

Template

Proposal Content Document

Table 1: General proposal content description

Proposal title	Arrowsmith North Silica Sand Project
Proponent name	VRX Silica Limited
Short description	<p>The Proposal is to develop a high-grade silica sand mine in the Geraldton Sandplain bioregion of WA, approximately 270 km north of Perth. The Proposal will produce a high-grade silica sand product via extraction and mechanical upgrading.</p> <p>The Proposal includes the sequential block mining of silica sand, development of a mine feed plant, moveable surface conveyor, pipeline, processing plant, stockpiles, freshwater supply bore, access corridor, laydown, administration, water storage and associated infrastructure including: gas fired power station, communications equipment, offices, workshop and additional laydown areas.</p> <p>Access to the site will be via an Access Road connecting the Mine to Brand Highway. A freshwater supply bore, water pipeline and Access Road will be located within the Access Development Envelope. All other infrastructure will be located within the Mine Development Envelope.</p> <p>Product will be hauled via road to Geraldton port where it is exported internationally.</p>

Table 2: Proposal content elements

Proposal element	Location / description	Maximum extent, capacity or range
Physical elements		
<p>Mine and Associated Infrastructure</p> <ul style="list-style-type: none"> • Mine feed plant (mobile) • Conveyor (mobile) • Surface slurry pipeline (mobile) • Processing plant and Stockpiles • Topsoil stockpiles • Water storage • Gas fired power station <p>Associated infrastructure including administration, communications equipment, offices, workshop and laydown areas.</p>	Figure 3 of the Environmental Review Document (ERD)	Clearing of 347.3 ha within the 347.3 ha Mine Development Envelope.
<p>Access Corridor</p> <p>Access Road, water bore and water pipeline</p>	Figure 3 of the ERD	Clearing of no more than 6.5 ha within the 60.4 ha Access Development Envelope.
Construction elements		
Groundwater Abstraction	Figure 3 of the ERD	Abstraction of up to 0.9 GL/yr from the Yarragadee aquifer

Operational elements		
Mining and Vegetation Direct Transfer (VDT)	Figure 3 of the ERD	Mining to be undertaken such that topsoil and vegetation is transferred directly to rehabilitation areas via VDT.
Silica Sand production	Figure 3 of the ERD	Production of up to 2 Mtpa of silica sand
Energy production	Figure 3 of the ERD	Up to 5 MW
Groundwater Abstraction	Figure 3 of the ERD	Abstraction of 0.9 GL/yr from the Yarragadee aquifer
Proposal elements with greenhouse gas emissions		
Construction elements:		
Scope 1	<u>Land use change</u> GHG emissions of 1,000 - 1,200 tCO ₂ -e	
Scope 2	None	
Scope 3	Annual Scope 3 emissions of up to approximately 30,416 tpa during the first three years.	
Operation elements:		
Scope 1	<u>Land use change</u> Annual GHG emissions of 1,000 - 1,200 tCO ₂ -e Peak total GHG emissions of 33,160 tCO ₂ -e <u>Energy Production</u> Maximum annual GHG emissions of 17,121 tCO ₂ -e for the first 3 years and 30,743 tCO ₂ -e each year thereafter. Maximum 550,170 tCO ₂ -e GHG emissions over the life of the Proposal (conservatively assumes no renewable energy is utilised).	
Scope 2	None	
Scope 3	GHG emissions of 60,471 tCO ₂ -e per year	
Rehabilitation		
<p>Areas temporarily cleared for laydown during the construction phase will be rehabilitated following construction.</p> <p>Final closure and rehabilitation to commence within 1 year of cessation of operations.</p> <p>Mined areas are to be progressively rehabilitated using VDT and infill planting.</p>		
Commissioning		
N/A		
Decommissioning		

Removal of all above surface and buried infrastructure within 2 years of cessation of operations.

Other elements which affect extent of effects on the environment

Proposal time	Construction phase	Approximately 6 months.
	Operations phase	30 years
	Decommissioning phase	Approximately 2 years after operations