

Revised Proposal – North Star Extension Iron Ore Project

Proposal Content Document

Table 1 General proposal content description

Proposal title	North Star Extension Iron Ore Project
Proponent name	FMG Iron Bridge (Aust) Pty Ltd
Short description	<p>The Proponent is seeking an extension to the existing North Star Magnetite Project for production of magnetite concentrate (the Proposed Amendment) (Figure 1). FMG Iron Bridge (Aust) Pty Ltd (FMGIB) operates the existing mine which is located approximately 110km southeast of Port Hedland in the Pilbara region of Western Australia (Figure 1). The Project was approved under Part IV of the <i>Environmental Protection Act 1986</i> (EP Act), with the issue of Ministerial Statement (MS) 993 in 2015.</p> <p>FMGIB is seeking to amend the Approved Proposal through an extension of the Mine Development Envelope (MDE) as outlined in Figure 2 to enable the development of new mine pits (180.7 hectares (ha)); an extension of the waste rock dump (334.5 ha); and ancillary infrastructure (91.7 ha).</p> <p>The Proposed Amendment will result in the following increases to the Approved Proposal elements:</p> <ul style="list-style-type: none">• an increase to the approved MDE by 1,425.9 ha, representing a 27% increase in total area• an increase to the approved Disturbance Footprint by 606.9 ha, representing a 17% increase in the MDE disturbance footprint. <p>There would be no changes to the Water Corridor Development Envelope (Figure 3). Also, there would be no change to the Slurry Corridor Development Envelope and Infrastructure Corridor Development Envelope approved under MS 993 (Figure 4 and Figure 5).</p> <p>The general content description is provided in Table 2. The location and extent of physical and operational elements of the Approved</p>

Proposal, including key changes as a result of the Proposed Amendment is provided in Table 3.

The Project is located on land predominantly used for pastoral activities, including cattle grazing, and intercepts unallocated Crown land and Wallareenya Pastoral Station. Third party tenure in proximity to the Project is outlined in (Figure 6). Road access to the site from Port Hedland is via the Great Northern Highway and local roads.

Table 2 General proposal content description

Proposal title	North Star Magnetite Project No change.
Proponent name	FMG Iron Bridge (Aust) Pty Ltd No change.
Short description	The proposal will involve the construction and operation of an open cut iron ore mine site and associated infrastructure (roads, administration buildings, accommodation camp, aerodrome, borefield and slurry pipeline) approximately 110 kilometres south-south-east of Port Hedland. No change.

Table 3 Proposal content elements

Element	Location	Approved Proposal Extent, Capacity or Range	Proposed Amendment	Combined extent, capacity or range
Physical Elements				
Mine Development Envelope opencut mine pits, waste rock dumps, groundwater production bores, tailing storage facility and associated infrastructure	Figure 2	Clearing of no more than 3,493 ha within the mine development envelope of 5,276 ha.	Increase in clearing by 606.9 ha and increase in Mine Development Envelope by 1,425.9 ha.	Clearing of no more than 4,099.9 ha within the mine development envelope of 6,701.9 ha.
Water Corridor Development Envelope Borefield, water supply pipeline and associated infrastructure.	Figure 3	Clearing of no more than 886 ha within the water corridor development envelope of 31,260 ha.	No change	Clearing of no more than 886 ha within the water corridor development envelope of 31,260 ha.

Slurry Corridor Development Envelope Slurry pipeline, water return pipeline, natural gas pipeline, access road and associated infrastructure.	Figure 4	Clearing of no more than 435 ha within slurry corridor development envelope of 3,314 ha.	No Change	Clearing of no more than 435 ha within slurry corridor development envelope of 3,314 ha.
Infrastructure Corridor Development Envelope Aerodrome, access roads, groundwater production bores, transmission lines, gas pipeline, slurry pipeline, water return pipeline and associated infrastructure.	Figure 5	Clearing of no more than 557 ha within the infrastructure corridor development envelope of 5,226 ha	No Change	Clearing of no more than 557 ha within the infrastructure corridor development envelope of 5,226 ha
Operational Elements				
Dewatering requirements	-	Dewatering of 5 GL/a below the water table from the mine pit(s) within the MDE to ensure that the pit is dry during operation.	No Change	Dewatering of 5 GL/a below the water table from the mine pit(s) within the MDE to ensure that the pit is dry during operation.

Water Supply	-	<p>Abstraction at a rate of 20 GL/a from the Wallal aquifer ¹.</p> <p>Near Mine borefield water supply of 2.6 GL/a from Mine Development Envelope.</p> <p>Canning Basin Raw Water Pipeline Construction phase water supply of 0.4 GL/a from Water Corridor Development Envelope.</p> <p>Total water supply of 23 GL/a.</p>	No change	<p>Abstraction at a rate of 20 GL/a from the Wallal aquifer ¹.</p> <p>Near Mine borefield water supply of 2.6 GL/a from Mine Development Envelope.</p> <p>Canning Basin Raw Water Pipeline Construction phase water supply of 0.4 GL/a from Water Corridor Development Envelope.</p> <p>Total water supply of 23 GL/a.</p>
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Power	-	<p>Mine area: 221 MW to be supplied by an on-site power station.</p> <p>Borefield and pumping stations: 9MW</p> <p>Power generators.</p> <p>Backup generators capable of supplying power during unplanned outages will be installed at the camp, workshops and administration areas.</p>	<p>Power supply to North Star provided largely through connection to the PEG reticulated power transmission network.</p> <p>Power generators with an option to use third-party power provider</p>	<p>Power supply to North Star provided largely through connection to the PEG reticulated power transmission network.</p> <p>Borefield and pumping stations: 9MW</p> <p>Power generators with an option to use third-party power provider</p> <p>Backup generators capable of supplying power during unplanned outages will be installed at the camp, workshops and administration areas.</p> <p>40MW backup on-site power station².</p>
Gas supply	-	<p>Gas will be supplied to the power station via a buried steel pipeline at a rate of 20 TJ/day.</p>	<p>Removal of gas supply with the primary power supply provided largely through the PEG reticulation power transmission network.</p>	
Overburden/ waste rock	-	<p>Disposal of up 945 million tonnes (Mt).</p>	<p>No change</p>	<p>Disposal of up 945 Mt.</p>
Ore processing (waste)	-	<p>Disposal of up 540 Mt of wet tailings.</p> <p>Disposal of up 180 Mt of dry rejects.</p>	<p>Additional disposal of up to 220 Mt of wet tailings</p> <p>Additional disposal of up to 100 Mt of dry rejects.</p>	<p>Disposal of no more than 760 Mt of wet tailings into the tailings storage facility.</p> <p>Disposal of no more than 280 Mt of dry rejects into the dry rejects waste rock landform.</p>

Greenhouse Gas Emissions

Operation (Proposed Amendment and Existing Approval)

Scope 1	263,890 t CO ₂ -e
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Rehabilitation

Where practicable, progressive rehabilitation will be undertaken over the life of the mine.

Areas disturbed through the implementation of this proposal (excluding the pits) will be designed to be safe and non-polluting and will be constructed rehabilitated so that their final shape, size, stability, is stable and ability able to support local native vegetation are comparable to natural landforms in the area. Non-polluting pit lakes will develop in the pits post-closure.

Commissioning

Not Applicable

Decommissioning

All infrastructure will be removed, unless the ownership is transferred to an underlying third-party tenure owner.

Elements that affect extent of effects on the environment

Proposal Time	Maximum Project Life	~50 years
	Construction phase	~5 years
	Operation phase	~25 years
	Decommissioning phase	~20 years

¹ A request for an administrative change of this limit is planned to be submitted separate to this referral.

² A 40MW backup on-site power station is considered associated infrastructure of the Approved Proposal. It is included in this section to clearly identify this activity in the proposal content elements as per Environmental Protection Authority 2021, *Instruction and Template- How to identify the content of a Proposal*, EPA, Western Australia.

Figure 1 Proposal area

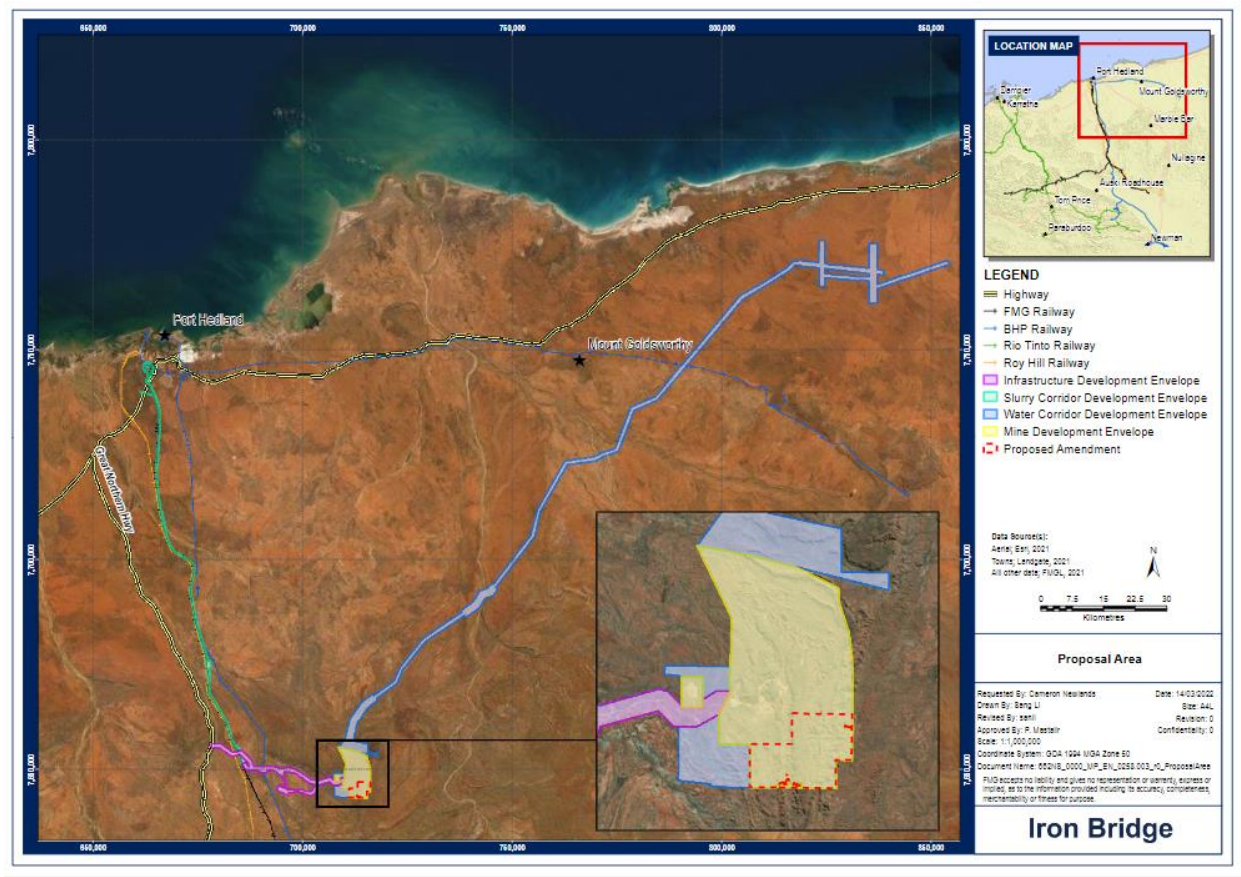


Figure 2 Mining Area Development Envelope

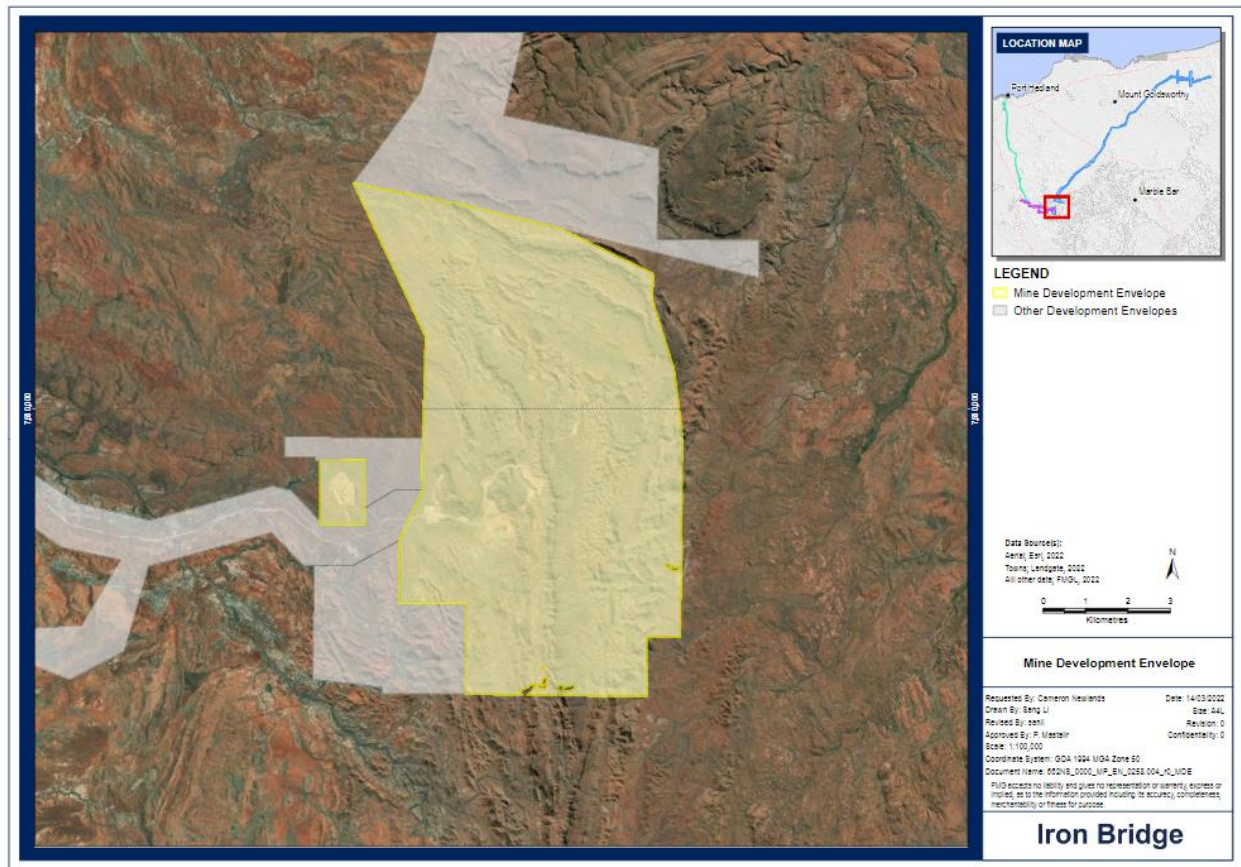


Figure 3 Water Corridor Development Envelope

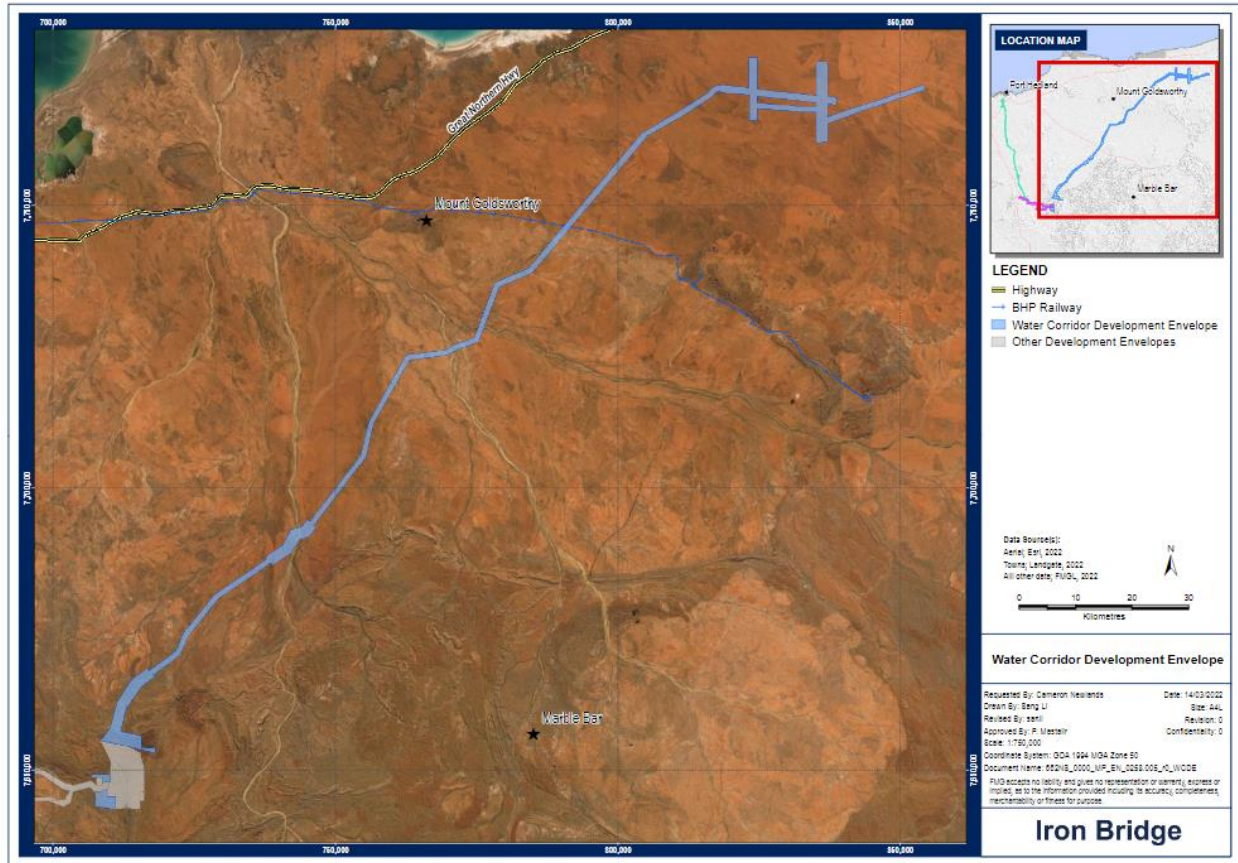


Figure 4 Slurry Corridor Development Envelope

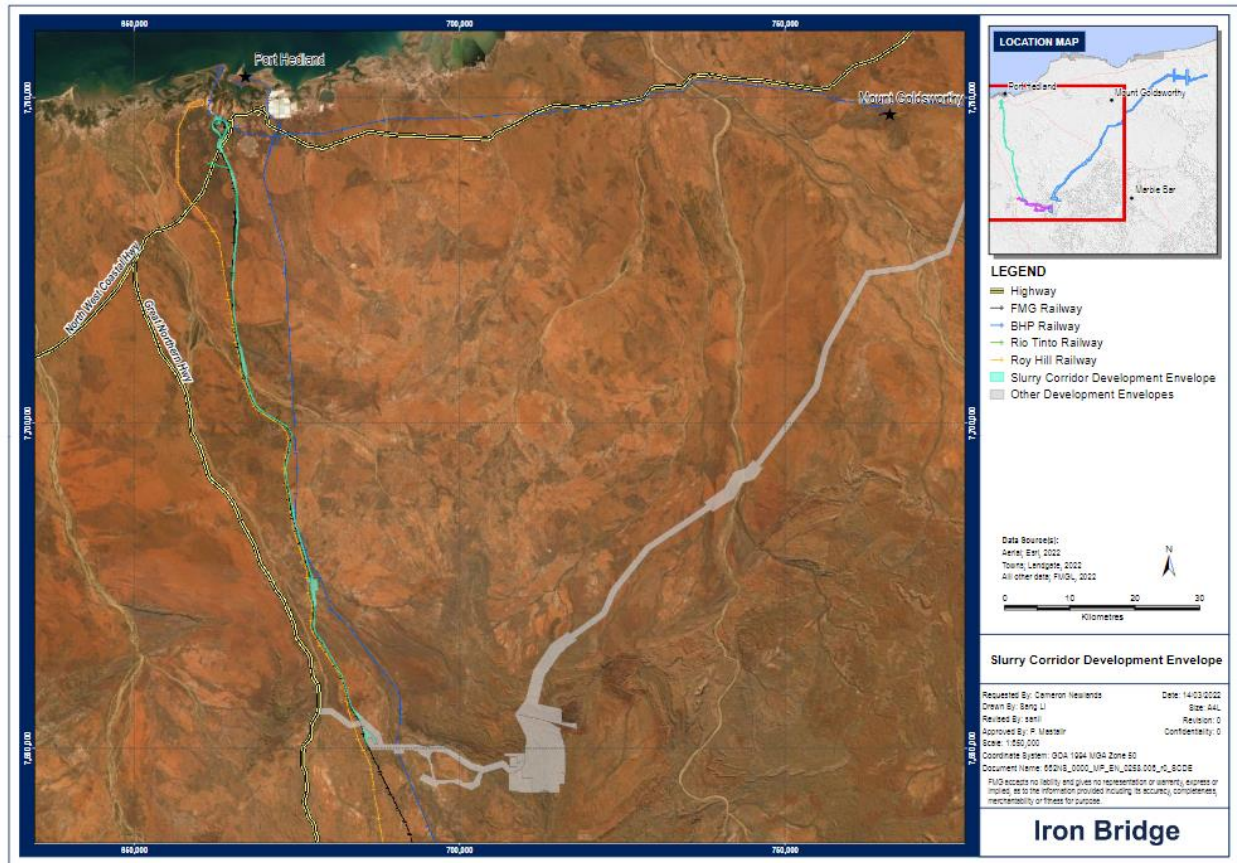


Figure 5 Infrastructure Development Envelope

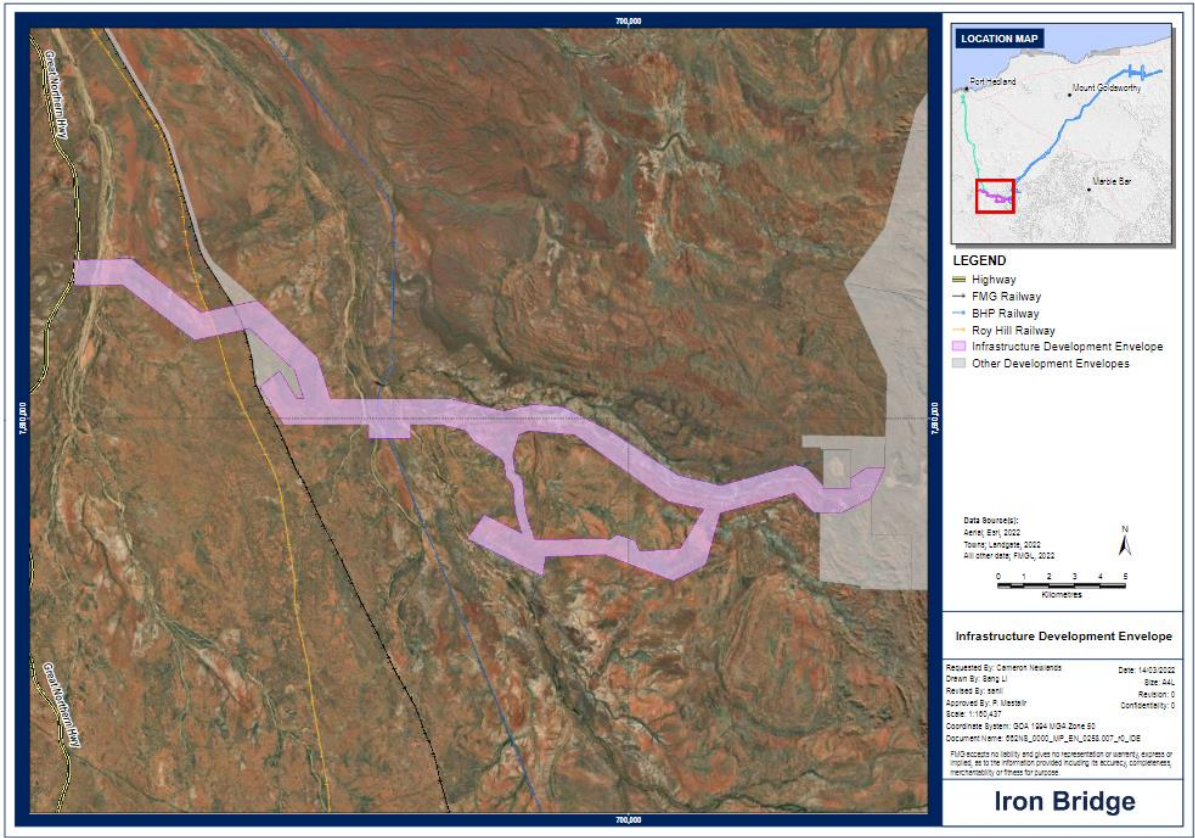


Figure 6: Third Party Tenure of the Project Area

