

OPTIMISED MARDIE PROJECT – REVISED PROPOSAL

PROPOSAL CONTENT DOCUMENT

Table 1: General Proposal Content Description as listed in Ministerial Statement 1264

Proposal Title	Optimised Mardie Project – Revised Proposal
Proponent Name	Mardie Minerals Pty Ltd
Short Description	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.

Table 2: Proposal Content Elements as listed in Ministerial Statement 1264 (changed elements in blue and bold font)

Proposal Element	Location	Existing Proposal extent, capacity or range	Proposed Amendment
Physical Elements			
Development Envelope	Figure 1 Figure 4	Terrestrial development envelope not to exceed 19,763 ha. Marine development envelope not to exceed 53 ha. Dredge development envelope not to exceed 307.5 ha. Combined area of concentrator ponds and crystalliser ponds not to exceed 11,368 ha.	No change.
Disturbance footprint	Figure 1	Terrestrial disturbance not to exceed 13,476 ha within 19,763 ha development envelope.	No change.
Direct disturbance of native vegetation	Figure 1	Clearing of no more than 3,014 ha vegetation in 'Good' to 'Excellent' condition native vegetation. Clearing of no more than 863 ha landward samphire.	No change.

Proposal Element	Location	Existing Proposal extent, capacity or range	Proposed Amendment
		Clearing of no more than 330 ha of coastal samphire.	
Impacts on PEC and Mangrove Habitat	Figure 2	No more than 145 ha direct and 20 ha indirect impacts to Horseflat PEC. No more than 13 ha of direct disturbance to mangrove habitat outside of the RRDMMMA. No direct disturbance within the RRDMMMA.	No change.
Direct disturbance to Algal mats	Figure 4	No more than 880 ha of direct impact to algal mats.	No change.
Capital Dredging	Figure 3	No more than 355,000 cubic metres, directly disturbing no more than 65 ha within the 307.5 ha dredge development envelope.	No change.
Offshore Dredge Spoil Disposal	Figure 6	Capital dredging of no more than 355,000 cubic metres, directly disturbing no more than 30.3 ha at Dredge Material Placement Area DMPA 4.	No change.
Foraging habitat for the Pilbara leaf-nosed bat (<i>Rhinionictoris aurantia</i>)	Figure 1	Clearing no more than 3,254 ha.	No change.
Foraging habitat for the Northern coastal free-tailed bat (<i>Ozimops cobourgiensis</i>)	Figure 1	Clearing no more than 1,186 ha.	No change.
Habitat for the Pilbara Olive Python (<i>Liasis olivaceus barroni</i>)	Figure 1	Clearing no more than 6 ha.	No change.
Foraging habitat for the Northern Quoll (<i>Dasyurus hallucatus</i>)	Figure 1	Clearing no more than 80 ha.	No change.

Proposal Element	Location	Existing Proposal extent, capacity or range	Proposed Amendment
Zone of High Impact (e.g. marine)	Figure 3 Figure 6	Marine Zone of High Impact to be limited to 121 ha at the dredge channel and 355 ha at the offshore dredge spoil disposal DMPA4.	No change.
Level of ecological protection areas (marine environmental quality)	Figure 4	Moderate ecological protection area (MEPA) not to exceed 53.9 ha. Low ecological protection area (LEPA) not to exceed 20.2 ha.	No change.
Distance between crystallisers and Mardie pool	Figure 1	Minimum distance of 1000 metres to be maintained between crystalliser ponds and Mardie pool.	No change
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.	No change
Operational Elements			
Groundwater abstraction	Figure 7	Groundwater abstraction not to exceed 0.7 GL per annum.	
Marine discharge rate	Figure 4	Brine discharge not to exceed 5.5 GL per annum with a specific gravity of no more than 1.25 via diffuser.	No change.
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 GL per annum.	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 volume is to not exceed 250 GL per annum.
Airstrip	Figure 1	To be utilised for emergencies only.	No change.
Offshore maintenance dredge spoil disposal	Figure 6	Within DMPA4 only.	No change.

Proposal Element	Location	Existing Proposal extent, capacity or range	Proposed Amendment
Timing elements			
Mine life	-	Up to 61 years from issue of this statement.	No change.
Seawater intake	-	Abstract seawater from primary and secondary intake only when tides are at or above Mean Sea Level.	No change.
Proposal Elements with greenhouse gas emissions			
Construction Elements			
Scope 1	N/A	57,847 tCO ₂ -e per year.	No change.
Scope 2	N/A	None.	No change.
Scope 3	N/A	Unlikely to be significant.	No change.
Operation Elements			
Scope 1	N/A	66,628.01 tCO ₂ -e per year.	No change.
Scope 2	N/A	None.	No change.
Scope 3	N/A	Unlikely to be significant.	No change.
Rehabilitation and Closure			
Proposal infrastructure to be removed within 3 years of closure. Construction disturbance that is not required for operations is to be rehabilitated.			No change.

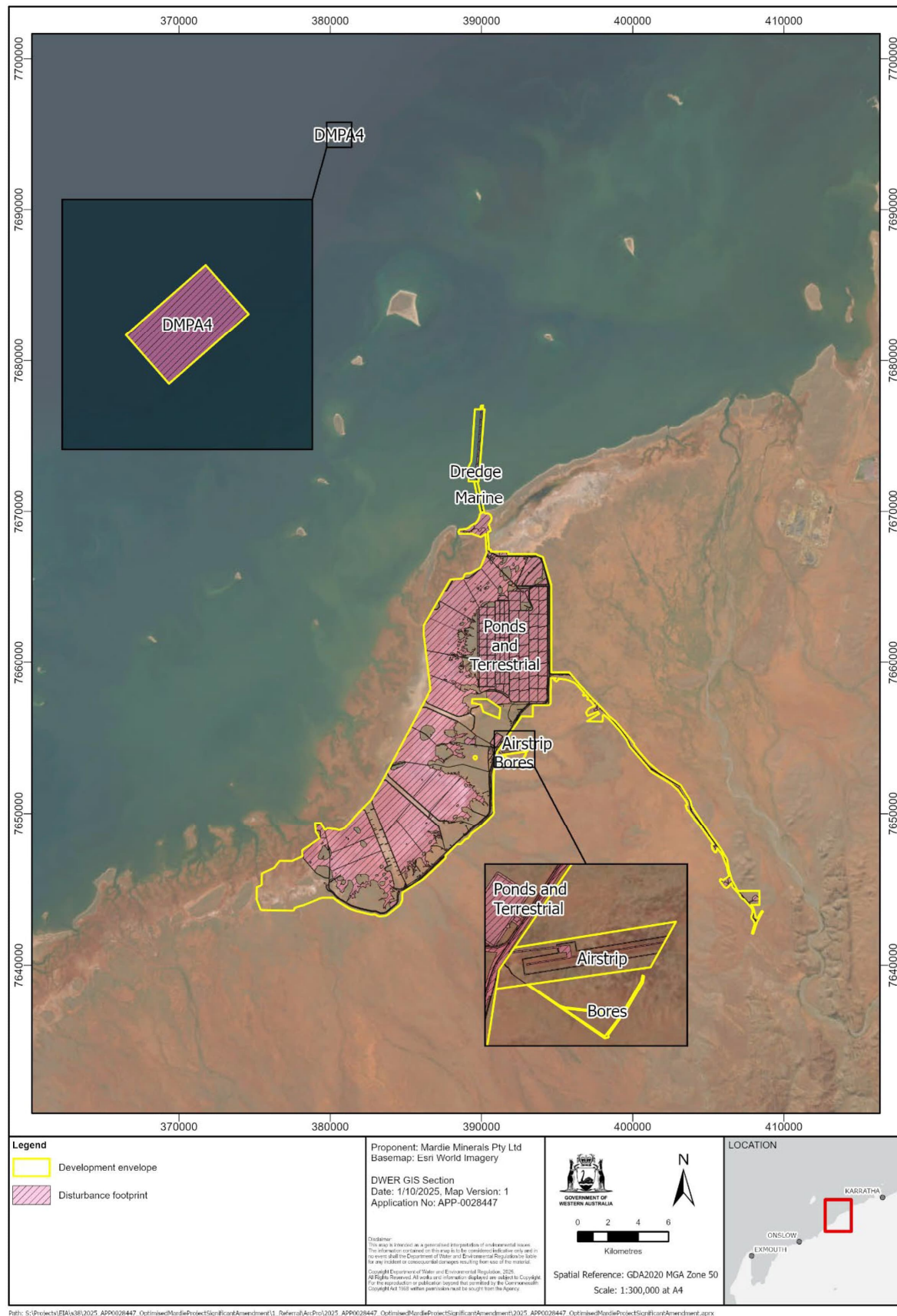


Figure 1: Proposal location and development envelope

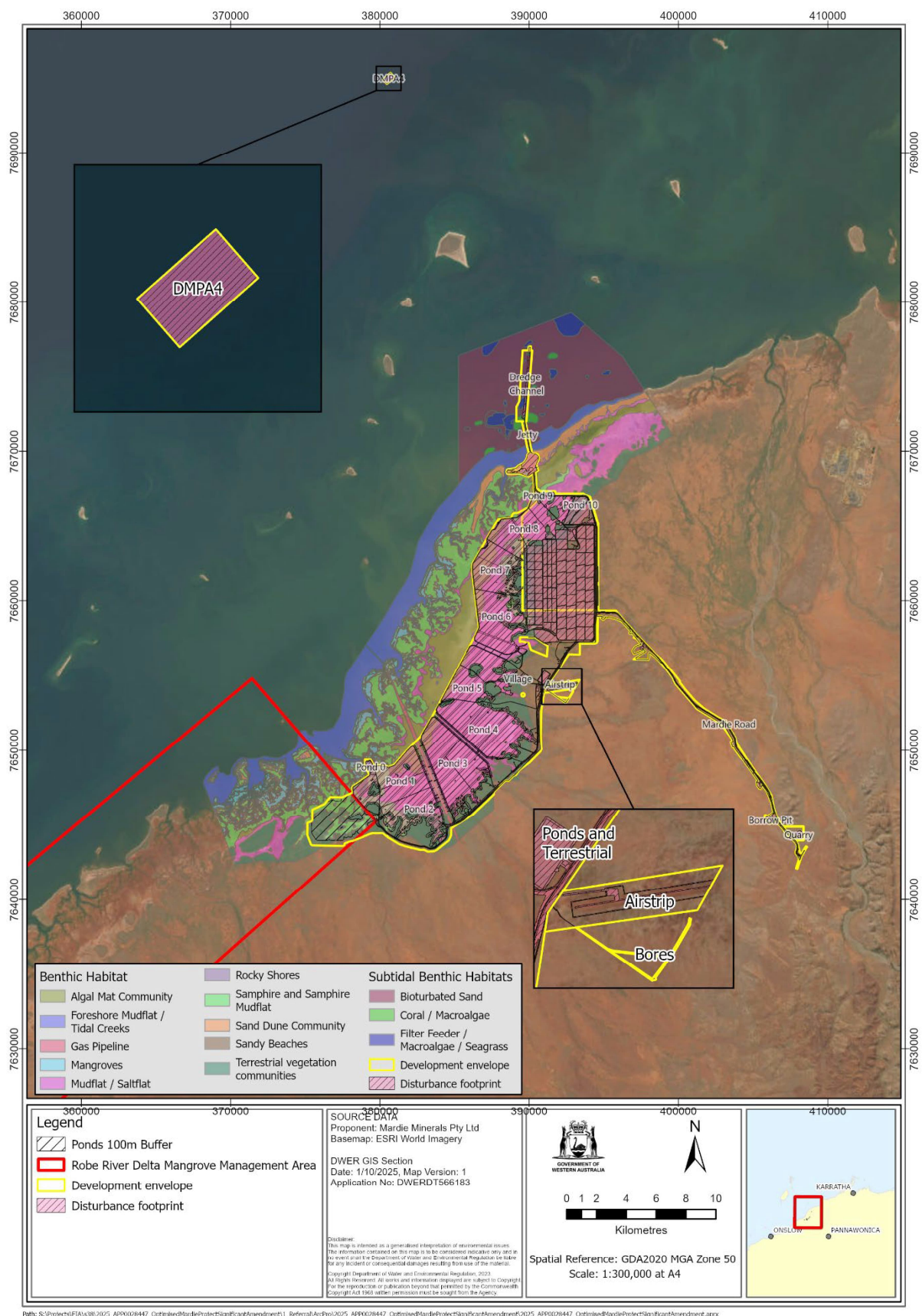


Figure 2: Benthic communities and habitats within the Proposal area

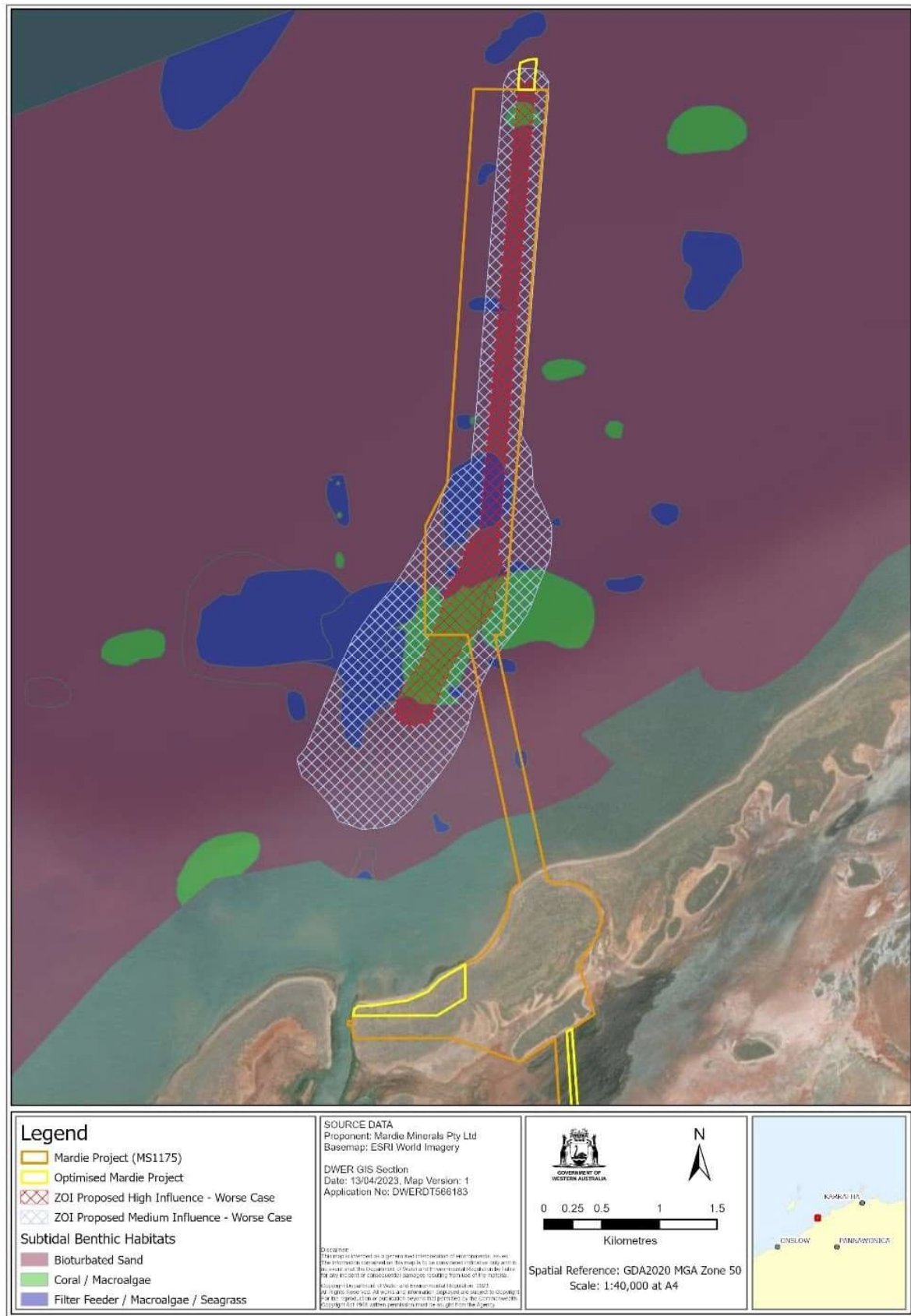


Figure 3: Dredge envelope with zones of High and Moderate Influence

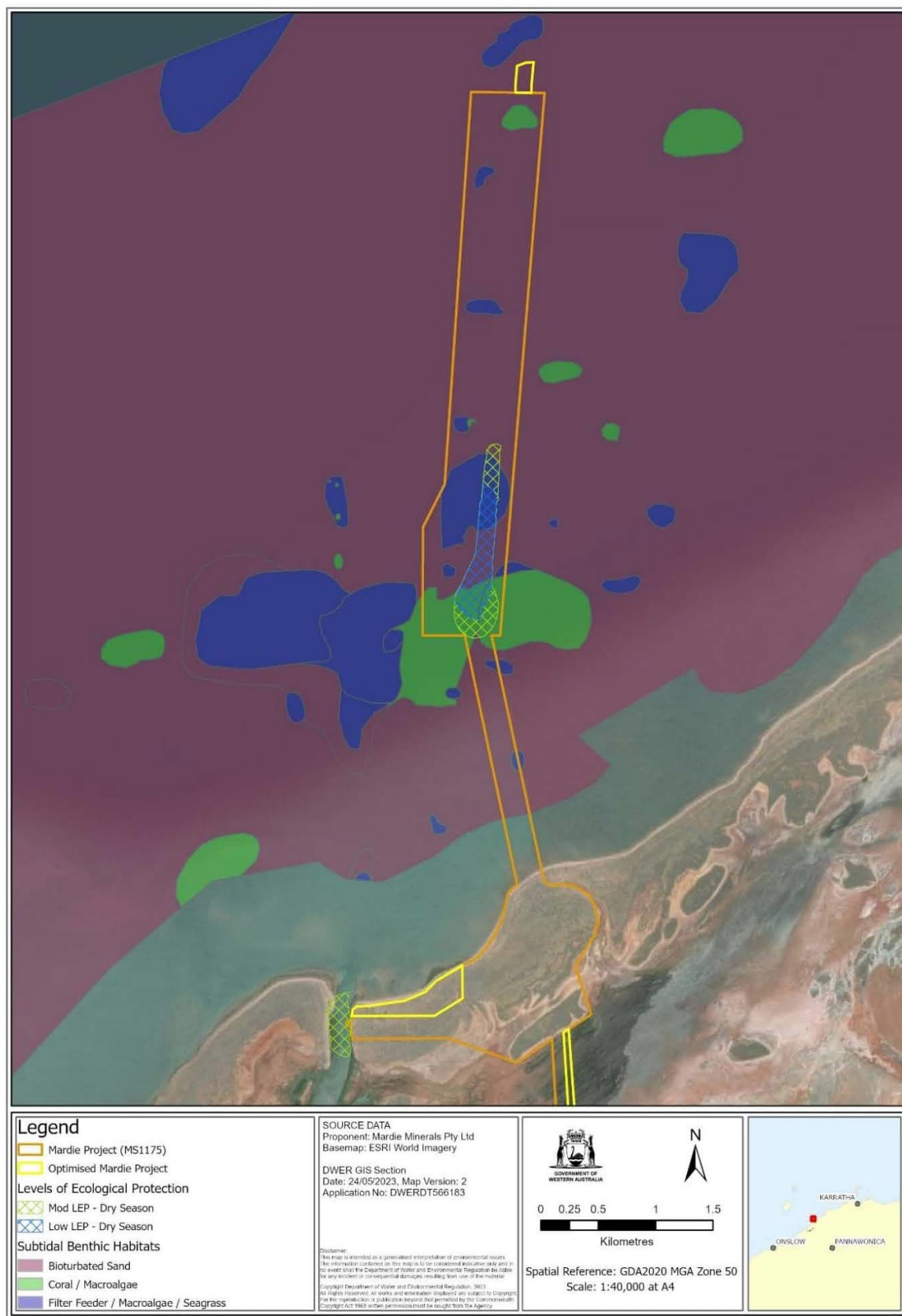


Figure 4: Level of ecological protection areas around diffuser location

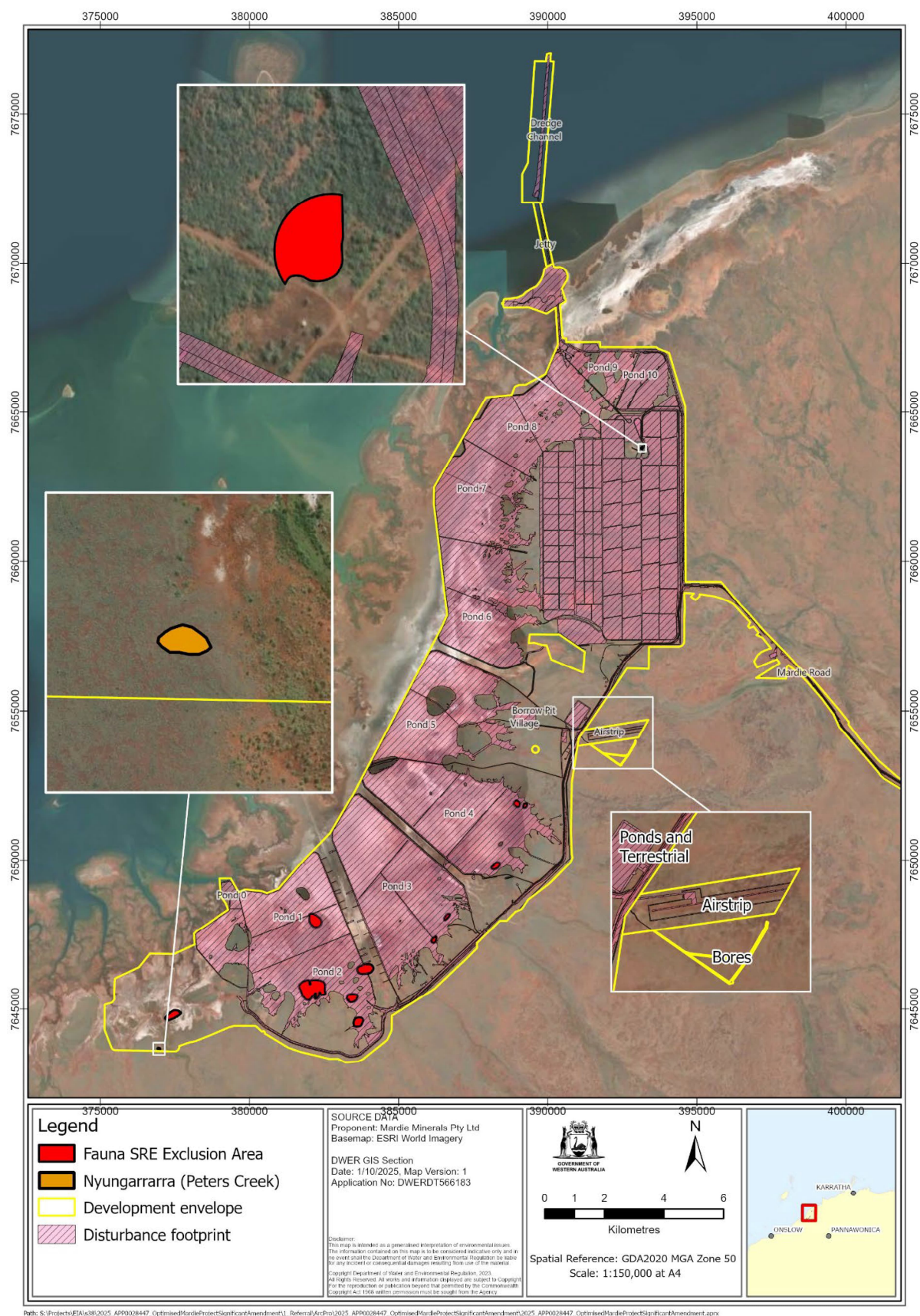


Figure 5: Short Range Endemic fauna exclusion zones and Peters Creek exclusion zone

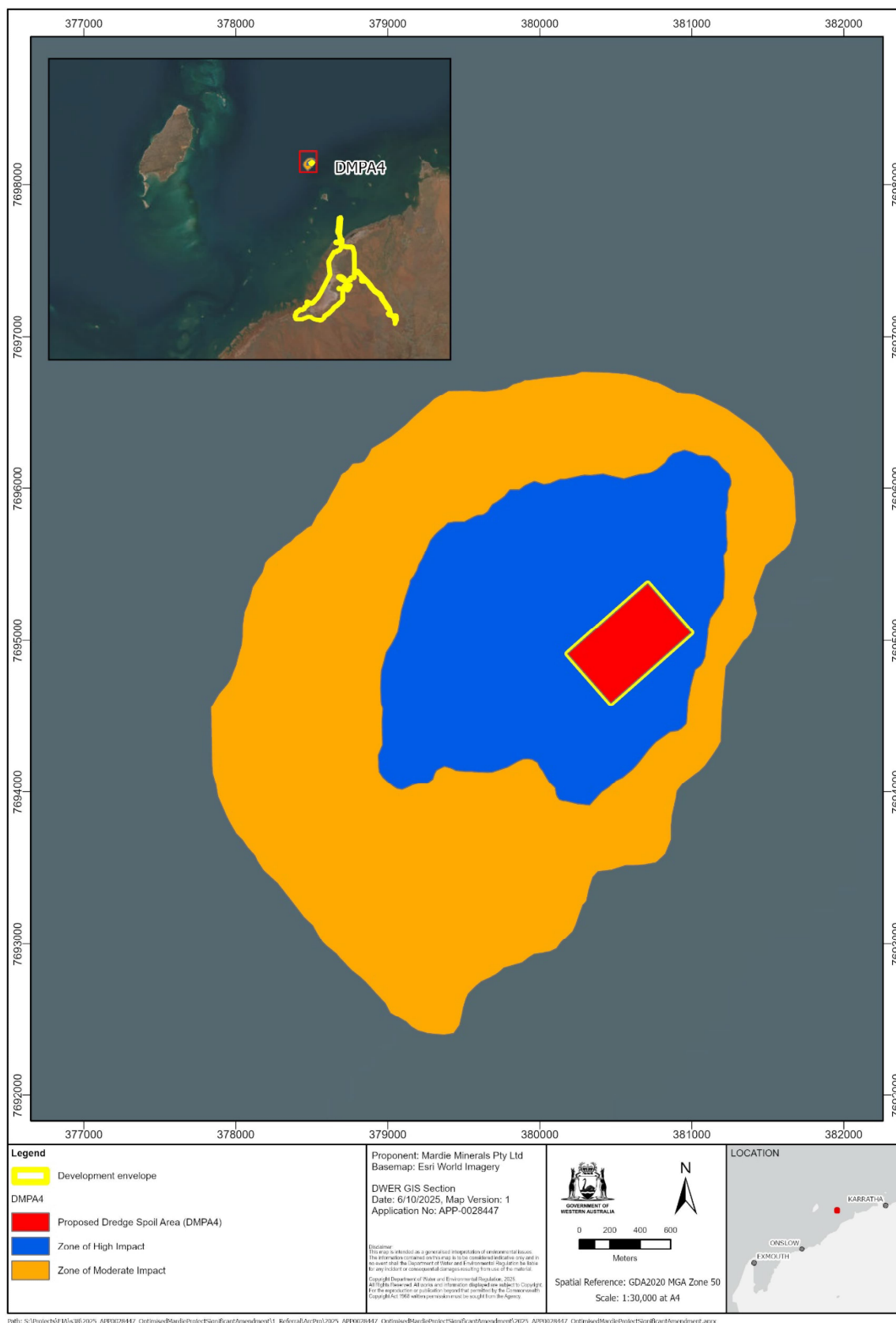


Figure 6: DMPA4 with associated zones of High and Moderate impact