BC Giant Construction

2026

MANAKA SAND PROJECT

PROJECT SUMMARY

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1.0 Introduction

This Project Summary is submitted to the Environmental Protection Agency (EPA) in accordance with Section 11 (1) of the Environmental Protection Act, Cap. 20:05, Laws of Guyana, in respect of the proposed silica sand mining project of BC Giant Construction (hereinafter referred to as "the Company") at Manaka, Essequibo River, within Cuyuni Mining District No. 4. The Company has applied to the Guyana Geology and Mines Commission (GGMC) for permission to extract silica sand, and this summary draws on the Mine Plan, Environmental Management Plan (EMP), Emergency Response Plan (ERP) and Closure Plan prepared in support of that application, covering the period 2026 to 2031.

2.0 Description of the Site

2.1 Location and Land Requirements

The proposed project area comprises a tract of State land of approximately 484 acres at Manaka, Essequibo River, within Cuyuni Mining District No. 4, as delineated on Terra Surveys Topographic Map Sheet 19SE at a scale of 1:50,000. The tract is defined by an established reference point, Reference Point X, at the confluence of the Weri-Werai-Kuru River and the Kurupau Creek (longitude 58°36'44.132"W, latitude 6°44'2.929"N), and a closed traverse of six boundary points (Points A to F). The boundary coordinates are summarised below.

Point	Coordinates and Remarks
Reference Point X	58°36'44.132"W, 6°44'2.929"N. Confluence of the Weri-Werai-Kuru River and the Kurupau Creek
Point A	58°38'58.16"W, 6°44'15.965"N. Point of commencement
Point B	58°38'37.226"W, 6°44'18.755"N
Point C	58°38'37.741"W, 6°43'31.627"N
Point D	58°38'37.464"W, 6°42'35.032"N
Point E	58°38'57.743"W, 6°42'35.032"N
Point F	58°38'57.754"W, 6°43'31.591"N

Of the 484 acre tract, mining during the first phase (2026 to 2031) will be confined to a Phase 1 block of 80 acres, worked in increments of 5 acres at a time to a maximum depth of 10 metres. The site layout comprises the open pit, internal haul roads, sand stockpile and loading area, overburden and topsoil stockpiles, a sand sump, sedimentation and water management ponds, a workshop with oil water separator, fuel storage within a bermed enclosure, and site

offices. The location and access map, geological map, magnetic map and Mine Plan Layout (Drawing No. EMC-MP-2026-002 Rev A, July 2026) are presented in Appendices 1 to 4 of this Project Summary.

2.2 Area of Influence

The area of direct influence is the 484 acres project area, within which physical disturbance will be limited to the 80 acres Phase 1 block and its supporting infrastructure over the period 2026 to 2031. The indirect area of influence extends along the Parika and Essequibo River corridor, incorporating the communities and logistical routes providing labour, goods and services to the project. There are no communities within the immediate vicinity of the concession. Temporally, the area of influence spans the construction, operation and closure phases, together with a post closure monitoring period of at least five years.

2.3 Receiving Waters, Intake and Discharge Structures

The principal receiving waters in the environs of the site are the Essequibo River, located east of the project area, the Kurupau Creek and the Weri-Werai-Kuru River at the reference point, and Black Creek adjacent to the site. Site drainage will be managed through a sand sump of 2,000 cubic metres capacity at the lowest point of the workings, from which water will be pumped to a sedimentation pond. Two discharge points are proposed. Discharge Point No. 1, adjacent to Sedimentation Pond 1, will allow the controlled discharge of settled runoff into the creek, while water in Sedimentation Pond 2 will be recycled to the operation. A water management pond, measuring 40 metres by 15 metres by 3.5 metres deep, will be located 345 metres from the creek. Potable water will be pumped from an unnamed right bank tributary of the creek and treated at a mini water treatment plant, supplemented by treated rainwater, and purchased drinking water in the dry season. Intake and discharge locations are shown on the maps in the Appendices.

2.4 Present Land Use

The project area lies within the White Sand Plateau and Older Pediplains physiographic region, with gently undulating to rugged terrain rising from below 10 metres above mean sea level near the Essequibo River to above 60 metres on the ridges. The vegetation is dakama rainforest which has been selectively logged in the past, with secondary growth widely distributed and a fairly open canopy. Present land use in the area and on contiguous lands consists of small - scale artisanal logging and mining, with active white sand extraction observed at two sandpits closer to the Essequibo River..

3.0 Project Design

3.1 Activities from Construction to Closure

Construction phase. Site establishment is expected to take approximately two weeks within an initial set up period of no more than six months, and will involve the clearing of vegetation and topsoil ahead of mining, the construction of

internal haul roads and the wharf loading arrangements, the excavation of the sand sump and construction of the sedimentation and water management ponds, and the installation of the fuel storage, workshop, oil water separator and site facilities. Suitable organic material and topsoil will be stockpiled for reclamation.

Operation phase. The selected mining method is conventional truck and shovel. No drilling or blasting is required. Overburden, typically less than 1 metre of humic topsoil and dark grey sand, will be stripped by backhoe hydraulic excavator to expose the siliceous zone. Sand will be excavated in straight trenches with benches limited to 3.0 metres in height and bench widths of more than 1.5 times the bench height, loaded onto articulated dump trucks, and hauled over internal roads to the stockpile and the wharf at Manaka, where wheel loaders will load barges for delivery to Parika and Georgetown. Sand may also be sold directly into customers at site. Mining will progress from east to west, restricted to 5 acres at a time and to a maximum depth of 10 metres, well above the water table. A sump at the lowest point of the pit floor will manage water infiltration. From raw material to finished product, the sand requires no chemical processing; the product chain is excavation, hauling, stockpiling, screening as required, and barge or truck delivery of construction grade silica sand to the market.

Closure phase. Rehabilitation will be progressive throughout the life of the mine, balancing disturbed and rehabilitated land at all times. At closure, infrastructure will be decommissioned, overburden returned to mined out areas, stockpiled topsoil and composted organic matter re-spread, and disturbed areas revegetated to achieve a safe, stable and self-sustaining landform. Post closure monitoring will continue for a minimum of five years.

Alternatives considered. The truck and shovel method was selected over alternatives requiring drilling and blasting because the deposit is soft, shallow and free digging. Mining depth alternatives were evaluated against the borehole data, which intersected bedrock at 30 metres and the water table at 22 metres, and the 10 metre limit was adopted specifically to safeguard groundwater.

3.2 Utility Services

- Water supply and treatment: water for dust suppression will be recycled from the sedimentation ponds and applied to haul roads and stockpile areas by water tanker. Potable water will be drawn from an unnamed right bank tributary of the creek and treated at a mini water treatment plant, supplemented by treated rainwater, an onsite well, and purchased purified drinking water from a local supplier during the dry season.
- Energy and electricity: electrical power will be generated onsite by diesel fuelled generators, with exhaust heat used to preheat fuel oil to improve combustion efficiency. Diesel will be stored in a tank founded on an impervious concrete surface within a bermed enclosure sized to retain 120 percent of the tank contents.
- Communication: the site will be provided with mobile phone coverage together with UHF radio systems for operational and emergency communication.

- Facilities: site facilities will include an office, workshop with covered concrete service apron and oil water separator, fuel storage, weighbridge, stockpile and wharf loading areas, and worker amenities served by septic systems.

3.3 Waste Management

The project will generate overburden from mining, tailings and slurry from screening operations, non-hazardous solid waste including food and domestic waste from site operations, septic waste, and hazardous waste comprising waste oils and greases from workshop and vehicle servicing. Overburden will be placed in spoil piles and returned to mined out areas as backfill. Coarse process waste will be used as hard capping for access roads. Non-hazardous solid waste will be managed in accordance with the IFC General EHS Guidelines and disposed of at an approved sanitary landfill constructed onsite, with reuse and recycling preferred over disposal. Food waste and organic matter will be composted for use in revegetation. Septic waste will be managed through septic tanks designed in accordance with the Guyanese septic tank standards, with discharge channelled through a granular filter bed and sludge disposed of in accordance with EPA guidelines. Waste oil will be collected in suitable containers with secondary containment and returned in drums to oil companies; indiscriminate dumping of waste oil will not be permitted. Hazardous materials will be kept in secure, concreted storage with Material Safety Data Sheets on site, and disposed of in accordance with EPA guidelines. Open burning of waste will be avoided.

4.0 Project Size

The estimated reserve within the Phase 1 block is 5,179,980.8 tonnes of silica sand at a bulk density of 1,600 kilograms per cubic metre, with approximately 485,623.2 tonnes of overburden. The production target is 1,035,996.16 tonnes per annum over a mine life of five years, equivalent to a nominal rate of approximately 3,985 tonnes per day on a schedule of one eight hour shift per day, five days per week, and approximately 260 operating days per year. Approximately 70,000 tonnes of sand will be produced during pre-production.

Initial capital investment is estimated at USD 3,505,700, dominated by the acquisition of the mining fleet of two CAT 336 class hydraulic excavators, four CAT 730 class articulated dump trucks, two CAT 950 wheel loaders and one Toyota Land Cruiser, with total capital costs over the life of the operation of USD 3,865,200. At a local market value of USD 8.00 per tonne, projected annual revenue for a typical year of operation is USD 8,287,969.28.

Employment will peak at approximately 15 persons during the construction phase. During operations the project will provide direct employment for 12 persons, comprising one mine superintendent, two excavator operators, four dump truck operators, two loader operators, one mechanic and two labourers, with hiring centralised in Parika and priority given to the recruitment and training of workers from nearby communities.

5.0 Non-Technical Explanation of the Project

In simple terms, BC Giant Construction wishes to extract sand from a piece of State land at Manaka on the Essequibo River and sell it for building purposes. Guyana is building at a record pace, with new roads, bridges, houses and hotels all needing sand, while the sand pits that currently supply the coast are running out and are often flooded. This project would open a new source of supply. The sand at Manaka sits close to the surface in gentle hills, so it can be dug out with excavators and loaded into trucks without any blasting or chemicals. The trucks will carry the sand a short distance to a wharf, where it will be loaded onto barges and shipped down the river to Parika and Georgetown. Digging will stay at least 12 metres above the underground water, so drinking water sources will not be harmed. Rainwater running off the workings will be caught in ponds and allowed to settle before any of it is released, and the land will be replanted in stages as mining moves along, so that when the project ends the site is left safe, stable and green. The project will employ 12 Guyanese workers directly and support jobs in transport and supplies in the Parika area.

6.0 Duration of the Project

Phase	Duration
Construction and site establishment	Approximately 2 weeks of construction activity within an initial set up period of no more than 6 months, including detailed engineering, mine development and pre-production
Operation (Phase 1)	5 years, 2026 to 2031, fully depleting the Phase 1 reserve of 5,179,980.8 tonnes
Closure and rehabilitation	Progressive rehabilitation throughout operations, with final decommissioning and rehabilitation at the end of the mine life
Post closure monitoring	A minimum of 5 years after closure, extended if required by monitoring results

Continuation and expansion of operations in subsequent phases beyond 2031 would be subject to the requisite regulatory approvals.

7.0 Potential Effects on the Environment

The potential effects of the project, in the absence of mitigation, are summarised below by environmental component.

- Land and soils: clearing, grading and mining will disturb soils within the project footprint, with risks of erosion and sedimentation on sloping ground, rutting and compaction from heavy equipment, mixing of topsoil with subsoil

leading to loss of fertility and seed banks, and contamination from accidental spills of fuels, oils and other hazardous materials.

- Surface water: sediment discharge from cleared areas, stockpiles and roadworks could reduce water quality in the unnamed creek and other nearby watercourses. Wastewater from septic systems and runoff from workshops and fuel storage areas could impair receiving waters, and a breach or overtopping of the water management pond, or a fuel spill reaching a watercourse, could cause significant contamination. Culverts at stream crossings may concentrate flows and increase erosion.
- Groundwater: spills of fuel and oil could percolate toward the underlying aquifer, and impermeable pond liners will marginally reduce local recharge. Mining will not extend into the water table, which lies at a depth of 22 metres, some 12 metres below the maximum mining depth.
- Air: fugitive dust will be generated by land clearing, stripping, loading, haulage and wind erosion of stockpiles, particularly in the dry season, together with combustion emissions including particulate matter, carbon monoxide, oxides of nitrogen and sulphur, and volatile organic compounds from diesel equipment and generators.
- Noise: heavy earthmoving machinery, workshops and generators will produce noise above the WHO guideline value of 70 dBA, affecting workers on site and causing temporary disturbance to wildlife.
- Biodiversity and natural resources: vegetation clearing will cause unavoidable but limited loss of terrestrial and swamp habitats and of small, slow moving fauna within the footprint. No critical habitats and no threatened or restricted range endemic species have been identified in the area of direct influence. Increased human presence carries risks of hunting, fishing and the introduction of invasive species. The project will extract a non-renewable sand resource of approximately 5.18 million tonnes and will use water and diesel fuel.
- Socioeconomic: the project will generate positive effects through employment, local procurement, royalty payments and a new sand supply for the national infrastructure programme. Potential negative effects include a boom and bust cycle as construction employment falls away, an influx of job seekers, and increased road and river traffic including fuel transport.

8.0 Proposed Plans to Mitigate Environmental Impacts

The Environmental Management Plan sets out the mitigation and management measures for each potential impact, supported by a comprehensive monitoring programme, an Emergency Response Plan and a Closure Plan. The key measures are summarised below.

- Soils and erosion: implementation of an Erosion and Sediment Control Plan with silt fences, sediment traps, channel control structures and phased clearing of the smallest practicable area; segregation and protected

stockpiling of topsoil and organic matter for reuse; scheduling of construction in the dry season where practicable; decompaction of temporary work areas; and progressive, staged rehabilitation of mined out areas.

- Surface water: containment of site runoff in the 2,000 cubic metre sand sump and sedimentation ponds sized for the 1 in 10 year, 24 hour storm event, with controlled discharge only after settlement and a target turbidity below 50 NTU; a water management pond with a minimum 3 metre freeboard, impermeable liner, seepage collection drains and integrity monitoring; diversion mounds and channels around stockpiles; oil water separators on workshop and fuel area drainage, with discharged water not exceeding 10 milligrams per litre of oil and grease; and monitoring of discharges upstream and downstream of the site.
- Groundwater: restriction of mining to a maximum depth of 10 metres, well above the water table at 22 metres; drip pans and leak checks on equipment; fuel storage on impervious concrete within bermed enclosures retaining 120 percent of tank contents; and implementation of a Spill Prevention and Contingency Plan with sorbents and containment equipment maintained at refuelling areas.
- Air quality: dust suppression by watering haul roads and stockpile areas with recycled water; covering trucks and minimising drop heights; limiting vehicle speeds to a maximum of 30 kilometres per hour; scheduling clearing on less windy days; maintaining equipment to manufacturer specifications; and prohibiting open burning of waste.
- Noise: sound suppression devices such as mufflers and silencers on equipment and generators; avoidance of unnecessary idling; earthen noise barriers; isolation of noise sources from living and dining areas; mandatory hearing protection, warning signage, periodic noise monitoring and regular hearing tests for exposed workers.
- Waste and hazardous materials: implementation of waste management plans for each waste stream, with recycling and composting preferred over disposal; an approved onsite sanitary landfill; septic tanks built to national standards with proper sludge disposal; secure, concreted hazardous material storage with MSDS on site; and return of waste oils to oil companies.
- Biodiversity: strict minimisation of the cleared footprint; preclearance surveys; a prohibition on hunting, fishing and the removal of flora and fauna by employees; monitoring and control of invasive species; and progressive revegetation of disturbed areas using stockpiled topsoil and composted organic matter.
- Social management: centralised hiring in Parika with priority recruitment, training and apprenticeships for residents of nearby and indigenous communities; a local supplier register and open days; an influx management plan; a traffic management plan with enforced speed limits; and workforce skills diversification to soften the post-construction decline in employment.
- Emergency preparedness: an Emergency Response Plan establishing the response organisation, equipment, communication systems and procedures for fire, spills, flood and other credible emergencies, in cooperation with

the Parika or Bartica Fire Services, the Parika Police and the Leonora Hospital, with annual exercises and plan reviews.

- Closure: progressive rehabilitation throughout the mine life and a Closure Plan committing the Company to a stable, self sustaining post-mining landform with land capability similar to pre-disturbance conditions, preservation of downstream water quality, and post closure monitoring for a minimum of five years.

Implementation of the EMP will be the responsibility of the Company's Environmental Officer, who will report annually to the EPA and the GGMC on the status and progress of the project's environmental objectives. The Company remains committed to conducting its operations in full compliance with the Environmental Protection Act 1996, the Mining Act 1989 and all applicable regulations administered by the EPA and the GGMC.

Appendix 1: Location and Access Map of the Proposed Project Area

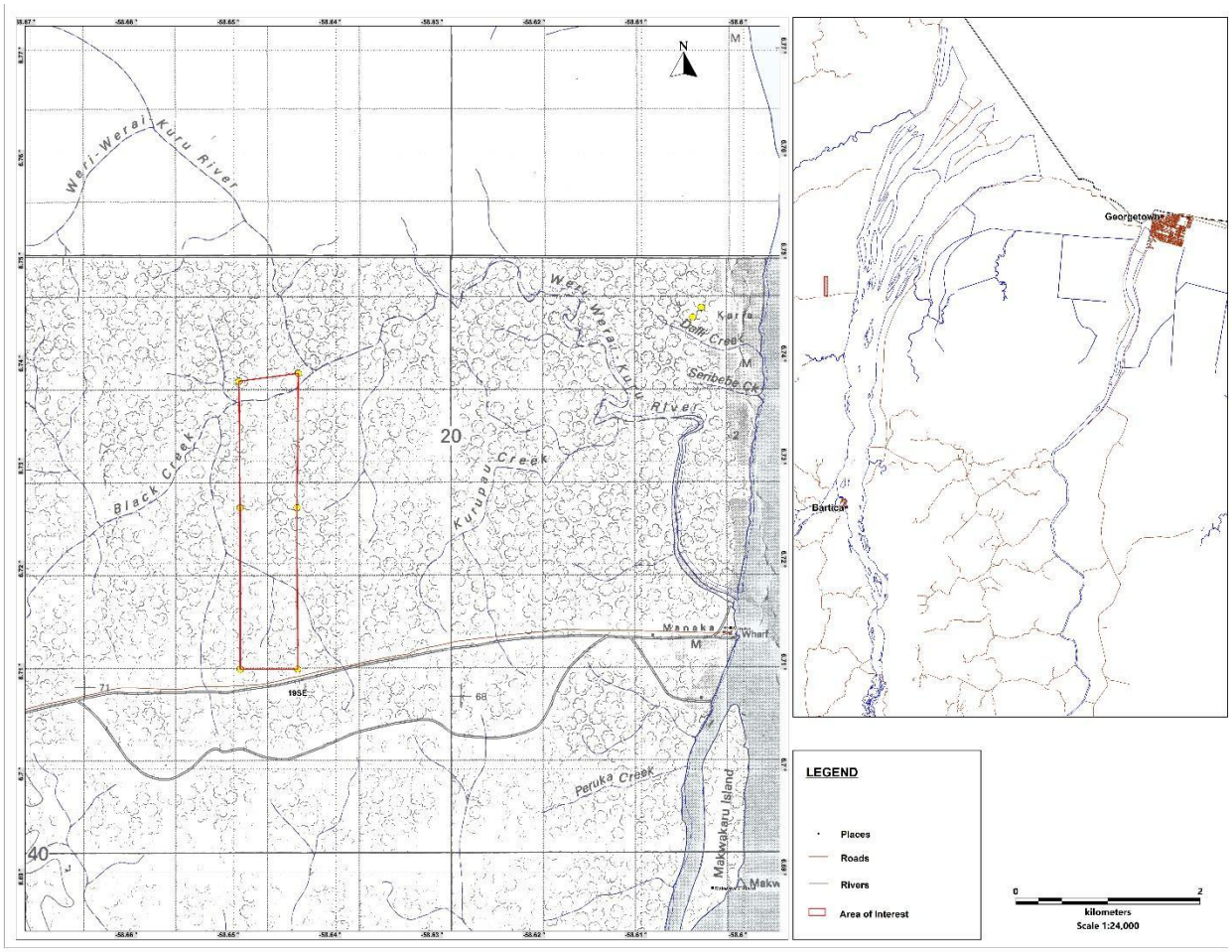

Figure A1: Location and Access Map of the Proposed Project Area, Manaka, Essequibo River

Appendix 2: Geological Map of the Proposed Project Area

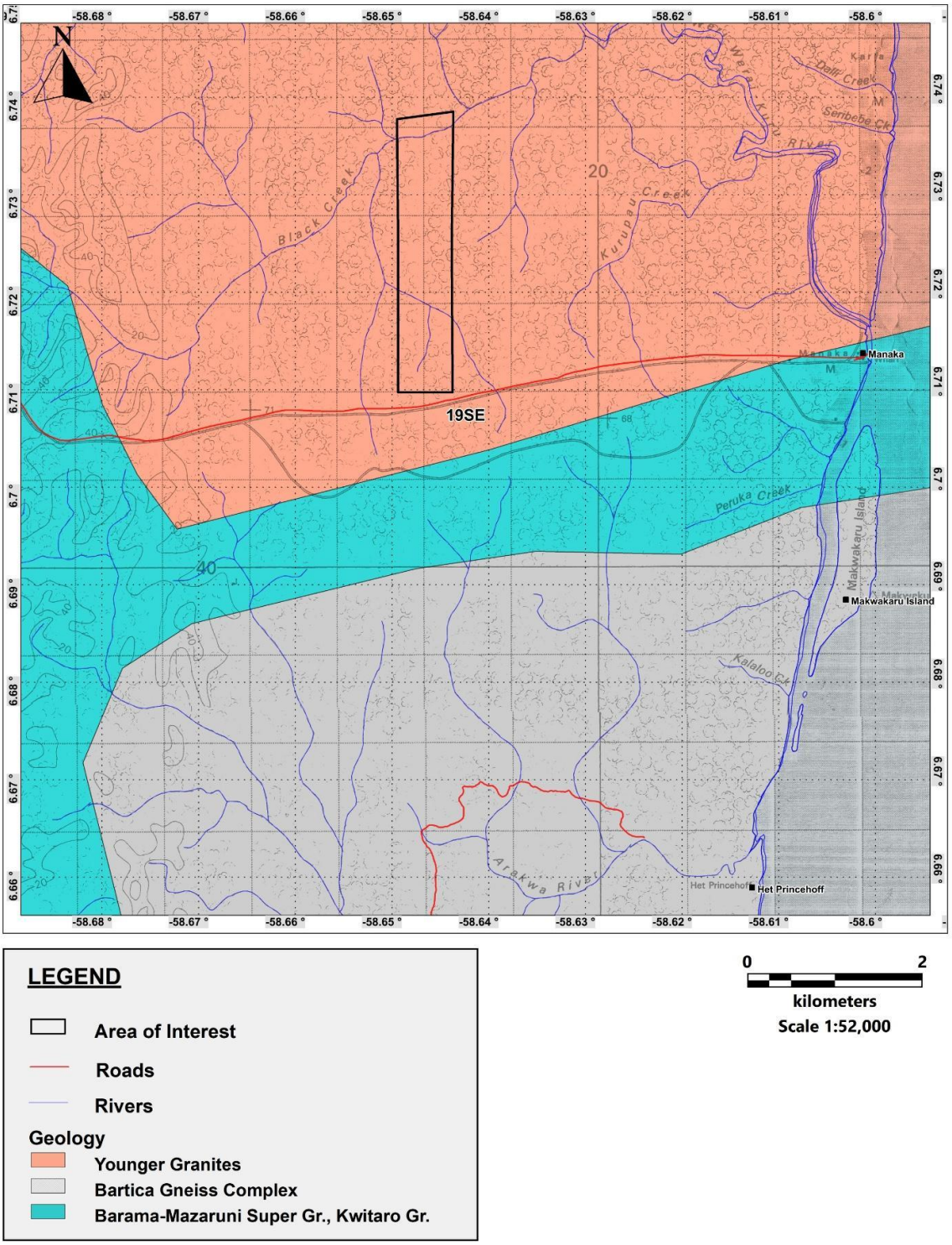

Figure A2: Geological Map Showing the Occurrence of Sand within the Proposed Project Area

Appendix 3: Magnetic Map of the Project Area and Environs

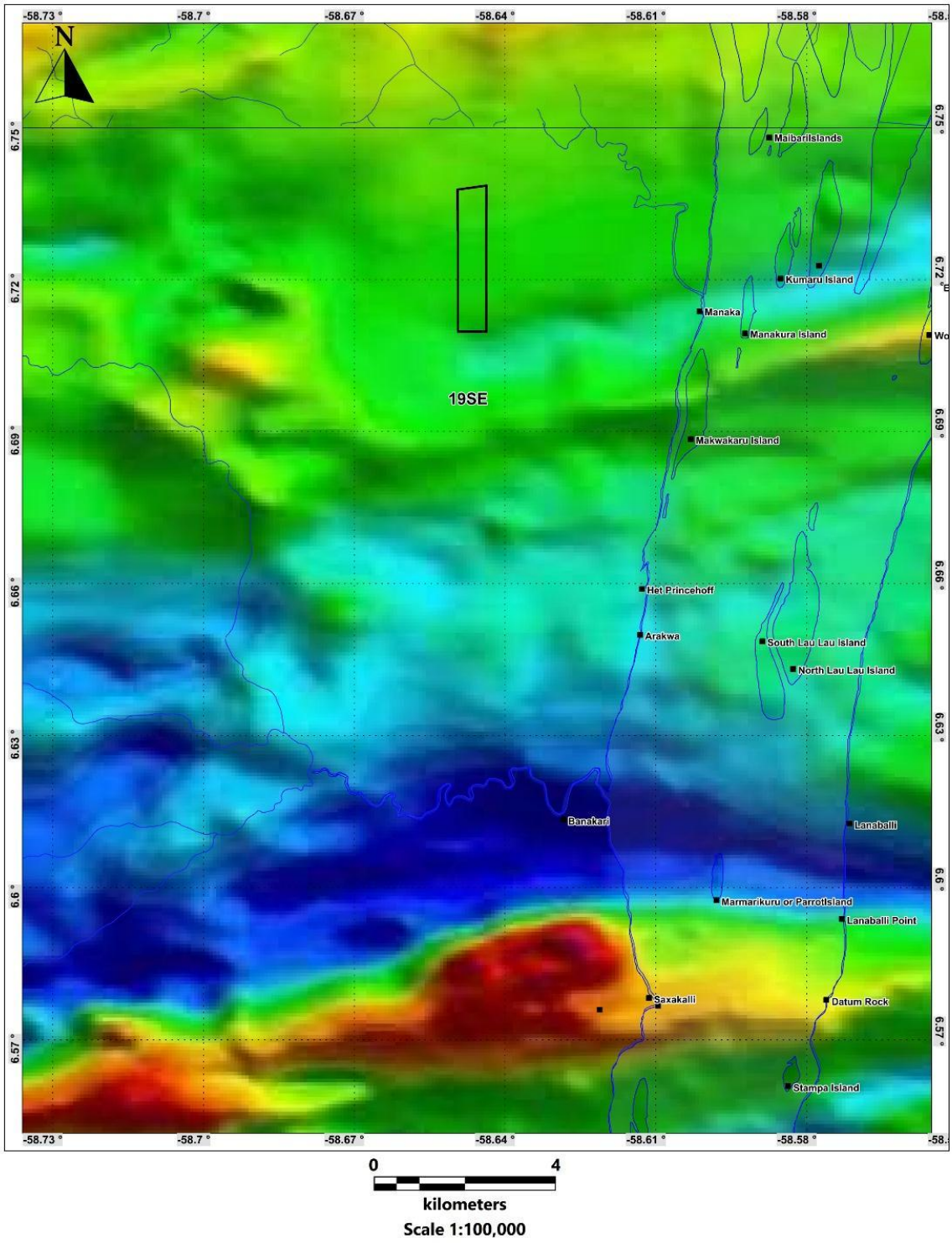

Figure A3: Magnetic Map of the Project Area and Environs

Appendix 4: Mine Plan Layout

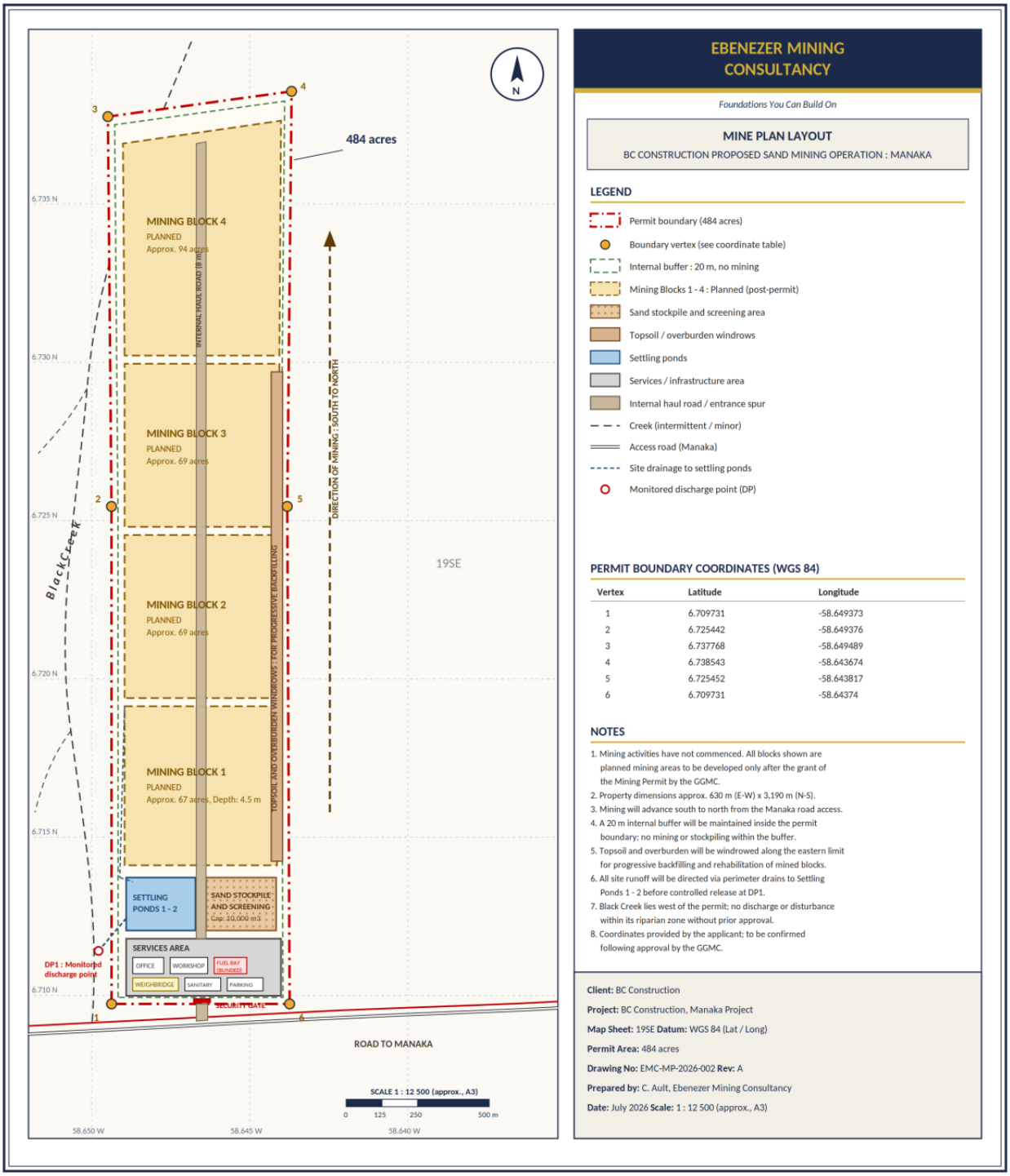

Figure A4: Mine Plan Layout, Drawing No. EMC-MP-2026-002 Rev A, July 2026 (Datum: WGS 84; scale as shown on drawing)