

# Mulga Downs Iron Ore Mine

## Proposal Content Document

**Table 1:** General proposal content description

<b>Proposal title</b>	Mulga Downs Iron Ore Mine
<b>Proponent name</b>	Hancock Prospecting Pty Ltd (HPPL)
<b>Short description</b>	<p>The Proposal is for the development of the Mulga Downs Iron Ore Mine located 210 km south of Port Hedland and 180 km north west of Newman in the Pilbara Region of Western Australia (refer to Figure 1 – regional context map). The Proposal includes and is not limited to the following:</p> <ul style="list-style-type: none"><li>• The development of a series of above and below water table mine pits;</li><li>• Dry ore crushing and screening plant(s);</li><li>• Groundwater abstraction for construction, water supply (for the mine and all associated infrastructure) and for the dewatering to facilitate the recovery of ore below water table in the mine pits;</li><li>• Surplus water management via managed aquifer recharge (MAR) and/or in pit infiltration;</li><li>• Waste rock dumps (WRD);</li><li>• Infrastructure to manage surface water (diversion of creeks and surface water flows);</li><li>• Linear infrastructure (haul roads, powerlines, pipelines and conveyor corridors);</li><li>• Mine associated infrastructure and support facilities (including, but not limited to accommodation camp, energy supply infrastructure, airstrip; wastewater treatment plant (WWTP); landfill, offices, workshops, laydown areas, etc.); and</li><li>• Transport of the ore via the Great Northern Highway to Port Hedland, or via road to a siding along the existing Roy Hill railway and then via that railway to Port Hedland for export. Future transport options (e.g. new rail) will be subject to a separate referral.</li></ul> <p>The Proposal is located within a 16,848.53 ha Development Envelope and will require the clearing of up to 4,339.16 ha of native vegetation.</p>

**Table 2:** Proposal content elements

Proposal element	Location / description	Maximum extent, capacity or range
<b>Physical elements</b>		
Mine elements, including: <ul style="list-style-type: none"><li>- Series of open pits (above and below water table);</li><li>- WRDs;</li><li>- Topsoil stockpiles;</li><li>- Dewatering.</li></ul>	Figure 2	Clearing of up to 4,339.16 ha of native vegetation for the Indicative Footprint within the 16,848.53 ha Development Envelope.

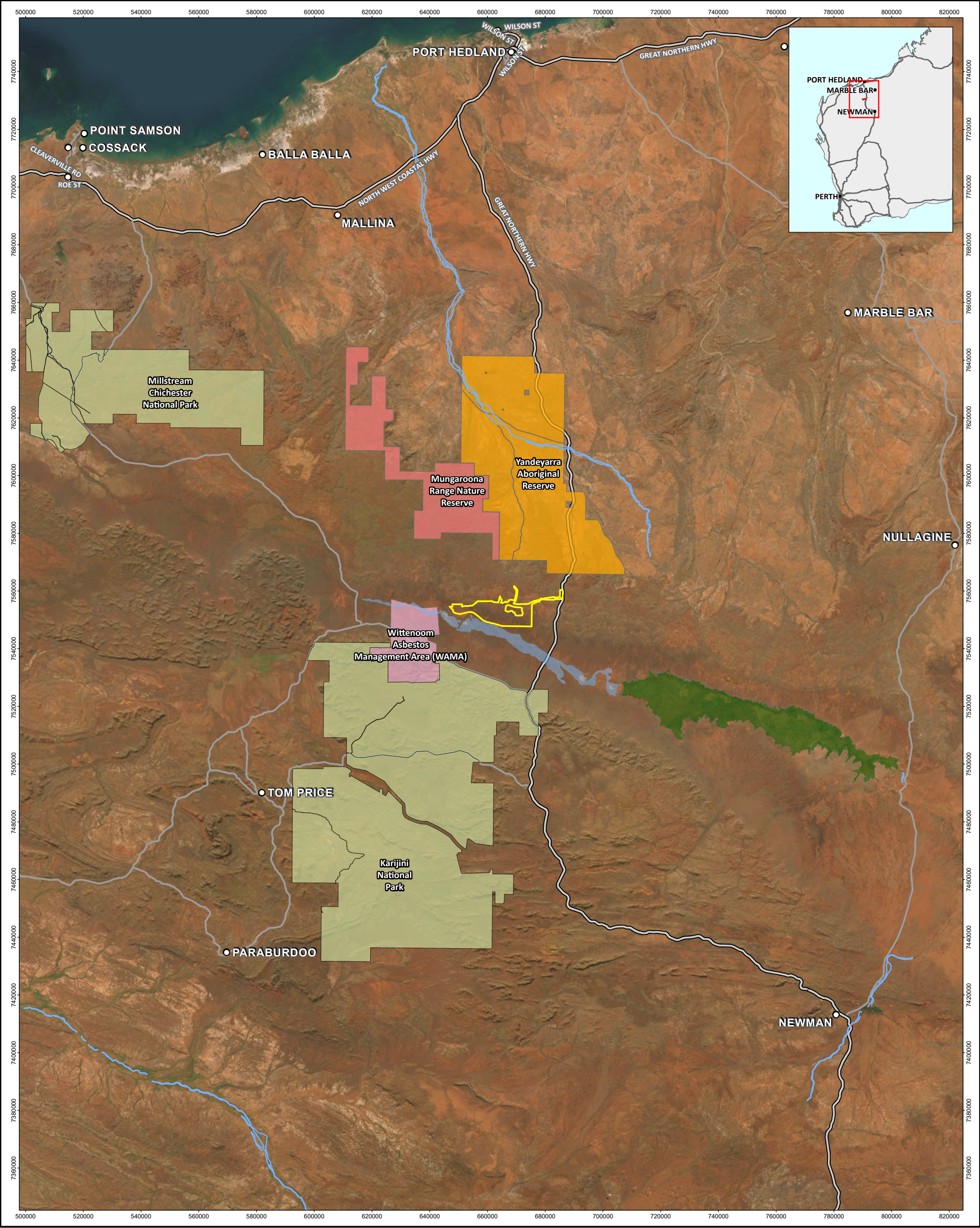
Proposal element	Location / description	Maximum extent, capacity or range
<p>Processing elements, including:</p> <ul style="list-style-type: none"><li>- Ore stockpiles;</li><li>- Dry crushing and screening plant(s); and</li><li>- Transfer water dams/ponds.</li></ul>		
<p>Infrastructure elements, including:</p> <ul style="list-style-type: none"><li>- Accommodation camp;</li><li>- Energy supply infrastructure;</li><li>- Road haulage loading infrastructure;</li><li>- Conveyors for the transportation of ore;</li><li>- Bore fields/water reinjection infrastructure;</li><li>- Mine workshops &amp; infrastructure;</li><li>- Pipelines;</li><li>- Haul and light vehicle roads;</li><li>- Ancillary buildings (e.g. workshops, telecommunications, offices);</li><li>- WWTPs;</li><li>- Landfill;</li><li>- Hydrocarbon storage;</li><li>- Explosive mixing and storage facility;</li><li>- Laydown areas;</li><li>- Evaporative ponds;</li><li>- Water diversion channels and catchment ponds; and</li><li>- Above ground water storage dams to manage supply or disposal of clean or mine water.</li></ul>		
Operational elements		

Proposal element	Location / description	Maximum extent, capacity or range
Groundwater abstraction for water supply and mine dewatering	Figure 2	Over the life of the mine it is anticipated the water abstraction requirements may reach up to 12 GL/a, due to mine dewatering and water supply requirements. Consideration may be given to the use of a water treatment facility (i.e. reverse osmosis desalination) should it be required to provide the necessary water quality.
Management of surplus water	Figure 2	Up to 11 GL/a to be disposed of through MAR and/or infiltration within the Development Envelope.  Temporary water storage may be required to assist in the management of water quality for supply or prior to discharge.
Evaporation pond capacity	Figure 2	May be required to assist in the management of surplus water and discharge. These will preferentially be located in disturbed areas such as pit voids, however some ex-pit structures may be required within the WRD's.
Crushing and screening plant(s)	Figure 2	Dry processing of ore to produce up to 12 Million tonnes per annum of iron ore product.
WRD height	Figure 2	Approximately 160 Mt of waste rock will be mined throughout the life of the Proposal.  Waste Rock Dumps (WRDs) will be designed to integrate into the surrounding landforms where possible, with a maximum height defined by waste rock characterisation studies.
Proposal elements with greenhouse gas emissions		
Construction elements- Peak annual average		
Scope 1	Up to 73,484 t CO <sub>2</sub> -e	
Scope 2	Zero (construction electricity demand met by on-site generation and included in Scope 1 emissions).	
Construction elements – Over period of construction		
Scope 1	Up to 166,819 t CO <sub>2</sub> -e	
Scope 2	Zero (construction electricity demand met by on-site generation and included in Scope 1 emissions).	
Operation elements- Peak annual average		
Scope 1	Up to 206,919 t CO <sub>2</sub> -e	
Scope 2	12,000 t CO <sub>2</sub> -e	
Operation elements- Annual average life of mine		
Scope 1	Up to 171,115t CO <sub>2</sub> -e	
Scope 2	10,700 t CO <sub>2</sub> -e	

Proposal element	Location / description	Maximum extent, capacity or range
<b>Commissioning</b>		
Commissioning of the processing facilities will be undertaken subject to the operational limits above.		
<b>Rehabilitation</b>		
<p>Where practicable, progressive rehabilitation will be undertaken over the life of the mine.</p> <p>Areas disturbed through the implementation of the Proposal will be designed to be safe and non-polluting and will be constructed so the final shape, size, stability, are comparable with the natural landforms in the area.</p>		
<b>Other elements which affect extent of effects on the environment</b>		
Proposal time*	Maximum project life	18 years

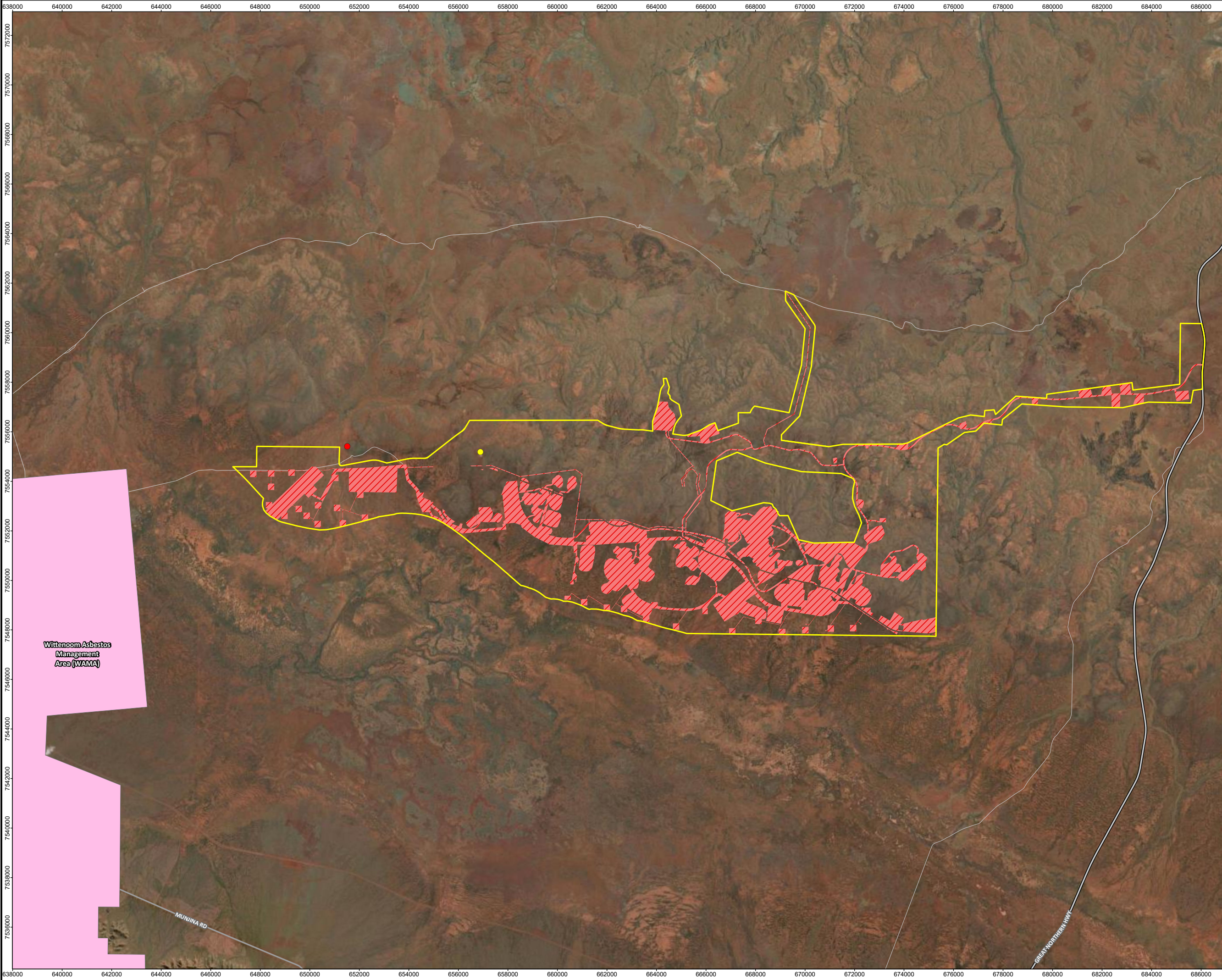
*\* Proponents should only provide realistic timeframes to avoid unnecessary change to proposal applications at referral (section 38C), assessment (section 43A) or post assessment (section 45C).*





<b>Legend</b> <div><div>Development Envelope (12 Mtpa)</div><div>Yandeyarra Aboriginal Reserve</div><div>National Park</div><div>Nature Reserve</div><div>Wittenoom Asbestos Management Area (WAMA)</div><div>Lower Fortescue River</div><div>Upper Fortescue River including the Fortescue Marsh</div><div>Watercourses</div><div>Towns</div><div>Highway</div><div>Major road</div></div>			<div>01530 Kilometers</div>		<b>Mulga Downs Iron Ore Mine</b> Central Pilbara, Western Australia	
	Job Number: 67751		Scale 1:1,200,000 at A3		<b>REGIONAL LOCATION</b>	
	Client: Hancock Prospecting Pty Ltd		Coord. Sys. GDA2020 MGA Zone 50			
	Drawn By: dmills		Checked By: LT		Version: Rev A	Date: 27-Aug-2024





- Legend**
- Development Envelope (12 Mtpa)
  - Indicative Footprint (12 Mtpa)
  - Wittenoom Asbestos Management Area (WAMA)
  - Mulga Downs Exploration Camp
  - Mulga Downs Homestead
  - Highway
  - Major road
  - Minor road



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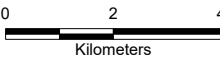
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Date: 02-Sep-2024

Drawn By: dmills

Checked By: LT

Scale 1:140,000 at A3



Coord. Sys. GDA2020 MGA Zone 50

**Mulga Downs Iron Ore Mine**  
**Central Pilbara, Western Australia**

**PROPOSAL EXTENT (12 MTPA)**

**FIGURE 2**