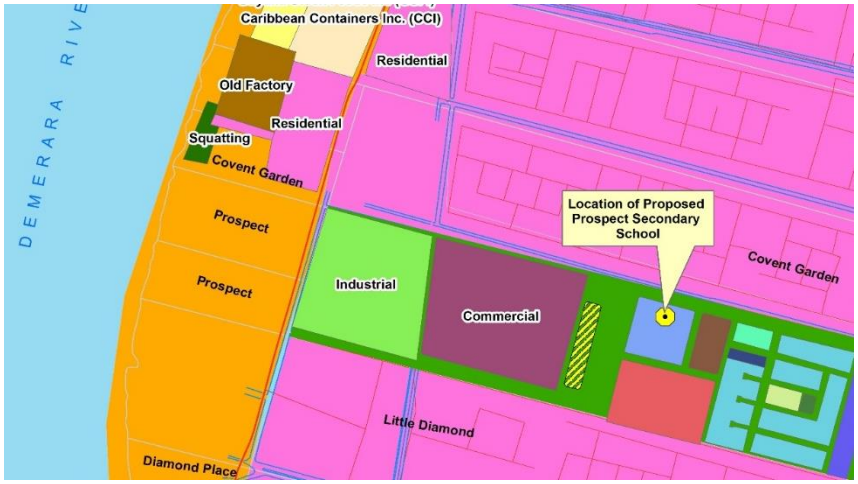
PROJECT SUMMARY
Construction of the Prospect Secondary School



Guyana Strengthening Human Capital through Education Project

Ministry of Education

November 2023

Table of Contents

Page

1.0 Introduction **2**
2.0 Project Overview **2**
3.0 Project Environment **5**
4.0 Impacts and Mitigation/Management Measures **7**
4.1 Environmental and Social Management Plan 13
4.2 Environmental Management Organisational Framework 13
4.3 Contractor's Environmental and Social Management Plan 15
4.4 Contractor's Code of Conduct for Workers 18
4.5 Environmental Monitoring 19
4.6 Reporting 20
4.7 Grievance Mechanism 21
4.8 Stakeholder Engagement 22
5.0 Conclusion **23**

1.0 Introduction

The Ministry of Education (MoE) is implementing the Guyana Strengthening Human Capital through Education Project which is supported by the World Bank. This project will support the government's secondary education and Technical and Vocational Education and Training (TVET) reform agenda and its objective of achieving both universal secondary education and increased provision of labour market relevant skills. This project includes the construction of new secondary schools and rehabilitation and extension of existing secondary schools. One of the new schools to be constructed is the Prospect Secondary School.

2.0 Project Overview

The proposed secondary school is to be located at Prospect, East Bank Demerara. The location of the school can be observed in Figure 1. The area reserved for the school construction is 6.12 acres.

When it was decided to construct the Prospect Secondary School there were 307 secondary school students attending primary tops, and 450 learners who were being housed in the auditorium of secondary schools due to oversubscription. The population of the wider project area is increasing. New housing development lies adjacent to the school site, with subsequent additional student population expected. It is anticipated that the new school will have a capacity of 1000 students, to accommodate both current and future populations.

USD$8.1 million will be utilized to construct and furnish the school. The construction period is expected to be a 15-month period, followed by a 12-month defects liability period.

The construction will be carried out by a general contractor under contract to the MoE. The contractor will be procured through a competitive bidding process. Once the contract has been signed and the contractor has been given possession of the site, the contractor will be legally responsible for the performance of the works in the manner required by the contract.

The school will include the following facilities:

- 25 Classrooms
- Information Technology Laboratory
- Language Laboratory
- Science Laboratories
- Industrial Technology Department (Metal Work ,Wood Work AutoCAD)
- Home Economics Department (Food & Nutrition, Clothing and Textile and Home Management)
- Visual and Performing Arts facilities
- Library
- Sick Bay
- An Administrative Block including Principals Office, Staff Room, Sick Bay and other facilities
- Canteen
- Sanitary Facilities (Students & Staff)
- Assembly Area/All Weather Playing Area
- Recreational Area
- An Agricultural Area

In addition, the following ancillary facilities will be constructed:

- Guard Huts

- Car Park and Cycle Shed
- Septic System
- Water Trestle & Reservoirs
- Auditorium
- Boundary Fence
- Bridge(s)
- Internal and External Drainage System
- Parking
- Speed Bumps and Pedestrian Crossings

The design of the school caters for universal/special needs access. The layout of the school is shown in Figure 2.

Once the contract has been awarded the site will be handed over to the contractor. In preparation for construction, the site will be cleared/grubbed. Temporary facilities to be utilized by the contractor will also be established, including a site office, warehouse/stores, materials stockpiles, toilets, etc. The contractor will also be required to provide a site office for the consultants.

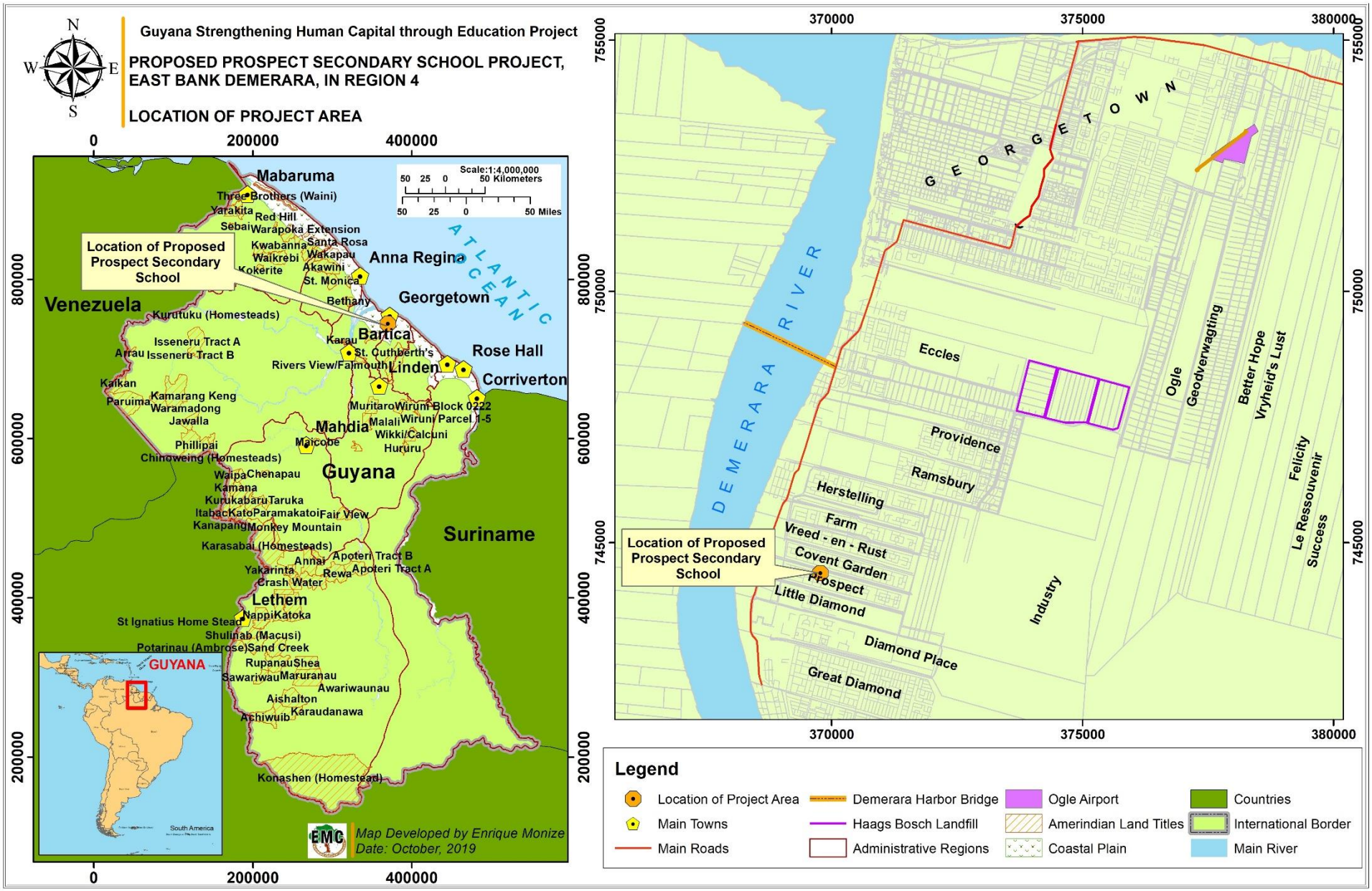


Figure 1: Proposed Location of Prospect Secondary School

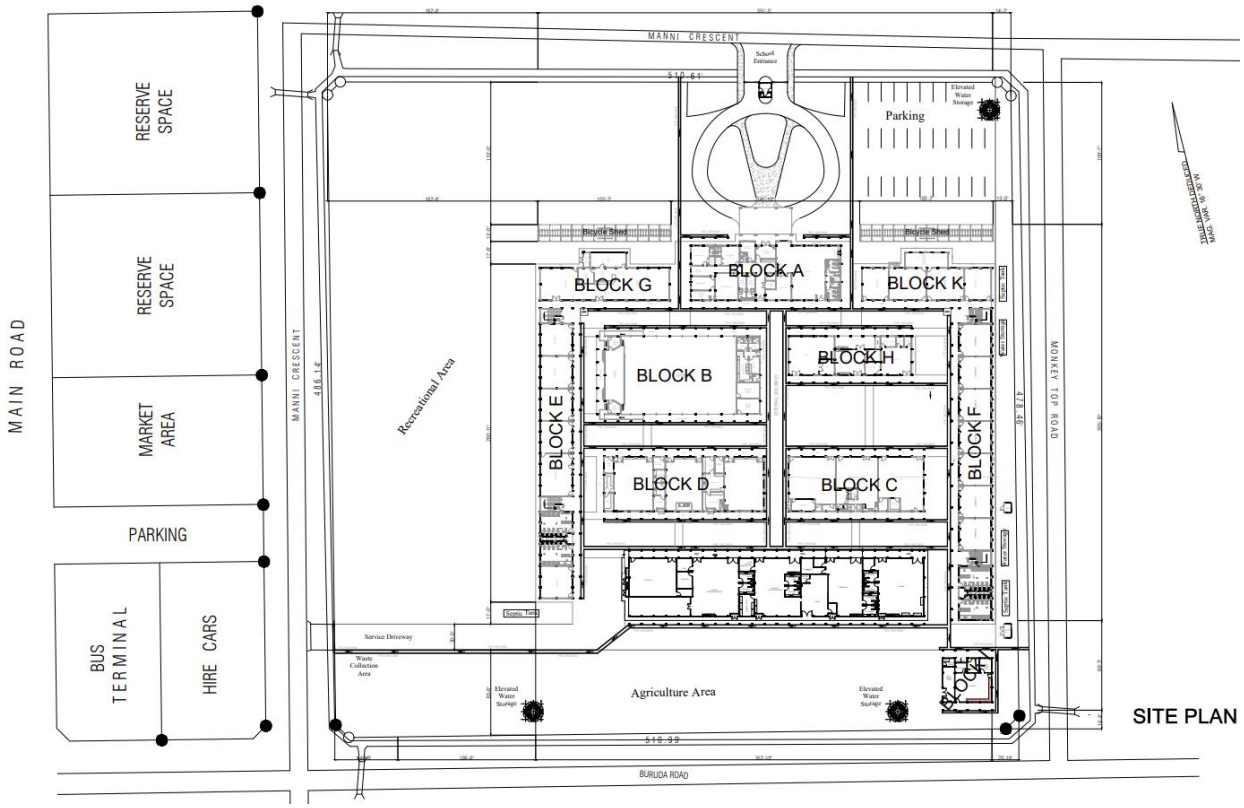


Figure 2: Layout of the Prospect Secondary School

3.0 Project Environment

The project site is located at Parcel 106 Prospect, East Bank Demerara. The plot size is 6.12 acres. Developmental works are currently ongoing in the wider project area. As a result, the project site was initially cleared of vegetation, filled and levelled in 2021. Infrastructure was also installed, including drains and access roads. However, some vegetation has regrown on the site.

Historically the project site was used for the cultivation of sugar cane for decades. The lands were under the jurisdiction of the Diamond Sugar Estate, which was closed in 2011. Thereafter, the Government proceeded to convert most of the lands into housing development. Within the Prospect area, where the school site falls, lands are earmarked for educational facilities and commercial and industrial activities.

The site where the school will be constructed, and the area immediately to the south are earmarked for educational facilities. The school site is Government owned and is allocated for the construction of the school. The entire site is free of any use or occupation.

The area to the north of the site is predominantly for housing, while to the west the area is zoned as commercial followed by industrial activities. The area immediately east of the site is reserved for future use, followed by a market, and then housing. The current and proposed land use of the wider project area can be observed in Figure 3. However, while construction and occupation are progressing well in the housing areas in Covent Garden, which is to the north of Prospect, there has been limited construction/occupation within the Prospect area itself and most of the lands are yet to be developed/occupied. A few houses were constructed to the east of the project site.

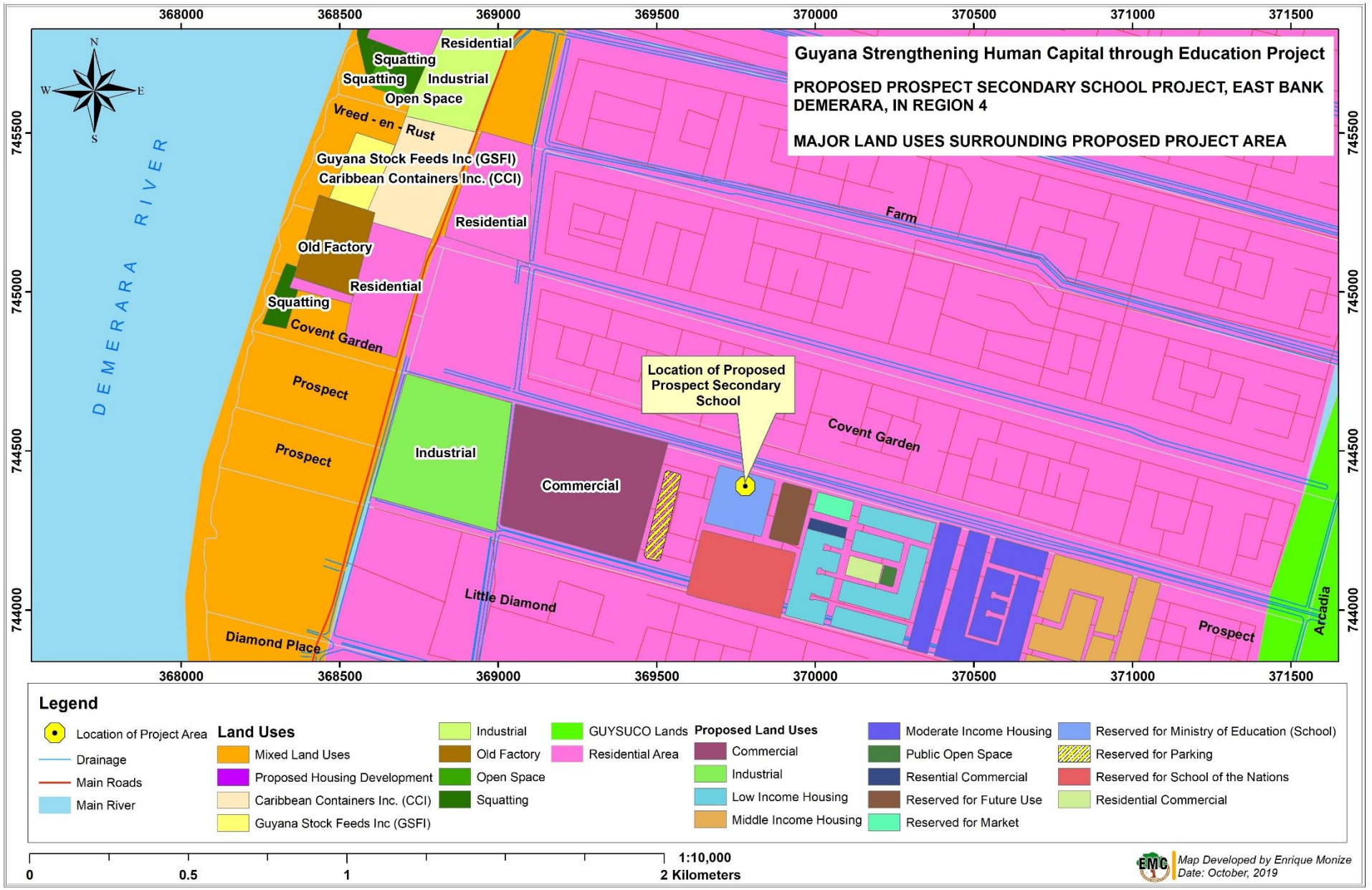


Figure 3: Proposed Land Uses for the Wider Project Area

The project site is currently accessed through community roads within the new housing development. Coming off from the main public road at Herstelling an asphaltic road runs south until it reaches Prospect. This road then leads to a recently asphalted road going eastwards. Along this road is a junction from where the school site can be accessed going southwards. Access roads around the site were constructed.

The topography of the project area is typically low–lying and flat. The soils of the area are a combination of clays, silt, and pegasse. The soils were disturbed as a result of sugar cane cultivation for several decades. The terrain was also altered with the construction of drains and banks to facilitate cultivation. However, the site has since been levelled.

The project site is drained by a drainage network comprising of a series of small drains that leads into larger canals/trenches which eventually discharges into the Demerara River.

Within the project area there is limited biodiversity due to human interactions and development activities. Previously, sugar cane was cultivated on the site for decades and the original vegetation was destroyed by the cultivation.

Rainfall data obtained for the Botanical Gardens Weather Station[1] from the Hydrometeorological Department over the last thirteen years shows that the annual rainfall for the general area ranged from 2300-2600 mm. However, over the previous two years (2021 and 2022), there were 3542 and 3218 mm respectively, much higher than the normal range. 2014 had the least rainfall during the period, recording 1894 mm, well below the normal range. The wettest periods are May to June and December to January although episodes of heavier-than-normal rainfall typically occur in December to January.

There are currently no activities within the immediate surroundings of the project site to influence the noise level. There are construction activities including infrastructure and buildings in the wider area which generate some amount of noise, but not as significant to influence the noise level at the site. Noise measurement conducted around the site during a visit on October 17, 2019 were all below 45 decibels (dB). Follow up noise measurement was conducted on October 17, 2023 and the minimum level was 40 decibels (dB) and the maximum level 52 dB. The air quality within the project area is good, as there are no industrial activities located within the immediate vicinity of the project site that can impact on air quality.

4.0 Impacts and Mitigation/Management Measures

The construction of the school will be done in a manner that will ensure impacts to the environment are prevented and minimized, the health and safety of workers and surrounding land users is maintained and the social welfare of all stakeholders is not compromised. As such, in executing the project, several measures will be implemented at the level of the Guyana Strengthening Human Capital through Education Project, the Supervisory Consultants, and the Contractor.

The Contractor will be required to comply with all national regulatory requirements and best practices, and ensure activities are in compliance with the environmental and social safeguards of the World Bank. The Contractor is required to implement the mitigation measures outlined in the Environmental Authorisation to be issued by the Environmental Protection Agency (EPA), the Environmental and Social Management Plan (ESMP) prepared for the project, and in the Construction Environmental and Social Management Plan (C-ESMP) to be prepared by the selected Contractor. Other applicable measures recommended by the Supervisory Consultants or Guyana Strengthening Human Capital through Education Project are also to be implemented.

[1] Botanical Gardens Weather Station is the closest weather station to the site.

Several management and mitigation measures are to be implemented, as is outlined below:

- Project's Environmental and Social Management Plan
- Environmental and Social Management Organisational Framework
- Contractors' Environmental and Social Management Plan
- Contractors Code of Conduct for Workers
- HSSE Monitoring
- HSSE Reporting
- Grievance Mechanism
- Stakeholder Engagement

The construction works proposed will generate environmental and social impacts common to this type of civil work, and which are localized, moderate, and possible to mitigate or prevent using standard methods. Anticipated potential impacts include dust and noise emissions, contamination from improper waste and hazardous material management, and risk of accidents. It is intended that these environmental and social impacts be mitigated through the implementation of this ESMP. The table below presents a summary of the impacts and recommended mitigation measures.

Table 1: Potential Impacts and Recommended Mitigation Measures

Activity	Phase	Impact	Mitigation
Site preparation	Mobilisation	Waste generation from cleared vegetation and grubbing of topsoil	▪ Cleared vegetation to be disposed at approved landfill. ▪ Grubbed topsoil to be stockpiled and reused for landscaping upon completion of works
Transportation of materials to site	Mobilisation and Construction	Dust generation from uncovered materials and vehicles traversing unpaved roads in dry conditions	▪ Cover all trucks transporting construction materials to the site ▪ Vehicles traversing unpaved section of the roadway should abide by speed limit ▪ Soak unpaved section of the roadway if required
		Safety of other road users and community can be compromised	▪ Traffic Management Plan to be included in C-ESMP ▪ Vehicles accessing the site are expected to abide by speed limits and other traffic rules ▪ Drivers should be briefed on safety requirements and exercise caution
Construction activities	Construction	Generation of particulate matter, particularly due to storage of construction materials, operation of cement mixers, etc.	▪ Minimise the height of material stockpiles ▪ Cover stockpiles where necessary ▪ Conduct dust generating activities downwind of work areas and site offices ▪ Provide appropriate PPEs for workers such as dust masks ▪ Install dust screens where necessary
Use of heavy machinery and power tools	Mobilisation, Construction and De-commissioning	Noise generation from the use of machinery/tools	▪ Conduct noisy activities away from any nearby receptors, work areas and site offices ▪ Limit potential noisy activities to during normal working hours ▪ Provide adequate PPEs to workers such as hearing protection ▪ Ensure machinery and generators are equipped with well-functioning mufflers
Construction activities	Mobilisation, Construction and De-commissioning	Generation of solid, liquid and hazardous waste	▪ Waste Management Plan to be included in the C-ESMP ▪ Adequate waste collection receptacles to be provided ▪ Waste should be regularly removed from site and taken to the Haags Bosch landfill site for disposal. ▪ Waste should not be allowed to accumulate in significant quantity and should be consolidated in a designated area.

			▪ Reusable construction waste should be separated for reuse. ▪ No burning of any type of the wastes generated is allowed onsite. ▪ Workers are to be made aware of the waste management procedures. ▪ Adequate toilet facilities to be provided onsite based on the number of workers. ▪ Toilets are to be well maintained. ▪ Treatment system for wastewater from toilet facilities are to be provided such as draining into a soak away system. ▪ If portable toilets are to be utilized these will have to be maintained and emptied on a regular basis. ▪ If hazardous waste is generated onsite the waste should be carefully collected and removed from site and disposed of in an approved manner.
Construction activities	Mobilisation, Construction and De-commissioning	Spills and contamination from storage and use of fuel and other hazardous materials	▪ Avoid the storage of significant quantity of fuel onsite ▪ Any fuel storage should be done within a contained impervious area with all the safety systems in place ▪ Contained area should be drained through an oil-water separator, or be covered to prevent accumulation of rainfall ▪ Storage containers should be labeled as to their content and capacity ▪ Warning signs should be installed in storage areas, such as ‘ Flammable’ and ‘No Smoking’. ▪ Workers should be made aware of the proper handling practices to avoid spills ▪ Spill clean-up kits to be provided ▪ Regular maintenance of machinery to be conducted to ensure the proper functioning so as to avoid unnecessary leaks.
Construction activities	Mobilisation and Construction	Drainage and flooding	▪ Project site to be filled to above flood levels ▪ Surrounding drains are to be kept clear ▪ Stockpiles of construction materials to be placed away from the drainage systems.

			▪ Nearby drains to be regularly checked for accumulation of construction materials and if found to be present the materials should be immediately removed.
Construction activities	Mobilisation, Construction and De-commissioning	Workers' health and safety can be compromised, resulting in injuries and even fatalities	▪ A Health and Safety Plan to be included in the C-ESMP. ▪ Health and safety induction should be conducted for all workers ▪ Training to be provided for workers conducting high risk activities ▪ SOPs to be prepared for certain activities such as working on heights, erecting and using scaffolds and using ladders ▪ Adequate and appropriate safety gears to be provided to workers who are expected to utilize all gears relevant to their assigned tasks ▪ Safety signs to be installed at the entrance to and around the site ▪ All safety related activities to be documented including all illness/injury, exposures and near misses. ▪ All incidents /accidents are to be investigated and Root Cause Analysis (RCA) done ▪ Precautionary measures to the Covid-19 pandemic onsite are to be implemented ▪ Emergency response measures to be provided onsite including posting of Emergency Contacts, provision of First Aid Kits, provision of Emergency Transport Vehicle, designating of a Muster Point, provision of Fire Extinguishers/Sand Buckets, provision of Spill Clean- Kits, etc.
Construction activities	Mobilisation, Construction and De-commissioning	The safety of members of the community can be compromised, resulting in injuries and even fatalities	▪ Access to the construction zone to be restricted by securing/barricading area ▪ The necessary warning signs are to be installed ▪ The free flow of traffic around the work site should be maintained. At no time should there be trucks or other construction equipment left standing on the road way or shoulders ▪ Traffic Management Plan to be prepared and implemented ▪ Vehicles accessing the site are expected to abide by speed limits and other traffic rules

			▪ Drivers should be briefed on safety requirements and exercise caution
Construction activities	Mobilisation, Construction and De-commissioning	Social conflicts arising from presence of construction personnel and construction works	▪ Code of Conduct for Workers to be prepared and enforced ▪ Stakeholders' engagement will be conducted prior to the commencement of works ▪ A representative of the community will be invited to participate in the project progress meetings ▪ Periodic engagements will be done with nearby residents to determine if there are any concerns arising from the project activities ▪ A Grievance Mechanism will be prepared and implemented ▪ Employment opportunities to people living close to the project site to be provided in order to increase social benefits by targeting recruitment of local people ▪ Regular maintenance of the unpaved section of the access road should be done.
Construction activities	Mobilisation, Construction and De-commissioning	Sexual exploitation and abuse and sexual harassment arising from presence of construction personnel within local community	▪ Code of Conduct for Workers to be prepared and enforced ▪ The establishment of temporary housing for workers onsite to be discouraged ▪ The use of language or behavior, in particular towards women or children, that is inappropriate, harassing, abusive, sexually provocative, demeaning or culturally inappropriate to be prohibited ▪ The exchange of money, employment, goods, or services for sex, including sexual favors or other forms of humiliating, degrading or exploitative behavior to be prohibited
Construction activities	Mobilisation, Construction and De-commissioning	Discrimination against women/vulnerable groups in the hiring process of workers	▪ Contractor to implement a fair and equitable hiring process ▪ Where possible the employment of women to be encouraged ▪ Employment opportunities to people living close to the project site to be provided in order to increase social benefits by targeting recruitment of local people ▪ Wages offered to all staff should be in keeping with Guyana's labour laws or higher set standards which should be competitive in all categories of workers

4.1 Environmental and Social Management Plan

An Environmental and Social Management Plan (ESMP) was prepared for the construction of the Prospect Secondary School. The ESMP incorporated specific environmental and social measures where applicable to address any site-specific problems, and, legal and institutional provisions, as well as outlining measures to mitigate the potential negative environmental and social impacts relating to the construction of the Prospect Secondary School. The objectives of the ESMP include:

- To reduce environmental and social impacts associated with the construction of the Prospect Secondary School;
- To minimize risk to the community during the construction works; and
- To ensure Health, Safety, Security & Environmental (HSSE) obligations are implemented throughout project development and construction activities.

The ESMP consists of mitigation and prevention measures and programs considered necessary for implementation by the Guyana Strengthening Human Capital through Education Project, the Supervisory Consultants, and contractor to ensure the proper environmental and social management of the school construction.

4.2 Environmental Management Organisational Framework

The environmental and social management framework will have roles and responsibilities at the level of the Guyana Strengthening Human Capital through Education Project PIU, Supervisory Consultants and the Contractor.

<u>Guyana Strengthening Human Capital through Education Project PIU</u>

The Guyana Strengthening Human Capital through Education Project PIU has as part of its team an Environmental Specialist and a Social Development Officer who will oversee the environmental, social and health and safety aspects of the project. The Environmental Specialist and Social Development Officer will ensure that the World Bank Environmental and Social Standards (ESS) of the Environmental and Social Framework are adhered to where applicable, that the contractors comply with the requirements of the Environmental Authorisation to be issued by the EPA, and that the Contractor prepare and implement the Contractor Environmental and Social Management Plan (C-ESMP). The Environmental Specialist and Social Development Officer reports to the Project Coordinator. It is expected that guidance will also be provided to the Guyana Strengthening Human Capital through Education Project PIU by the World Bank's designated Environmental and Social Specialists.

<u>Supervisory Consultants</u>

The Supervisory Consultants will have as a member of their team a Health, Safety, Social and Environmental (HSSE) personnel who will have the responsibility of ensuring compliance with the environmental, social, health and safety requirements relating to the project. This person will be responsible for overview and provide direction as may be required to the Contractor (and the Guyana Strengthening Human Capital through Education Project PIU as may be required) to ensure the project meets its HSSE objectives and complies with the project ESMP. The Supervisory Consultants will be required to monitor the Contractor's HSSE performance against the national requirements and that of the MoE/Guyana Strengthening Human Capital through Education Project PIU, as well as the Contractor's C-ESMP. They will also be required to ensure that the Contractor's HSSE performance is in accordance with the requirements of the Occupational Safety and Health Act and meets the requirements of all state agencies tasked with the monitoring, regulation and promotion of safety at work.

The HSSE related services to be provided by the Supervisory Consultants include but are not limited to:

- Review and approve the Contractor's C-ESMP, including all updates and revisions (not less than once every 6 months);
- Review and approve the Contractor's method statements, implementation plans, prevention and response action plan, drawings, proposals, schedules and all relevant documents;
- Review and consider the HSSE risks and impacts of any design and/or methodology change proposals and advise if there are implications for compliance with the project environmental requirements, consent/permits and other related project matters;
- Undertake audits and inspections of Contractor's accident logs, community liaison records, monitoring findings and other HSSE related documentation, as necessary, to confirm the Contractor's compliance with HSSE requirements;
- Agree on remedial action/s and their timeframe for implementation in the event of a non-compliance with the Contractor's HSSE obligations;
- Ensure appropriate representation at relevant meetings including site meetings, and progress meetings to discuss and agree on appropriate actions to ensure compliance with HSSE obligations;
- Check that the Contractor's actual reporting (content and timeliness) is in accordance with the Contractor's contractual obligations;
- Review, critique and consult in a timely manner with the Contractor on their HSSE documentation (including regular reports and incident reports) regarding the accuracy and efficacy of the documentation;
- Undertake liaison, from time to time and as necessary, with project stakeholders to identify and discuss any actual or potential HSSE issues;
- Establish, communicate and maintain a grievance redress mechanism including types of grievances to be recorded and how to protect confidentiality;
- Provide appropriate training to contractor's workers when necessary or required by the PIU; and
- Undertake field inspections of the construction site to verify the Contractor's compliance with the C-ESMP and promptly communicate to the PIU any serious deviations.

Contractor

The Contractor will also be required to employ a suitable qualified and experienced personnel as an Environmental, Social, Health and Safety Officer, with the responsibility of ensuring compliance with the environmental, social, health and safety requirements. The responsibilities of this individual will include but not limited to the following:

- Prepare the Contractor's Environmental and Social Management Plan;
- Conduct training of workers in health, safety and environment requirements, including health and safety induction prior to commencement of work onsite and regular tool box sessions;
- Ensure compliance with the EPA's Environmental Authorisation;
- Liaise with the Guyana Strengthening Human Capital through Education Project PIU Environmental Specialist and Social Development Officer and Supervisory Consultants' Environmental, Health and Safety Personnel on compliance;
- Implement the Contractor's Environmental and Social Management Plan;
- Conduct site inspections, audits and permanent supervision at the construction site to ensure adequate and timely implementation of, and compliance with, the C-ESMP;
- Address any grievances of stakeholders;
- Report on environmental, social, health and safety compliance; and
- Oversee the clean-up and decommissioning of the site on the completion of works.

4.3 Contractor's Environmental and Social Management Plan

The Contractor will be required to prepare a Site-Specific Contractor's Environmental and Social Management Plan (C-ESMP) to mitigate issues pertinent to the construction of the school. This ESMP is to be submitted to the Supervisory Consultant and Guyana Strengthening Human Capital through Education Project PIU within 28 days of contract signature for approval prior to the commencement of works. Once approved, the C-ESMP is expected to be implemented during the construction period, and be updated/revised periodically and updated in a timely manner, to ensure that it contains measures appropriate to the activities being undertaken. The updated C-ESMP shall be subject to prior approval by the Supervisory Consultants and Guyana Strengthening Human Capital through Education Project PIU. Preparation of the C-ESMP shall be guided by the requirements outlined in the EPA's Environmental Authorisation, this ESMP, relevant national standards and guidelines including those of the Guyana National Bureau of Standards, and the World Bank Environmental, Health and Safety (EHS) Guidelines. The completed C-ESMP, once approved by the Guyana Strengthening Human Capital through Education Project PIU, will be appended to the Contract. The following are expected to be addressed/included in the C-ESMP:

- Contractor's Work Programme – A brief overview of the Contractor's proposed Work Programme should be provided, including information on expected duration of the works, number of workers to be onsite, type and quantity of heavy equipment to be onsite, whether workers will be housed onsite or travel daily, etc. This information will be essential in the review process of the C-ESMP.

- Management Structure – The C-ESMP should describe the Contractor's management structure for the project, clearly highlighting the detailed responsibilities for health, safety, social and environment.

- Solid Waste Management – Measures to manage solid waste generated during construction should be described. It should be noted that the Contractor is expected to implement a system to ensure solid waste is managed properly. Solid waste expected to be generated includes; cleared vegetation, garbage such as plastic bottles and food boxes, and construction waste such as packaging materials, wood, formwork, etc. Adequate collection receptacles are to be provided onsite and waste should be taken to the Haags Bosch landfill site for disposal. Waste should not be allowed to accumulate in significant quantity onsite for extended period (not more than 30 days) and should be consolidated in a designated area. Reusable construction waste should be separated for reuse. No burning of any type of the wastes generated will be allowed onsite. Workers are to be made aware of the waste management procedures.

- Liquid Waste/Wastewater Management - The Contractor is expected to provide adequate toilet facilities onsite based on the number of workers. The Contractor is also expected to provide toilets facilities for the Supervisory Consultants. The number and type of toilets to be provided, whether portable or toilets equipped with septic tanks should be indicated. Provision of water for the toilets and maintenance of the toilets should also be described, since toilets are expected to be well maintained. Treatment system for wastewater from these facilities should be described such as draining into a soak away system. If portable toilets are to be utilized these will have to be maintained and emptied on a regular basis.

- Hazardous Waste Management - The construction works are not expected to generate significant hazardous waste. Hazardous waste generation may be limited to the servicing of heavy equipment onsite and should include waste oil, oil filters and oily rags. If hazardous waste is generated onsite, the waste should be carefully collected and removed from site and disposed of in an approved manner. A register of hazardous waste generated should be kept onsite by the Contractor.

- Hazardous Materials Management – The Plan should state if hazardous materials will be kept onsite or taken to the site as required. This would include fuel and lubricants. In addition, although it is not envisaged that the use of pesticides is required onsite, if these are to be utilized by the Contractor, this should be stated in the C-ESMP. If hazardous materials are to be kept onsite then the C-ESMP should describe how this will be done. Significant quantity of fuel should be stored within a contained impervious area with all the safety systems in place and workers should be made aware of the handling practices to avoid spills.

- Erosion and Sedimentation Control – The C-ESMP should describe measures to be implemented by the Contractor to prevent erosion onsite, and sedimentation of nearby drains. Stockpiles of construction materials should be placed away from the drainage systems. Nearby drains should also be regularly checked for accumulation of construction materials and if found to be present the materials should be immediately removed.

- Dust Control - There is the potential for dust nuisance to occur which can affect workers and nearby receptors. Dust can be generated from material transport and stockpiles, as well as construction works such as concrete mixing, cutting of tiles and concrete, etc. As such, the Contractor must include in the C-ESMP measures to prevent dust nuisance from occurring. Measures such minimizing the height of sand stockpiles, covering of stockpiles, covering of trucks transporting materials to the sites and providing dust mask to workers should be considered.

- Noise Prevention – Construction activities can generate noise at levels which can affect workers and nearby receptors, and in this regard, measures should be outlined to keep noise levels within the prescribed limit. Noise levels should not exceed 90 dB during the day and 75 dB at nights. Night works should be avoided and must be approved in advance by the Supervisory Consultants. The Contractor is expected to make reasonable efforts not to schedule heavy noise activities for weekends or in the evening and keep the noisy activities for normal working hours (between 8 am and 5 pm). The Contractor shall ensure that equipment is in good working order with manufacturer supplied noise suppression (mufflers etc.) systems functioning. Where noise is likely to pose an impact to nearby residents they should be informed. Workers operating in areas where decibel levels reach more than 85 decibels should use hearing protection.

- Workers Health and Safety – Construction activities pose several risks to workers health and safety. It is therefore essential that the Contractor develop and implement a system to ensure workers health and safety are not compromised. This should be detailed in the C-ESMP. It should describe management commitment to safety and employee's involvement. An analysis of the worksite in terms of safety, and the potential hazards/risks should be included. Prevention and control measures should be included. Measures which should be considered by the Contractor should include the provision and enforcing the use of safety gears by workers, training of workers, identify hazardous areas, use of scaffoldings, etc. Standard Operating Procedures (SOPs) for construction activities such as working on heights, erecting and using scaffolds, using ladders and others identified through the Job Hazard Analysis (JHA) should be prepared. Workers should be trained on SOPs prepared. All safety activities must be documented all illness/injury and exposure should be documented on an Incident Form. Near misses should also be documented. All incidents /accidents should be investigated and Root Cause Analysis (RCA) done.

- Community Safety – Measures should be implemented to ensure that the safety of the nearby community is not compromised. These measures should also be documented in the C-ESMP. Measures which should be considered by the Contractor include restricting access to the construction zone by securing/barricading area, installing the necessary warning signs,

ensuring the free flow of traffic around the work site, and at no time should there be trucks or other construction equipment left standing on the road way or shoulders. Traffic management should also be addressed, including access to the site and careful planning when large trucks are accessing the site to allow for minimal disruption.

- Emergency Preparedness and Response Plan – An Emergency Preparedness and Response Plan must be included in the C-ESMP to address emergencies relevant to the project. The possible emergencies are:
    a. Accidents – can occur which can result in injuries to workers. At least one well stocked First Aid Kit should be provided onsite and arrangements should be in place to transfer serious cases to medical institutions.
    b. Fires - Fire extinguishers and/or other response measures must be placed at the working sites and training should be provided on usage.
    c. Fuel/Chemical Spills - If there is a large spill or release of solvents, fuels, or other kind of hazardous material, then the EPA should be notified and other measures taken. A spill response kit should be provided and kept onsite and workers should be trained to respond to spills through mock spills exercises.
    d. Flooding - The Contractor must have a plan to address floods during the rainy period and maintain the progress of work on the timeline agreed and reduced environmental and social impact.

  The Emergency Preparedness and Response Plan should also address training of employees, assembly point in case of emergency, emergency contacts, communications, responsible personnel, response procedures and incident reporting.

- Chance Find Procedure – The possibility of a discovery of an artifact during construction is extremely low. However, a Chance Find Procedure should still be in effect and should be implemented if there is a discovery. This should be included to cater for if during excavations archaeological pieces are found. The procedures to be followed should be outlined. The works must be stopped and the National Trust of Guyana should be informed.

- Training - Prior to the commencement of works the Contractor shall conduct an Induction Training for all workers. The training should be conducted by the Contractor's HSSE Personnel and covers the environmental and social requirements of the project, including the role of workers in pollution control, health and safety and emergency response. Thereafter, all new workers should be adequately briefed on the requirements prior to commencing work onsite. If necessary, refresher training may be conducted, and supplemented by regular Tool Box sessions. Training should also be provided in any SOPs prepared. Training to be conducted should be described in the C-ESMP.

- Site Closure, Decommissioning and Restoration - At the conclusion of works the site will have to be cleaned up and all waste removed and all temporary structures belonging to the Contractor dismantled and also removed. The measures to be employed by the Contractor during this process should be described in the C-ESMP.

- Grievances – A project level Grievance Mechanism is prepared and included in the Stakeholder Engagement Plan prepared for the project. However, since the Contractor will be responsible for addressing grievances onsite, including implementation of corrective actions, measures to be employed by the Contractor in dealing with grievances should be outlined in the C-ESMP. A separate mechanism to address grievances of construction workers should also be included in the C-ESMP. The requirement for this Grievance Mechanism is included in the ESMP (Section 5.6).

- Monitoring and Reporting – The C-ESMP should outlined how monitoring will be done by the Contractor's HSSE Personnel, including frequency, areas to be monitored, etc.

- Budget – A budget for ensuring environmental, social, health and safety compliance, including the implementation of management and mitigation measures, should be presented in the C-ESMP.

Once the C-ESMP is approved the Contractor will be obligated to implement the measures outlined so as to prevent, minimise and manage any potential or actual impacts of the project.

4.4 Contractor's Code of Conduct for Workers

The Contractor is required to prepare a Code of Conduct for its workers. This Code of Conduct is to guide workers behavior onsite during the conduct of works. The Code should be written in simple language and presented to workers. Once understood and accepted the Code should be signed off by all workers onsite. The Code of Conduct can be included as part of the C-ESMP or submitted separately to the Supervisory Consultants/Guyana Strengthening Human Capital through Education Project PIU. Areas to be addressed in the Code of Conduct include:

- Compliance with applicable laws, rules, and regulations.
- Compliance with applicable health and safety requirements (including utilizing of prescribed personal protective equipment, preventing avoidable accidents and a duty to report conditions or practices that pose a safety hazard or threaten the environment).
- The prohibition to use of illegal substances.
- Non-Discrimination (for example on the basis of family status, ethnicity, race, gender, religion, language, marital status, birth, age, disability, or political conviction).
- Interactions with community members (for example to convey an attitude of respect and non-discrimination).
- Sexual harassment or exploitation (for example to prohibit use of language or behavior, in particular towards women or children, that is inappropriate, harassing, abusive, sexually provocative, demeaning or culturally inappropriate).
- Violence, abuse or exploitation (for example the prohibition of the exchange of money, employment, goods, or services for sex, including sexual favors or other forms of humiliating, degrading or exploitative behavior).
- Protection of children (including prohibitions against abuse, defilement, or otherwise unacceptable behavior with children, limiting interactions with children, and ensuring their safety in the project area).
- Prohibition to hire children under the age of 18.
- Sanitation requirements (for example, to ensure workers use specified sanitary facilities provided by their employer and not open areas).
- Avoidance of conflicts of interest (such that benefits, contracts, or employment, or any sort of preferential treatment or favours, are not provided to any person with whom there is a financial, family, or personal connection).
- Respecting reasonable work instructions (including regarding environmental and social norms).
- Protection and proper use of property (for example, to prohibit theft, carelessness or waste).
- Duty to report violations of the Code.
- Non retaliation against workers who report violations of the Code, if that report is made in good faith.

4.5 Environmental Monitoring

To ensure that the management and mitigation measures are effective a multi-layer monitoring structure will be implemented. Environmental monitoring will be conducted throughout the construction period by the Guyana Strengthening Human Capital through Education Project PIU, the Supervisory Consultants and the Contractor.

Guyana Strengthening Human Capital through Education Project PIU

Guyana Strengthening Human Capital through Education Project PIU has in place an Environmental Specialist and a Social Development Officer to oversee the environmental, social, health and safety aspects of the project. The Environmental Specialist and Social Development Officer will ensure that the World Bank Environmental and Social Safeguard Policies are adhered to where applicable and that the Contractor comply with the requirements of the Environmental Authorisation and implement the C-ESMP. The Environmental Specialist and Social Development Officer will visit the site at least once per week to check on the Contractor's environmental, social, health and safety performance and compliance. The Environmental Specialist will also conduct unannounced visits as well as joint visits with the Supervisory Consultant's and Contractor's HSSE Personnel.

Supervisory Consultants

The Supervisory Consultants will also monitor overall works performance and will oversee the environmental, social, health and safety aspects of the project on a day-to-day basis, including identification of non-compliance and recommendations of corrective actions. The Supervisory Consultants are expected to have as part of their team an HSSE personnel.

Contractor

The Contractor is required to monitor the implementation of the mitigation measures to ensure that the works do not negatively affect the environment and that the health and safety of workers and nearby community are not compromised, and that activities are being carried out in accordance with the C-ESMP. Monitoring is the responsibility of the Contractor's HSSE Personnel with support from other senior members of staff. Once non-compliances are detected corrective actions are to be implemented.

During the construction phase, the Contractor will be responsible for continuously monitoring of environmental and social impacts at the construction site. Table 8 provides some guidance on the areas to be monitored.

Table 2: Monitoring Plan

Impact	Monitoring Parameter	Frequency
Generation of particulate matter, particularly due to storage of materials, operation of concrete mixers and cutting of tiles/concrete	Ease of visibility Complaints received Number of trucks arriving covered	Weekly
Increased generation of emission of gases and particulate matter from increased traffic	Frequency of maintenance of vehicles	Monthly
Generation of construction and other waste materials by construction activities	Quantity and type of waste Waste collection, storage and disposal methods and timeline for disposal	Weekly

Impact	Monitoring Parameter	Frequency
	Littering onsite	
Generation of noise from machinery and construction activities	Level of decibels	Weekly
Reduction in aesthetics due to construction and storage of materials	Number of sites with waste materials left unattended by contractor	Monthly
Decreased quality of surface water due to discharge of sediments, fuel, lubricants and waste oil, and grey and black water into surface water	Visual observation of contaminants	Weekly
Decreased quality of soil due to accidental discharge of fuel and lubricants, waste oil and other hazardous materials	Visual observation of contaminants	Weekly
Disruption of utilities	Frequency and type of utilities disrupted	Monthly
Health and Safety risk to workers arising from construction activities	Number of risks observed, near misses or accidents occurring due to construction works	Weekly
	Compliance with Covid - precautions	Monthly
Community Health and Safety	Number of risks observed or accidents occurring due to construction works	Weekly
Social conflicts arising from presence of construction personnel on site	Number of reported complaints/grievances Compliance with Code of Conduct	Monthly

4.6 Reporting

To ensure that the level of HSSE compliance is documented a reporting mechanism will be implemented. Monthly progress meetings are expected to be held at which HSSE matters will be reported on and discussed. In addition, reporting will be done by the Guyana Strengthening Human Capital through Education Project PIU, Supervisory Consultants and the Contractor.

Guyana Strengthening Human Capital through Education Project PIU

A monthly Environmental and Social Compliance Report will be prepared by the Environmental Specialist, documenting the status of compliance, areas of non-compliances, corrective actions recommended and other improvements required. This report will be submitted to the World Bank.

Supervisor Consultants

The Supervisory Consultants will prepare a monthly report detailing the HSSE performance by the Contractor, including all available evidence, the list of inspections performed, as well as the corrective measures with corresponding deadlines provided to the Contractor.

Contractor

The Contractor is required to report on environmental compliance at the Monthly Progress Meetings and in the Monthly Progress Reports. The Contractor is also required to report on any environmental or health and safety incidents which might occur. Further, the Contractor will be responsible to prepare

and submit any report requested by the EPA in the Environmental Authorisation. The Contractor is expected to submit a report to the Supervisory Consultants on environmental, social, health and safety performance at least on a monthly basis. The report should include but not limited to the following:

- Environmental incidents or non-compliances observed and corrective actions taken with regards to contract requirements, including waste management, contamination, noise and dust control, traffic management, etc.;
- Health and safety incidents, accidents, injuries and all fatalities that require treatment and actions taken to improve conditions. Information on number of workers, work hours, PPE provided and usage, and worker violations and follow-up actions taken (if any);
- C-ESMP implementation progress, including implementation of the management and mitigation measures outlined in the plan, effectiveness of the measures being implemented, any emerging HSSE issue and any adjustments required (if any); and
- Grievances by workers and community, including grievances received, how resolved, those unresolved and plan for resolving these.

In addition to the monthly report, the Contractor shall also provide immediate notification to the Project Manager of incidents in the following categories: Full details of such incidents shall be provided to the Project Manager within the timeframe agreed with the Project Manager.

- confirmed or likely violation of any Environmental Authorisation conditions or any relevant legislation;
- any fatality or serious (lost time) injury;
- significant adverse effects or damage to private property, e.g. vehicle accident;
- damage to public utilities; or
- any allegation of sexual harassment or sexual misbehavior, child abuse, defilement, or other violations involving children.

4.7 Grievance Mechanism

All stakeholders who believe aspects of the project are likely to have a detrimental impact on their organisation, community, day to day activities, the environment, or on their quality of life should be able to communicate their grievances. These grievances should be documented, analysed and responded to efficiently. Stakeholders should also be able to submit comments and suggestions that they feel will increase the benefits of the project and reduce or mitigate any adverse impacts.

A grievance mechanism will be implemented during the construction of the school which aims to offer a clear set of opportunities for any affected person or any other interested stakeholder to post a claim, request information and have a formal mechanism to communicate with project personnel. A project-level grievance mechanism will be developed, including a process for receiving, evaluating, and addressing project-related grievances from affected persons.

For the works to be conducted grievances may arise, since, given the nature of the project, it is expected that conflicts and other issues such as nuisances are possible. All stakeholders who believe aspects of the project will have a detrimental impact on the community, their day-to-day activities, the environment, or on their quality of life should be able to communicate their grievances. These grievances should be documented, analysed and responded to efficiently. Stakeholders may also submit comments and suggestions that they feel will increase the benefits of the project and decrease the impact they face.

It is expected the any grievances arising from the construction activities will be localized. As such, to ensure that the process is effective, a site level mechanism to address grievances is recommended.

The grievance mechanism will be coordinated by the Supervisory Consultants Project Manager who will to act as a point of contact to receive complaints and work to address all grievances in a timely, effective and satisfactory manner, and to foster positive engagement when issues arise.

Information on the grievance mechanism, including contact person and contact information should be shared with the community via notices. These can be posted at the site and at public places within the community.

Once any grievance resulting from the execution of works is received the following actions should be undertaken:

- The Supervisory Consultants Project Manager, along with the Contractor's Project Manager/HSSE Personnel, should investigate the reported grievances to determine the validity of a complaint and cause for the grievance;
- It should then be determined whether grievance can be resolved by the Project Team or whether outside authorities with regulatory or other responsibilities and relevant skills are to be consulted;
- Or it should be determined if corrective action is to be taken by the Contractor and what those actions are;
- The Supervisory Consultants Project Manager should prepare a grievance report, including supporting materials such as photographs. If necessary, a clear list of tasks and outcomes expected shall be developed;
- If grievance is the fault of the Contractor, then the Contractor is to implement corrective action immediately.
- The Supervisory Consultant Project Manager, along with the Contractor's Project Manager/HSSE Personnel should conduct follow-up inspection to monitor the situation and determine whether problem is likely to recur and put measures in place to prevent recurrence.

A register of grievances received should be maintained by the Supervisory Consultants and should include information such as date of complaint, by whom, nature of grievance, date investigated and by whom, validity and corrective action required, timeline for implementation of corrective action, and if grievance was satisfactorily addressed or not. A monthly review on the status of grievances received/addressed should be conducted by the Supervisory Consultants.

Since the Contractor will be responsible for addressing grievances, including implementation of corrective actions, measures to be employed by the Contractor in dealing with grievances should be outlined in the C-ESMP.

4.8 Stakeholder Engagement

Stakeholder engagements will familiarize local stakeholders with the project's activities, the measures being undertaken to protect the environment, provide a platform for concerns to be raised and to lay the foundation for a positive relationship between the project and the community.

The main group of stakeholders to be engaged would be the residents in closest proximity to the school construction site. Stakeholders will be engaged prior and during construction of the school.

Prior to the commencement of construction, a stakeholder engagement exercise will be conducted to inform the surrounding community of the project and the planned construction works. This engagement will be held at the project site, with the surrounding residents being invited to participate.

Thereafter, periodic engagement will be conducted as is necessary to update stakeholders on the progress of works, any changes to the project, or to address any emerging issue. This will most likely

be done with the closest residents to the site utilising a face-to-face approach and may be done quarterly once in agreement with the residents.

Consideration will also be given to inviting a representative of the community to participate in the Monthly Progress Meetings. The community will be requested to identify this representative during the pre-construction community meeting.

5.0 Conclusion

The construction of the proposed secondary school at Prospect is not expected to have any significant impact on the environment. Most of the potential impacts are related to the construction phase and these impacts are localized, low and possible to mitigate or prevent. Most of the potential impacts of the project to the community are positive impacts since another secondary school will be available for students within a steadily growing community. There are no known physical or cultural resources within the project area, or no close by Indigenous Peoples community. In addition, there are no structures or individuals occupying the site which would require relocation or compensation.

The potential impacts can be mitigated by ensuring the Contractor implements a stringent Health, Safety and Environmental and Social Management System onsite and there is adequate oversight by the Guyana Strengthening Human Capital through Education Project PIU and Supervisory Consultants.

The Contractor is required to implement the mitigation and management measures established in the C-ESMP and outlined in this ESMP and is required to cover all cost relating to the environmental, social, health and safety requirements, including the provision of materials, equipment and supplies such as all appropriate and required PPEs to ensure compliance. These requirements will be clearly communicated in the Bidding Document to ensure that potential contractors are aware of the requirements and include the necessary resources including personnel and funds to ensure compliance. The ESMP will form part of the Contract Document.