



Government of the Co-operative Republic of Guyana
Environmental Protection Agency



Environmental Impacts Screening Decision

Project Name: Debarah De Freitas-Sherima Quarry

Type of Operation: Stone Quarry

Reference NO.: 20210915-DDFSQ

Location: H-1048/MP/000/2020- Confluence of the Essequibo River and Timetikuru Creek, Region 7

Documents submitted

The following documents were submitted along with the Environmental Application.

1. Project Summary
2. Mine Plan
3. Notice of Intension to Grant Mining Permit (Medium Scale) from Guyana Geology and Mine Commission.

The documents were reviewed and were found acceptable by the Environmental Protection Agency.

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Maps



Figure 1

Point A, located at geographical coordinates of longitude **58°35'45"W** and latitude **6°9'24"N**, thence at true bearing of **90°**, for a distance of approximately **1 Mile 989 yards**, to **Point B**, located at geographical coordinates of longitude **58°34'23"** and latitude **6°9'24"N**, thence along the left bank of the Essequibo River for a distance of approximately **1 mile 1151 yards**, to **Point C**, located at geographical coordinates of longitude **58°34'46"W** and latitude **6°8'16"N**, thence at true bearing of **270°**, for a distance of approximately **1 Mile 234 yards**, to **Point D**, located at geographical coordinates of longitude **58°35'46"W** and latitude **6°8'16"N**, thence at true bearing of **360°**, for a distance of approximately **1 mile 541 yards**, to the point of commencement at **Point A**.

Key Considerations

1. The proposed block is within the Mazaruni Mining District 3 (according the Guyana Geology Mines Commission zoning). The proposed project will occupy 1,100 Of acres of land; however, the project intends to utilise 30 % (330 acres) of the allotted area for

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clearance and extraction of aggregate, establishment of mining pits, buildings and internal roads for the operation.

2. There are no communities located in the immediate Project environment. Bartica and Rockstone are located approximately 42 km and 25 km respectively from the proposed project location. Immediate to the Southern and Western direction of the block are secondary forest and immediately to the Northern direction of the block there is MMC River Crossing Facility and immediately to the Eastern direction is the Essequibo River.
3. Site Drainage - The quarry site is hilly and as such water would drain from the high areas to lower areas i.e., from the Timetikuku Creek which passes through the Block in the north-western direction of the Essequibo River.

• Ancillary Services

1. Two (2) 30 KVA Generator will be used to supply electricity to the facility and non-essential aspects of the Quarry such as Buildings, Camps and Guard Huts and to supply electricity to the Crushers for stone production.
2. Buildings will be constructed for accommodation and planning, organizing, coordinating and controlling activities on site. The materials (lumber and stones) that would be used of the construction of the various building will be source from the proposed location.
3. A sperate storage area will be constructed for explosives and hazardous materials Safety Data Sheets (SDS) will be kept on site. The location of the storage area for the explosives will be guided by the requirements of the Guyana Police Fore and other regulatory bodies.

Environmental impact screening

The EPA's screening concludes that there are no identifiable significant environmental impacts likely to be generated from this Project given the proposed mitigation measures. Impacts arising from the construction and operational phases of the project are considered to be minor, localized, and acceptable, and an Environmental Social and Management Plan (ESMP) will be prepared providing measures to avoid, prevent and mitigate impacts during the construction and operation of the Quarry.

1. From the assessment conducted these communities (Bartica and Rockstone) will not be directly affected by the proposed activities of the project. Also, there are other propose quarries slatted in the said zone and no report has been received from members of those communities of them being affected by those Projects.

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2. Surface water quality may be affected by sediment load occurring from loose soil and rock sediments in storm runoff holding to the fact that the area is undulating. There will be no direct discharge of effluent into the Essequibo River or any Creek or waterway that is located in the Project environment.
3. Air quality may be affected from combustion gases, dust, and particulates. However, this impact would be within the immediate project environment and may be as a result of blasting, transportation and loading. These impacts would be short term and localized to the Project Site. With the implementation of control measures, such as wet suppression, these impacts can be mitigated.
4. Noise and vibration within the immediate project environment will occur due to blasting. However, these impacts would be short term and localised to the project site. With the implementation of control measures, such as buffers, these impacts can be mitigated.
5. Soil degradation/contamination due to removal of vegetation and compaction by heavy duty machinery.
6. Loss of biodiversity and habitats may occur as a result of vegetation removal and forest fragmentation. Clearing of vegetation in stages and extraction of aggregate in stages will allow for more effective management and control of impacts and reduce habitat destruction.
7. A requirement is the preparation of a construction and operational ESMP to manage environmental impacts arising from the project along with a corresponding schedule and monitoring of mitigation measures to ensure potential impacts are maintained at insignificant levels. It also includes the institutional arrangements for implementing the ESMP to ensure its effectiveness.

Impact Mitigation

Apart from the Agency requesting an ESMP the Project proponent suggested that the following will also aid in mitigating possible project impacts:

- Air quality impacts will be mitigated by employing dust suppression techniques, appropriate speed limits (30-15 mph), spray bars installed on several points on crushing equipment and maintaining construction equipment according to manufacturer's specifications.

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- Minimizing the Project's footprint and initiating restoration as soon as practicable in temporary work areas will mitigate the impacts to soil and habitats.
- Monitoring biodiversity, minimizing the number and longitudinal extent of streams to be relocated and control of invasive species would mitigate impacts to biodiversity.
- Noise level impacts will be mitigated by installing sound suppression equipment on vehicles (mufflers) and ensuring vehicles are maintained according to manufacturer's specification. Blasting will be implemented in accordance with Mining regulations and GGMC Code of Practice for Mining. The decibel limits outlined in the GMBS Noise Emission Standard will also be implemented.
- The implementation of grease traps, soakaway and drains will be utilised to mitigate impacts to ground and surface water.

Conclusion and recommendations

The EPA concludes that there are no identifiable significant impacts likely to be generated from the Project. Residual impacts arising from the construction and operational phases of the project are minor, localized, and acceptable. The implementation of environmental management practices in-keeping with international standards, best practices of the Mining industry will be required to provide safeguards in relation to potential impacts identified. An ESMP will be required to provide the set of measures to avoid, prevent, mitigate any impacts and also include monitoring of the environment.

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