ENVIRONMENTAL PROTECTION AGENCY (EPA)-GUYANA

ENVIRONMENTAL AUTHORISATION SCREENING REPORT

NAME OF COMPANY: Vishwan Persaud Baichan – V.P. Baichan and Sons Enterprise.

TYPE OF PROJECT: Stone Quarry

REFERENCE NO.: 20221221-VPBSQ

PROJECT LOCATION: B-1011/MP/000 located at the Confluence of Corentyne and Epira Rivers.

Please note that the source of information provided in the following report is the Project Summary submitted by the Developer/Company, GIS and the approved Environmental Management Plan (EMP) prepared for V.P Baichan Sawmilling, Logging and Stone Investment for Quarry Project, located at the confluence of Corentyne and Epira Rivers, Region 6.

1.0 INTRODUCTION

PROJECT OVERVIEW AND DESCRIPTION

The Environmental Protection Agency received an Application from Mr. Vishwan Persaud Baichan on **December 21, 2022**, for Environmental Authorisation of Stone Quarry to be located at B-1011/MP/000, confluence of Corentyne River and Epira River, Region# 06. The following documents were submitted as a part of application's requirement:

- A topographic map showing Vishwan Baichan PPM(B-1020/005/2016);
- Environmental Management Agreement between GGMC and Vishwan P. Baichan;
- A map of Guyana showing the location of the project area;
- Certificate of Registration – V.P Baichan and Sons Enterprise;
- Guyana Revenue Authority Certificate of Compliance;
- Brief Project Description;
- Mining Permit File#: B-1011/MP/000/2017;
- Certificate of Registration Taxpayer Identification Number (TIN) – Vishwan Baichan;
- Guyana Identification Card – Vishwan Baichan; and
- Project Summary.

Mr. Vishwan Baichan owns and operates a fully established Stone Quarry located at Block LM40-B-7, at the confluence of Corentyne and Epira Rivers Region 6 (immediately south of the Block (B-1011/MP/000) applied for). The Stone Quarry located within Block LM40-B-7 was granted an Environmental Permit (Renewed) Ref. No. 20160615-VPBQC valid for five years (2022-2027). Based on the fact that the proposed project is located immediately next to each other, and the approved EMP provides environmental data for the area, the area was considered known and no site inspection was necessary since information on the site was collected because of previous projects.

To this end, the following report was prepared with data collected from Geographical Information System (GIS), Project Summary, previous site visit report and the approved Environmental Management Plan (EMP, 2017). The EMP, used for environmental data for this report, governs the operations at Stone Quarry located at Block LM40-B-7.

The proposed project will be situated at B-1011/MP/000, confluence of Corentyne River, Region# 06, and will occupy an area that is approximately 1141 acres in size. The Company's intention is to use approximately 60% of the project area to extract stones to be processed by crushers located at Block LM40-B-7 or at Crabwood Creek.

There will be no structures on the project site, materials extracted will be transport via trucks to Block LM40-B-7 and then barged to Crabwood Creek along the Corentyne River. The mining blocks (Block LM40-B-7 and B-1011/MP/000) were already issued a Mining Permit by the Guyana Geology and Mines Commission (GGMC).

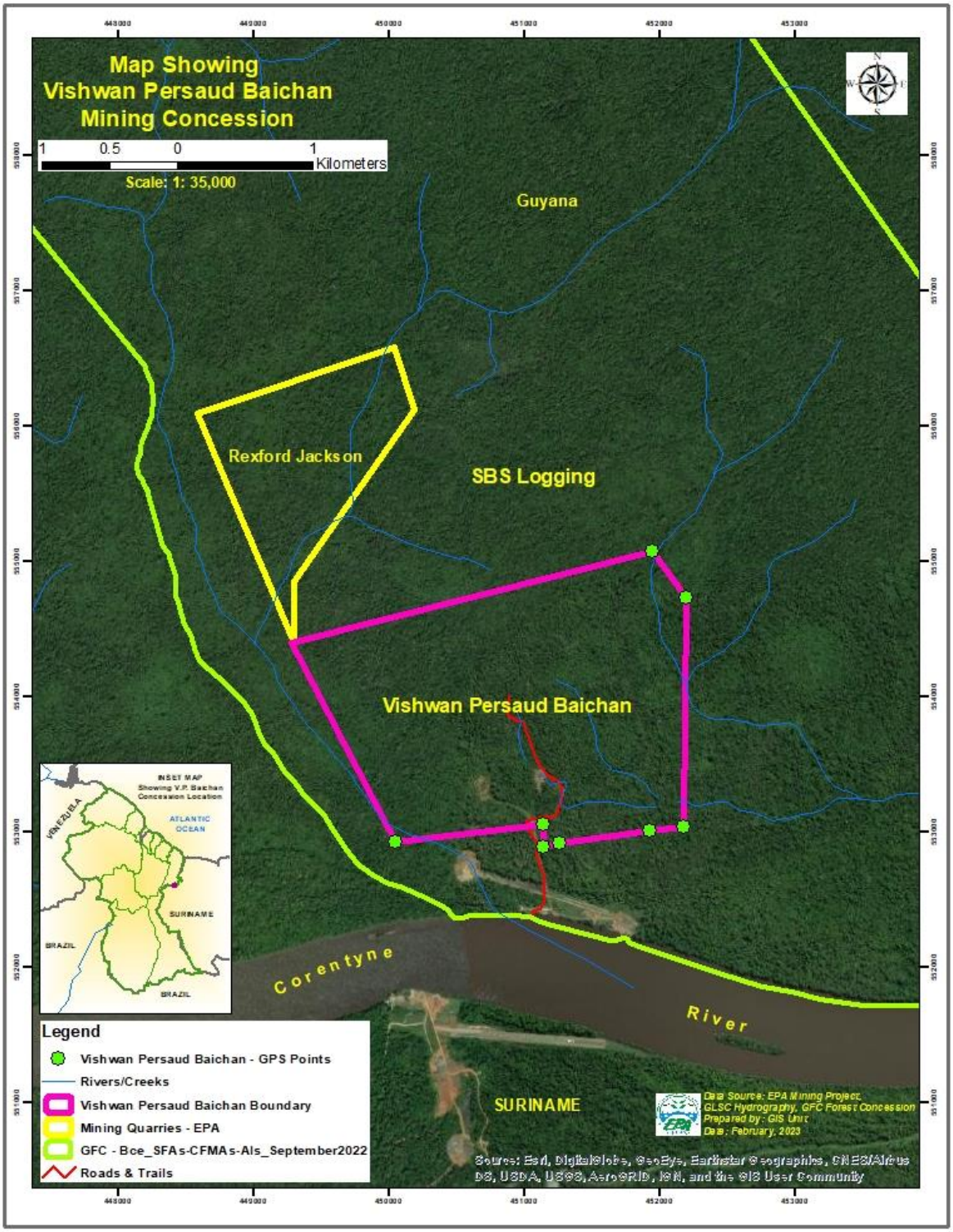
In addition, the area is closely adjacent to a Stone Quarry located at Block J-1034/MP/000, permitted and owned by Rexford Jackson.

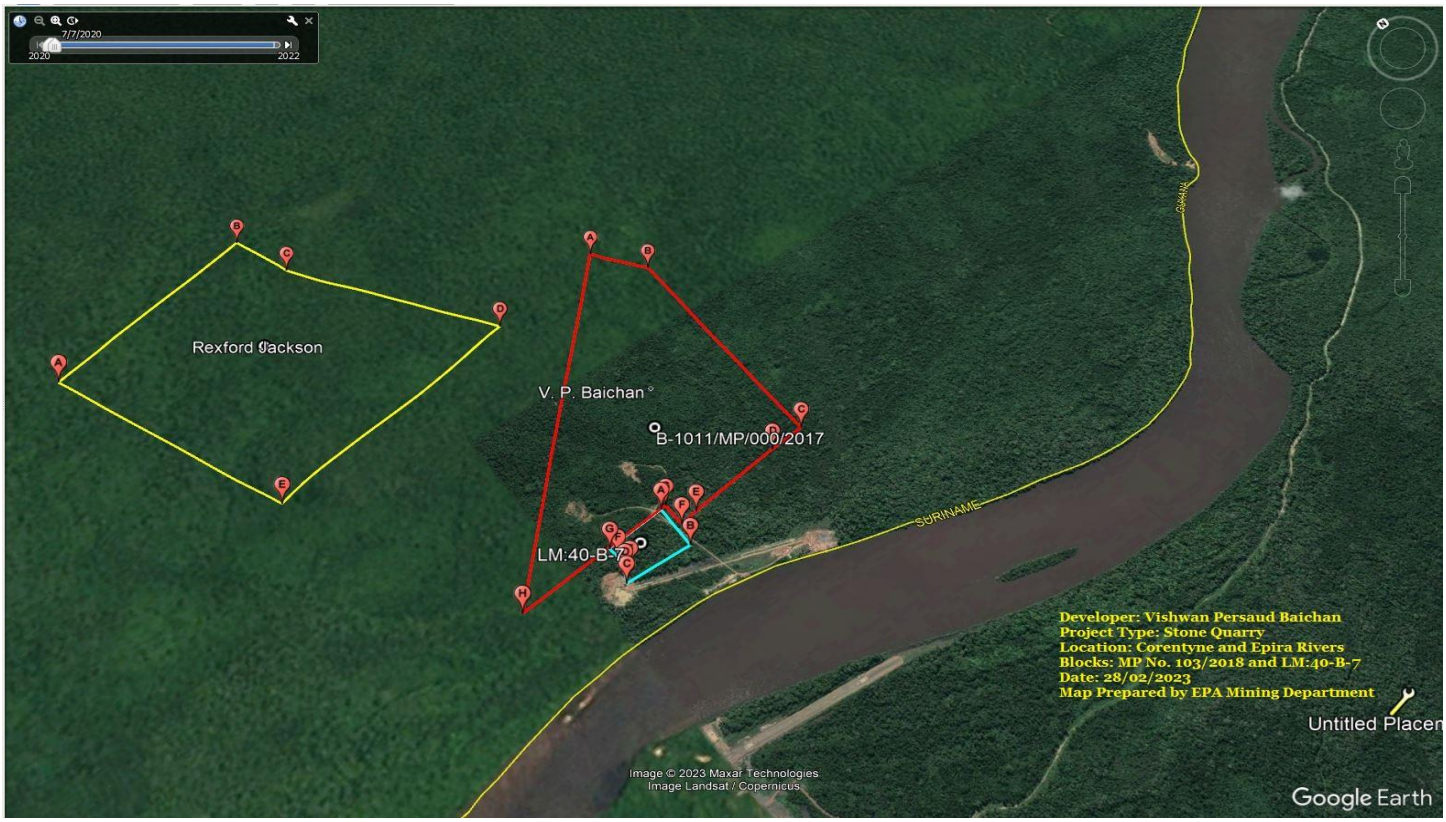
2.0 PROJECT LOCATION

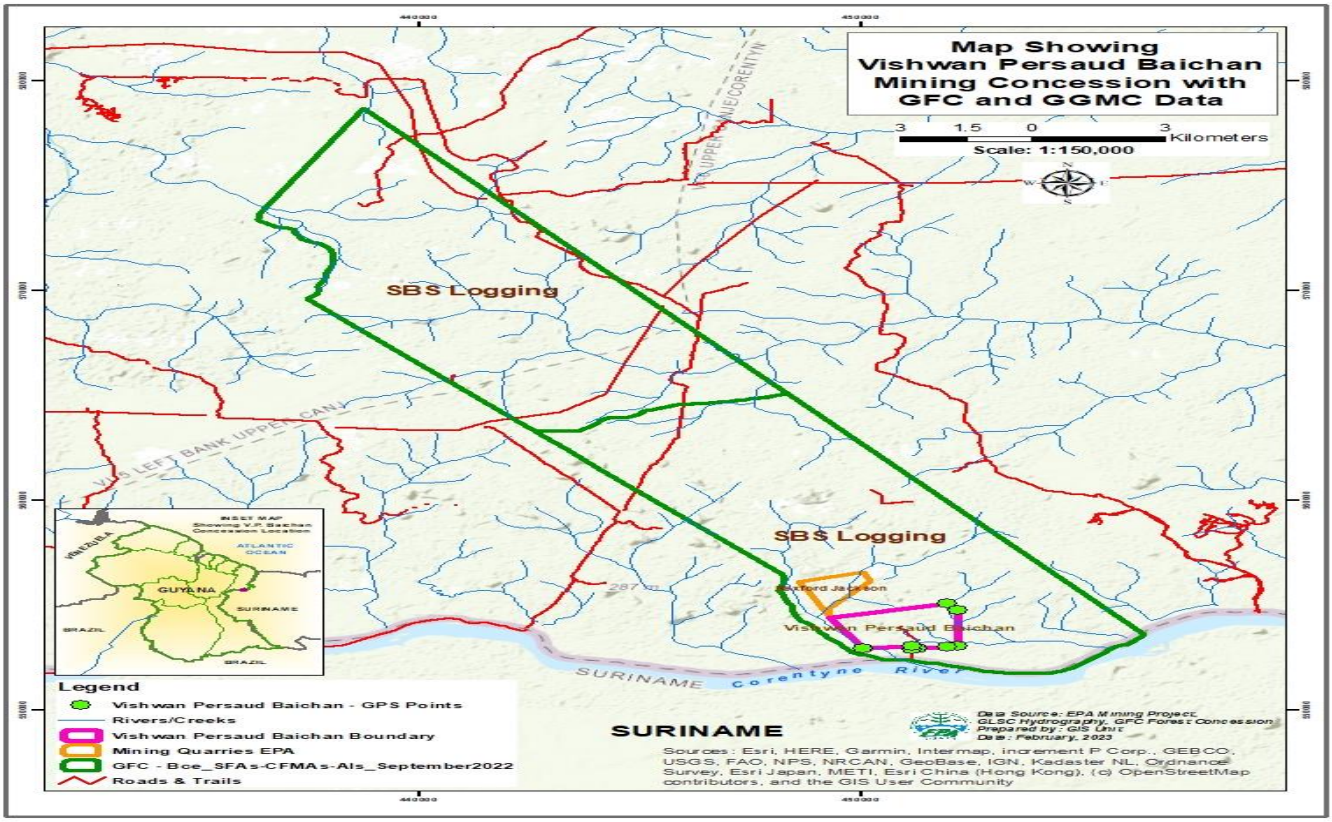
The project area is located within the vicinity of Pigeon Island within Block B-1011/MP/000 on the Left Bank of the Corentyne River in Berbice, enclosing an area of approximately 1141 acres. From Crabwood Creek the area is approximately 370 km (230 miles) up the Corentyne River via a boat. The Site can also be access by land through Kwakwani.

Located at the confluence of the Corentyne and Epira Rivers with geographical coordinates of longitude 57°18'3.744'W and latitude 5°9'18.403"N. Thence at a true bearing of 224.67°, for a distance of 12 miles 1704.3 yards to the point of commencement: **Point A**, located at geographical coordinates of longitude 57°26'.64'W and latitude 5°1'17.854', thence at true bearing of 144.49°, for a distance of approximately 464.28 yards, to **Point B**, located at geographical coordinates of longitude 57°25'52.626"W and latitude 5°1'6.665", thence at a true bearing of 180.41°, for a distance of approximately 1 mile 96.5731 yards, to **Point C**, located at geographical coordinates of longitude 57°25'53.002"W and Latitude 5°0'11.704", thence at true bearing of 263.38°, for a distance of approximately 277.565 yards, to **Point D**, located at geographical coordinates of longitude 57°26'1.2.16"W and latitude 5°0'10.757", thence at a true bearing of 261.53°, for a distance of approximately 730.079 yards, to **point E**, located at geographical coordinates of longitude 57°26'22.675"W and latitude 5°0"7.574", thence at a true bearing of 258.54°, for a distance of approximately 140.168 yards, to **Point F**, located at geographical coordinates of longitude 57°26'26.758"W and latitude 5°0'6.75", thence to a true bearing of 1.12°, for a distance of approximately 185.604 yards, to **Point G**, located at geographical coordinates of longitude 57°26'26.65"W and latitude 5°0'12.244", thence at a true bearing of 263.11°, for a distance of approximately 1207.53 yards, to **Point H**, located at geographical coordinates of longitude 57°27'2.275"W and latitude 5°0'7.956", thence at a true bearing of 332.99°, for a distance of approximately 1 mile 52.3673 yards, to **Point I**, located at geographical coordinates of longitudes of longitude 57°27'26.737"W and latitude 5°0'55.757, thence at true bearing of 75.55°, for a distance of approximately 1 mile1231.73 yards, to the point of commencement a **Point A**.

Maps showing the project area and surrounding Land Uses




7/7/2020
2020
2022
Rexford Jackson
V. P. Baichan °
B-1011/MP/000/2017
LM:40-B-7
SURINAME
Developer: Vishwan Persaud Baichan
Project Type: Stone Quarry
Location: Corentyne and Epira Rivers
Blocks: MP No. 103/2018 and LM:40-B-7
Date: 28/02/2023
Map Prepared by EPA Mining Department
Untitled Placen
Image © 2023 Maxar Technologies
Image Landsat / Copernicus
Google Earth


Map Showing
Vishwan Persaud Baichan
Mining Concession with
GFC and GGMC Data
3 1.5 0 3
Kilometers
Scale: 1:150,000
SBS Logging
SBS Logging
Rexford Jackson
Vishwan Persaud Baichan
SURINAME Corentyne River
SURINAME
Legend
Vishwan Persaud Baichan - GPS Points
Rivers/Creeks
Vishwan Persaud Baichan Boundary
Mining Quarries EPA
GFC - Bce_SFAs-CFMAs-Als_September2022
Roads & Trails
Data Source: EPA Mining Project, GLSC Hydrography, GFC Forest Concession
Prepared by : GIS Unit
Date : February, 2023
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

3.0 Description of the Project's Physical Environment

Geomorphology

The area is characterized by low rolling hills and valley with minor drainage lines. The rocks within the area are medium grained, hard, massive granite formed by a NW-SE trending dyke that passes through the entire area. The project area is not part of one of the three main greenstone belts, but falls within one of the numerous irregular greenstones occurring areas. The site consists of intermediate meta-volcanics formed during the Lower Proterozoic Supracrustals period while younger granites were formed during the Trans-Amazonian Tectono-thermal event age.

As it relates to topography of the area, the southern portion of the project site which borders the Corentyne River is relatively low and flat. The elevation increases towards the intended quarry area where the height is between 150 ft. to 250 ft. further north to the project boundary the area is in excess of 300 ft. This is the highest elevation within the property.

During operations, the total reserve of the area is expected to last more than five (5) years. It is expected that the area will produce 25, 000 tons per month. The only suitable access to the area is via the Corentyne River using a boat. The same route will be used to transport quarriable materials to Crabwood Creek.

Soils

The proposed Baichan Stone Quarry is located in the north east of the Hilly Sand and Clay Region on the left bank of the Corentyne River. The soil type of the project area consists of red yellow latosols, steep phase including red yellow podzolic intergrades to red yellow latosols. Immediately bordering the project site is red yellow latosols, light textured phase. These soils are largely very deep, well drained sands over sandy clays of low fertility with limitations of fertility and low water holding capacity but which have favorable physical properties that could be ameliorated by land management and irrigation.

Hydrology and Drainage

The area is drained via the Corentyne River and is mostly surrounded by primary and secondary forests. However, the project site itself is drained by a small unnamed seasonal creek as can be seen on map "Maps showing the project area and surrounding Land Uses". There is no other significant stream within the project site. Runoffs from the project area flows directly towards these water bodies.

Flora and Fauna

The natural landscape of the project site consists of vegetation type characteristic of riparian forest habitats of the hilly sand and clay region and the Corentyne River. Research shows that the immediate landscape area of the project is characterized by extensive tall, evergreen, flooded riparian mixed forest (including Mora Forest) existing along flood plains of the Corentyne River and tall evergreen, seasonally flooded and non-flooded low land mixed forest existing inland of the riparian areas. The extensive riverine mixed forest habitats are characterized by species of that are generally found along major rivers, having significant canopy association with species of the Mora forest inclusive of *Eschweilera wachenheimii, Eschweilera sagotiana, Clathrotropis brachypetala, Clathrotropis macrostachya, Eperua falcata, Eperua rubiginosa, Catostemma spp, etc.* The habitats are interlocked among aquatic environments in the form of the Corentyne River and small creeks.

These forest ecosystems support a large diversity of widespread humid forest fauna typical of the neotropics, the Guiana Shield and Amazonia lowlands, and the lowland forest regions of Guyana. These species typically include fishes like the freshwater barracudas or Houri (*Hoplias malabaricus),* and the himara (*Hoplias aimara),* caimans (*Caiman crocodylus)*, and mammals such as the Red-Rumped Agouti (*Dasyprocta agouti),* the Labba *(Agouti paca),* Deer *(Odoceilus virginianus)* and the Peccary.

Review of the IUCN Red List revealed no critically endangered or endangered plant and animal species that is known to occur with the project landscape.

Land Use

The project area is located in a highly remote area situated within the area of the Corentyne River, is predominantly used for logging and laterite mining. The high levels of human activity particularly stems from the Suriname side of the River. In excess of twenty-five (25) years the project area is known for logging operations conducted by Mr. Baichan and other developers. Within the project site, laterite mining was conducted for approximately four years by Mr. Baichan. The laterite pits were observed via GIS.

The general project area has both quarry and laterite resources that are being mined. The resources extend across the Corentyne River into Suriname and there are a few quarrying operations on that side of the River, including one just opposite the project site (Suriname). The general long term land use of the wider project area is logging which has been occurring for several years and there are several current SFPs surrounding the project area. Logs are harvested and transported via the Corentyne River to Crab wood Creek for processing. The forestry sector within this area therefore plays a major role in

the local economies of communities such as Orealla and Siparuta, since a large majority of the working population seeks employment within this sector.
The closest settlements are the Amerindian Villages, Siparuta and Orealla. Orealla or Orealla Mission is one of two Amerindian communities which are within range of the project area, the other being Siparuta. These communities are approximately 10,768 meters and 8,994 meters respectively (via river) from the project area, both of which overlook neighboring Suriname. The two communities are the only Amerindian reservations on the Corentyne River and are structured locally as one. The communities are being managed together as one, with a single Toshao along with a team of councilors.

4.0 CHARACTERISTICS OF POTENTIAL IMPACTS

SURFACE WATER

As mentioned earlier the project site will only involve the extraction of stones. Consisting of activities such as land clearing, earthmoving, blasting and development of sediment ponds. Sediment ponds will accommodate storm water runoffs from pits and stock piles at the area. With these activities there is potential for erosion and the associated increase in sediment being transported to waterways resulting in sedimentation of the waterways within the Project area. No mechanical works will be conducted at the site, but heavy duty vehicles in and out of the area transporting material can also result in the accidental discharge of fuel, oils and grease, which can runoff into nearby waterways.

Mitigation Measures - Water Quality

The key objective of the mitigation measures is to protect existing waterways from impacts from the mining and mining related activities. The mitigation measures mentioned in the project summary submitted to be implemented at the project site includes:

- A vegetative buffer strip around the perimeter of the site and along significant waterways where surface water flow passes through can be effective.
- Sediment and erosion control measures such as silt fences and soak-aways will be implemented where appropriate to mitigate impacts on receiver water quality.
- Erosion susceptible areas or areas with a high erosion potential will be sloped, benched or lined with erosion control structures to manage surface runoff, in accordance with the Code of Practice for Quarrying, and the storm water and sediment control, and erosion control management plans.
- Surface run-off water will be directed to a settling pond. Excess water from the settling pond will be discharged through site drains to prevent overfilling and overtopping of the settling pond. Discharge from the settling pond under these circumstances will be monitored to ensure the compliance with water quality standards established by the Mining Amendment Regulation 2005.

- Upper-level drainage will be done by gravity flow using ditches. The quarry floor will have a sump to collect excess water. This water will be pumped to the settling pond to ensure it meets the required limits before discharge to the environment.
- Spoil piles will be surrounded by perimeter berms and drains to manage discharges of water and sediment. Water from the perimeter drain will be directed to the settlement pond before discharge to surface water.

Impact Significance

Vegetation clearing will reduce rain interception by forest cover and may result in increased discharge to the seasonal creek and eventually the Corentyne River. The potential sediment discharge and erosion (due to excavation and blasting) may impact the quality of the seasonal creek and Corentyne River. The Corentyne River is used as a mode of transport for goods and persons living and working along the River. It is uncertain what type of domestic activities the river water is being used for by the communities along the river. It is suspected that persons downwind of the project who may rely on the river water for domestic purposes may be affected, along with aquatic live dwelling close by. It is important to note that they are similar activities in the area, which may cause an increase of sediments discharge d into the Corentyne River.

At the project site, the area to be cleared for the extraction of rocks is small, due to the fact that most of the project area was cleared for previous activities (laterite mining), and along with the mitigation measures stated above the impacts resulting from increased discharge of sediments to the small stream and the Corentyne River are expected to be localized and low significance.

GROUND WATER

Excavation of pits below the existing groundwater levels within the project area can be disruptive to the quality of the ground water resources flow regime and will further result in groundwater flow into the quarry floor (vice versa). Precipitation may increase infiltration and the leaching of chemical impurities from exposed spoil piles resulting in the contamination of groundwater. Spills of oil and grease from operations can also infiltrate and affect groundwater quality. It is uncertain if there are any wells or aquifers within close proximity to the site.

Mitigation Measures – Ground Water Quality

The key objective of the mitigation measures is to protect ground water from impacts from the mining and mining related activities. The mitigation measures mentioned in the project summary submitted to be implemented at the project site includes:

- Excess water collected in the quarry floor will be pumped to the settling pond to ensure it meets the required limits before discharge to the environment or reuse in

the washing cycle.

- The base of the spoil pile areas will be compacted to prevent infiltration before commencing spoil disposal.
- There will be no mining below the surface.
- There will be no servicing or refuelling of vehicles within the project area, this will reduce the accidental or release of fuel and oil and grease at the area.

Impact Significance

Throughout the operation phase at the project site there is potential impacts to the groundwater quality within the project area, and possibly to its surrounding environs. These impacts relate to excavation below the ground water level, which can cause infiltration of sediments into the ground water level. Also, providing that vehicles are serviced in the mining area there can be accidental release of fuel which can also infiltrate ground water. As mentioned earlier it is unknown whether there are wells or aquifers within close proximity to the site. However, with the strict mitigation measures listed above the significance of the impacts to ground water quality form the operation will be of low significance.

SOIL IMPACTS

At the project site activities such as vegetation clearing, overburden stripping, drilling and blasting are expected to occur. The potential impacts related to these activities are soil erosion, sedimentation, top soil mixing, rutting and compaction from the movement of heavy-duty equipment/vehicle. Soils can also be impacted from the accidental release of fuels during operation.

Mitigation Measures – Soil Impacts

- Roads will be sloped and constructed to minimize the likelihood of soil erosion. Drains will be designed using environmental best practices.
- Intact riparian zones will be maintained where possible to aid in mitigating erosion/sedimentation impacts at the site.
- Sediment control structures such as soak-aways, settlement/water detention ponds and silt fences, will be implemented at the site.
- Impacts from rutting and compaction will be mitigated by scheduling the majority of the mine development activities, to the extent practicable, to occur in dry weather conditions, and by limiting off-road access. Areas impacted by rutting and compaction will eventually be reclaimed through progressive mine reclamation.
- Top soil mixing will be mitigated by the implementation of the overburden stripping plan, prepared in accordance with the requirements of the GGMC Code of Practice for Quarrying. Elements of the stripping plan will include:
- The segregation of topsoil or surface soil from subsurface layers during mine development activities;

- The storage and progressive rehabilitation of mine out area using top soils as indicated in the reclamation plan.

Impact Significance

Since most of the overburden consist of laterite this material will be used for landfilling of project area and for road construction. Soil erosion will tend to occur on steep slopes and areas with erosion susceptible soils. Rutting and compaction will be limited to the quarry site haul roads and is likely to be more severe during construction activities. Top soil mixing may reduce soil fertility of in-situ soils. Top soil mixing will be limited to the project site. The impacts to soil are expected to affect the workers within the site and the vegetation within the project site also. With the implementation of the above-mentioned measures the impacts to the soil within the project site is expected to be of low significance.

GEOLOGY

Quarrying of the ore and overburden disposal will result in alteration of the stratification of the unconsolidated soils at the project site. The overburden, consisting of accumulated soil, vegetation debris and laterite will have to be removed in some areas to expose the rock outcrops and access the ore. In addition, blasting and removal of stones from the area can also affect the aesthetic quality of the area.

Mitigation Measures – Geology Impacts

- Quarrying will be restricted to the mine area and above ground, limiting the impact to geology to the project site.
- The mine site will be progressively rehabilitated in accordance with the Mine Closure and Rehabilitation Plan, and the GGMC Code of Practice for Quarrying.
- Mine site rehabilitation will see the benching and contouring of spoil piles to mitigate against erosion impacts, and the replanting of spoil slopes.

Impact Significance

At the project site the materials (overburden, topsoil, etc.) removed for excavation will be stockpiled for reuse in reclamation while the laterite will be used to fill project areas and construction roads. Persons within the project area are expected to be affected by the removal of rocks in the area, and habitat destruction is expected. With the implementation of environmental best practices throughout the lifespan of the operation, the impacts to geology in the area will be of low significance, and localized.

AIR POLLUTION AND NOISE IMPACTS

Atmospheric and noise impacts are expected to occur at the project area. Activities at the area will result in the emission of fugitive dust, combustion emissions, such as NOx and SOx and noise. Dust will be generated from vegetation clearing, vehicles traversing haul roads, excavation and blasting, and dust from spoil piles. Noise will be produced from the

operation of heavy equipment, and blasting. Combustion emissions will result from the use of diesel fueled equipment at the site.

Mitigation Measures – Air Pollution and Noise

- Dust emissions will be mitigated by wetting the haul road and bare areas within the project site such as spoil piles where dust particulates are generated.
- Workers will be required to wear the appropriate Personal Protective Equipment (PPE) including dust mask or respirators while working in dusty conditions.
- Blasting will be carefully controlled in order that very little dust is generated and to allow particles to dissipate within the quarry area.
- Mine site buffer zones will be established in accordance with the GGMC Code of Practice for Quarrying.
- Extra care will be taken at times of high winds or during other adverse weather conditions to minimise dust emissions.
- Decreased vehicle speeds, increased watering of roads and stockpiles and reduction of the amount of product transported per load, may be appropriate in adverse weather conditions.
- Noise and combustion emissions will be mitigated by installing sound suppression equipment on vehicles, e.g. mufflers; ensuring vehicles are maintained according to the manufacturer's manual and are kept in good working order.
- Operators will be equipped with PPE such as air plugs or ear muffs.
- No mining or processing activities will be done at nights.
- Quarry operations will comply with the decibel limits outlined in the GNBS Noise Emission Standard which are 100 dB during the day and 80 dB during the night.

Impact Significance

Without proper mitigation measures in place air and noise pollution can be significant, localized and short term. Dust can cause respiratory problems for workers and can also affect vegetation photosynthetic activity. Excessive noise can affect workers and give rise to hearing loss and also scare away any wildlife in the area. However, due to the small nature of the operation and the implementation of the mitigation measures mentioned above combustion and emissions are expected to be minimum. As a result the impacts will be insignificant.

BLASTING

Blasting will be conducted at the site as needed. Blasting activities will generate gas, dust, air-blast (noise), fly rock and vibrations. Vibrations emanating from blasting can also cause vibrations, which may extend beyond the mine pit. Another impact from blasting is the release of gases during detonation, these gases can be both toxic and non-toxic (carbon monoxide and nitrogen oxides). Fly-rock can result from uncontrolled venting of

gases initiated by charge detonation and may cause rock fragments to be thrown some distance from the blast area.

Mitigation Measures – Blasting

- Careful design of the blast sequence and the use of electronic detonators will be employed to reduce vibrations.
- The number of explosives used in the blast will be carefully administered to reduce fly rock.
- Blasting efficiency will be optimized to obtain the right size of fragmentation and to minimize the use of explosives.
- A Certified Blaster will be recruited to supervise the blasting exercise, as required by law.
- Ensuring prescribed procedures for blasting are followed, which include (1) assessing the type of rock formation; (2) determining the depth of drill holes as this will have a strong influence on the penetration and the amount of fly rocks; and (3) determining the Frequency of Blasting and Type of Explosives used (ANFO - Explosive Power Gel).

Impact Significance

Workers working in blast zones can be affected and/or severely hurt if these impacts are not managed. Vibrations and air-blast noise impacts may extend beyond the mine pit and affect persons in other areas. Most gases generated by detonation are relatively harmless. Other gases, however, such as carbon monoxide and nitrogen oxides are considered toxic. However, these gases are generated in very small amounts and rarely pose an environmental hazard. With the implementation of the mitigation measures listed above, the occupational and environmental impacts from blasting can become insignificant.

BIODIVERSITY IMPACTS

According to the Environmental Management Plan (EMP), the habitats and landscape of the project are largely modified habitats characterized by mixed forest on poorly to well drained clay soils. The project site and adjacent areas have historically been subjected to logging, quarrying and mining operations. Species known to occur within the project area are widely distributed throughout their ranges in the low land forest interior regions of Guyana.

Development works at the project site will include clearing of small tracts of forest to expose the quarry face. Habitat loss and fragmentation are the major impacts on wildlife of the project site.

Mitigation Measures – Biodiversity Impacts

- Natural regeneration along previously cleared areas is expected to be immediate as a result of the aggressive nature of successional vegetation.
- Vegetation clearing will be limited to areas required for project activities and to the minimum required.
- Receiver water quality will be continuously monitored to ensure ecologically acceptable turbidity, nutrient and sediment levels within receiving water bodies during construction.
- Vegetated corridors will be maintained and activities timed to enable wildlife present in the area to relocate to adjacent areas.
- Animals with reduced movement capabilities will be allowed to escape if encountered by workers.
- The preservation of vegetation will be necessitated to the extent practical in areas not earmarked for clearing, for example, vegetative buffer zones along creeks and the Corentyne River. These areas will act as cover for animal passage and provide an escape route for animals during construction and operation.
- Hunting and gathering of wildlife in the project area by employees will be restricted.

Impact Significance

Clearing of vegetation will result in a loss of vegetation and fragmentation of forest habitats within the concession. Habitat fragmentation may affect the ecological balance of the area and disrupt wildlife ecological behaviors such foraging and spawning. However, the surrounding landscape area is exactly the same ecologically as the cleared area and the area cleared is a very small percentage of the total area. Impacts resulting from habitat fragmentation and loss of vegetation are unavoidable, significant, localized, short term, and will not be mitigated. Habitat loss will be restricted to the area occupied by the project and will lead to the displacement and some mortality of terrestrial vertebrate species, particularly species with reduced movement capabilities such as herpetofaunal species, some small mammals and small birds.

WASTE MANAGEMENT

The improper management and disposal of waste generated from the quarry operation can result in unhygienic conditions and degradation to the environment. As mentioned earlier the site will only involve the extraction of stones, associated activities will involve land clearing and blasting. Thus waste generated at the site will include overburden, topsoil and spoil rocks. These materials will be carefully stored at a section of the site to use during reclamation activities.

No domestic or hazardous waste is expected to be generated on site.

Mitigation measures – Waste Management

- Minimal land clearing at the project site.
- Careful storage of vegetation, overburden and topsoil for reclamation activities.
- No Littering Signs will be placed around the area to encourage workers within to not litter during working hours.

Impact Significance

During the operational phase of the project vegetation and overburden/topsoil will be generated from land clearing activities. These waste will be non-hazardous, and if not properly managed can lead to eye sores to the public, degradation to the environment and destruction of habitats. However, with mitigation measures the impacts can be considered insignificant.

SOCIAL IMPACTS

The proposed project area will be surrounded by other Stone Quarry Operations, thus no land use conflict is envisage. In addition, there is no close community that could be at risk from the project activities. However, the transportation of quarry material by barges along the Corentyne River can or may compromise the safety of other river users.

5.0 PROJECT SIGNIFICANCE

CRITERION 1 PROJECT LOCATION (FOR EXAMPLE, A DENSELY POPULATED AREA; OR HIGH-DENSITY INDUSTRIAL ZONE)

As mentioned earlier the project is situated at Block B-1011/MP/000 - Confluence of the Corentyne River and Epira River, Region 6. Currently, the block is closely surrounded by two Stone Quarries – Block J-1034/MP/000 (owned by Mr. Rexford Jackson) and BlockLM40-B-7 (owned by Mr. Vishwan Baichan). Orealla or Orealla Mission is one of two Amerindian communities which are within range of the project area, the other being Siparuta. These communities are approximately 10,768 meters and 8,994 meters respectively (via river) from the project area. The project site is mostly made up of primary and secondary vegetation, and is historically known to be subjected to logging and laterite mining, thus the habitats and biodiversity components within the site are largely modified/human disturbed habitats. To this end, the project area can be considered suitable for quarrying.

CRITERION 2 ENVIROMENTAL SENSITIVITY: WILL THE PROJECT BE LOCATED IN AN ENVIRONMENTALLY SENSITIVE AREA)

The project is within close proximity to the Corentyne River and there is a seasonal creek within the concession. It is not envisioned that this Project will impact these resources in any way that may be deemed environmentally sensitive, a number of environmental mitigation measures will be implemented at the site.

CRITERION 3 LEVEL OF PUBLIC CONCERN

Based on the fact that there are no residents within close proximity to the site the level of Public Concern is considered low. Environmental impacts emanating from the project is expected to mostly affect workers within and around the site. Commuters of the Corentyne River may also be affected by the project during transporting of rocks. However, there will be measures in place to minimise the impacts of the project to its surrounding environment.

6.0 RECOMMENDATION/CONCLUSION:

Based on review of the data within V.P Baichan Sawmilling, Logging and Stone Investment Environmental Management Plan (EMP) for Quarry Project, Corentyne River, Berbice, Project Summary, GIS data and exercise of discretion that the environmental and human impacts from the proposed stone quarry are known. It is not envisioned that any significant environmental impacts will occur once mitigation measures outlined in section 4 of this report are implemented and followed and once best management practices are adopted by the Developer. The following can be recommended:

- Project to be placed on the 30-days Public Notice;
- Providing that they are no objections from the public the project can be issued an Environmental Authorisation;
- An EIA is not required, but an updated Environmental Assessment Management Plan (EAMP), since the EMP approved in 2017 by the Agency already covers the project area and its surroundings. The updated EAMP will focus on any change in the project area environment and how the additional activities and production will be managed. Also focusing on the cumulative impacts.
- The request for the updated EAMP can be a permit condition.