes specified in conditions B1-1 and B3-1(1) to (3) and the environmental objectives in condition B1-2; and
- (4) update the **BCHMMP** to address all recommendations from the peer review.

## **B2 Marine pests**

B2-1 The proponent must ensure the implementation of the proposal achieves the following environmental outcomes:

- (1) no introduction or establishment of **marine pests** in the State Waters as a result of the proposal.

B2-2 The proponent must implement the **Marine Pest Management Procedure** environmental management plan with the purpose of ensuring the benthic communities and habitats environmental outcomes in condition B1-1 and marine pest environmental outcomes in condition B2-1 are achieved, monitored and substantiated.

### **B3 Inland waters**

B3-1 The proponent must ensure the implementation of the proposal achieves the following environmental outcomes:

- (1) no **adverse impact** to water levels or water quality in Mardie Pool as a result of changes to groundwater regimes or groundwater quality;
- (2) no **adverse impact** to water levels or water quality in Mardie Pool as a result of changes to surface water flows associated with the proposal;
- (3) no changes to the extent of surface water flooding during a one (1) year **ARI** or changes to tidal inundation as a result of the construction of the intertidal causeway that are greater than predicted in *Causeway Tidal Inundation Assessment – technical memorandum (Advisian 2022)*;
- (4) no changes to the health, extent or diversity of intertidal benthic communities and habitat, including mangrove, **coastal samphire** and algal mat as a result of changes to groundwater regimes or groundwater quality associated with the proposal;
- (5) decreased freshwater inundation attributable to the project to no more than 40.2 **ha** of **coastal samphire**;
- (6) decreased freshwater inundation attributable to the project to no more than 1.8 **ha** mangroves within the **RRDMMA**;
- (7) decreased freshwater inundation attributable to the project to no more than 4.8 **ha** mangroves outside of the **RRDMMA**, subject to the requirements of condition A1-1;
- (8) decreased freshwater inundation attributable to the project of no more than 195.2 **ha** algal mat; and
- (9) no changes to the health, extent or diversity of intertidal benthic communities and habitat, including mangrove, **coastal samphire** and algal mat as a result of erosion.

B3-2 The proponent must:

- (1) implement the **GMMP** environmental management plan, once updated and approved in accordance with condition B3-3, and subject to the requirements of condition C1-1(2), with the purpose of ensuring the environmental outcomes in conditions B3-1(1) and (4) and condition B1-2 are achieved, monitored, substantiated and satisfy the requirements of conditions C4 and condition C5; and
- (2) the **GMMP** environmental management plan must include:
  - (a) the relationship between the **GMMP** environmental management plan and the **BCHMMP** environmental management plan, and how these plans work together to ensure overlapping and holistic impacts are managed and monitored, to ensure the environmental outcomes and objectives relevant to both plans are achieved.

B3-3 The **GMMP** environmental management plan required by condition B3-2 is to be updated with project specific trigger values at the completion of baseline data collection.

#### **B4 Marine environmental quality**

B4-1 The proponent must ensure the implementation of the proposal achieves the following environment objective:

- (1) no **adverse** impacts on the **marine environmental values**.

B4-2 The proponent must ensure the implementation of the proposal achieves the following environmental outcome:

- (1) the levels of ecological protection to be achieved inside of the:
  - (a) **Low Ecological Protection Area** shown in Figure 4 and described in the spatial data in schedule 1;
  - (b) **Moderate Ecological Protection Area** shown in Figure 4 and described in the spatial data in schedule 1;
  - (c) **High Ecological Protection Area** described in the spatial data in schedule 1;
  - (d) Maximum Ecological Protection Area described in the spatial data in schedule 1; and

are consistent with the method for deriving **Environmental Quality Guidelines** and **Environmental Quality Standards** for the corresponding level of ecological protection described in Appendix 1, Table 1 of the **Marine Water Quality Technical Guidance**.

B4-3 The proponent must:

- (1) implement the **MEQMMP** environmental management plan, with the purpose of ensuring the Marine Environmental Quality and Benthic Communities and Habitat environmental objectives in conditions B4-1 and B1-2, and outcomes in B4-2 and B1-1 are achieved, monitored and substantiated and satisfies the requirements of conditions C4 and C5; and
- (2) if directed by the **CEO**, in consultation with **DWER**, revise the trigger and threshold values, EQG and EQS within the **MEQMMP** environmental management plan required under condition B4-3(1) to ensure they are defined in a manner consistent with the **Marine Water Quality Technical Guidance**.

B4-4 Within five (5) years of cessation of mining activities, the proponent must ensure that all infrastructure associated with the proposal, including the trestle jetty, bitterns diffuser, boat launching facilities and loading facilities, is decommissioned and removed from the **development envelopes**, in accordance with relevant legislation and in a manner that prevents environmental harm, unless:

- (1) the infrastructure is located on a mining tenement administered under the *Mining Act 1978*; and
- (2) the **CEO** has provided written approval for the infrastructure to remain in place following transfer of responsibility to another **authorised operator** or **responsible authority**.

## **B5 Marine fauna**

B5-1 The proponent shall implement the proposal to achieve the following environmental outcomes:

- (1) no mortality, injury, **disturbance** or displacement of humpback whales (*Megaptera novaeangliae*) within the migration of the **biologically important area**;
- (2) no **adverse** change in marine turtle orientation (i.e. misorientation or disorientation) nesting beach utilisation, nesting success or hatchling survivorship as a result of artificial light emissions at both sandy beach habitat adjacent to the development and Long Island, Sholl Island and the Passage Islands (Angle, Middle and Round); and
- (3) **significant marine fauna** are not prevented/deterred from undertaking critical behaviours in **biologically important areas**.

B5-2 The proponent shall implement the proposal to achieve the following environmental objectives:

- (1) minimise the risk of physical injury or mortality from vessel strike on **significant marine fauna as low as reasonably practicable**; and
- (2) minimise the risk of behavioural changes, health impacts, physical injury or mortality from underwater noise emissions from construction or operations to **significant marine fauna** (including temporary or permanent hearing loss) **as low as reasonably practicable**.

B5-3 The proponent must in consultation with **DWER**:

- (1) implement a **Mardie Illumination Plan** environmental management plan that satisfy the requirements of condition C4 and demonstrates how achievement of the **significant marine fauna** outcomes in B5-1(2) and (3) will be monitored and substantiated, and submit it to the **CEO**; and
- (2) implement the **Marine Turtle Monitoring Program** environmental management plan that satisfy the requirements of condition C4 and demonstrates how achievement of the **significant marine fauna** outcomes in B5-1(2) and (3) will be monitored and substantiated, and submit it to the **CEO**.

B5-4 The proponent must implement the **DSDMP** environmental management plan with the purpose of ensuring that marine fauna, benthic communities and habitats and marine environmental quality environmental outcomes in conditions B5-1(1) and (3), B1-1 and objectives in conditions B4-1, B5-2, and B1-2 are achieved, monitored and substantiated.

B5-5 The proponent must impose a speed limit of eight (8) knots on all **project related vessels**, and export vessels within a five (5) kilometre radius of the export jetty.

B5-6 The proponent must undertake the following during pile driving activities:

- (1) soft start-up procedures for a period of at least thirty (30) minutes prior to the commencement of each pile driving event, including recommencement after suspension of piling activities;
- (2) pile driving activities to take place during daylight hours only;
- (3) implement a **significant marine fauna** observation zone consisting of at least a two (2) kilometre radius from the noise emitting source whereby a suitably qualified and experienced **marine fauna observer** must undertake continuous **significant marine fauna** observation for a minimum of thirty (30) minutes prior to the commencement of pile driving and at all times during pile driving activities;
- (4) implement an exclusion zone consisting of at least one (1) kilometre radius from the noise emitting source whereby:
  - (a) pile driving cannot commence should **significant marine fauna** be within the exclusion zone; and

- (b) pile driving activities to cease should **significant marine fauna** enter the exclusion zone during pile driving are not to recommence until the animal(s) have moved outside the exclusion zone.
- (5) must engage suitably **qualified** and experienced **marine fauna observer** who has a demonstrated knowledge of **significant marine fauna** in the North-West region to undertake continuous observations in the observation zone and exclusion zone;
- (6) maintain a log of recorded sightings, locations and behaviours indicative of stress or **disturbance** of **significant marine fauna**, and submit these to the **National Marine Mammal Data Portal**; and
- (7) document and report to **the CEO, DCCEEW** and **DBCA** any incidents relating to **significant marine fauna** injury / mortality.

B5-7 During dredging and seabed levelling activities, the proponent shall:

- (1) implement measures to avoid vessel strikes with **significant marine fauna**;
- (2) implement measures to minimise direct entrainment impacts to **significant marine fauna**, including not operating dredge pumps during transit and dredge cutterhead lowered to surface before commencement of soft start procedure;
- (3) install overflow screen on dredgers to visually assess for turtles and/or turtle remains that may have been entrained during dredging after each load;
- (4) implement a **significant marine fauna** observation zone consisting of at least three (3) kilometre radius from the **dredging activity** whereby an observer must undertake **significant marine fauna** observation for a minimum of thirty (30) minutes prior to the commencement of dredging and at all times during **dredging activities**;
- (5) implement an exclusion zone consisting of at least 500 metre radius from the **dredging activity** whereby:
  - (a) dredging cannot commence should a **significant marine fauna** be within the exclusion zone; and
  - (b) **dredging activities** to cease should a **significant marine fauna** enter the exclusion zone during dredging and are not to recommence until the **significant marine fauna** have moved outside the exclusion zone;

- (6) engage a suitably qualified and experienced **marine fauna observer** who has a demonstrated knowledge of **significant marine fauna** in the North-West region to undertake observations in the observation zone and exclusion zone;
- (7) maintain a log of recorded sightings, locations and behaviours indicative of stress or **disturbance** of **significant marine fauna** and submit these to the **National Marine Mammal Data Portal**; and
- (8) document and report to relevant regulators:
  - (a) any incidents relating to **significant marine fauna** injury/mortality; and
  - (b) where turtles are a consideration the effectiveness of mitigation measures to prevent turtle injury and mortality.

B5-8 The proponent shall not conduct **dredging activities** during the period October–March (inclusive) or pile driving during the period September–January (inclusive), unless the **CEO** has **confirmed** otherwise by notice in writing.

B5-9 Clearing in the fauna habitat type identified as low-quality turtle nesting habitat (sandy beach habitat) in the Mardie Project – Environmental Review Document (June 2020) is limited to a width of fifty (50) metres, parallel to the high water mark.

## **B6 Terrestrial fauna**

B6-1 The proponent must ensure the implementation of the proposal achieves the following environmental outcomes:

- (1) no **detectable** decrease in the abundance and diversity of migratory shorebirds utilising **coastal samphire** and mudflat habitats;
- (2) no **detectable** decrease in the nesting density of grey falcons (*Falco hypoleucos*);
- (3) maintain habitat connectivity, retention of a vegetation corridor between exclusion zone/s and similar habitat outside the impact area fifty (50) metre exclusion zone around one (1) record of short range endemic fauna as shown in Figure 5;
- (4) no direct or indirect **disturbance** within the fifty (50) metre short range endemic exclusion zone as shown in Figure 5; and
- (5) **disturbance** within the northern quoll (*Dasyurus hallucatus*) foraging habitat to only occur during daylight hours;

B6-2 The proponent must implement the proposal to meet the following environmental objectives:

- (1) minimise the risk of physical injury or mortality from construction or operation on native fauna **as low as reasonably practicable**.
- B6-3 During construction and operation, vehicle and machinery speed limits shall not exceed:
- (1) forty (40) **km/hr** within the northern quoll (*Dasyurus hallucatus*) foraging habitat on Mardie Road from dusk to dawn and sixty (60) **km/hr** during daylight hours.
- B6-4 The proponent must, in consultation with **DWER, DCCEEW** and a biostatistician who is nominated or approved by the **CEO**, prepare a Migratory Shorebird Monitoring and Management plan (environmental management plan) that satisfies the requirements of condition C4 and demonstrates how achievement of the terrestrial fauna environmental outcomes in condition B6-1(1) will be monitored and substantiated, and submit it to the **CEO**.
- B6-5 The proponent must implement the **Mardie Illumination Plan** with the purpose of ensuring that terrestrial fauna environmental outcomes in conditions B6-1(1) and B6-1(2) are achieved, monitored and substantiated and that condition B5-3(1) is met.
- B6-6 The proponent shall avoid clearing any areas designated as having moderate or high prospectivity for short range endemic invertebrates in the Mardie Project – Response to Submissions (March 2021), until the **CEO** has **confirmed** by notice in writing that:
- (1) the proponent has demonstrated avoidance and minimisation of impacts to any **confirmed** short range endemic habitat such that the outcome of condition B6-1(4) has been met including:
    - (a) avoidance of taking construction material from any mudflat islands confirmed to be habitat for short range endemic species.

## **B7 Flora and vegetation**

- B7-1 The proponent must implement the proposal to meet the following environmental outcomes:
- (1) no more than 165 **ha** of cumulative impacts to the Horseflat **PEC** as a result of the proposal, including direct impacts of no more than 145 **ha**;
  - (2) no direct impacts or indirect impacts to any known locations of the sterile, potentially rare or novel *Tecticornia* Taxa, identified within Phoenix – Detailed Flora and Vegetation Survey for the Mardie Project (2020), unless the **CEO** has **confirmed** by notice in writing that further investigations have demonstrated that that the specimens represent adequately widespread species such that **disturbance** of the known

specimens would not be inconsistent with EPA's objective for flora and vegetation;

- (3) no **disturbance** associated with the proposal to more than thirty (30) per cent of the currently mapped extent (256 ha) of the **landward samphire** vegetation described in Mardie Project – Response to Submissions (March 2021), until the **CEO** has **confirmed** by notice in writing that:
  - (a) the supplementary surveys have mapped additional vegetation consistent with the description of the **landward samphire** in Mardie Project – Response to Submissions (March 2021); and
  - (b) the additional *Tecticornia* vegetation mapped in the supplementary surveys is sufficiently widespread in the region that clearing of up to 863 ha of this vegetation would not be inconsistent with the EPA's objectives for Flora and Vegetation.

B7-2 The proponent must undertake weed control and management during the life of the proposal to prevent the introduction or spread of **environmental weeds**.

## **B8 Aboriginal cultural heritage**

B8-1 The proponent must implement the proposal to meet the following environmental outcomes:

- (1) no **disturbance** of the **Aboriginal sites** or to **Aboriginal cultural heritage** in the proposal **disturbance footprint** other than where consent is granted for the use of the land under the *Aboriginal Heritage Act 1972*;
- (2) subject to reasonable health and safety requirements, no interruption of ongoing access to land utilised for traditional use or custom by the **native title party/parties**; and,
- (3) no direct **disturbance** of the **Aboriginal cultural heritage** exclusion zones for Peters Creek as shown in Figure 5 and described in the spatial data in schedule 1; and

B8-2 The proponent must implement the proposal to meet the following environmental objectives:

- (1) avoid, and where unavoidable, minimise direct **disturbance** to **Aboriginal cultural heritage** within and surrounding the proposal **development envelope**;

B8-3 The proponent must undertake ongoing consultation and engagement with the **native title party/parties** about achievement of the outcomes in condition B8-1 and objectives in condition B8-2 for the life of the proposal.

## **B9 Pilbara Environmental Offset Fund**

B9-1 The proponent must contribute funds to the **Pilbara Environmental Offsets Fund** calculated pursuant to condition B9-2, to achieve the objective of counterbalancing the significant residual impacts to:

- (1) **‘Good’ to ‘Excellent’ condition native vegetation;**
- (2) Priority 3 **PEC** - Horseflat Land System of the Roebourne Plains;
- (3) critical habitat for the Pilbara olive python (*Liasis olivaceus barroni*) riparian and freshwater pool habitat; and
- (4) supporting habitat for northern quoll (*Dasyurus hallucatus*), grey falcon (*Falco hypoleucos*), northern coastal freetail bat (*Ozimops cobourgianus*), Pilbara leaf-nosed bat (*Macroderma gigas*).

B9-2 The proponent’s contribution to the **Pilbara Environmental Offsets Fund** must be paid biennially, with the amount to be contributed calculated based on the clearing undertaken in each year of the biennial reporting period in accordance with the rates in condition B9-3. The first biennial reporting period must commence from **ground disturbing activities** of the environmental value(s) identified in condition B9-3.

B9-3 Calculated on the 2024–2025 financial year, the contribution rates are:

- (1) \$960 AUD (excluding GST) per hectare of **‘Good’ to ‘Excellent’ condition native vegetation** cleared as a result of the proposal within the Chichester IBRA subregion;
- (2) \$1,016 AUD (excluding GST) per hectare of **‘Good’ to ‘Excellent’ condition native vegetation** cleared as a result of the proposal within the Roebourne **IBRA** subregion;
- (3) \$2,031 AUD (excluding GST) per hectare of Priority 3 **PEC** - Horseflat Land System of the Roebourne Plains cleared or indirectly impacted for the proposal within the Roebourne **IBRA** subregion;
- (4) \$1780 (excluding GST) per hectare of the following values cleared as a result of the proposal:
  - (a) Pilbara olive python (*Liasis olivaceus barroni*) critical habitat
- (5) \$890 AUD per hectare of the following values cleared as a result of the proposal:
  - (a) Pilbara leaf-nosed bat (*Macroderma gigas*) supporting habitat;
  - (b) northern quoll (*Dasyurus hallucatus*) supporting habitat;

- (c) grey falcon (*Falco hypoleucos*) supporting habitat; and
- (d) northern coastal freetailed bat (*Ozimops cobourgianus*) supporting habitat.

B9-4 The rates in condition B9-3 change annually each subsequent financial year in accordance with the percentage change in the **CPI** applicable to that financial year.

B9-5 Where offsets are required for an area of land under condition B10 that is also subject to offsets under condition B9-3, the higher amount shall apply.

B9-6 To achieve the objective in condition B9-1, the proponent must implement the **Mardie Project Impact Reconciliation Procedure**. This procedure must:

- (1) spatially define the environmental value(s) identified in condition B9-1;
- (2) spatially define the areas where offsets required by condition B9-1 are to be exempt;
- (3) include a methodology to calculate the amount of clearing undertaken during each year of the biennial reporting period for each of the **environmental values** identified in condition B9-3;
- (4) state that clearing calculation for the first biennial reporting period will commence from **ground disturbing activities** in accordance with condition B9-2 and end on the second 30 June following commencement of **ground disturbing activities**;
- (5) state that clearing calculations for each subsequent biennial reporting period will commence on 1 July of the required reporting period, unless otherwise agreed by the **CEO**;
- (6) indicate the timing and content of the Impact Reconciliation Reports; and
- (7) be prepared in accordance with Instructions on how to prepare Environmental *Protection Act 1986* Part IV Impact Reconciliation Procedures and Impact Reconciliation Reports (or any subsequent revisions).

B9-7 The proponent must submit an Impact Reconciliation Report in accordance with the **confirmed** Impact Reconciliation Procedure in condition B9-6.

B9-8 The Impact Reconciliation Report required pursuant to condition B9-7 must provide the location and spatial extent of the clearing undertaken as a result of the proposal during each year of each biennial reporting period.

B9-9 The proponent may apply in writing and seek the written approval of the **CEO** to reduce all or part of the contribution payable under condition B9-3 where:

- (1) a payment has been made to satisfy a condition of an approval under the *Environment Protection and Biodiversity Conservation Act 1999* in relation to the proposal; and
- (2) the payment is made for the purpose of counterbalancing impacts of the proposal on matters of national environmental significance.

B9-10 The **CEO** may grant approval to discount the amount payable under conditions B9-1 (2), B9-1(3) and B9-1(4) if the **CEO** is satisfied that the payment will offset the significant residual impacts of the proposal.

B9-11 Condition C2 applies to the **confirmed** Impact Reconciliation Procedure required by condition B9-6 as if it were an environmental management plan.

B9-12 Failure to implement a **confirmed** Impact Reconciliation Procedure or submit an Impact Reconciliation Report as required by condition B9-7 represents a non-compliance with these conditions.

## **B10 Intertidal and Subtidal Research Offsets**

B10-1 Given the significant residual impacts and risks of the proposal to mangroves, algal mat, and **coastal samphire**, and the potential for indirect impacts to subtidal habitats, the proponent shall undertake the following offset measures for the purpose of guiding the strategic protection and management of the ecological values of these habitats on the **west Pilbara coast**, which include migratory bird habitat and ecological maintenance of marine fauna habitat, consistent with the financial, governance and accountability arrangements described in schedule 2:

- (1) contribution to the Mardie Project Marine Intertidal Research Offset Program, on the basis described in schedule 2 (Project A) which has the purpose of mapping the original and current extent of **coastal samphire** and Algal mat on the **west Pilbara coast**;
- (2) contribution to a relevant scientific initiative, on the basis described in schedule 2 (Project B), which has the aim of identifying and quantifying the potential effects of sea level rise on the values of mangroves, **coastal samphire**, and Algal mat on the **west Pilbara coast**, and identifying the significance of salt projects in preventing the adaptation of intertidal benthic communities and habitat to sea-level rise;
- (3) contribution to a relevant scientific initiative, on the basis described in schedule 2 (Project C(i)), for the purposes of funding research with the aim of identifying the ecological roles, values and functions of intertidal benthic communities and habitat;
- (4) maintenance of relevant scientific initiative, on the basis described in schedule 2 (Project C (ii)) for the purposes of funding research with the

aim of identifying the ecological roles, values and functions of intertidal benthic communities and habitat, to be paid in the event that loss of intertidal benthic communities and habitat, or loss of health, percent cover or diversity of intertidal benthic communities and habitat is identified by the **BCHMMP** environmental management plan required by condition B1-3;

- (5) maintenance of a contingency fund, on the basis described in schedule 2 (Project D) for the purposes of funding research with the aim of identifying the potential impacts to bluespotted emperor (*Lethrinus punctulatus*), to be paid in the event that loss of intertidal and subtidal benthic communities and habitat, or loss of health, percent cover or diversity of intertidal and subtidal benthic habitat and communities is identified by the **BCHMMP** environmental management plan required by condition B1-3; and
- (6) contribution to a relevant scientific initiative, on the basis described in schedule 2 (Project C (iii)) for the purposes of funding research with the aim of identifying the ecological roles, values and functions of intertidal benthic habitat, to be paid in the event that **disturbance** to mangrove habitat in the **RRDMMA** occurs subject to the requirements of condition B1-2.

B10-2 The proponent shall ensure that the real funding for Projects A, B, C and D will be maintained through indexation to the Perth consumer price index (**CPI**) with the first indexation occurring on 30 June 2021.

B10-3 The proponent shall select a third party to carry out the work required to meet the outcomes of condition B10-1 to the satisfaction of the **CEO**, on advice of **DPIRD** and **DBCA**. In applying to the **CEO** for endorsement of the selected third parties, the proponent shall provide:

- (1) demonstration of the track record, experience, qualifications and competencies of the proposed third party to carry out the work and achieve the outcomes in the intertidal and marine environment.

B10-4 The proponent shall ensure that the financial arrangements described in schedule 2 and under condition B10-2 are maintained to achieve the outcomes of Projects A, B, C and D to the extent that:

- (1) funding between projects is transferred as agreed by the **CEO**;
- (2) additional funds up to a maximum of ten (10) per cent are contributed to complete project outcomes;
- (3) provide the objectives, timing (deliver outcomes within three (3) years of issue of Ministerial Statement or as otherwise agreed with the **CEO**), milestones and methodology of the proposed research and management programs to meet the outcomes in condition B10-1;

- (4) prior to the commencement of **ground disturbing activities**, unless otherwise agreed by the **CEO**, the proponent shall prepare and submit to the **CEO** a Summary Offset Plan, on advice of **DPIRD** and **DBCA**, that provides the design for the proposed research and management programs and completion criteria for each project to meet the outcomes of condition B10-1;
- (5) set out that the Summary Offset Plan will be made available publicly, within a reasonable time period in a manner agreed by the **CEO**; and
- (6) identify how outcomes of the proposed programs will be made available publicly.

## **PART C – ENVIRONMENTAL MANAGEMENT PLANS AND MONITORING**

### **C1 Environmental Management Plans: Conditions Related to Commencement of Implementation of the Proposal**

C1-1 The proponent must not undertake:

- (1) **dredging activities marine construction or operations** associated with the **Mardie Project** until the **CEO** has **confirmed** in writing that the environmental management plan required by condition B5-3 meet the requirements of that condition and condition C4;
- (2) **transfer of seawater, brine and/or waste product** associated with the **Mardie Project** until the **CEO** has **confirmed** in writing that the environmental management plan required by condition B3-2 has been updated in accordance with condition B3-3 and meets the requirements of condition C4;
- (3) **dredging activities, marine construction or operations** associated with the **Mardie Project** until the **CEO** has **confirmed** in writing that the environmental management plan required by condition B2-2 meets the requirements of that condition and condition C4; and,
- (4) **brine discharge** to the marine environment associated with the **Mardie Project** until the **CEO** has **confirmed** in writing that the baseline data collection outlined in the environmental management plan required by condition B4-3 has been completed.

### **C2 Environmental Management Plans: Conditions Relating to Approval, Implementation, Review and Publication**

C2-1 Upon being required to implement an environmental management plan under Part B, or after receiving notice in writing from the **CEO** under condition C1-1 that the environmental management plan(s) required in Part B satisfies the relevant requirements, the proponent must:

- (1) implement the most recent version of the **confirmed** environmental management plan; and
- (2) continue to implement the **confirmed** environmental management plan referred to in condition C2-1(1) other than for any period which the **CEO confirms** by notice in writing that it has been demonstrated that the relevant requirements for the environmental management plan have been met, or are able to be met under another statutory decision-making process, in which case the implementation of the environmental management plan is no longer required for that period.

C2-2 The proponent:

- (1) may review and revise a **confirmed** environmental management plan provided it meets the relevant requirements of that environmental management plan, including any consultation that may be required when preparing the environmental management plan;
- (2) must review and revise a **confirmed** environmental management plan and ensure it meets the relevant requirements of that environmental management plan, including any consultation that may be required when preparing the environmental management plan, as and when directed by the **CEO**: and
- (3) must revise and submit to the **CEO** the **confirmed** environmental management plan if there is a material risk that the outcomes or objectives it is required to achieve will not be complied with, including but not limited to as a result of a change to the proposal.

C2-3 Despite condition C2-1, but subject to conditions C2-4 and C2-5, the proponent may implement minor revisions to an environmental management plan if the revisions will not result in new or increased **adverse impacts** to the environment or result in a risk to the achievement of the limits, outcomes or objectives which the environmental management plan is required to achieve.

C2-4 If the proponent is to implement minor revisions to an environmental management plan under condition C2-3, the proponent must provide the **CEO** with the following at least twenty (20) business days before it implements the revisions:

- (1) the revised environmental management plan clearly showing the minor revisions;
- (2) an explanation of and justification for the minor revisions; and
- (3) an explanation of why the minor revisions will not result in new or increased **adverse impacts** to the environment or result in a risk to the achievement of the limits, outcomes or objectives which the environmental management plan is required to achieve.

C2-5 The proponent must cease to implement any revisions which the **CEO** notifies the proponent (at any time) in writing may not be implemented.

C2-6 **Confirmed** environmental management plans, and any revised environmental management plans under condition C2-4(1), must be published on the proponent's website and provided to the **CEO** in electronic form suitable for on-line publication by the **DWER** within twenty (20) business days of being implemented, or being required to be implemented (whichever is earlier).

### **C3 Conditions Related to Monitoring**

C3-1 The proponent must undertake monitoring capable of:

- (1) substantiating whether the proposal limitations and extents in Part A are exceeded; and
- (2) **detecting** and substantiating whether the environmental outcomes identified in Part B are achieved (excluding any environmental outcomes in Part B where an environmental management plan is expressly required to monitor achievement of that outcome).

C3-2 The proponent must submit as part of the Compliance Assessment Report required by condition D2, a compliance monitoring report that:

- (1) outlines the monitoring that was undertaken during the implementation of the proposal;
- (2) identifies why the monitoring was capable of substantiating whether the proposal limitation and extents in Part A are exceeded;
- (3) for any environmental outcomes to which condition C3-1(2) applies, identifies why the monitoring was scientifically robust and capable of **detecting** whether the environmental outcomes in Part B are met;
- (4) outlines the results of the monitoring;
- (5) reports whether the proposal limitations and extents in Part A were exceeded and (for any environmental outcomes to which condition C3-1(2) applies) whether the environmental outcomes in Part B were achieved, based on analysis of the results of the monitoring; and reports any actions taken by the proponent to remediate any potential non-compliance.

### **C4 Environmental Management Plans: Conditions Relating to Monitoring and Adaptive Management for Outcomes Based Conditions**

C4-1 The environmental management plans required under conditions B1-3, B2-2, B3-2, B4-3, B5-3, B5-4 and B6-4 must contain provisions which enable the substantiation of whether the relevant outcomes of those conditions are met, and must include:

- (1) **threshold criteria** that provide a limit beyond which the environmental outcomes are not achieved;
- (2) **trigger criteria** that will provide an early warning that the environmental outcomes are not likely to be met;

- (3) monitoring parameters, sites, control/reference sites, methodology, timing and frequencies which will be used to measure **threshold criteria** and **trigger criteria**. Include methodology for determining alternative monitoring sites as a contingency if proposed sites are not suitable in the future;
- (4) baseline data;
- (5) data collection and analysis methodologies;
- (6) adaptive management methodology;
- (7) **contingency measures** which will be implemented if **threshold criteria** or **trigger criteria** are met; and
- (8) reporting requirements.

C4-2 The environmental management plan required under condition B5-3 is also required to:

- (1) be updated to include **management actions**, **management targets** and **contingency measures** that will establish whether the proposal is having a **detectable** difference on marine turtle orientation (i.e. misorientation or disorientation), and nesting beach utilisation as described in condition B5-1(2);
- (2) include a commitment to annually compare cumulative results against the baseline assessment (Pendoley Environmental 2019, Mardie Salt Project Marine Turtle Monitoring Program 2018/2019. Rev 0, Report No. RP-59001);
- (3) include a monitoring plan that is in accordance with the recommendations published in the National Light Pollution Guidelines (2020);
- (4) provide criteria for when the Mardie Illumination Plan will be revised in response to outcomes of the monitoring required by condition B5-3 and B6-5; and
- (5) continue to be implemented until the **CEO** has **confirmed** by notice in writing, on advice from **DBCA** and **DWER**, that the outcome of condition B5-1(1) to (3) has been, and will continue to be met.

C4-3 The environmental management plan required under condition B6-4 is also required to:

- (1) be conducted at the ponds and in proximity to the trestle jetty (impact areas) and in representative habitats in control areas, as per the requirements of the EPBC Act Policy Statement 3.21 – Industry guidelines for avoiding, assessing and mitigating impacts on EPBC Act

listed migratory shorebird species;

- (2) continue for a minimum of five (5) years to capture construction and post construction phases of the project;
- (3) include a commitment and timing for the results of each completed survey to be submitted to the 'Shorebirds 2020' initiative, **DCCEEW** and **DBCA**;
- (4) include trigger and **threshold criteria** and **management actions** to be implemented if change in the richness and abundance of migratory shorebirds and other birds are identified; and
- (5) unless otherwise agreed by the **CEO**, the proponent shall not commence any construction of evaporation ponds, crystalliser ponds, intertidal causeway or trestle jetty until the **CEO** has **confirmed** by notice in writing that the Migratory Shorebird Monitoring Program (environmental management plan) meets the requirements of condition B6-4.

C4-4 The environmental management plan required under condition B3-2 is also required to:

- (1) when implemented, substantiate and ensure that the outcome of conditions B3-1(1) and B3-1(4) will be met;
- (2) provide the details, including timing, of hydrogeological investigations to be carried out that will:
  - (a) provide a detailed understanding of the hydrological regime in the project area;
  - (b) inform the final design of monitoring that will meet the requirement of condition C4-1;
  - (c) inform the final design of management and mitigation actions that will be implemented to meet the outcomes of conditions B3-1(1) and B3-1(4); and
- (3) detail the timing of monitoring bore installation and collection of baseline data, providing justification to demonstrate that data will represent baseline where it is collected after the commencement of operations.

C4-5 Without limiting condition C3-1, failure to achieve an environmental outcome, or the exceedance of a **threshold criteria**, regardless of whether **threshold contingency measures** have been or are being implemented, represents a non-compliance with these conditions.

## **C5 Environmental Management Plans: Conditions Related to Management Actions and Targets for Objective Based Conditions**

C5-1 The environmental management plan required under condition B6-5 must contain provisions which enable the achievement of the relevant objectives of those conditions and substantiation of whether the objectives are reasonably likely to be met, and must include:

- (1) **management actions;**
- (2) **management targets;**
- (3) **contingency measures** if **management targets** are not met; and
- (4) reporting requirements.

C5-2 Without limiting condition C2-1, the failure to achieve an environmental objective, or implement a **management action**, regardless of whether **contingency measures** have been or are being implemented, represents a non-compliance with these conditions.

C5-3 Without limiting condition C3-1, the failure to achieve an environmental objective, or implement a **management action**, regardless of whether contingency actions have been or are being implemented, represents a non-compliance with these conditions.

## **PART D – OTHER CONDITIONS**

### **D1 Non-compliance Reporting**

D1-1 If the proponent becomes aware of a non-compliance or potential non-compliance, the proponent must:

- (1) report this to the **CEO** within seven (7) days;
- (2) implement **contingency measures**;
- (3) investigate the cause;
- (4) investigate environmental impacts;
- (5) advise rectification measures to be implemented;
- (6) advise any other measures to be implemented to ensure no further impact; and
- (7) provide a report to the **CEO** within twenty-one (21) days of being aware of the potential non-compliance, detailing the measures required in conditions D1-1(1) to D1-1(6) above.

D1-2 Failure to comply with the requirements of a condition, or with the content of an environmental management required under a condition, constitutes a non-compliance with these conditions, regardless of whether the contingency, rectification or other measures in condition D1-1 above have been or are being implemented.

### **D2 Compliance Reporting**

D2-1 The proponent must provide an annual Compliance Assessment Report to the **CEO** for the purpose of determining whether the implementation conditions are being complied with.

D2-2 Unless a different date or frequency is approved by the **CEO** the first annual Compliance Assessment Report must be submitted within fifteen (15) months of the date of this Statement, and subsequent plans must be submitted annually from that date.

D2-3 Each annual Compliance Assessment Report must be endorsed by the proponent's Chief Executive Officer, or a person approved by proponent's Chief Executive Officer to be delegated to sign on the Chief Executive Officer's behalf.

D2-4 Each annual Compliance Assessment Report must:

- (2) state whether each condition of this Statement has been complied with, including:

- (a) exceedance of any proposal limits and extents;
  - (b) achievement of environmental outcomes;
  - (c) achievement of environmental objectives;
  - (d) requirements to implement the content of environmental management plans
  - (e) monitoring requirements;
  - (f) requirements to implement adaptive management; and
  - (g) reporting requirements;
- (3) include the results of any monitoring (inclusive of any raw data) that has been required under Part C in order to demonstrate that the limits in Part A, and any outcomes or any objectives are being met;
  - (4) provide evidence to substantiate statements of compliance, or details of where there has been a non-compliance;
  - (5) include the corrective, remedial and preventative actions taken in response to any potential non-compliance;
  - (6) be provided in a form suitable for publication on the proponent's website and online by the Department of Water and Environmental Regulation;
  - (7) be prepared and published consistent with the latest version of the Compliance Assessment Plan required by condition D2-5 which the **CEO** has **confirmed** by notice in writing satisfies the relevant requirements of Part C and Part D;
  - (8) an outline of the success of implementation of Projects A, B and C, including progress against completion criteria; and
  - (9) the details of payments made with consideration for the requirement of conditions B10-2 and B10-4.

D2-5 The proponent must prepare a Compliance Assessment Plan which is submitted to the **CEO** at least six (6) months prior to the first Compliance Assessment Report required by condition D2-2, or prior to implementation of the proposal, whichever is sooner.

D2-6 The Compliance Assessment Plan must include:

- (1) what, when and how information will be collected and recorded to assess compliance;
- (2) the methods which will be used to assess compliance;

- (3) the methods which will be used to validate the adequacy of the compliance assessment to determine whether the implementation conditions are being complied with;
- (4) the retention of compliance assessments;
- (5) the table of contents of Compliance Assessment Reports, including audit tables; and
- (6) how and when Compliance Assessment Reports will be made publicly available, including usually being published on the proponent's website within sixty (60) days of being provided to the **CEO**.

D2-7 The proponent shall submit a ten (10) yearly Environmental Performance Report to the **CEO** within three (3) months of the expiry of the ten (10) year period commencing from the date of substantial commencement of the proposal, or such other time as may be approved in writing by the **CEO**.

D2-8 Each Environmental Performance Report shall report on proposal impacts on the following **environmental values**:

- (1) state of algal mats;
- (2) state of mangroves inside and outside the **RRDMMA**;
- (3) state of groundwater;
- (4) state of surface water;
- (5) holistic assessment of proposal impacts against **environmental values**, including a comparison of the state of each environmental value at the beginning and end of the ten (10)-year period; and
- (6) proposed adaptive management and continuous improvement strategies.

D2-9 The Environmental Performance Report may be in whole or part prepared in conjunction with other proponents where there are cumulative impacts from their proposals.

### **D3 Contact Details**

D3-1 The proponent must notify the **CEO** of any change of its name, physical address or postal address for the serving of notices or other correspondence within twenty-eight (28) days of such change. Where the proponent is a corporation or an association of persons, whether incorporated or not, the postal address is that of the principal place of business or of the principal office in the State.

### **D4 Time Limit for Proposal Implementation**

D4-1 The proposal must be **substantially commenced** within five (5) years from the date of this Statement.

D4-2 The proponent must provide to the **CEO** documentary evidence demonstrating that they have complied with condition D4-1 no later than thirty (30) days after **substantial commencement**.

D4-3 If the proposal has not been **substantially commenced** within the period specified in condition D4-1, implementation of the proposal must not be commenced or continued after the expiration of that period.

### **D5 Public Availability of Data**

D5-1 Subject to condition D5-2, within a reasonable time period approved by the **CEO** upon the issue of this Statement and for the remainder of the life of the proposal, the proponent must make publicly available, in a manner approved by the **CEO**, all validated environmental data collected before and after the date of this Statement relevant to the proposal (including sampling design, sampling methodologies, monitoring and other empirical data and derived information products (e.g. maps)), environmental management plans and reports relevant to the assessment of this proposal and implementation of this Statement.

D5-2 If:

- (1) any data referred to in condition D5-1 contains trade secrets; or
- (2) any data referred to in condition D5-1 contains particulars of confidential information (other than trade secrets) that has commercial value to a person that would be, or could reasonably be expected to be, destroyed or diminished if the confidential information were published.

D5-3 The proponent may submit a request for approval from the **CEO** to not make this data publicly available and the **CEO** may agree to such a request if the **CEO** is satisfied that the data meets the above criteria.

D5-4 In making such a request the proponent must provide the **CEO** with an explanation and reasons why the data should not be made publicly available.

**D6 Independent Audit**

D6-1 The proponent must arrange for an independent audit of compliance with the conditions of this statement, including achievement of the environmental outcomes and/or the environmental objectives and/or environmental performance with the conditions of this statement, as and when directed by the **CEO**.

D6-2 The independent audit must be carried out by a person with appropriate qualifications who is nominated or approved by the **CEO** to undertake the audit under condition D6-1.

D6-3 The proponent must submit the independent audit report with the Compliance Assessment Report required by condition D2, or at any time as and when directed in writing by the **CEO**. The audit report is to be supported by credible evidence.

D6-4 The independent audit report required by condition D6-1 is to be made publicly available in the same timeframe, manner and form as a Compliance Assessment Report, or as otherwise directed by the **CEO**.



Hon. Matthew Swinbourn BA LLB MLC

**MINISTER FOR THE ENVIRONMENT; COMMUNITY SERVICES; HOMELESSNESS**

22 December 2025

<b>Key decision-making authorities consulted under section 45(2):</b>
Minister for Aboriginal Affairs
Minister for Mines and Petroleum
Minister for Ports
Minister for Water

**Table 1: Abbreviations and definitions**

Acronym or abbreviation	Definition or term
<b>Aboriginal Cultural Heritage</b>	Means the tangible and intangible elements that are important to the Aboriginal people of the state, and are recognised through social, spiritual, historical, scientific or aesthetic values, as part of Aboriginal tradition to the extent they directly affect or are affected by physical or biological surroundings.
<b>Aboriginal site</b>	As defined in section 4 and 5 under the <i>Aboriginal Heritage Act 1972</i> .
<b>Adverse impact/ adversely impacted</b>	Negative change that is neither <b>trivial</b> nor <b>negligible</b> that could result in a reduction in health, diversity or abundance of the receptor/s being impacted, or a reduction in environmental value. <b>Adverse impacts</b> can arise from direct or indirect impacts, or other impacts from the proposal.
<b>ARI</b>	Annual Recurrence Interval.
<b>Authorised operator</b>	An entity approved in writing by the CEO as having legal authority and operational capability to manage and maintain the infrastructure in accordance with applicable laws and standards.
<b>BCHMMP</b>	Benthic Communities and Habitat Monitoring and Management Plan Rev C, O2 Marine, March 2023
<b>Biologically important area</b>	Spatially defined areas where aggregations of individuals of a species are known to display biologically important behaviour such as breeding, foraging, resting or migration.
<b>Brine discharge</b>	The release of brine (hypersaline water) to the environment.
<b>CEO</b>	The Chief Executive Officer of the Department of the Public Service of the State responsible for the administration of section 48 of the <i>Environmental Protection Act 1986</i> , or the <b>CEO's</b> delegate.
<b>Confirmed</b>	In relation to a plan required to be made and submitted to the <b>CEO</b> , means, at the relevant time, the plan that the <b>CEO confirmed</b> , by notice in writing, meets the requirements of the relevant condition.  In relation to a plan required to be implemented without the need to be first submitted to the <b>CEO</b> , means that plan until it is revised, and then means, at the relevant time, the plan that the <b>CEO confirmed</b> , by notice in writing, meets the requirements of the relevant condition.
<b>Coastal Samphire</b>	Samphire described as coastal in Mardie Project: Response to Submissions (29 March 2021).

Acronym or abbreviation	Definition or term
<b>Contingency measures</b>	Planned actions for implementation if it is identified that an environmental outcome, environmental objective, <b>threshold criteria, Environmental Quality Standard</b> or <b>management target</b> are likely to be, or are being, exceeded. <b>Contingency measures</b> include changes to operations or reductions in <b>disturbance or adverse impacts</b> to reduce impacts and must be decisive actions that will quickly bring the impact to below any relevant threshold, <b>management target</b> and to ensure that the environmental outcome and/or objective can be met.
<b>CPI</b>	The All Groups Consumer Price Index numbers for Perth compiled and published by the Australian Bureau of Statistics.
<b>DBCA</b>	The government agency responsible for the administration of the <i>Biodiversity Conservation Act 2016</i> , which at the time of publication of this Ministerial Statement is the Department of Biodiversity, Conservation and Attractions.
<b>DCCEEW</b>	Department of Climate Change, Energy, the Environment and Water.
<b>Detecting/ Detectable</b>	The smallest statistically discernible effect size that can be achieved with a monitoring strategy designed to achieve a statistical power value of at least 0.8 or an alternative value as determined by the <b>CEO</b> .
<b>Development envelope</b>	The maximum area within which the proposal will be located, and consistent with the Proposal Content Document for the proposal as referred to in the Introduction to this Statement.
<b>Disturb/ Disturbing/ Disturbance</b>	Means directly has or materially contributes to the disturbance effect on health, diversity or abundance of the receptor/s being impacted or on an environmental value.  In relation to flora, vegetation or fauna habitat, includes to result in the death, destruction, removal, severing or doing substantial damage to. In relation to fauna, includes to have the effect of altering the natural behaviour of fauna to its detriment.
<b>Disturbance footprint</b>	The location within which the physical proposal elements will occur.
<b>DMPA4</b>	Dredge material placement area 4 as shown in Figure 6, with the baseline condition recorded in <i>DMPA4 – Benthic Communities and Habitats Report</i> (O2 Marine, 13 November 2024).
<b>DPIRD</b>	The Western Australian Department of Primary Industries and Regional Development, or any of its successors responsible for the administration of the <i>Fish Resources Management Act 1994</i> .

Acronym or abbreviation	Definition or term
<b>Dredging activity/ activities</b>	An activity or process that involves removing sediment or material from the bottom of water bodies, and includes disposal of capital and maintenance dredge spoil.
<b>DSDMP</b>	Dredge and Spoil Disposal Management Plan Rev 4, O2 Marine, 17 July 2025
<b>DWER</b>	The Western Australian Department of Water and Environmental Regulation, or any of its successors responsible for the administration of section 48 of the <i>Environmental Protection Act 1986</i> .
<b>Emergencies</b>	Refers to the occurrence or imminent occurrence of a hazard which is of such a nature or magnitude that it requires coordinated management or response to protect life, property, or the environment, as defined under Section 3 of the <i>Emergency Management Act 2005</i> .
<b>Environmental values</b>	A beneficial use, or ecosystem health condition ( <i>from EP Act</i> ) Particular value or uses of the environment that are important for a healthy ecosystem or for public benefit, welfare, safety or health and which require protection from the effects of pollution, waste discharges and deposits as defined in the Technical Guidance <i>Protecting the Quality of Western Australia's Marine Environment</i> , as amended from time to time, and available at <a href="http://www.epa.wa.gov.au">www.epa.wa.gov.au</a> .
<b>Environmental weeds</b>	Any plant declared under section 22(2) of the <i>Biosecurity and Agriculture Management Act 2007</i> , any plant listed on the Weeds of National Significance List and any weeds listed on the Department of Biodiversity, Conservation and Attractions' Wheatbelt Impact and Invasiveness Ratings list, as amended or replaced from time to time.
<b>Environmental Quality Guidelines (EQG)</b>	Threshold numerical values or narrative statements which if met indicate there is a high degree of certainty that the associated environmental quality objective has been achieved.
<b>Environmental Quality Standards (EQS)</b>	Threshold numerical values or narrative statements that indicate a level which if not met indicates there is a significant risk that the associated environmental quality objective has not been achieved and a management response is required.
<b>GL per annum</b>	Gigalitres per annum.
<b>'Good' to 'Excellent' condition native vegetation</b>	Means the condition of native vegetation rated in accordance with the Technical Guidance – <i>Flora and Vegetation surveys</i> for environmental impact assessment (EPA 2016) including any revision to this technical guidance.

Acronym or abbreviation	Definition or term
<b>Ground disturbing activities</b>	Any activity or activities undertaken in the implementation of the proposal, including any clearing, civil works or construction.
<b>GMMP</b>	Groundwater Monitoring and Management Plan Rev F, BCI Minerals, March 2023
<b>Ha</b>	Hectare
<b>High Ecological Protection Area</b>	All of the proximal coastal waters outside of areas defined as <b>Low Ecological Protection Areas</b> (blue hatching) and <b>Moderate Ecological Protection Areas</b> (green hatching) and shown in Figure 4, and defined in the spatial data in schedule 1.
<b>IBRA</b>	Interim Biogeographic Regionalisation for Australia.
<b>Intertidal and subtidal research offsets</b>	Western Australian Marine Science Institution (WAMSI) intertidal and subtidal research program or other suitable scientific initiative.
<b>Irreversible loss</b>	<b>Adverse impact</b> which is unlikely to or does not return to pre-impact state within five (5) years following the completion of proposal related activities that are likely to have an impact on <b>benthic communities and habitats</b> .
<b>Km/hr</b>	Kilometres per hour.
<b>Landward Samphire</b>	Samphire described as landward in Mardie Project: Response to Submissions (29 March 2021).
<b>Low Ecological Protection Area</b>	The area shown in (blue hatching) in Figure 4 as <b>Low Ecological Protection Area</b> and defined in the spatial data in schedule 1
<b>Mardie Project</b>	The existing Optimised Mardie Project and the significant amendment.
<b>Mardie Illumination Plan</b>	Mardie Illumination Plan Rev 3, BCI Minerals, 5 May 2023
<b>Mardie Project Impact Reconciliation Procedure</b>	Mardie Project Impact Reconciliation Procedure Rev D, Preston Consulting, August 2024
<b>Marine fauna observer</b>	In the context of Marine Fauna Observers (MFO) it is expected that at least one MFO will hold an Internationally recognised MFO qualification in accordance with industry standards and at least five (5) years' experience in Australian waters.

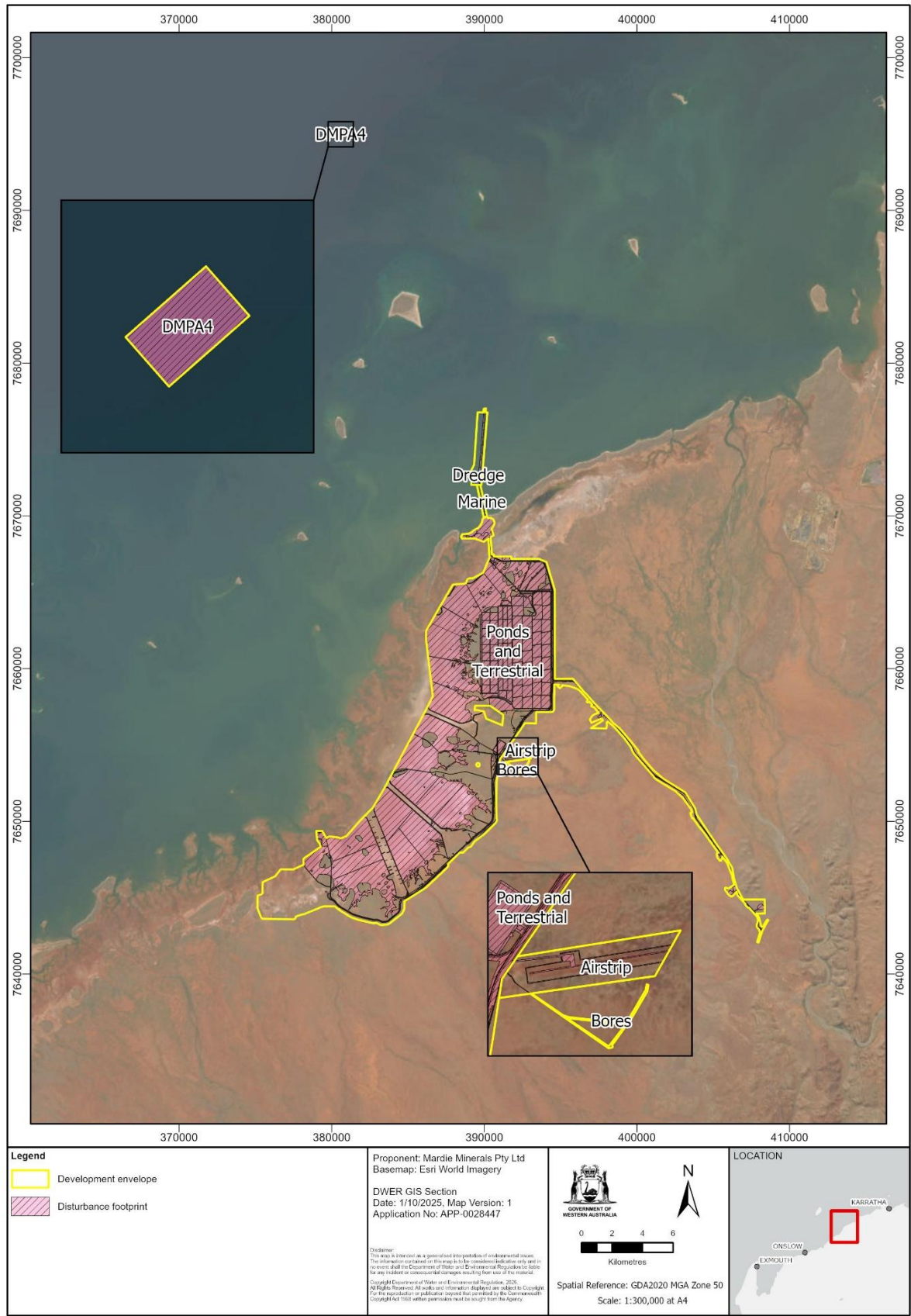
Acronym or abbreviation	Definition or term
<b>Marine environmental values</b>	Particular values or uses of the marine environment that are important for a healthy ecosystem or for public benefit, welfare, safety, or health and which require protection from the effects of pollution, waste discharges and deposits as defined in the <i>Technical Guidance: Protecting the Quality of Western Australia's Marine Environment</i> , as amended from time to time, and available at <a href="http://www.epa.wa.gov.au">www.epa.wa.gov.au</a> .
<b>Marine pests</b>	Marine species not native to the environment of the <b>west Pilbara coast</b> , that do or may threaten biodiversity. The information from <a href="http://www.marinepests.gov.au">www.marinepests.gov.au</a> and advice from the Department of Primary Industries and Regional Development will guide interpretation of this definition.
<b>Marine Pest Management Procedure</b>	Marine Pest Procedure Rev 1, O2 Environment, September 2022
<b>Marine Water Quality Technical Guidance</b>	Technical Guidance for protecting the quality of Western Australia's marine environment, as amended from time to time, and available at <a href="http://www.epa.wa.gov.au">www.epa.wa.gov.au</a> . The relevant indicator type in Appendix 1, Table 1 of this Technical Guidance that applies to B4-2 is the <b>Environmental Quality Guidelines</b> for toxicants in water.
<b>Management action/s</b>	The identified actions implemented with the intent of to achieving the environmental objective.
<b>Management target</b>	A type of indicator to evaluate whether an environmental objective is achieved.
<b>Marine construction or operations</b>	All operations to do with the construction of the marine aspects of the proposal including piling, dredging and vessel movements.
<b>MEQMMP</b>	Marine Environmental Quality Monitoring Management Rev 8 O2 Marine, March 2023
<b>Marine Turtle Monitoring Program</b>	Marine Turtle Monitoring Program Rev 3, Pendoley Environmental May 2023
<b>Moderate Ecological Protection Area</b>	The area shown in (green hatching) in Figure 4 as ' <b>Moderate Ecological Protection Area</b> ' and defined in spatial data in schedule 1.
<b>National Marine Mammal Data Portal</b>	National Marine Mammal Data Portal, including the Cetacean Sightings Application, maintained by the Commonwealth Department of Climate Change, Energy, the Environment and Water.

Acronym or abbreviation	Definition or term
<b>Native title party/parties</b>	As defined in section 18(1AA) under the <i>Aboriginal Heritage Act 1972</i> .
<b>Negligible</b>	A change so small that it does not measurably affect the health, diversity, abundance, or function of an environmental receptor or value, remains within natural variability, and cannot be distinguished from background conditions using accepted scientific methods.
<b>PEC</b>	Priority ecological community.
<b>Project Related Vessels</b>	Vessels related to the construction and operation of the project, including the transshipment barge, and dredge spoil disposal vessel.
<b>Responsible authority</b>	A government agency or statutory body formally designated under legislation to assume responsibility for the infrastructure and its ongoing management.
<b>RRDMMA</b>	The Robe River Delta Mangrove Management Area as shown in Figure 2.
<b>Significant marine fauna</b>	Includes turtles, cetaceans, dugongs, sawfish and other marine fauna species listed under state or Commonwealth legislation.
<b>Threshold criteria</b>	The indicators that have been selected to represent limits of impact beyond which the environmental outcome is not being met.
<b>Transfer of seawater, brine and/or waste product</b>	Transfer of seawater, brine and/or waste product to the marine environment.
<b>Trigger criteria</b>	Indicators that have been selected for monitoring to provide a warning that if exceeded the environmental outcome may not be achieved. They are intended to forewarn of the approach of the <b>threshold criteria</b> and trigger response actions.
<b>Trivial</b>	A minor change that is measurable but insignificant, does not affect ecological function or <b>environmental values</b> , and recovers almost immediately without intervention. It does not compromise regulatory objectives or trigger <b>management actions</b> .
<b>Zone of high impact</b>	The zone described in the Dredge and Spoil Disposal Management Plan, Revision 4 (17 July 2025) as ' <b>Zone of High Influence</b> ' and referred to in Figure 3 and Figure 6 of this document. Zone of high impact defined as the area where serious damage to benthic communities is predicted or where impacts are considered to be irreversible as defined in the <i>technical guidance: Environmental Impact Assessment of Marine Dredging Proposals 2021</i> .

Acronym or abbreviation	Definition or term
<b>Zone of moderate impact</b>	The zone described in the Dredge and Spoil Disposal Management Plan, Revision 4 (17 July 2025) as ' <b>Zone of Moderate Influence</b> ' and referred to in Figure 3 and Figure 6 of this document.
<b>ZOI Proposed High Influence</b>	Zone of high impact (see definition above).
<b>ZOI Proposed Medium Influence</b>	Zone of moderate impact (see definition above).
<b>West Pilbara coast</b>	The extent of the Pilbara coast from the bottom of the Exmouth Gulf to Karratha.

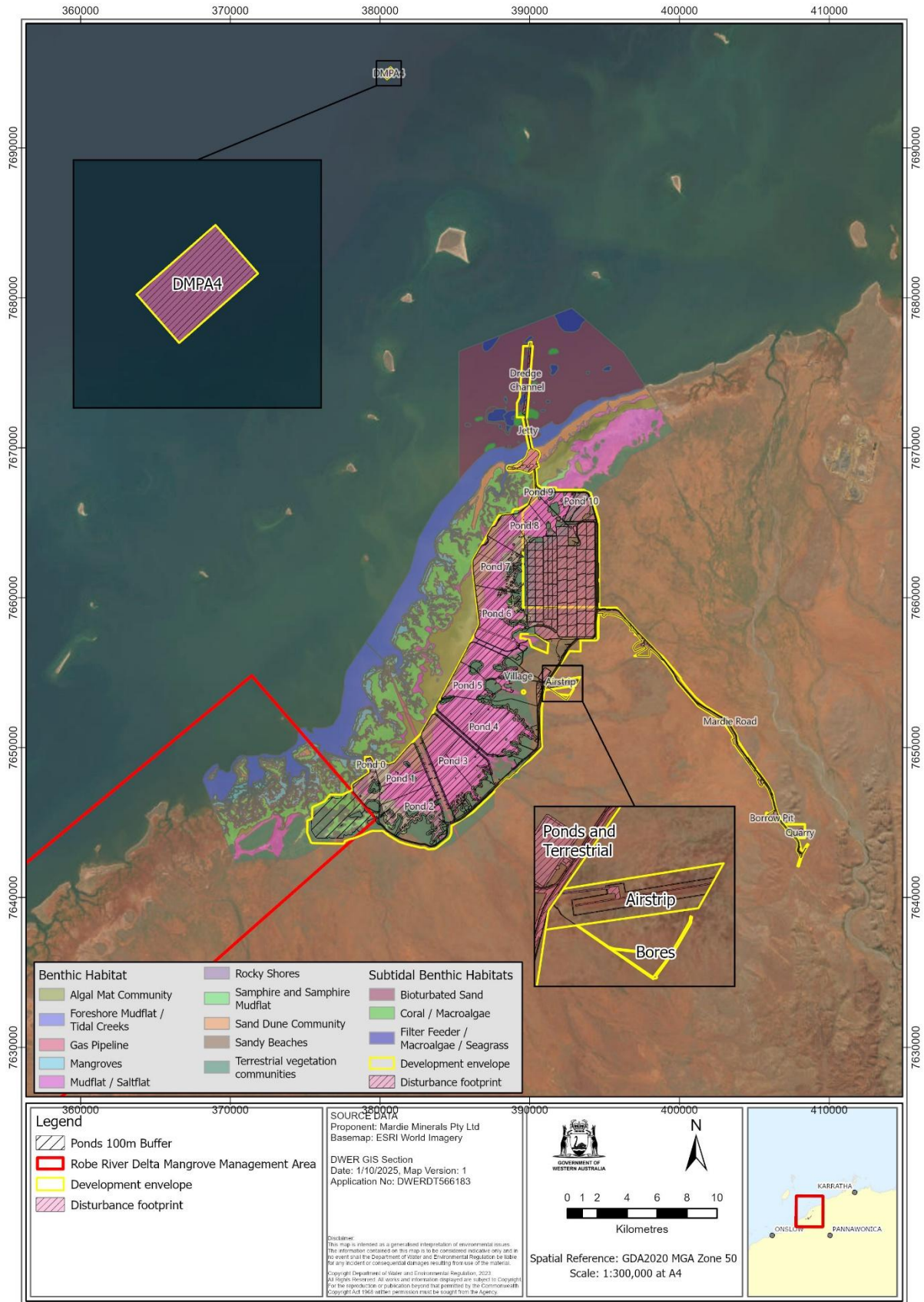
### Figures (attached)

- Figure 1 Proposal location and development envelope
- Figure 2 Benthic communities and habitats within the significant amendment and original proposal area
- Figure 3 Dredge envelope with zones of High and Moderate Influence
- Figure 4 Level of ecological protection areas around diffuser location
- Figure 5 Short Range Endemic fauna exclusion zones and Aboriginal Cultural Heritage exclusion zone for Peters Creek
- Figure 6 DMPA4 with associated zones of High and Moderate impact

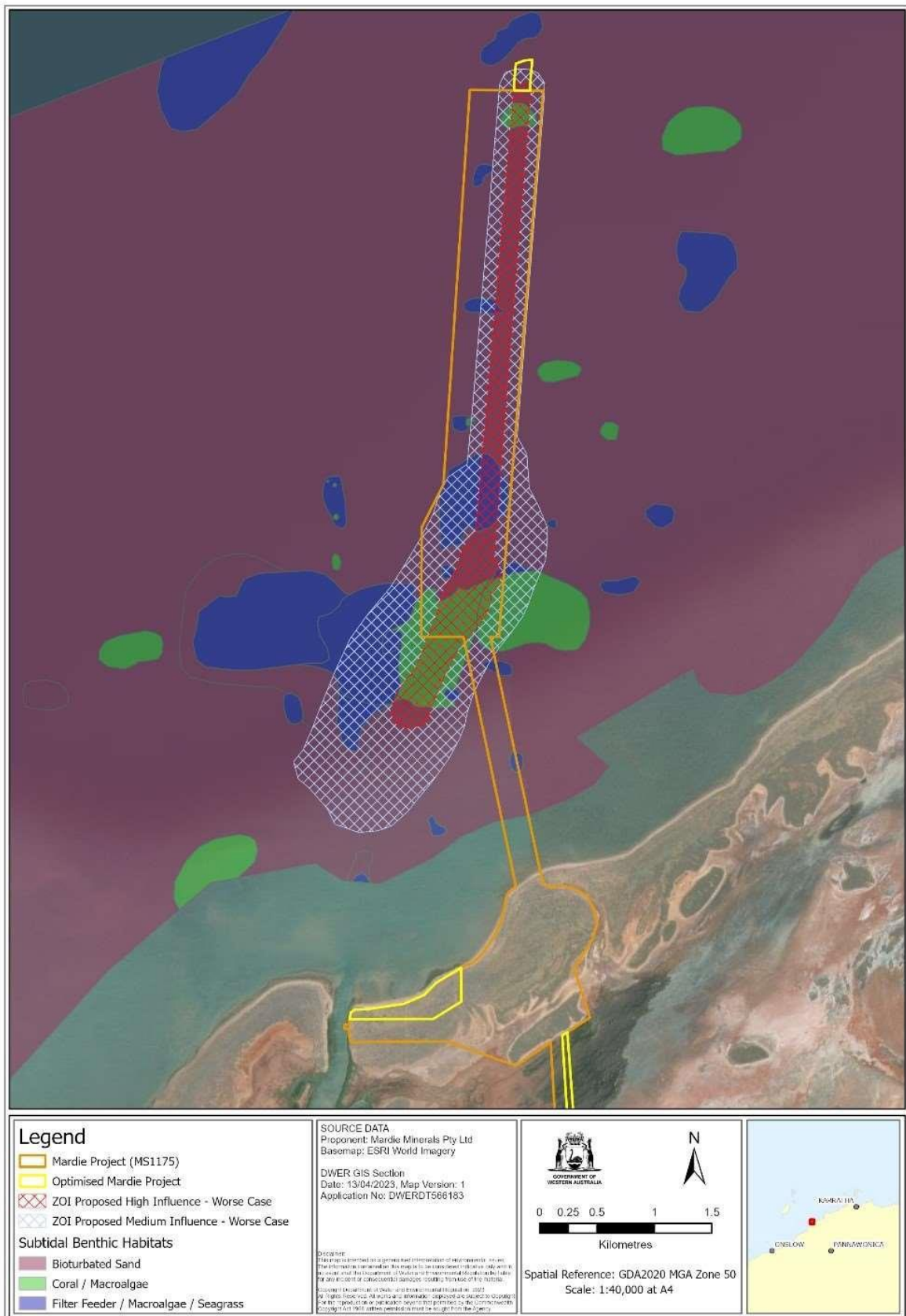


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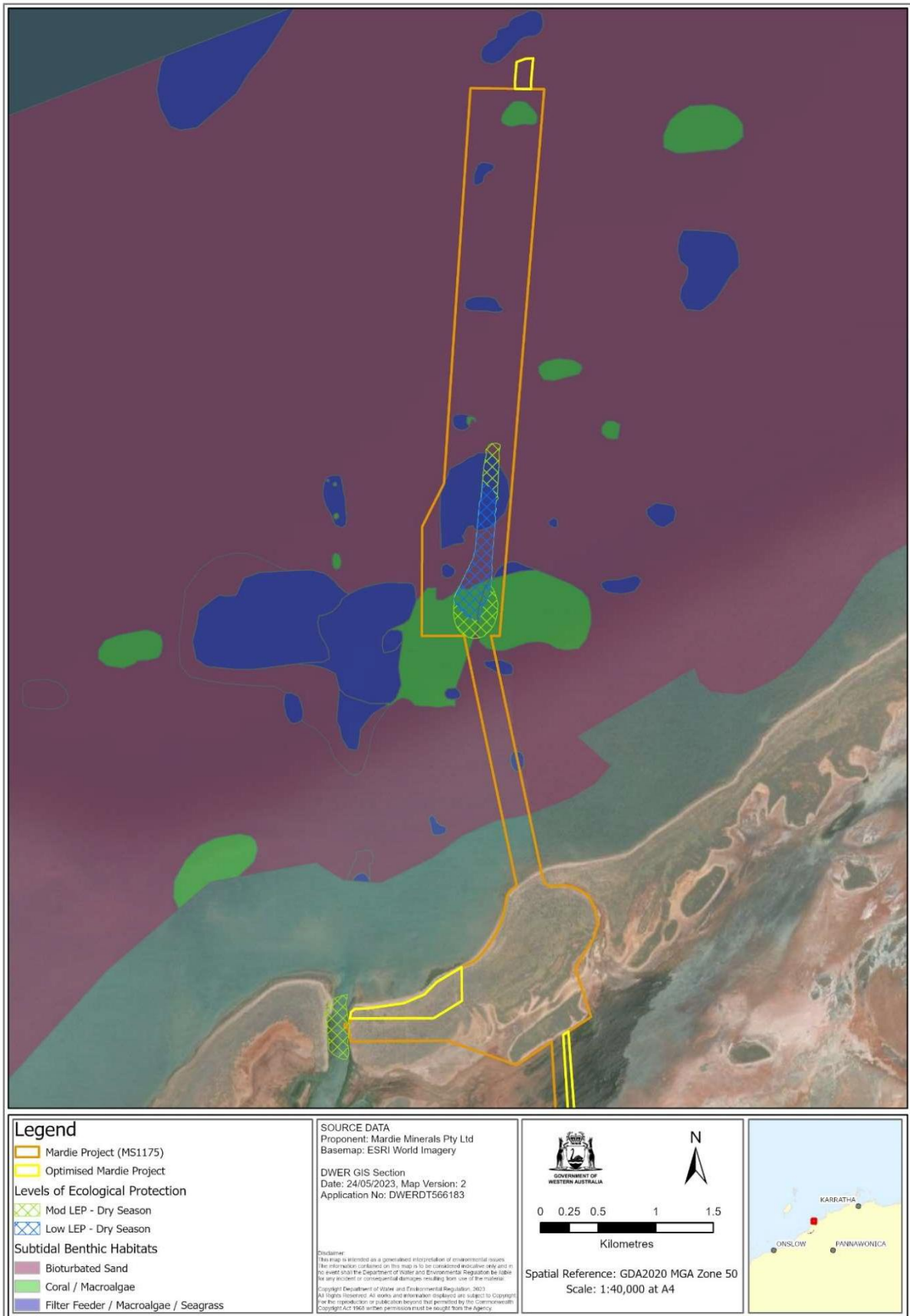
**Figure 1: Proposal location and development envelope**



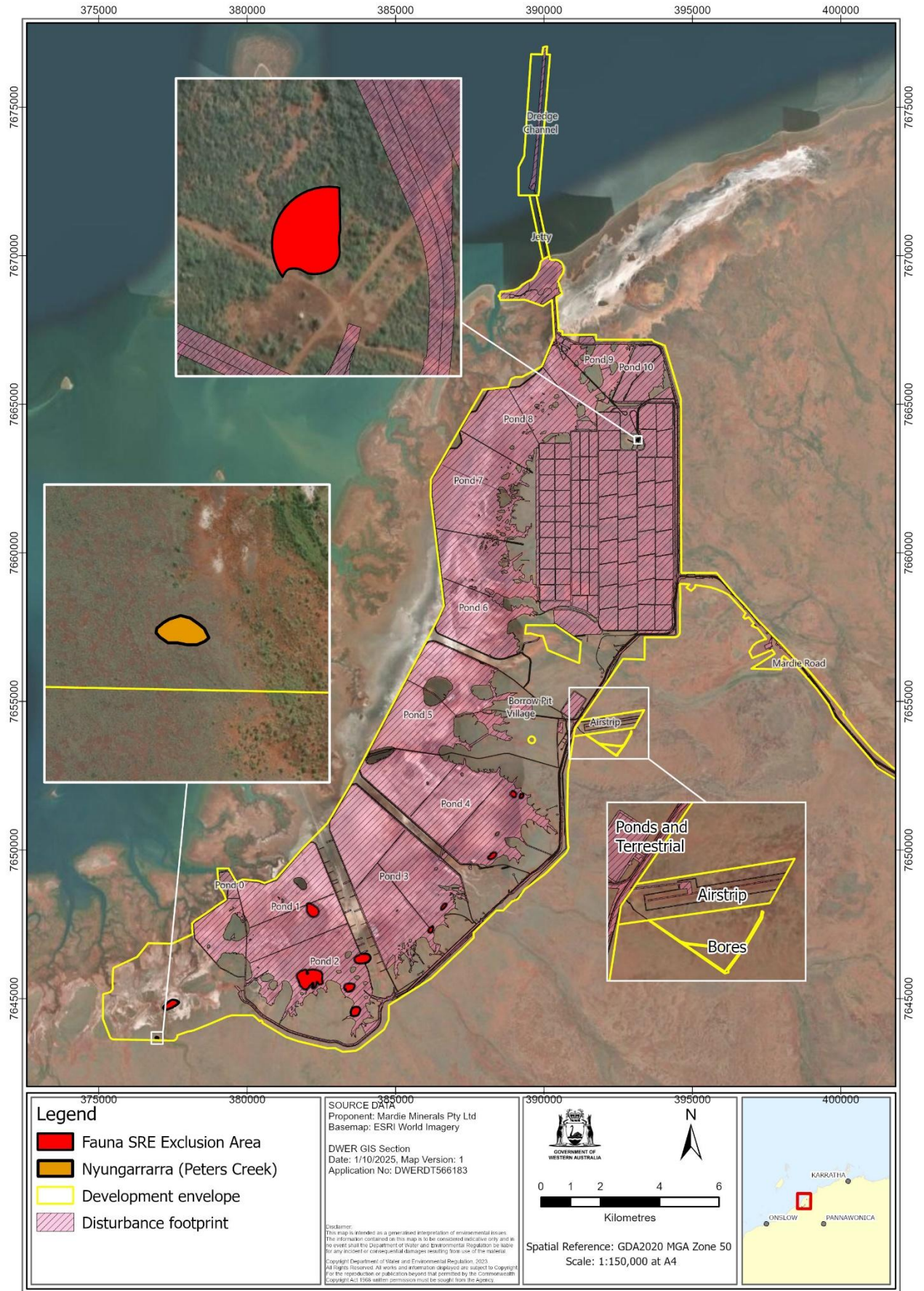
**Figure 2: Benthic communities and habitats within the proposal area**



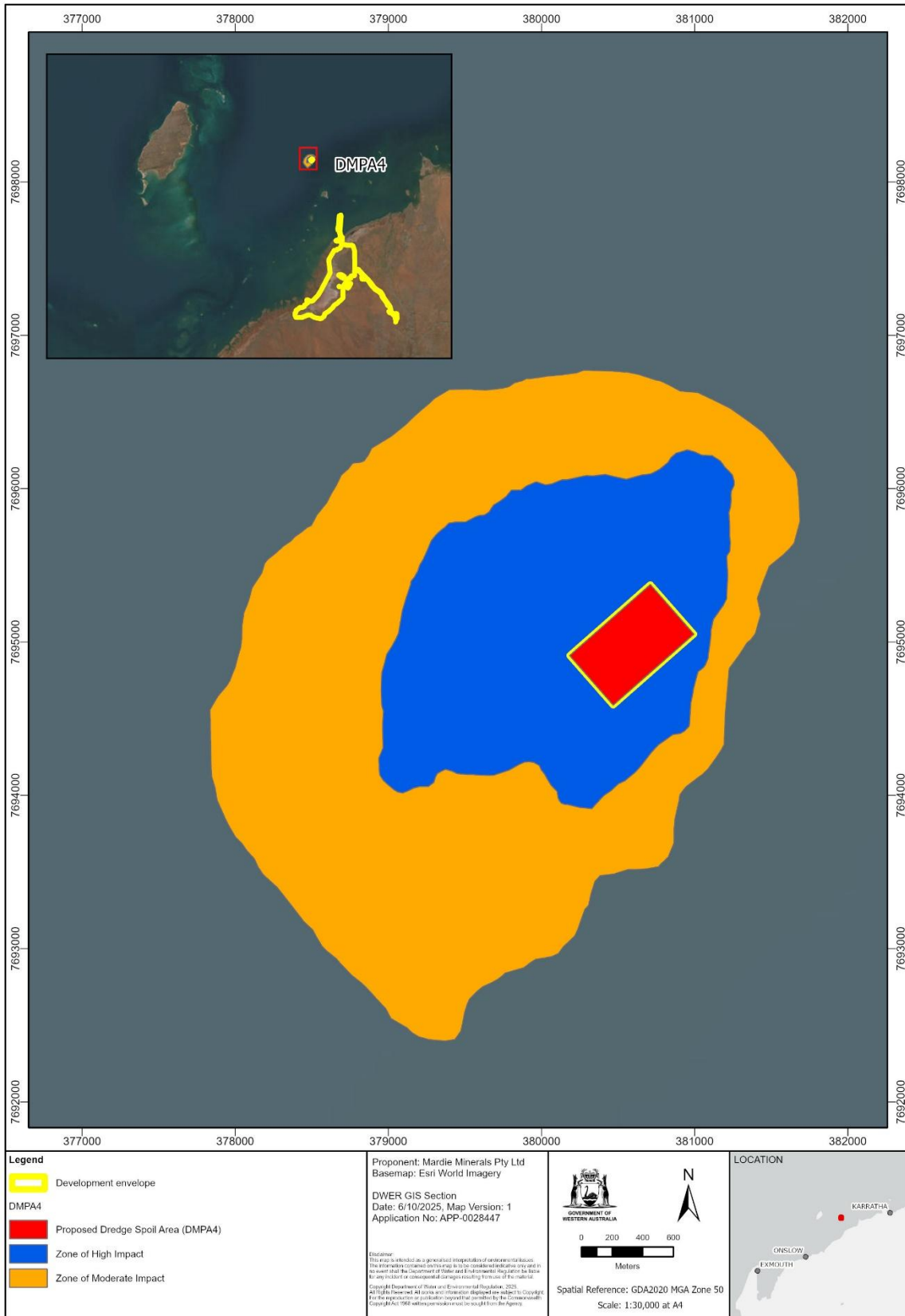
**Figure 3: Dredge envelope with zones of High and Moderate Influence**



**Figure 4: Level of ecological protection areas around diffuser location**



**Figure 5: Short Range Endemic fauna exclusion zones and Peters Creek exclusion zone**



**Figure 6: DMPA4 with associated zones of High and Moderate impact**

## **Schedule 1**

All coordinates are in metres, listed in Map Grid of Australia Zone 50 (MGA Zone 50), datum of Geocentric Datum of Australia 1994 (GDA94).

Spatial data depicting the figures are held by the Department of Water and Environmental Regulation - APP-0028447.

### Proponent residual Impacts and Risk Management Measures – Optimised Mardie - Revised Project (Condition B10)

Project	Value and Timeframe
Project A Mapping of the original and current extent of Samphire and Algal mat on the west Pilbara Coast.	\$1,500,000 prior to the commencement of construction.
Project B Identify and quantify the potential effects of sea level rise on mangroves, samphire and algal mat on the west Pilbara Coast.	\$500,000 prior to the commencement of construction.
Project C(i) Identify the ecological roles, values and functions of algal mat on the west Pilbara coast.	\$500,000 prior to the commencement of construction.
Project C(ii) Identify the ecological roles, values and functions of intertidal benthic communities and habitat on the west Pilbara coast.	\$2,102 per hectare of algal mat, <b>coastal samphire</b> or mangroves that monitoring indicates has been lost due to project-attributable indirect impacts, or subject to loss of health, per cent cover or diversity of intertidal within 3 months of the loss being identified.
Project C(iii) Identify the ecological roles, values and functions of intertidal benthic communities and habitat on the west Pilbara coast.	\$2,102 per hectare of mangroves within the <b>RRDMMA</b> , that the CEO has approved to be disturbed, prior to the commencement of <b>disturbance</b> within the <b>RRDMMA</b> .
Project D	Provision of \$300,000 (adjusted yearly for <b>CPI</b> ) to fund research and management programs (through WAMSI, <b>DBCA</b> or independently - for example the RAD project referred to in Section 4.2.1 <sup>1</sup> ) to preserve, maintain and grow high value sub-tidal BCH in the region.  \$500,000 held in reserve (adjusted yearly for <b>CPI</b> ) to extend the research and management programs described above if indirect impacts are greater than predicted and attributed to the Proposal.

<sup>1</sup> Section 4.2.1 of the Optimised Mardie Project Draft Offset Strategy (Appendix 10.1 to the Optimised Mardie Project Supplementary Report)