

Road and Bridge Rehabilitation Loubiere to Bagatelle Road Project Phase 1: Loubiere to Grand Bay

ESMP - Environmental and Social Management
Plan

February 2022

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1 Introduction

1.1 Purpose

The island of Dominica is situated in the volcanically active Lesser Antilles chain, located on the eastern margin of the Caribbean Sea. Owing to its geological setting and its tropical maritime climate, it is vulnerable to volcanic eruptions, earthquakes, hurricanes, high rainfall, tsunamis, landslides, and river scour. The island is the youngest in the Lesser Antilles and is still being formed by geothermal-volcanic activity. There are currently several centres of volcanic activity recognised on the island, with a significant concentration of these in the south of the island close to the Loubiere to Bagatelle Road (LBR). Furthermore, Dominica is the wettest island in the Eastern Caribbean (Government of the Commonwealth of Dominica Environmental Coordinating Unit [ECU], 2014) with precipitation is concentrated in the rainy season from June to November.

Due to dominant influences from the Atlantic Ocean, the Caribbean Sea, and the north-easterly trade winds, hurricanes and tropical storms are a relatively frequent occurrence in Dominica (ECU, 2014). These cause wide-ranging hazards such as heavy rainfall, high winds and storm surges which lead to accelerated coastal erosion, inland flooding and river scour. These extreme weather conditions cause bridge scour and slope-toe erosion that affects transport networks such as the LBR. Transport infrastructure can also be damaged by high winds causing direct loading or due to impacts from debris strikes. Coastal areas can be inundated by storm surges and suffer from accelerated erosion which can undermine foundations.

The LBR is an important infrastructural asset connecting the east and west of the island. It suffered from damage sustained during Tropical Storm Erika (TSE) and subsequently Hurricane Maria. On completion, the project will rehabilitate the road to reduce the vulnerability to such extreme climatic events and natural hazards.

1.2 Project Background

TSE struck the island of Dominica in August 2015 and led to 30 deaths, making it the deadliest natural disaster in Dominica since Hurricane David in 1979. The storm generated floods and mudslides which damaged key national infrastructure. The LBR itself suffered slope failures, causing landslides and undermining the road respectively. In addition, severe flash flooding resulted in significant damage to the road whereas the foundations of bridge abutments and piers within river channels failed primarily due to erosion. Inadequate culverts were blocked by debris causing additional flooding. In September 2017 Hurricane Maria (a Category 5 hurricane) made landfall on the island on the 18th of September 2017 and brought catastrophic devastation to the island with a death toll of 65 and destroying housing stock (leaving 50,000 residents displaced), damaging infrastructure, and practically eradicating the vegetation across the island.

Following TSE, the Government of the Commonwealth of Dominica (GoCD) has received financing from the Caribbean Development Bank to fund the development of a gender-responsive climate resilient transport network. To that extent the GoCD, through the Ministry of Public Works and Ports (Now Ministry of Public Works and Digital Economy) (MoPWDE) and now the Climate Resilience Execution Agency for Dominica (CREAD) have engaged Mott MacDonald Limited to assist in the preparation of the Rehabilitation of the Loubiere to Bagatelle Road project.

Starting in the village of Loubiere, the road extends for approximately 16.0km, through the communities of Bellevue Chopin, Pichelin, Grand Bay, Stowe, and ending in the village of

Bagatelle. A small fork, some 0.3km in length is also included from the junction of Bagatelle and Fond St Jean, towards the community of Fond St Jean.

An Environmental and Social Impact Assessment (ESIA) was undertaken to ascertain the impacts of the proposed design on the surrounding environment and is included in the 'Loubiere to Bagatelle Road Rehabilitation Options Report', 376135 | 002 | A. This Environmental and Social Management Plan (ESMP) has been prepared to assist the implementing agent to ensure stakeholders, including the contractor, are properly guided through the environmental and social management for the project.

1.3 ESMP Aim and Contents

The aim of this document is to provide management actions to guide the construction phase of the proposed works. This ESMP should be read in conjunction with the ESIA and the Extreme Weather Management Plan (EWMP), the latter of which recommends immediate actions to be taken during the construction phase to mitigate the effects of storm and surge events.

The ESMP has been designed and prepared to mitigate impacts on the environment from the construction activities associated with the project and will include the following:

- Mitigation measures from the ESIA;
- Roles and responsibilities for implementation of the mitigation measures by the CREAD and the civil works contractor;
- Procedures for implementing mitigation measures, including a programme of works for implementing those measures; and
- Clear procedures for the verification, documentation and reporting of the implementation of the ESMP.

2 Project Summary

2.1 Project Locations

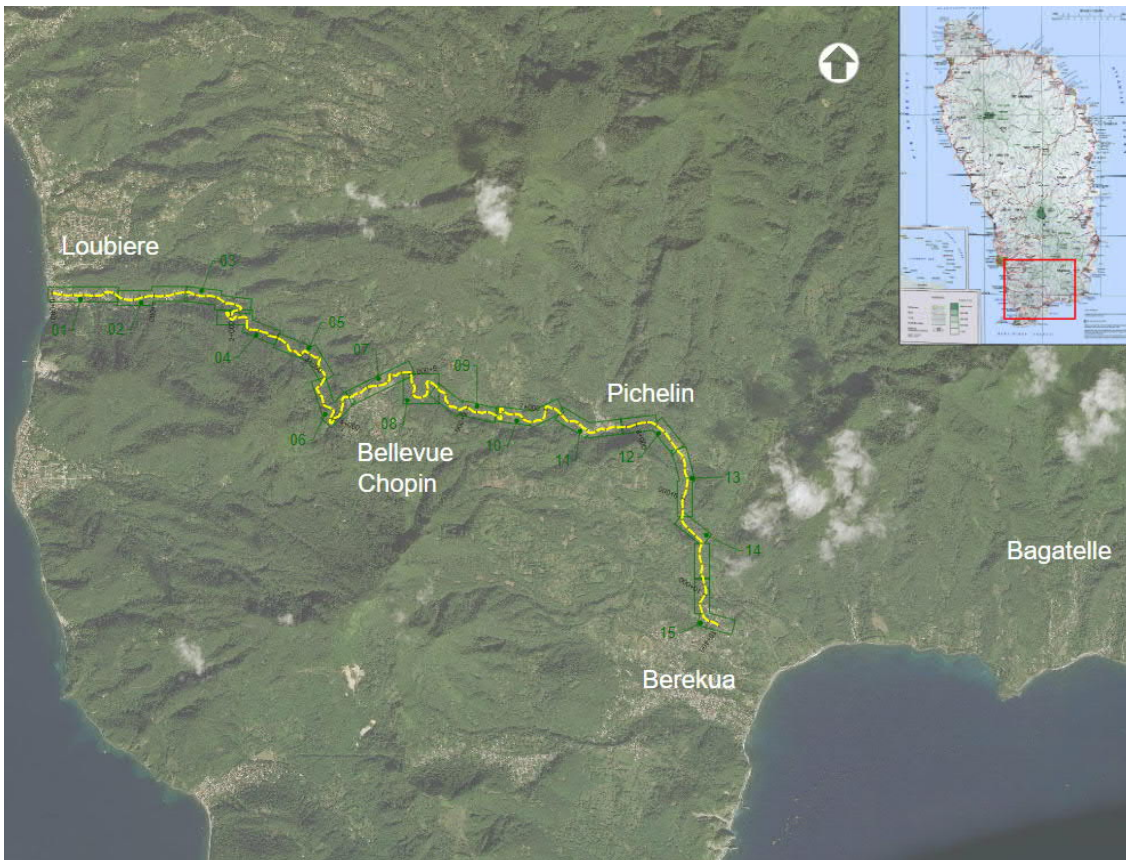
The LBR project commences in the village of Loubiere in the south east of the island (Figure 1), extending along the road approximately 10.4km eastwards through the communities of Bellevue Chopin, Pichelin and ending in the Grand Bay (Figure 2). The topography of the route is related to the volcanic nature of the island and is dominated by steep river valleys and is highly undulating for the first 8km. The route becomes flatter in nature through the Grand Bay area.

Figure 1: The island of Dominica with Loubiere situated in the south-east.



Source: Google Maps 2018

Figure 2: Project area – Phase 1 LBR



Source: 376135-RPT-002

2.2 Project Design and Activities

The primary aim of the project is to reinstate the LBR road where damage occurred during TSE and Hurricane Maria to equal or better than the pre-existing condition, and to reduce the vulnerability of the road to future extreme climatic events and natural hazards. The project encompasses a wide range of proposed interventions. Full details are provided in the Design Reports however extracts from the report in relation to the proposed works associated with this document are provided below.

2.2.1 Culverts

All existing culverts are being upgraded. This includes upgrading the minimum culvert size to a larger diameter to enable safe access for maintenance purposes and accommodate climate resilience.:

- Site preparation and associated civil works;
- Installation of a new minimum culvert size to a 1.2m diameter pipe; and
- Installation of a larger culverts where capacity provided by a 1.2m diameter pipe is insufficient.

2.2.2 River Training Works

A number of sites have been identified as requiring works to the river to provide resilience to infrastructure during high flow events. These works will include the following:

- Site preparation and associated civil works;
- Bank erosion protection at the five bridge sites;

2.2.3 Slope Stabilisation and Landslide Management

The sites considered necessary for slope stabilisation and management measures have been selected on the findings of the Slope Condition Assessment (SCA) and the associated risk matrix score posed to the road, stakeholder engagement and discussions with CREAD. Further assessment, through the detailed design process has also identified locations requiring slope stabilisation measures, to accommodate road width requirements. These works include:

- Site preparation and associated civil works;
- Piled retaining wall solution at Bellevue Chopin Landslide;
- Slope regrade and down slope retaining solution at Pichelin Landslide; and
- Down slope retaining wall solutions at several locations along the alignment.

2.2.4 Road and ancillaries

A complete pavement design has been produced as part of the design works. These works will include the following:

- Site preparation and associated civil works;
- Formation of new road pavement;
- Associated earthworks of minor alignment changes and road width increase;
- Erection of road signage and marking;
- Erection of safety barriers along the LBR ; and
- Erection of lighting.

2.2.5 Bridges

Prior to hurricane Maria, an assessment was undertaken of the bridges and in general, they were deemed narrow and their condition varying from poor to very poor. Therefore, as part of the scope of works, all bridges are replaced and a new bridge included. Specifically, these intervention works include:

- Site preparation and associated civil works;
- 15m span bridge at Grandbay,
- 22m span bridges at Loubiere, Brewery, Pichelin; and
- 40m span bridges at Mitcham.

3 Environmental & Social Aspects and Impacts

The environmental & social aspects are elements of a particular activity, product or service that can interact with the environment. An environmental or social impact is considered a change to the environment which can have either a negative (adverse) or positive (beneficial) impact from a particular activity, product or service.

This document should be read in conjunction with the ESIA and EWMP that have been produced for the project. The former identifies the potential impacts of the project on the local environment and the latter recommends immediate actions to be taken during the construction phase to mitigate the effects of storm and surge events. The views expressed by stakeholders are central to the ESIA process and were complemented by a review of secondary data and analyses.

The main significant specific environmental aspects that were identified for the project during the assessment process were as follows:

- Fugitive Dust – There is a potential that construction and haulage works will result in both dust and exhaust emissions, which may cause a deterioration in the ambient air quality and impact the nearby residents, businesses and ecology;
- Noise – It is likely that some construction activities will result in an increase in the background noise levels that could impact the local residents, businesses and ecology;
- Vibration – Placement and haulage of materials and construction activities could increase the vibration causing damage to buildings and disturbing residents, businesses and ecology;
- Traffic – The increased vehicle movements may cause delays in the flow of regular traffic and cause damage to the road surface and structure and has the potential to damage heritage buildings or structures;
- Surface water pollution – There is a potential that the activities associated with the construction could cause pollution to the nearby rivers and coastal waters;
- Sewerage treatment – The staff and construction workers will require suitable hygiene facilities which will need to be managed and waste disposed of appropriately;
- Solid and liquid waste disposal – Waste construction materials and domestic waste that would be generated during the construction phases will need to be stored and disposed of appropriately;
- Soil erosion and sedimentation – Any construction works have potential to alter the local hydrology as a result of soil displacement. In particular, as a result of Hurricane Maria, bare or recently denuded slopes may now enhance the rapidity of run-off so project works need to be mindful of cumulative effects during land clearance for construction. There is a danger of soil erosion and gully formation which could cause further erosion and potentially landslides in the worse conditions.
- Residential safety – Due to proximity of housing and continued use of the roadway throughout the construction period, residents are at risk from accidents and excessive noise from the operation of heavy-duty machines;
- Social impacts – There is a potential to disrupt agriculture and an informal fishing sector both during construction and the operation of the schemes. Whilst it is possible that tourism is affected, it is limited in the project area; and

- Occupational Health & Safety – There is a potential that the health & safety of the construction workers could be impacted during the works.

4 Mitigation Management and Monitoring Plan

4.1 Overview

The purpose of the Mitigation Management and Monitoring Plan is to mitigate the impacts that have been identified during the preparation of the ESIA and identified within Section 3 of this report as a result of the project. The plan will describe the roles, identify the key participating parties, the parties or personnel responsible for the implementation of the mitigation measures, and identify the procedures or actions required to ensure that the mitigation measures are implemented (and recorded) adequately during all of the phases of the construction and potentially the operation of the schemes.

Mitigation measures for the project are identified in Table 1 and will identify the roles and responsibilities of parties for implementing or overseeing implementation of the mitigation measures.

4.2 Roles and Responsibilities

This Section outlines the roles and responsibilities of parties involved with direct implementation of mitigation measures or implementation oversight.

4.2.1 Climate Resilience Execution Agency for Dominica (CREAD)

As the client, CREAD is responsible for managing the overall project, however may delegate their responsibility to an appropriately qualified specialist to act on their behalf during the construction period. The construction contractors will also employ an environmental and health and safety (EHS) professional to oversee the implementation of the ESMP.

4.2.1.1 Environment Health and Safety Expert

The CREAD will oversee the project during all construction phases and ensure that mitigation measures are implemented correctly. The CREAD expert on Environment, Health and Safety (EHS) shall be responsible for recording and verifying that the mitigation measures are being undertaken and implemented adequately. The EHS expert shall have the relevant experience in monitoring similar construction projects for road rehabilitation schemes, shall serve as the monitor for CREAD and shall be the key contact person regarding compliance with the mitigation measures. The EHS expert shall be responsible for:

- Acting as the main point of contact and conduit for the contractor and oversight agencies regarding compliance with mitigation measures;
- Verifying compliance with mitigation measures through auditing and field surveying;
- Providing direction and guidance to contractors regarding mitigation measures based on the interpretation of the ESMP procedures;
- Issue of Non-compliance notices to contractors if they do not comply with the mitigation measures set out within the ESMP or local or national environmental legislation;
- Support and provide advice to the contractor in the event of an emergency environmental event to prevent further environmental impact; and for
- Oversee any rehabilitation works following an environmental incident.

4.2.1.2 Community Liaison Officer

The CREAD shall provide a Community Liaison Officer (CLO) who will be responsible for liaising between the contractor and the local community and verifying that the socio-economic measures identified within the ESMP are undertaken and correctly implemented. The CLO shall have knowledge of the local community and shall have relevant experience addressing the social issues and responding to grievances. The CLO expert shall serve as the point of contact for the local community and for the construction workers should a social issue arise during the project implementation. The CLO shall be responsible for:

- Acting as the main point of contact for local residents and community members if they have any grievances with the project;
- Act as the main conduit between the contractor and the residents / community members to resolve any grievances related to project activities;
- Act as the main point of contact for any worker grievances and assisting to resolve any resultant issues; and
- Recording and verifying the implementation of socio-economic mitigation measures.

4.2.2 Contractor

The appointed contractor will be responsible for complying with all mitigation measures and associated requirements of the ESMP. The contractor will ensure that any contracts and construction plans for the project achieve all of the requirements identified in the mitigation measures.

4.2.2.1 Contractor's EHS Officer

The contractor will provide an EHS Officer who shall be responsible for overseeing compliance with the mitigation measures that have been identified within the ESMP. The contractor will be responsible for employing an EHS Officer with the necessary skills, experience and availability to perform their duties adequately. The contractor's EHS Officer shall have the relevant experience in monitoring similar construction projects for road rehabilitation schemes and will have completed any appropriate training prior to the work commencing. The EHS Officer will be responsible for the day-to-day implementation of mitigation measures identified within Table 1 and shall be the key contact person regarding compliance with the mitigation measures. The ESH Officer shall be responsible for:

- Acting as the main point of contact for the CREAD EHS expert and conduit for the contractor and oversight agencies regarding compliance with mitigation measures;
- Ensuring that all personnel (including contractors) are inducted and receive environmental training prior to commencing work on the project sites;
- Undertaking inspections of the active work areas throughout the working day and recording the findings through a daily record sheet. This shall be supported by photographic evidence where appropriate;
- Compiling reports and maintaining an EHS file which will be updated daily with these records. The file and records will be available for review by the CREAD EHS expert on request;
- Preparing an emergency plan for dealing with fuel spills;
- Verifying compliance with mitigation measures through auditing and field surveying;
- Providing direction and guidance to contractors regarding mitigation measures based on the interpretation of the ESMP procedures;
- Issue of Non-compliance notices to sub-contractors if they do not comply with the mitigation measures set out within the ESMP or local or national environmental legislation;

- Support and provide advice to the contractor in the event of an emergency environmental incident to prevent further environmental impact; and for
- Supervise any rehabilitation works following an environmental incident.

Table 1: Detailed Mitigation Measures and Responsibilities

| Issues / Potential Impacts | Activities | Mitigation Measures | Responsibility for Implementing | Timing of Implementation |
|---|--|---|---|---|
| Environmental Mitigation Measures – Air Quality | | | | |
| <ul style="list-style-type: none"> ● Air Quality | <ul style="list-style-type: none"> ● General site preparation works; ● Transportation and hauling of materials on site; ● Storing and stockpiling of materials; ● Construction of retaining structures; ● Earthworks; ● Construction of culverts; ● Construction of rock revetments and; ● Back-end tipping. | <p>Air -1: Fugitive Dust Management</p> <p>The construction works may result in dust emissions, which may impact on local and regional air quality. Dust emissions may occur as a result of wind erosion and transport during the earthworks. The aim of the mitigation will be to minimise and control these emissions to air. The following procedures shall be implemented where dry soils are exposed within the project area:</p> <ul style="list-style-type: none"> ● Use of dust suppression measures along haul routes and use sweepers to clean routes; ● Minimise drop heights into haulage vehicles, conveyor belts and other plant; ● Use of debris sheeting and hording to prevent dust spread; ● Ensure that stockpiles have the minimum practical height and gentle slopes, and locate as far away as possible from sensitive receptors; ● Use storage bays to contain stockpiles, and ensure the stockpiles are not higher than the sides; ● Have designated routes for site traffic; ● Assign and enforce speed limits on site; ● Use rumble strips and speed restrictions; ● Sheet lorries, use screens and lid skips; ● Use dust extraction or water spray attachments on cutters and saws; ● Monitor and log routine checks of dust on and off site; ● Communicate with site neighbours, especially if a certain activity will cause excessive dust levels; and ● Avoid burning of materials on site. | <ul style="list-style-type: none"> ● Civils Works Contractor | <ul style="list-style-type: none"> ● During Construction |
| <ul style="list-style-type: none"> ● Air Quality | <ul style="list-style-type: none"> ● Transportation and hauling of materials to site; ● Use of generators and plant on site; and ● Transportation and hauling of materials on site. | <p>Air – 2: Construction Emissions Controls</p> <p>Exhaust emissions from vehicles, generators and plant may impact the air quality and result in loss of amenity. The aim of the mitigation will be to minimise and control these emissions to air and have been developed in accordance with IFC Environmental Health and Safety Guidelines (2007) aimed at reducing the impacts of construction on air quality:</p> <ul style="list-style-type: none"> ● Use modern plant and generators; ● Ensure that vehicles are serviced regularly; and ● Turn off plant when not in use and avoid idling. | <ul style="list-style-type: none"> ● Civils Works Contractor | <ul style="list-style-type: none"> ● During Construction |
| <ul style="list-style-type: none"> ● Worker Health & Safety; and ● Community Health and Safety. | <ul style="list-style-type: none"> ● General site operations; and ● Transportation and hauling of materials to site. | <p>Air – 3: Air Quality Monitoring, Odour and Noxious Gas Management</p> <p>The contractor will be responsible for managing the risks to workers and local communities from potentially harmful vehicle emissions and dust generation during the transportation and site-based operations.</p> <ul style="list-style-type: none"> ● Provide toolbox talks on the impacts of dust and reduced air quality; ● Provide workers with PPE; ● Monitor and log routine checks of dust on and off site; ● Communicate with site neighbours, especially if a certain activity will cause excessive dust levels; ● Domestic waste collected on a regular basis; and ● Avoid burning of materials on site. | <ul style="list-style-type: none"> ● Civils Works Contractor | <ul style="list-style-type: none"> ● Pre-Construction ● During Construction |
| Environmental Mitigation Measures – Noise | | | | |
| <ul style="list-style-type: none"> ● Noise & Vibration | <ul style="list-style-type: none"> ● General site preparation works; ● Transportation and hauling of materials to site; ● Storing and stockpiling of materials; ● Construction of retaining structures; ● Earthworks; ● Bridge construction; ● Back-end tipping; ● Piling; ● Weekend or night-time working; | <p>Noise – 1: Noise Abatement</p> <p>Construction noise and the associated effects shall be reduced or minimised to the greatest extent as reasonably practicable, by implementing the following procedures through the preparation of a Noise Management Plan which will aim to:</p> <ul style="list-style-type: none"> ● Control any noise at source; ● Restrict working hours to daytime only (08.00 to 18.00); ● Restrict noisy activities to certain times of the day; ● Minimise drop heights into haulage vehicles, conveyor belts and other plant; ● Provision of acoustic enclosures; ● Local screening of plant; ● Site perimeter hording; ● Creation of one-way systems to prevent unnecessary movements; ● Selection of low noise methods, e.g. vibro-piling plant to ensure that noise levels are kept to a minimum and use of silencers where possible; | <ul style="list-style-type: none"> ● Civils Works Contractor | <ul style="list-style-type: none"> ● During Construction |

| Issues / Potential Impacts | Activities | Mitigation Measures | Responsibility for Implementing | Timing of Implementation |
|---|---|---|---|--|
| <ul style="list-style-type: none"> ● Worker Health & Safety; and ● Community Health and Safety. | <ul style="list-style-type: none"> ● General construction activities; | <ul style="list-style-type: none"> ● Use of screening between the noise and neighbours; ● Careful selection of the location of equipment so that they are equipped with the greatest possible noise reduction equipment including mufflers, silencers, insulators or enclosures; ● Correct orientation of plant and equipment (i.e. ensure that machinery is facing away from sensitive receptors during operations; and ● Plan works to prevent coinciding with nesting and laying seasons of avifauna. <p>Noise - 2: Worker protection and Community Coordination To reduce the impacts to the workforce and the local communities the contractor shall implement the following mitigation measures:</p> <ul style="list-style-type: none"> ● Provide toolbox talks on the dangers of long term noise exposure to workers; ● Provide toolbox talks on the dangers of vibration from the use of hand tools (vibration white finger); ● Provide appropriate PPE to site staff; ● Avoid mass starting of vehicles at the start of shift and idling; and ● Communicate with site neighbours on a regular basis through the CLO and the Contractors EHS Officer, especially if a certain activity will cause excessive noise levels. ● Adherence to COVID-19 protocols where required under government guidance and law | <ul style="list-style-type: none"> ● Civils Works Contractor | <ul style="list-style-type: none"> ● During Construction |
| Environmental Mitigation Measures – Water Resources | | | | |
| <ul style="list-style-type: none"> ● Water Quality; and ● Erosion and Topsoil Loss. | <ul style="list-style-type: none"> ● Working within watercourse; ● Working on the foreshore and within the surf zone; ● General site preparation works; ● Storing and stockpiling of materials; ● Earthworks; ● Construction of retaining structures; ● Construction of rock revetments; ● Back-end tipping; and ● Piling; | <p>Water - 1: Stormwater, Erosion and Sediment Control Storm water runoff and drainage shall be properly managed within all work areas to prevent sediment and control erosion from Hortonian (overland) flows using best practice. Construction activities are likely to result in temporary deterioration in water quality through increased turbidity and suspended solids from run-off. The following mitigation measures should be undertaken to minimise the impacts</p> <ul style="list-style-type: none"> ● Plan site drainage to include cut off drains and settlement ponds if required; ● Use of silt curtains; ● Inspect site after heavy rainfall events and note and remedy any design non-performance; ● Concrete wash water to be managed and correctly discharged; ● Use of drip trays; ● Use of cofferdams to prevent sediment build-up; ● Erect dust screens on bridges or adjacent to watercourses; ● Use silt traps at the base of stockpiles to prevent silt run-off; ● Minimise exposed earth and seed areas as quickly as possible to prevent run off and erosion; and ● Locate stockpiles away from watercourses. | <ul style="list-style-type: none"> ● Civils Works Contractor | <ul style="list-style-type: none"> ● During Construction |
| <ul style="list-style-type: none"> ● Water Quality | <ul style="list-style-type: none"> ● Refuelling of vehicles and equipment; ● General site preparation works; | <p>Water – 2: Water Quality Monitoring Programme Whilst the chemical and biological water quality at each of the locations is unknown, construction activities may result in a temporary deterioration in the water quality within the local area. There may be increased turbidity, suspended solids as well as oil and grease and petroleum hydrocarbon levels from possible fuel spills or oil leaks. In addition, there may be an increase in organic loading. These are considered to be temporary and will recede after construction. A regime of monitoring should be undertaken to monitor the water quality throughout the construction period. Water quality sampling shall occur prior to the start of the project activities to determine the baseline contaminant levels and then monthly during the main project activities. If it is determined that the project is reducing the water quality, the contractor shall make appropriate adjustments to the construction activities to correct the problem. Visual inspections should also be undertaken, and records kept by the EHS Officer on a daily basis and an Emergency Spill Plan be developed by the Contractor. To minimise the impacts of water quality the following measures should be implemented:</p> <ul style="list-style-type: none"> ● Provide training to staff to prevent accidental discharge of contaminated waters to waterbodies; ● Daily checks to be undertaken by the EHS Officer; ● Develop action plan for pollution incidents and have spill kits and booms available at multiple locations throughout the scheme; ● All liquids to be stored appropriately; ● Fuel storage tanks to be double skinned and banded to 110% capacity; ● The sites may be subject to storm surges during the construction period and any fuel and hazardous materials should be stored at an appropriate location above the likely storm surge heights; ● All vehicles to be well maintained and inspected for leaks at the beginning of every shift; ● Mineral based lubricating oils to be avoided; ● Place covers over freshly poured concrete to prevent run off; ● Refuelling to be undertaken on hardstanding and use drip trays to prevent accidental spillage; and | <ul style="list-style-type: none"> ● Civil Work Contractor | <ul style="list-style-type: none"> ● Before Construction ● Monthly During Construction |

| Issues / Potential Impacts | Activities | Mitigation Measures | Responsibility for Implementing | Timing of Implementation |
|--|--|---|--|---|
| <ul style="list-style-type: none"> ● Worker Health & Safety; and ● Community Health and Safety. | <ul style="list-style-type: none"> ● Site welfare facilities; ● General site setup | <ul style="list-style-type: none"> ● Locate fuel stores away from watercourses / drains. <p>Water – 3: Effluent Management It is important that effluent is managed correct and that wastewater and sewerage is discharged correctly.</p> <ul style="list-style-type: none"> ● Discharge to sewers (surface and foul) to be agreed with the environmental regulator; ● All staff to use the toilet facilities; and ● On site toilet facilities to be managed and correctly discharged. If capacity for sewerage treatment is not sufficient, chemical toilets must be provided, maintained and emptied by the Contractor. | <ul style="list-style-type: none"> ● Civils Works Contractor | <ul style="list-style-type: none"> ● During Construction |
| Environmental Mitigation Measures – Geology and Soils | | | | |
| <ul style="list-style-type: none"> ● Topsoil Loss | <ul style="list-style-type: none"> ● Site clearance and preparation works. | <p>Soils – 1: Topsoil Preservation and Restoration Where site clearance is required for site preparation, compound areas and haul roads, topsoil shall be separated and stockpiled during the construction process. The topsoil shall be covered with plastic to prevent erosion and wind-blown dust. Following construction, the topsoil shall be re-laid by applying evenly, compacted correctly and stabilised (to prevent erosion and sediment transport) during the restoration process. Top soil should be laid and seeded immediately. The soil surface must be maintained until vegetation has established.</p> | <ul style="list-style-type: none"> ● Civils Works Contractor | <ul style="list-style-type: none"> ● During Construction |
| Environmental Mitigation Measures – Coastal Hazard Management | | | | |
| <ul style="list-style-type: none"> ● Water Quality; ● Worker Health & Safety; and ● Community Health and Safety | <ul style="list-style-type: none"> ● General construction activities; | <p>Coastal Hazards – 1: General Grand Bay is exposed to large waves and potentially dangerous currents and is unsuitable for swimming. As works will involve working within the surf zone suitable safe working procedures must be developed by the Contractor to mitigate the risks to workers and to assess the risks to the general public.</p> <ul style="list-style-type: none"> ● Prevent public access to the site and the working areas; ● Due to the local topography, flash flooding may cause rivers to rise quickly and emergency procedures and access routes set up to allow plant, equipment and workers to be removed quickly and safely from watercourses; ● Natural drainage runs to remain unimpeded; ● No plant or equipment to be left within watercourses overnight; and ● Throw lines and rescue equipment to be located in working areas. | <ul style="list-style-type: none"> ● Civils Works Contractor | <ul style="list-style-type: none"> ● During Construction |
| <ul style="list-style-type: none"> ● Water Quality; ● Worker Health & Safety; and ● Community Health and Safety | <ul style="list-style-type: none"> ● General construction activities; | <p>Coastal Hazards – 2: Hurricanes & Tropical Storms Grand Bay is exposed to large waves and storm surges during the hurricane season. It is important that caution be taken during this period to prevent loss of life and equipment.</p> <ul style="list-style-type: none"> ● Where practicable, construction activities to be scheduled outside the June to November hurricane season; ● If works are undertaken within the season, a hurricane or storm threat alert should be set up; ● In the event of a hurricane or severe storm, equipment should be stored away from the coastline; and ● The sites may be subject to storm surges during the construction period and any fuel and hazardous materials should be stored an appropriate location above the likely storm surge heights. | <ul style="list-style-type: none"> ● Civils Works Contractor | <ul style="list-style-type: none"> ● During Construction |
| Environmental Mitigation Measures – Archaeological and Cultural Heritage | | | | |
| <ul style="list-style-type: none"> ● Listed buildings; and ● Listed structures. | <ul style="list-style-type: none"> ● Dust generation from construction activities; and ● Noise and vibration from construction activities. | <p>Archaeological and Cultural Heritage – 1: Listed Structures and Buildings Where practical haul routes will be designed to avoid heritage assets to minimise the potential impacts</p> <ul style="list-style-type: none"> ● Dust suppression techniques and vehicle management systems as identified in the air quality mitigation section; ● Have designated routes for site traffic; ● Assign and enforce speed limits on site; ● Use rumble strips and speed restrictions; ● Sheet lorries, use screens and lid skips; and ● Temporary road closures during the transportation of equipment. | <ul style="list-style-type: none"> ● Civils Works Contractor | <ul style="list-style-type: none"> ● During Construction |
| <ul style="list-style-type: none"> ● Archaeological remains | <ul style="list-style-type: none"> ● General site preparation works; and ● Vegetation clearance. | <p>Archaeological and Cultural Heritage – 1: Archaeological Remains No archaeological assets have been identified during the initial baseline assessment at any of the sites. However, there is potential that archaeological assets will be exposed during the site clearance works, however the likelihood is considered to be extremely low due to the location of the works (within the sea and shoreline). If any sensitive resources are identified, work will cease immediately and the CREAD EHS officer will be contacted to arrange a suitably qualified professional to evaluate the resource and determine appropriate treatment or avoidance procedures.</p> <ul style="list-style-type: none"> ● Stop work immediately if any archaeological remains are identified during the work; and ● Provide toolbox talks to workers on identifying potential archaeological and cultural resources. | <ul style="list-style-type: none"> ● Civils Works Contractor; ● CREAD ESH Officer. | <ul style="list-style-type: none"> ● During Construction |
| Environmental Mitigation Measures – Traffic Circulation and Safety | | | | |
| <ul style="list-style-type: none"> ● Water Quality; | <ul style="list-style-type: none"> ● Project staff traveling to and from site; ● Transportation of materials and equipment; and | <p>Traffic – 1: Traffic Control</p> | <ul style="list-style-type: none"> ● Civils Works Contractor; | <ul style="list-style-type: none"> ● During Construction |

| Issues / Potential Impacts | Activities | Mitigation Measures | Responsibility for Implementing | Timing of Implementation |
|--|--|--|--|---|
| <ul style="list-style-type: none"> ● Worker Health & Safety; and ● Community Health and Safety | <ul style="list-style-type: none"> ● Excavation and construction of earthworks, retaining structures and revetments. | <p>The LBR is a main highway on the island and it is expected that the transportation of materials and the increased traffic from workers traveling to the site will increase the traffic on this road causing congestion and delays during the construction period. The transport of large equipment may necessitate the need for temporary road closures and restrictions at specific locations. Proper traffic controls shall be in place during closures to minimise impacts on traffic circulation, and for safety including signage, temporary barriers, pilot vehicles, stop/go signs. Any road closures must be posted at least 7 days in advance prior to closure, in both the local newspaper and via the local radio and the CLO should contact the community representatives to ensure closures do not clash with local events. Local traffic laws and speed limits will be followed at all times.</p> <ul style="list-style-type: none"> ● The Traffic Management Plan / Construction Logistics Plan (100376135-RPT-024) is to be adhered to. ● Code of Conduct to be signed by all employees and contract staff regarding alcohol use and a zero-tolerance policy for drug use, sale or purchase; ● Bridge replacement works to be planned to minimise delays to the general public (weekends/night-time); ● Tracked vehicles are to avoid using the highways to prevent damage to the road surface and infrastructure; ● Plan journeys so that they are scheduled are off-peak times; ● Journey management plans to be produced for transportation of oversized vehicles; and ● An Emergency Evacuation Plan shall be prepared to address periods when sections of the highway are closed. | <ul style="list-style-type: none"> ● CREAD ESH Officer. | |
| <ul style="list-style-type: none"> ● Worker Health & Safety; and ● Community Health and Safety | <ul style="list-style-type: none"> ● Project staff traveling to and from site; ● Protect site workers on site from vehicle strikes; and ● Transportation of materials and equipment. | <p>Traffic – 2: Road Hazard Avoidance</p> <p>If road works occurs on public roadways, the Contractor shall design the modifications in accordance with the applicable road and traffic safety laws. The projects shall not degrade the road safety or create a new road hazard. The designs for any road modifications shall be submitted to CREAD for review, and approval prior to conducting the works. A condition survey of the route will be conducted by the Contractor, and any repairs from haulage of materials will be undertaken as part of the remedial works.</p> <ul style="list-style-type: none"> ● The Traffic Management Plan / Construction Logistics Plan (100376135-RPT-024) is to be adhered to. ● Time transport of materials or loads (where practical) to avoid busy traffic period and publish the proposed movements; ● Traffic laws and speed limits (on and off site) to be adhered to; ● Designated haul routes on site; ● Designated and demarcated crossing points on site; and ● Targeted traffic awareness campaigns at schools, colleges (within the catchment areas) and churches. | <ul style="list-style-type: none"> ● Civils Works Contractor; ● CREAD. | <ul style="list-style-type: none"> ● Pre-Construction; ● During Construction |
| Environmental Mitigation Measures – Utilities and Communication Systems | | | | |
| <ul style="list-style-type: none"> ● Utility Companies; ● Worker Health & Safety; and ● Community Health and Safety | <ul style="list-style-type: none"> ● Transportation of materials; ● General site works. | <p>Utilities – 1: Utilities and Communications</p> <p>The contractor shall identify and protect any overhead utility and communication lines that hang over the access roads and works areas to ensure the lines are not damaged during construction. If an appropriate clearance cannot be maintained between the construction equipment and the lines, the contractor shall work with the service providers to temporarily disconnect or reposition the lines for the duration of the construction. Disconnected services will be reconnected as soon as works cease. Underground service plans will be obtained by the contractor from the utility providers and the utility locations will be clearly marked on site.</p> <ul style="list-style-type: none"> ● Service locations to be reviewed and areas to be CAT scanned prior to excavation; and ● Additional care to be taken in wet periods as the arcing distances can increase for electrical services. | <ul style="list-style-type: none"> ● Civils Works Contractor | <ul style="list-style-type: none"> ● Pre-Construction; ● During Construction. |
| Environmental Mitigation Measures – Biodiversity | | | | |
| <ul style="list-style-type: none"> ● Terrestrial Species | <ul style="list-style-type: none"> ● General site preparation works; ● Vegetation clearance; ● Working on the foreshore and within the surf zone; ● Back-end tipping; ● Noise and vibration from construction activities; and ● Permanent lighting design. | <p>Biodiversity – 1: Terrestrial Species</p> <p>No protected species were identified during the initial assessment of the sites or identified in the ESIA. and are therefore unlikely to be impacted by the site clearance and preparation works. If the works are to be undertaken in the prime bird nesting season (April to June) a survey of the site should be undertaken prior to clearance as there is a diverse range of avifauna. If active nests are identified, works will temporarily cease, and visual and acoustic barriers shall be erected between the nesting location and work areas. The nest will be monitored, and the chicks allowed to fledge.</p> <ul style="list-style-type: none"> ● Environmental and ecological toolbox talks should be provided to all workers; ● Where practical clearance works should be conducted outside of the bird nesting season (April to June); ● If nests are identified works shall be stopped and the ESH Officer contacted for advice; | <ul style="list-style-type: none"> ● Civils Works Contractor; ● CREAD EHS; ● EHS Officer. | <ul style="list-style-type: none"> ● During Construction. |
| <ul style="list-style-type: none"> ● Marine Species | <ul style="list-style-type: none"> ● Working within watercourse; ● Noise and vibration from construction activities; and ● Permanent lighting design. | <p>Biodiversity – 2: Marine Species</p> <p>No protected species were identified at Grand Bay. The coast is generally a rocky bay and is less amenable to black crab (<i>Gegarcinus ruricola</i>). Working within the foreshore must be undertaken with sensitivity and preferable works should not be undertaken within the seasons when female black land crabs return to the sea to spawn (April). The Black crabs may live terrestrially up to 300m above sea level. Fishing does take place in the project area, but the sector is informal and generally a part time activity.</p> | <ul style="list-style-type: none"> ● Civils Works Contractor; ● CREAD EHS; ● EHS Officer. | <ul style="list-style-type: none"> ● During Construction. |

| Issues / Potential Impacts | Activities | Mitigation Measures | Responsibility for Implementing | Timing of Implementation |
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| <p>The beach conditions are not ideal for nesting turtles; however three types of turtle are known to nest on the windward side of the island to the north of the works area (Rosalie Beach). Whilst no evidence was provided on the use of the beach by turtles for nesting, as a precaution further advice should be sort on the use of the beach by turtles if the beach is to be used for bringing materials to the site. If the beach is to be used as a landing facility, where practical the works should be undertaken outside of the nesting season (1st March to 31st of July), and the following mitigation measures provided below (and daily checklist (Appendix B)) are followed;</p> <ul style="list-style-type: none"> ● Environmental and ecological toolbox talks should be provided to all workers; ● Time construction works to be outside of the spawning season for crabs. If this is not feasible then the contractor shall seek to accommodate the movements of crabs across roads, revetments and seawall; ● Where practical works should be conducted outside of the turtle nesting season (1st March to 31st July); ● Night-time survey to be undertaken within the turtle nesting season to identify nests and nesting behaviour; ● If nests are identified works shall be stopped within the area and the area marked; and ● Lighting design not to shine directly towards the sea as turtles are guided by moonlight and ● Minimise working within the sea to reduce turbidity and sediment generation. | | | | |
| <p>Environmental Mitigation Measures – Waste</p> | | | | |
| <ul style="list-style-type: none"> ● Worker Health & Safety; and ● Community Health and Safety | <ul style="list-style-type: none"> ● General site management | <p>Waste – 1: Waste Management Plan</p> <p>The construction contractor shall prepare and implement a Waste Management Plan. As a minimum, the plan shall address the sources of waste, waste minimisation measures to be adopted, and maximise reuse and recycling opportunities. The majority of the solid wastes are to be disposed of at an approved landfill / waste disposal site. To ensure that waste is correctly stored and disposed of properly the following actions shall be undertaken:</p> <ul style="list-style-type: none"> ● Designation of a waste collection area, where a container can be kept for collection of site waste; ● The waste container will be waterproof to prevent the escape of fluids. It will be covered with a lid to prevent rain water from flooding the waste and overflowing the container. The stored waste will always be covered; ● Waste containers will be checked weekly to ensure there are no leaks of fluids. Any container that presents output of fluids, corrosion, or damage in any way will be replaced; ● Garbage containers will be covered at all time; ● Waste storage areas will be swept and cleaned regularly, Hose washing will not be used in the cleaning process; ● Sufficient numbers of containers will be provided on site to deposit the waste within the construction zone; ● Hazardous wastes (chemicals, fluorescent lights etc) will be stored and collected separately and disposed of appropriately; ● Storage areas will be located away from rivers / drains; ● No burning of waste or any other debris will occur on site. | <ul style="list-style-type: none"> ● Civils Works Contractor; | <ul style="list-style-type: none"> ● Pre-Construction; ● During Construction |
| <p>Social Mitigation Measures</p> | | | | |
| <ul style="list-style-type: none"> ● Community Health and Safety; ● Working Conditions and Equality. | <ul style="list-style-type: none"> ● Site preparation works; ● Haul road | <p>Social – 1: General</p> <p>The document and policies have been written with cognisance to <i>Section VII - Works Requirements 2-6 Environmental, social, health and safety requirements within the World Banks Standard Bidding Documents for the Procurement of Small Works (January 2017)</i>. A policy document has been prepared and appended to this document identifying the minimum requirements expected of the Contractor, in the form of a Code of Conduct.</p> | <ul style="list-style-type: none"> ● Civils Works Contractor; ● CREAD | <ul style="list-style-type: none"> ● Pre-Construction; ● During Construction |
| <ul style="list-style-type: none"> ● Livelihoods | <ul style="list-style-type: none"> ● Site preparation works; ● Haul road | <p>Social – 2: Agricultural / Marine Production</p> <p>It is not anticipated that any active farmland will be impacted by the schemes, although there may be disruption to livelihoods for example informal fishing within Grand Bay site that may be temporarily disrupted during the works. Alternative launch locations should be allowed for during the works and within the final designs. Whilst community engagement was undertaken at the initial stages of the scheme development, on completion of the final designs further consultation should be undertaken to present the proposed schemes, and the community views considered and incorporated if appropriate. The designs should allow for launching locations and storage of boats.</p> | <ul style="list-style-type: none"> ● Civils Works Contractor; ● CREAD | <ul style="list-style-type: none"> ● Pre-Construction; ● During Construction |
| <ul style="list-style-type: none"> ● Working Conditions and Equality | <ul style="list-style-type: none"> ● Site employment. | <p>Social – 3: Working Conditions and Equality</p> <p>Employment opportunities created by the projects shall be equally available to men and women. The project aims to provide a gender-responsive climate resilient transport network and so it is important that if locals are hired for construction jobs, jobs posting and or notices shall be disseminated that foster participation for men and women CREAD shall include a preference for hiring from the project region in the civil works contract.</p> <p>The construction contractors shall provide safe and equal working conditions and comply with the World Bank's social policies regarding age, gender, ethnicity, and religions quality. Workers shall be provided with:</p> <ul style="list-style-type: none"> ● Information on their rights regarding safety and payment prior to working on the site; ● Gender-specific latrines at each project area that are maintained in a sanitary condition with adequate capacity; ● Gender-specific sleeping quarters at the worker camp if applicable; ● Clean, safe drinking water at all times; | <ul style="list-style-type: none"> ● Civils Works Contractor; ● CREAD | <ul style="list-style-type: none"> ● Pre-Construction; ● During Construction |

| Issues / Potential Impacts | Activities | Mitigation Measures | Responsibility for Implementing | Timing of Implementation |
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| | | <ul style="list-style-type: none"> ● Adequate training for their position. <p>Violence, sexual harassment, discrimination, and drug and alcohol abuse will not be tolerated. Workers engaging in such activities shall be dismissed immediately. Any concerns and complaints regarding workplace or community harassment shall be addressed with respect and due diligence by a grievance and redress committee designated by GoCD Women shall be appointed to the grievance and redress committee. Workers and community members who issue concerns of complaints shall be protected from retaliation.</p> <p>Prior to working on the project sites, all workers will sign the code of conduct and receive equality and harassment awareness training, for both workplace and community relations, in conjunction with other social trainings for the project.</p> | | |
| <ul style="list-style-type: none"> ● Working Conditions and Equality ● Noise; ● Community Health and Safety. | <ul style="list-style-type: none"> ● Site employment. | <p>Social – 4: Community Engagement and Sensitivity</p> <p>Pre-construction Meeting. Prior to the start of the construction activities, CREAD shall hold a public meeting for the affected communities to explain the project activities, schedule, possible inconveniences that may be experienced during construction, and safety considerations associated with the works. The affected communities shall be informed of how they can submit complaints about the project should they arise.</p> <p>Informational Signs. CREAD shall install an informational sign at the entrance of each project area to inform the public about the project, construction schedule, and important information about health and safety related to project activities, such as evacuation areas in the event of an emergency. The sign shall include procedures and contact information for submitting complaints about the project to the community liaison officer (CLO).</p> <p>Community Complaints. Complaints that relate to the requirements set forth in the ESIA shall be recorded and addressed and the underlying issue shall be corrected, to the extent feasible.</p> <p>Worker Sensitivity Training. CREAD shall prepare a social and community sensitivity training pack that would be provided to all workers. The training shall be designed to inform all workers of the local customs, traditions, and community considerations for each area affected by the project. The construction contractors shall be responsible for providing the social and community sensitivity training to all workers prior to initiating work.</p> | <ul style="list-style-type: none"> ● Civils Works Contractor; ● CREAD | <ul style="list-style-type: none"> ● Pre-Construction; ● During Construction |
| <ul style="list-style-type: none"> ● Recreation | <ul style="list-style-type: none"> ● Fishing; ● Swimming; and ● Sports. | <p>Social – 5: Recreation</p> <p>Avoid project activities (i.e., laydown areas, site compounds or storing material) in recreational areas such as playing fields where feasible to minimise disruption to the communities in the working areas. Beach access may be prevented within the working areas. Alternative access should be provided if feasible.</p> | <ul style="list-style-type: none"> ● Civils Works Contractor | <ul style="list-style-type: none"> ● During Construction |
| <ul style="list-style-type: none"> ● Community | <ul style="list-style-type: none"> ● Land acquisition for the works | <p>Social – 6: land acquisition</p> <p>CREAD are developing a RAP for the project to mitigate this impact</p> | <ul style="list-style-type: none"> ● CREAD | <ul style="list-style-type: none"> ● Pre-Construction ● During Construction |
| Health and Safety Mitigation Measures | | | | |
| <ul style="list-style-type: none"> ● Workers Health and Safety; ● Community Health and Safety; and ● Fire | <ul style="list-style-type: none"> ● General site management | <p>Safety – 1: Health and Safety Plan</p> <p>The construction contractors shall prepare and implement a Health and Safety Plan that addresses the applicable risks and prevention procedures applicable to each contractor’s work. At a minimum, the Health and Safety Plan shall address hazards that may be encountered during construction, including prevention and response procedures, for the following topics:</p> <ul style="list-style-type: none"> ● General occupational hazards that may be encountered (e.g., moving machinery and motorised equipment, working at heights or in confined spaces, repetitive motions, falling objects, exposure to heat, loud noises, vibration and hazardous materials, protective clothing/equipment); ● Minimum training requirements for operating vehicles, equipment, and machinery, in accordance with applicable laws and industry standards; ● Manual handling training and correct use of lifting equipment; ● Training on reparative strain injury; ● Fire prevention and response procedures; ● Natural hazards that may be experienced during construction (e.g., hurricanes and tropical storms, landslides, earthquakes, volcanic eruptions, and flooding), including designated response procedures and evacuation areas for each project area that are consistent with the GoCD’s natural hazards and emergency response plans; ● Biological hazards in the environment (e.g., stagnant water, dangerous or infectious insects, animals, and plants); ● Disease risk and prevention (i.e., HIV/AIDs, COVID-19 etc.); ● Community safety considerations (e.g., traffic, and unsafe areas); ● Emergency preparedness and response procedures, including the locations of hospitals and medical services in the region in the event of an injury or medical emergency. <p>The construction contractors shall provide all workers with training on the contents of the Health and Safety Plan prior to working on the site. Refresher training shall be given on an occasional basis and before beginning work in new project areas.</p> | <ul style="list-style-type: none"> ● Civils Works Contractor | <ul style="list-style-type: none"> ● Pre-Construction ● During Construction |
| <ul style="list-style-type: none"> ● Workers Health and Safety | <ul style="list-style-type: none"> ● General site management | <p>Safety – 2: Personal Protective Equipment</p> | <ul style="list-style-type: none"> ● Civils Works Contractor | <ul style="list-style-type: none"> ● Pre-construction ● During Construction |

| Issues / Potential Impacts | Activities | Mitigation Measures | Responsibility for Implementing | Timing of Implementation |
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| | | The construction contractors shall supply all workers with personal protective equipment (PPE), and ensure workers use the proper PPE during all work activities. At a minimum, PPE for workers shall include: <ul style="list-style-type: none"> ● Hard hats; ● Steel toed boots; ● Safety glasses or impact resistant eye protection ● Ear defenders; ● Harnesses for working at height; ● Respirators (if required); ● Gloves; ● High Visibility clothing; ● Any specialist protective equipment for welding, concrete mixing, etc. All PPE shall be properly fitted for each worker, including body size and gender, and workers shall be trained in the proper use of PPE, prior to working on the project site. | | |
| <ul style="list-style-type: none"> ● Workers Health and Safety | <ul style="list-style-type: none"> ● General site management | Safety – 3: First Aid and Emergency Response Equipment The construction contractors shall provide first aid training to all workers prior to working on the project. The construction contractors shall ensure all project sites are equipped with first aid and emergency response equipment. | <ul style="list-style-type: none"> ● Civils Works Contractor | <ul style="list-style-type: none"> ● Pre-construction ● During Construction |
| <ul style="list-style-type: none"> ● Community Health and Safety | <ul style="list-style-type: none"> ● General site management | Safety – 4: Community Safety The construction contractors shall install temporary signs and fences around all unsafe areas to prevent members of the public from entering the areas. If installing fences is not feasible, the area shall be clearly identified as unsafe with signs and flagging. | <ul style="list-style-type: none"> ● Civils Works Contractor | <ul style="list-style-type: none"> ● Pre-construction ● During Construction |

Source: Mott MacDonald Ltd

4.3 Mitigation Plans

The bullet points below include a list of required mitigation plans that have been identified within the detailed mitigations measures within Table 1. The responsibility for preparing each of the plans sits with the main contractor, however they may be supported by information received from specialist sub-contractors:

- Traffic Management Plan / Construction Logistics Plan,
- Environmental Health & Safety Plan,
- Air Quality Monitoring Plan,
- Noise Management Plan,
- Biodiversity Management Plan,
- Traffic Management Plan,
- Emergency Plan,
- Waste Management Plan; and
- Water Management Plan.

5 Implementation and Verification Procedures

5.1 Implementation Phases

Mitigation measure, as well as implementation and verification procedures are applicable during the three construction phases; pre-construction, during construction, and post-construction.

Implementation phases for the mitigation measures are identified within the right-hand column of the detailed mitigation measures table (Table 1). The implementation phases for the ESMP procedure requirements are identified in this section.

5.2 Auditing

5.2.1 Pre-construction Audit Report

The CREAD EHS expert and the contractors' EHS Officer, shall survey the project sites prior to construction to record the current condition of all of the work areas. During the survey the EHS representatives will identify sensitive areas that are to be avoided and discuss the optimum locations for site compounds, laydown areas, fuel stores, haulage routes, and worker camps if required. The CREAD EHS expert will prepare a pre-construction audit report that documents the detailed status of each project work area prior to the project activities. The audit will include:

- A description of the work area that identifies and describes the locations of previously disturbed or undisturbed features;
- Areas to be avoided (e.g. protected habitats, recreational areas, farmland);
- Photographic records of each work area.

This document will be used to compare the site conditions following construction and to determine the adequacy of restoration.

5.2.2 Construction Audit Report

The CREAD EHS expert shall visit the site monthly during civil works and weekly (or more frequently if needed) to verify compliance at the site. Oversight agencies may also visit the site on an as needed basis at any time. An audit report documenting compliance with all applicable construction mitigation measures shall be prepared at the completion of each site visit.

5.2.3 Post-Construction Audit Report

The CREAD EHS expert shall visit the project site following construction to document the condition of all work areas and sensitive areas adjacent to work areas. The status of each location and any issues shall be documented in a post-construction audit report prepared by the CREAD EHS expert. Any issues identified with the condition of the work sites shall be addressed by the responsible contractor to the satisfaction of CREAD.

5.3 Monitoring Frequency

Contractor EHS Officers would be on site on a daily basis or otherwise defined in the mitigation measures to inspect active work sites and verify compliance with all applicable mitigation measures for the work phase. The CREAD EHS Officer shall monitor the site on a weekly basis during civil works. More frequent monitoring may be conducted if needed to ensure compliance with the mitigation measures and resolution of any issues that are noted.

5.4 Compliance Reporting

5.4.1 Weekly Compliance Checklist

Contractor EHS Officers shall complete a daily compliance checklist each day that work occurs in the field, and report on a weekly basis. Photographs will be attached to the checklist to document work activities. A checklist form may be developed for use on mobile devices (i.e., smart phones and tablets). If so, access to digital copies of the checklists would be made available to agencies upon request. An example proforma is presented in Appendix B.

5.4.2 Monthly Compliance Checklist

Contractor EHS Officers shall prepare and submit a monthly compliance report to the CREAD EHS expert to document construction and compliance activities completed during the month, and to track the resolution of any issues that may have occurred. The reports should include the following information for the period:

- A summary of the completed construction activities,
- Estimated remaining construction and schedule,
- Summary of compliance activities,
- An update list of all of the EHS incidents that have occurred during the project, including attached notices of non-compliance that were issues,,
- Follow up information from any past activities that are still to be resolved,
- Photographs of project activities; and
- Any chemical testing results or monitoring data.

5.4.3 Biannual Compliance Reports

CREAD shall prepare and submit a biannual compliance report to the Caribbean Development Bank to document construction and compliance activities completed during the period, and to track the resolution of any issues that may have occurred. CREAD will use daily compliance checklists and monthly reports prepared by the construction contractors to develop the biannual report. The CREAD EHS expert shall be responsible for reviewing and submitting the biannual reports to applicable oversight agencies. The reports should include the following information for the period:

- A summary of the completed construction activities,
- Estimated remaining construction and schedule,
- Summary of compliance activities,
- Contractor's implementation activities,
- CREAD and agency oversight activities (i.e. site visits),
- An update list of all of the EHS incidents that have occurred during the project, including attached notices of non-compliance that were issues,
- Follow up information from any past activities that are still to be resolved,
- Photographs of project activities; and
- Any chemical testing results or monitoring data.

5.5 Contractor Training

5.5.1 Environmental Responsibilities

Contractors are required to train workers on the environmental requirements for the project as a whole, as well as how to comply with applicable mitigation measure requirements when

completing their work. In addition to general environmental awareness training, specific environmental training requirements are identified in Table 1.

5.5.2 Health, Safety and Environmental Incidents and Non-Compliance

Contractors are required to ensure their workers are adequately trained prior to beginning work on the project. In addition to applicable worker safety laws, mitigation measures identify specific health and safety requirements that each contractor must comply with. Health and safety training requirements are identified in Table 1.

5.6 Incidents

5.6.1 Incident Reports

Contractor EHS Officers are responsible for preparing and submitting incident reports to the CREAD EHS expert within 24 hours from discovery of the incident.

Any fatalities (or serious injuries that require hospitalisation), shall be immediately reported to the GoCD through the CREAD, who in turn shall inform the Caribbean Development Bank.

EHS Officers shall maintain a complete project record of incidents associated with their contract scope of work. The record shall be regularly updated and included with monthly reports submitted to CREAD. Examples of EHS incidents include:

- Fires,
- Ecological incidents,
- Accidents or near miss events,
- Hazardous material spills that contaminate soil and water resources,
- Non-compliance with mitigation measures; and
- Any improvement orders or notices issued by outside agencies.

At a minimum, EHS incidents report should include:

- Date of the incident and when it was discovered (if different),
- Description of the incident,
- Mitigation measures or environmental laws that were breached or violated,
- Witnesses or parties that were present,
- Corrective actions taken to remedy the issue and preventative measures implemented to prevent it from reoccurring,
- Any remaining actions that are required to correct the situation, such as rehabilitation.

5.6.2 Notices of Non-Compliance

If any issues with compliance are discovered by the CREAD EHS expert, the observing party shall submit a written notice of non-compliance to the alternate party and contractors that documents the issue and presents preliminary corrective actions, if applicable. Notices of non-compliance shall include the following information:

- Date of the incident and when it was discovered (if different),
- Description of the issue,
- Mitigation measures or environmental laws that were breached or violated; and
- Witnesses or parties that were present during the event.

5.6.3 Corrective Actions

Contractors are responsible for responding to and addressing notices of non-compliance in a timely manner and to the satisfaction of the CREAD EHS expert. Contractors will be responsible for the rehabilitation costs and work effort associated with any environmental damage that may occur due to non-compliance with mitigation measures and environmental laws. The Contractor's response will provide a description of corrective actions taken to remedy the issue and any preventative measures implemented to prevent it from reoccurring. Any necessary follow up actions that are required to correct the situation, such as rehabilitation if environmental damage occurred shall be set out.

5.7 Grievance and Redress Mechanism

The CREAD appointed CLO will manage concerns and complaints raised by project affected persons (PAPs) within the communities affected by the project. The CLO shall ensure that any grievance is correctly logged, recorded, investigated, managed, and reported to the appropriate authorities, through the correct channels.

The CLO will conduct stakeholder outreach and respond to any grievances or complaints that may arise. The CLO will act as the key point of contact to resolve project grievances from construction workers, local residents, and community members. The CLO will be responsible for addressing project grievances and directing contractors to make any appropriate change to their work. The contractor shall take reasonable action to address grievances as required by local laws. Contractor EHS Officers will also act as points of contact for local residents or workers that express grievances at the project site. If grievances are expressed in the field, the receiving EHS Officer is responsible for notifying the CLO and CREAD within 48 hours of receipt.

Appendices

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A. Environmental, Social, Health and Safety Policy Statements

A.1 Commitment Policies

A.1.1 Human Resources

The successful contractor will make the following commitments to its employees in order to promote an environment where employees work together to make it a successful project for benefit of the employer (CREAD), the workers and other stakeholders:

- To treat employees with consideration, understanding and respect;
- To establish a safe working environment for workers, and administer a continuing safety program;
- To select individuals based on the basis of qualifications, experience and past performance;
- To provide employees with information regarding their rights under GoCD national labour and employment laws, including their rights to wages and benefits;
- To afford equal opportunity at its locations to all employees and applicants for employment without regard to age, disability, vulnerability, race, creed, colour, national origin, religion, gender, sexual orientation or any other basis protected by international conventions, or national law;
- To adopt the Worker's Code of Conduct as presented in Appendix C prior to working on the project sites. All workers will sign the code of conduct and receive equality and harassment awareness training, for both workplace and community relations, in conjunction with other social trainings for the project;
- To show respect for the rights and dignity of each employee, sexual harassment will be neither sanctioned nor tolerated and any such actions shall be considered a disciplinary matter and workers engaging in such activities will be dismissed immediately. In this regard, unwelcome sexual advances, requests for sexual favours, and other verbal or physical conduct of a sexual nature made either explicitly or implicitly a term or condition of an individual's employment; the submission to or rejection of such conduct by an individual to be used as the basis for employment decisions affecting such individual; or such conduct has the purpose or effect of unreasonably interfering with the individual's work performance or creating an intimidating, hostile, or offensive work environment;
- To ensure that violence, discrimination, and drug and alcohol abuse will not be tolerated. Workers engaging in such activities shall be dismissed immediately;
- To not employ forced, bonded or child labour, and to respect GoCD National Law on minimum age for workers;
- To compensate employees fairly and equitably based on the work performed and results produced;
- To guarantee acceptable standards and management of workers accommodation and provide gender-specific sleeping quarters at the worker camp if applicable;
- To provide gender-specific latrines at each project area that are maintained in a sanitary condition with adequate capacity;
- To work to improve employment skills and competencies by regular performance reviews and undertaking education, and adequate training for their position;

- To prepare a clear and transparent grievance procedure and to discuss openly any issues of concern they might have and to respond to those grievances in a fair and transparent manner through the appropriate mechanisms and in a timely manner. Workers and community members who issue concerns of complaints shall be protected from retaliation; and
- To empower employees to make decisions to the maximum of their abilities.

The Policy will be displayed in prominent positions throughout the site and communicated to the workforce, consultants, sub-contractors and external stakeholders.

A.1.2 Health and Safety

The successful contractor will make the following commitments which recognises the importance of avoiding or mitigating adverse health and safety impacts and issues associated with project activities on workers, the general public, and project-affected communities.

Project activities, equipment and infrastructure may increase the potential for worker and community exposure to health and safety risks and impacts, including those associated with construction, or transportation of materials. This will be conducted through the following policies:

- To protect and promote the safety and health of workers by ensuring safe and healthy working conditions and implementing a health and safety management system. The system will be appropriate to the issues and risks associated with the project;
- To identify, avoid, minimise or mitigate the risks and adverse health and safety of the workforce that may arise from the project;
- To identify, avoid, minimise or mitigate the risks and adverse health and safety of the general public and project-affected communities that may arise from the project;
- To provide workers and affected communities with relevant information, guidance and training related to health and safety hazards, risks, protective and preventative measures and plans;
- To investigate, document and analyse the findings where any accident, injury or disease arises or occurs in the course of the works associated with the project, or there is a potential for such an event, and adopt measures to prevent reoccurrence;
- To implement occupational health and safety measures that will provide preventative and protection measures, including modification, substitution or elimination of hazardous conditions or substitutions;
- Provide training to workers to use and comply with health and safety procedures and protective equipment;
- To provide Personal Protective Equipment at no cost to the workers and make allowance for gender specific equipment;
- To provide equipment to minimise risks, and to enforce its use;
- To conduct specific risk assessments where certain activities could result in adverse effects on the health and safety of workers with sensitivities such as age, gender, disability or long or short-term health conditions and make adjustments to prevent injury and ill health; and
- To minimise the potential for worker and community exposure to hazardous materials that may be released by the project. Where there is a potential for workers and the affected community to be exposed to hazards, the client will exercise due care to avoid or minimise their exposure by modifying, substituting or eliminating the condition or substance causing the hazards.

The Policy will be displayed in prominent positions throughout the site and communicated to the workforce, consultants, sub-contractors and external stakeholders.

A.1.3 Environmental

The successful contractor will make the following commitments which recognises the importance of the environment and will look to develop the environmental policy in conjunction with the ESMP with the aim of continually improving the environmental management system to enhance their performance associated with project.

- As a minimum conform to the compliance of GoCD legal environmental obligations and aim to exceed the environmental requirements of legislation, regulation and or adopted standards;
- To prevent pollution, eliminate serious pollution incidents and contain the environmental impact of the project activities;
- To effectively manage and control noise and vibration to void significant adverse impacts on health and quality of life of both the public and workforce;
- To promote the efficient use and conservation of water, energy and natural resources;
- To effectively manage pollutant emissions to air or reduce such admissions, and minimise public and workforce exposure to any such pollutants emissions
- Use sustainable materials that minimises potential environmental effects;
- Minimise waste, using the principals of prevention, re-use, and recycling, with the aim of maximising the proportion of material diverted from landfill;
- To protect biodiversity and natural ecosystems and enhance where possible; and
- To protect and respect historical and cultural heritage assets.

B. Daily Compliance Checklist

B.1 Environmental Site Inspection Checklist

The following checklist has been provided as an example and should be developed by the contractor based on the proposed working methodologies.

Table 2: Example Site Inspection

| Inspection Items | Implemented | | N/A | Remarks (ie specify location, good practices, issues observed, any non-conformities, proposed corrective actions, roles and responsibilities) |
|---|-------------|----|-----|---|
| | Yes | No | | |
| Air Pollution Control | | | | |
| Are the haul roads watered to minimise dust generation? | | | | |
| Are the stockpiles of dusty materials covered or watered? | | | | |
| Are all vehicles carrying dusty loads covered / sheeted prior to leaving site? | | | | |
| Are plant and equipment well maintained? (any black smoke observed, please indicate the plant/equipment and location) | | | | |
| Are there enclosures around the main dust-generating activities? (e.g. concrete mixing) | | | | |
| Hoarding provided along boundaries and properly maintained (any damage / opening observed, please indicate the location). | | | | |
| Are speed control measures applied? (e.g. speed limit sign) | | | | |
| Others (please specify) | | | | |
| Water Pollution Control | | | | |
| Are water discharge licenses valid? | | | | |
| Are emergency spill kits available at strategic locations? | | | | |
| Are conditions of the license compiled with? (check the monitoring records and observe physically) | | | | |
| Is wastewater treatment system being used and properly maintained on site? (e.g. desilting tank) | | | | |
| Is there any wastewater being discharged to the storm-drains? Is the wastewater being treated? | | | | |

| | | | | |
|--|--|--|--|--|
| Are vehicles and plants cleaned before leaving the site? | | | | |
| Are wheel washing facilities well maintained to prevent overflow, flooding sediment? | | | | |
| Is sand and silt settled out in wheel washing bay and removed? | | | | |
| Others (please specify) | | | | |
| Noise Control | | | | |
| Are copies of the valid Construction Noise Permits posted at site entrance/exit? | | | | |
| Do air compressors and generators operate with doors closed? | | | | |
| Is idle plant/equipment turned off or throttled down? | | | | |
| Any noise mitigation measures adopted (e.g. use noise barrier / enclosure)? | | | | |
| Are silenced equipment's utilised? | | | | |
| Other (please specify) | | | | |
| Waste Management | | | | |
| Is the site kept clean and tidy? (e.g. litter free, good housekeeping) | | | | |
| Are separated labelled containers / areas provided for facilitating recycling and waste segregation? | | | | |
| Are construction wastes / recyclable wastes and general refuse removed off site regularly? | | | | |
| Are construction wastes collected and disposed of properly by licensed collectors? | | | | |
| Are chemical wastes, if any, collected and disposed of properly by licensed collectors? | | | | |
| Does chemical waste producer license cover all major chemical wastes produced on site? | | | | |
| Are chemical wastes properly stored and labelled? | | | | |
| Are oil drums and plants/equipment provided with drip trays? | | | | |

| | | | | |
|--|--|--|--|--|
| Are drip trays free of oil and water? | | | | |
| Is there any oil spillage? Clean-up the contaminated soil immediately? | | | | |
| Is litter, foam or other objectionable matters in nearby water drain/sewer cleaned? | | | | |
| Others (please specify) | | | | |
| Storage of Chemical and Dangerous Goods | | | | |
| Are chemicals stored and labelled properly? | | | | |
| Does storage of DG comply with license conditions (include types and quantities if DG store is available, check the DG store license)? | | | | |
| Are proper measures to control oil spillage during maintenance or to control other chemicals spillage? (e.g. provide drip trays) | | | | |
| Are spill kits / sand / saw dust used for absorbing chemical spillage readily accessible? | | | | |
| Others (please specify) | | | | |
| Biodiversity & Heritage | | | | |
| Are disturbance to terrestrial flora minimised (e.g. plants to be preserved)? | | | | |
| Are disturbance to terrestrial fauna minimised (if rare species identified)? | | | | |
| Have any nesting birds been identified on site | | | | |
| Have any turtle nests been identified during the night surveys? | | | | |
| Have the turtle nest been identified and the Site Manager informed? | | | | |
| Are any historical heritage assets being impacted by the current works? If yes, ensure appropriate measures taken to preserve them | | | | |
| Others (please specify) | | | | |
| Resource Conservation | | | | |
| Has the potable water pipe been assessed for signs of leaks? | | | | |
| Is water recycled wherever possible for dust suppression? | | | | |

| | | | | |
|--|--|--|--|--|
| Are diesel-powered plants and equipment shut off while not in use to reduce excessive use? | | | | |
| Are energy conservation practices adopted? | | | | |
| Are materials stored in good condition to prevent deterioration and wastage (e.g. covered, separated)? | | | | |
| Others (please specify) | | | | |
| Emergency Preparedness and Response | | | | |
| Are fire extinguishers / fighting facilities properly maintained and not expired? Escape not blocked / obstructed? | | | | |
| Are accidents and incidents reported and reviewed, and corrective & preventive actions identified and recorded? | | | | |
| Others (please specify) | | | | |
| | | | | |

Where a “No” is recorded within the form represents the potential breach of regulation or improvement needed and details of nonconformity (NC) shall be recorded in the Remarks column.

* Report NC in the following forms. Each NC should make reference into the checklist as coded. The responsible personnel shall identify the root cause of NC and adopt appropriate corrective and preventive actions (CPA) for mitigation. Confirmation of the effectiveness of the CPA shall be verified by Project Manager within an agreed time.

Signature of ESH Officer _____ Date _____
 Reviewed by Site Manager _____ Date _____

Improvement Request

Table 3: Example Improvement Request Sheet

| | |
|---|--|
| Project | |
| Location | |
| NC Reference | |
| Description of NC | |
| Cause of NC | |
| CAP and target date for completion | |
| Site Manager Approval and sign off (dated) | |

C. Workers' Code of Conduct

C.1 Introduction

This Code of Conduct applies to the construction phase along the LBR project. The purpose of this Code of Conduct is to provide all of the project workers with a clear expectation of the behaviours they are expected to apply with respect to safety, the environment, colleagues and the surrounding communities.

This Code of Conduct applies to all workers involved in the project, including employees of (contractors name to be inserted) and their subcontractors. The Code of Conduct applies to workers when they are on the main coastal defence site as well as any associated works (e.g. for access roads / haul roads). It also sets expectations as to how project workers should behave when staying in local communities during the period of their employment with the project.

This Code of Conduct is part of the project's Environmental and Social Management System (ESMS). The ESMS provides more detailed plans and procedures that help direct all project activity.

C.2 Roles and Responsibilities

Climate Resilience Execution Agency for Dominica (CREAD) are the owner / employer for the project and as such have overall responsibility for the compliance for all Environmental, Social, Health and Safety (ESHS) matters.

(contractors name to be inserted) is the contractor and has responsibility for the day to day management of ESHS matters, including the responsibility for the management and oversight of sub-contractors.

(contractors name to be inserted) is responsible for providing this Code of Conduct to all project workers, including sub-contractors, and verifying that it has been adequately communicated and understood by those workers.

All project workers have a responsibility to understand and apply all aspects of this Code of Conduct during their employment with the project.

C.3 Communication

All Project workers will undergo induction training before starting any work. The induction training will explain the expected behaviours detailed in the Code of Conduct. Upon completion of induction training, attendees will be issued with a copy of the Code of Conduct and will be required to acknowledge through signature that they have received, understood and will abide by the Code of Conduct.

(contractors name to be inserted) HSE Manager may provide Section 4 of this Code of Conduct in alternative formats (e.g. leaflets, posters) to help communicate the requirements of this Code of Conduct.

All workers will be advised of the manager to whom they should refer any questions or concerns. The list of responsible managers is given at the end of the document.

C.4 Code of Conduct

The following sections list the mandatory requirements for all project workers.

C.4.1 Approach to Safety

- All works must be undertaken in accordance with the task-based risk assessment, which must be reviewed before starting work;
- Before starting any task, check the working area for any hazards;
- All workers must conduct work in a way that keeps themselves, other workers, and members of the public safe;
- Only undertake work for which you are trained, competent and fit to do;
- Follow all safety rules and procedures. Report all safety hazards, concerns, near misses and observations immediately to your supervisor;
- Always be vigilant and be aware of moving vehicles and machinery, including cranes, hooks and loads being lifted;
- Mobile phones should only be used in areas free from moving hazards, including vehicles and machinery;
- Workers must not be under the influence of alcohol or prohibited drugs, and alcohol and prohibited drugs are not permitted on the project site; and
- Do not work if your ability to work is affected by tiredness, illness or medication.

C.4.2 Respectful Work Environment

- Do not bully or discriminate against anyone on the grounds of race, colour, religion, political conviction, gender, age, national origin, sexual orientation, gender, marital status or disability;
- Do not harass, threaten or use violence against fellow workers; and
- Do not offer or request any bribes.

C.4.3 Safe Work Site

- Be observant of members of the public in or near the work site. Stop work if there is any concern about safety risk to or from members of the public and report to a supervisor;
- Keep roads, paths and emergency response routes clear of tools, equipment, materials, waste and other hazards;
- Waste should be removed from work areas as soon as practical and disposed in the correct waste container;
- If not involved in the work activity stay away from active work sites, and particularly areas close to lifting machinery, lifting gear and other moving machinery;
- Do not play games on the work site;
- Smoking is only permitted in designated areas.

C.4.4 Personal Protective Equipment (PPE)

- Do not start work without PPE. Unless advised otherwise this will always include protective shoes, reflective jacket, and hard hat. In some areas ear and eye protection or other PPE will also be required;
- Ensure that the PPE is in good condition and is the correct size and gender specific;
- Do not start any work at height unless all equipment such as adequate barriers and / or fall arrest harnesses as required by the risk assessment are in place;

C.4.5 Personal Health and Hygiene

- Keep hydrated and take sufficient breaks during the day to avoid exhaustion, particularly during high temperatures;
- If you feel unwell during your shift advise your supervisor and seek medical advice in the first aid facility;
- Avoid manual lifting whenever possible. When required use help from other workers, use a correct lifting technique and do not over-exert;
- Toilet facilities should always be used;
- Wash hands after using the toilet and before meal times; and
- Do not report for duty while unwell or suffering from a contagious illness.

C.4.6 Emergencies

- All workers should be trained in and understand the emergency response procedure for the locations they are working in, including how to raise the alarm, the meaning of alarm signals, evacuation routes, and muster points;
- Supervisors should frequently communicate emergency response procedures to all workers;
- Find out where the nearest fire extinguishers are and how to use them.

C.4.7 Equipment

- Only use equipment that you are trained to use;
- Only use equipment for the job that it is designed for;
- Check all equipment for any defects and make sure all safety systems (e.g. guards) are working. Any equipment that is damaged should be reported to your supervisor and removed from the worksite to prevent use;
- Check all machinery for signs of leaks and damage at the start and end of every shift and report any damage to your supervisor;
- Always apply the manufacturer's instructions and the task-based risk assessment when using equipment; and
- Only use scaffold that has been inspected and certified to be safe. Check with your supervisor if in any doubt.

C.4.8 Electrical Safety

- Only trained and competent workers should undertake works on electrical systems – comply with any permit to work system;
- All generators should be earthed in accordance with manufacturer specifications;
- Do not use equipment that has damaged power cords/flex (report them to your supervisor and remove them from the worksite);
- Check for any buried services before starting excavations;
- Assume all overhead lines are energized and observe post warning signs;
- Replace all covers / guards on electrical systems as soon as work is complete.

C.4.9 Road Safety

- Only licensed and authorized workers can drive on the work site;
- Comply with traffic signs, weight restrictions and speed limits;
- Watch out for and slow down for children, pedestrians and livestock; and
- Report all traffic accidents as soon as it is safe to do so.

C.4.10 Waste Management

- Disposal of all waste should be done using Project facilities (waste bins, collection points);
- Dumping of materials in unauthorised locations is prohibited. Do not dispose of waste in local communities unless it is in an authorised waste management facility; and
- Only trained and authorised individuals can handle hazardous wastes.

C.4.11 Dust and Air Quality

- All activities should be planned and implemented to minimise the creation of dust;
- Keep to speed limits and drive in a manner that minimises dust;
- Machinery and vehicles should be turned off when not required;
- Trucks carrying soils should be sheeted; and
- Burning of waste or other material is prohibited.

C.4.12 Environment

- Report all spillages to your supervisor immediately;
- All oils, greases, chemicals and other potentially hazardous materials should be stored safely to avoid spills and releases;
- Minimise use of water by using only what is needed, secure taps after use, and report any leakages of water to your supervisor; and
- Hunting or collecting wild plants and animals on the project site is prohibited.

C.4.13 Grievances

- Any concerns about work and working conditions can be reported and investigated by using the Workers' Grievance Mechanism. Information on this will be provided by your supervisor or the manager listed at the back of the Code of Practice.

C.4.14 Community

- Unless authorised by your supervisor, do not cut or interfere with vegetation as they may be sacred to the local community;
- Do not enter cemeteries unless invited to do so by a local community member;
- Do not block roads or paths in a way that restricts public access, unless this is required for public safety or is authorised by your supervisor;
- When traveling by vehicles abide by speed limits and traffic laws, and be courteous to local residents;
- When staying in local communities respect your hosts and act responsibly. Involvement in drugs, excessive use of alcohol, and prostitution should be avoided;
- Be aware of the risk of transmission of HIV / AIDS and sexually transmitted disease. Do not take risks with your health;
- Respect local customs and religious practices;
- If local residents raise any complaint or concern to you about the project report it to your supervisor; and
- Report illnesses and make use of Project medical support to treat illnesses before they spread.

C.4.15 Security

- Incidents of trespassing or theft should be reported to site security; and

- Unless there is a threat to worker safety, workers should not try to stop or restrain anyone suspected of trespass or theft.

C.5 Points of Contact

A list of the projects representatives that are key points of contact for questions or concerns related to the Code of Conduct are provided in the table below:

Table 4: Points of Contact

| Company | Name | Responsibility |
|------------------|-------------------------------------|---|
| CREAD | Mr / Mrs XXXX mrmrsxx@XXXXXX.com | |
| CREAD ESH Expert | Mrs YYY | The CREAD expert on ESH shall be responsible for recording and verifying that the mitigation measures are being undertaken and implemented adequately |
| Contractor | | |
| Sub-contractor | | |
| ESH Officer | | |

6 References

- ECU, 2014, Disaster Vulnerability Reduction Project (DVRP): Environmental Assessment (EA) and Environmental Management Framework (EMF), March 2014, Accessed from: http://ecu.gov.dm/images/documents/dom_EMF-EA_FINAL.pdf (5th September 2018)

