

ENVIRONMENTAL & SOCIAL MANAGEMENT FRAMEWORK (ESMF)

for the

OECS Regional Health Project (P168539)

Dominica

May 2019

## **ACRONYMS AND ABBREVIATIONS**

BMP	Best Management Practice
CEHI	Caribbean Environmental Health Institute
CITES	Convention on Trade in Endangered Species of Wild Flora and Fauna
CUBiC	Caribbean Uniform Building Code
CZMAC	Coastal Zone Management Advisory Committee
DCA	Development Control Authority
EHD	Environmental Health Department
EIA	Environmental Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
EMS	Emergency Medical Service
EMT	Emergency Medical Technician
EOC	Emergency Operations Centre
ILO	International Labor Organization
MOPD	Ministry of Physical Development, Environment and Housing
MOHSS	Ministry of Health and Social Services
MCWTPU	Ministry of Communications, Works Transport and Public Utilities
NEAP	National Environmental Action Plan
NEC	National Environmental Commission
NEMAC	National Emergency Management Advisory Committee
NEMO	National Emergency Management Organisation
NEOC	National Emergency Operations Centre
NEP	National environment Policy
NEMS	National Emergency Medical Services
NGO	Non-governmental Organisation
NIC	National Insurance Corporation
OAS	Organisation of American States
OECS	Organisation of Eastern Caribbean States
OP	Operational Policy
PCU	Project Coordination Unit
PPU	Physical Planning Unit
PPDB	Physical Planning and Development Board
PAHO	Pan American Health Organisation
PIU	Project Implementation Unit
SDED	Sustainable Development and Environment Division
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change
WBG	World Bank Group
WRMA	Water Resources Management Agency

## EXECUTIVE SUMMARY

The Government of Dominica is collaborating with the World Bank Group (WBG) to develop a health project with the objectives to improve the resilience of the health system and to improve the responsiveness of health service delivery during public health emergencies. The project is comprised of three components. Component one includes the retrofitting of three health facilities and improvements in laboratory capacity. Component two includes improvements in public health surveillance of communicable diseases including vector borne diseases and leptospirosis while improving the response to outbreaks of these diseases, and component three will serve to improve emergency response to public health emergencies and disasters.

The precise location of some activities is not yet known in detail, so an Environmental and Social Management Framework (ESMF) is being created to present the details of agreed policies and procedures, implementation roles and responsibilities for managing the Government's safeguard responsibilities. The framework will describe the general approach that will be followed to avoid or mitigate any negative harms arising from project activities.

The activities are not expected to lead to significant negative environmental impacts, nonetheless there is potential negative impacts associated with activities during typical small civil works during construction and refurbishment, those associated with medical waste management during operation, vector control activities during any outbreak control activity, and land acquisition for new or expanded facilities.

These are all addressed using the Bank's Policy OP 4.01 and this document, which provides of a generic list of potential harms with mitigation measures, alongside any Best Management Practices (BMPs) and standard contract clauses for small civil works (Appendix 1), and a pre-design screening tool (5.1 Pre-Design Phase) to identify any special conditions requiring additional mitigation measures.

Medical waste management is addressed by the provision of Terms of Reference (TOR) to develop a Health Care Waste Management System (HWMS) during the early stages of implementation (See Appendix2).

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## 1.0 INTRODUCTION

### 1.1 Project Description

The Government of Dominica with the assistance of the WBG is developing the OECS Project to assist with the rehabilitation and improve the preparedness of the health system to deal with public health emergencies. This project also proposes to build on resilience activities currently underway within the health sector through its Ministry of Health and Social Services.

The proposed Project will have three components as described below.

**Component 1:** Improved Health Facilities and Laboratory Capacity. The Ministry of Health and Social Services proposes to build upon the PAHO SMART Hospital initiative, which identified three facilities that require renovations in order to improve resilience to disasters and climate variability and change. These facilities are expected to become self-sustainable, particularly since they are in remote areas of the country. These facilities include the health centers located in Wesley, St Joseph, and Castle Bruce. It is expected that the facilities will be upgraded based on specific criteria, including:

- Renovations, provision of equipment.
- Strengthening referral networks to ensure continuing of care following a disaster.
- Identification, establishment and upgrading of these facilities for infection control and priority infectious diseases.

Component 1 will also include upgrading laboratory capacity based on identified gaps and strengthening of laboratory data management systems through the procurement of equipment. It is expected that there will be improvements in specimen collection transport and analysis through laboratory capacity development and human resource training. This component is also expected to improve the present biomedical waste management system in each of the facilities to include appropriate and safe storage and transport of medical waste to the disposal site and training of staff to undertake these activities.

**Component 2:** Strengthening Public Health Surveillance and Emergency Management. This component will include strengthening communicable disease surveillance including vector borne diseases and leptospirosis with the establishment of a GIS system to map prevalence of diseases and risk factors which will lead to early detection and prevention of outbreaks. The project also proposes to improve emergency response through the establishment of a command center for the Emergency Operating Center (EOC) and equip this command center with the necessary communication and other IT equipment necessary for communication and command in an emergency response situation.

**Component 3:** Institutional Capacity Building, Project Management and Coordination.

This Component supports project implementation efforts, including project management, fiduciary tasks and monitoring and evaluation (M&E). This component would involve monitoring and evaluation and project management costs associated with supervision of the Project.

The institutional arrangements for managing the social and environmental safeguards are described in section

6.0 INSTITUTIONAL ARRANGEMENTS.

## 1.2 Purpose and Scope of ESMF

This project is expected to create many positive impacts and social benefits both for the community and the health service delivery system in Dominica. There are also negative consequences which may occur as a result and for which measures should be put in place to mitigate these negative impacts. To reduce or minimize these negative impacts, this ESMF was developed in keeping with the World Bank's requirements and Dominica's commitment to address those project-related negative outcomes which will affect communities and individuals. We have identified potential risks, analyzed strategies for risk minimization and provided guidance during project implementation. This ESMF document therefore establishes the commitment that the Ministry of Health and Social Services places on good environmental and social management practices throughout the project cycle. It also serves as a public document for stakeholder information and improvement of the project by providing feedback on community concerns. As the details of the site locations are not known at the time of project preparation, an Environmental and Social Management Framework (ESMF) is required. Activities with the potential for significant negative environment and social impacts are not expected, however, if any are identified, a subproject-specific environmental and/or social assessment will be prepared and subjected to review and approval by the WB. All proposed activities will be subject to environmental screening to decrease potential negative impacts through analysing design alternatives and to avoid or mitigate negative impacts. The tool for screening is in section 5.1 Pre-Design Phase.

This ESMF document was developed to identify how anticipated risks can be managed in line with the WB safeguards and global good practice. The ESMF also serves as a public document to inform stakeholders, which is an opportunity to improve the project by getting stakeholder feedback on relevant concerns or issues.

The ESMF focal point from the Ministry of Health conducted a range of outreach activities to explain to communities the ESMF and the project activities. On each of Dominica's 4 radio stations the ESMF focal point took calls from the public on the project, in person consultations were held in Castle Bruce, copies of the draft ESMF were placed at each health facility and the village council office of each community. A meeting was also held separately with the former Minister for Kalinago affairs.

Emerging from these separate meetings were the shared concerns that the renovation would impact the delivery of services at the health centres and that the construction would create a lot of dust and pollution. The ESMF focal point responded to these concerns, explaining that services would continue throughout the project, and any relocation would be convenient. He also explained that dust and other forms of pollution were issues that were going to be managed by contractors as required in the ESMF. Details of the full range of issues discussed are in Appendix 3.

## 2. LEGAL AND REGULATORY FRAMEWORK

### 2.1 National Regulatory Framework

Dominica has numerous pieces of legislation, policies, strategies and institutions to protect the environment, many of which date back to 1967, when Dominica became an associated state. Some have been recently upgraded and approved in recent times, providing guidance on ways in which the environment can be protected. This has become particularly important since Dominica has been faced with the negative consequences of climate variability and change resulting in extreme weather events

causing devastation to the country. While there are numerous areas which can be discussed, only the most relevant areas will be addressed in this ESMF.

1. Physical Planning Act (2002)

This is an act to make provision for the orderly and progressive development of land in both urban and rural areas and to preserve and improve the amenities thereof; for the grant of permission to develop land and for other powers of control over the use of land. This act also makes provision for the regulation of the construction of buildings and related matters. It also provides for the protection of the environment and is administered by the Physical Planning Authority established by the act.

2. Land Use Policy

Dominica's Land Use Policy was adopted in 2014 and is authorized under the Physical Planning Act (2002). It provides direction for issues related to land use planning in the Commonwealth of Dominica. The National Land Use Policy sets the foundation for all land use decisions and describes how best to manage development to improve quality of life for Dominicans, through economic and social development, protecting human health and safety, and conserving the natural environment.

3. Environmental Health Services Act (No. 8 of 1997)

The Environmental Health Services Act makes provision for the conservation and maintenance of the environment in the interest of health generally and relation to places visited by the public. The act provides the Environmental Health Division with the authority to carry out the functions of the Minister of Health including investigation and providing advice on environmental pollution management, including waste disposal and air quality assessments. The act also makes provisions for granting of permission for discharge into the environment of any pollutant or contaminant upon satisfaction that appropriate measures are taken to minimize these pollutants or contaminants.

4. Solid Waste Management Act

The act makes provision for the establishment of the Solid Waste Management Corporation with the responsibility of making provision for the collection transport storage treatment and disposal of solid waste in Dominica. The act details the functions of the corporation including making provision for the management of medical and hazardous wastes, the management of sanitary landfills and for developing and introducing alternative and nontraditional measures of waste disposal.

5. OECS Building Code

Dominica subscribes to the requirements of the OECS building code. The Governments of the OECS have recognized and have placed emphasis on the development of building standards which would prevent or mitigate the damage caused by extreme natural events. The OECS Secretariat has therefore, with the assistance of the United Nations Development Programme and through the UNCHS/UNDP Project for Programme Support to the Human Settlements Sector in the OECS (CAR/89/006), developed standard building codes and guidelines which speak directly to the specific requirement of each OECS country. The codes and guidelines are based on the Caribbean Uniform Building Code (CUBiC) and other regional codes such as the Bahamas Building Code, the draft Jamaica National Building Code and the Turks and Caicos Islands Building Code. The codes and guidelines so developed have become part of each country's regulatory mechanisms for ensuring adequate building standards.

6. Employment Safety Act

Dominica's Employment Safety Act, 3 of 1983, provides for the safeguard of safety and health at work and for the establishment of consultative and advisory committees and the appointment of safety officers. It makes provision for inspections to be conducted at each workplace by safety officers

appointed by the Minister of Labour to ascertain whether there are breaches of the act and whether the safety of employees is protected.

7. Noise Abatement Act

The Noise Abatement Act No. 10 of 1993 makes provisions for the control of noise with a view to abatement. It provides for approval for noise generation in the operations of a business; however approval has to be granted by the Planning Authority.

8. Labour standards Act No 2 of 1977

This act makes provision for the fixing of the minimum wage and for the determination of working hours, leave and general matters relating to the welfare of workers in Dominica. It establishes the eight-hour workday and the 40-hour work week. Workers exceeding these hours are to be paid overtime.

## **2.2 Environmental and Social Management Capacities**

### ***Ministry of Health and Social Services***

The responsibility for environmental monitoring is administered by the Environmental Health Department (EHD) of the Ministry of Health and Social Services (MOHSS). Its functions are described in the Environmental Health Services Act, # 8, of 1997. The department's mandate is to investigate problems and institute remedial measures in respect to environmental pollution, the management and disposal of solid and liquid waste, food safety and vector control activities. The department also has the mandate for reviewing of building plans and monitor workplace safety to reduce the impact of the environment on public health. Additionally, there is also the responsibility for conducting research in public health; however, this is done on a limited scale due to institutional capacity limitations.

While the EHD's primary function is environmental monitoring, the divisions work along with other divisions of the MOHSS for organization and implementation of health services in Dominica. Health care is provided using the Primary Care Strategy, where services are delivered to communities via a health team located in health districts around the country. An Environmental Health Officer works along this team to provide services through inspections and other health promoting strategies for the prevention of communicable and environmentally related non-communicable diseases.

The MOHSS EHD also has the responsibility for the monitoring of health care waste from generation to disposal. This authorizes officers of the department to develop guidelines, train health care staff on the procedures and guidelines for biomedical waste handling, storage and disposal and advises on safety of workers during these activities.

The MOHSS EHD also conducts environmental assessments to ascertain whether conditions exist in the environment which contributes or has the potential to contribute to adverse human health conditions and, if necessary, requests abatement or mitigation to reduce negative health impacts.

### ***Ministry of Physical Development, Housing, and Urban Renewal***

Physical Planning guides and regulates Dominica's physical development with authority granted by the Physical Planning Act 5 (2002). The division is responsible for monitoring of building, engineering, mining or other operations in Dominica. The division is concerned with safeguarding the health, safety and interest of the public as opposed to private interest. The Physical Planning division evaluates building proposal to ascertain structural integrity, land use and environmental assessments, if required, and manages development control. All building applications and development plans are reviewed by the division. Land-use planning is another important function of the division. It is the policy carried out by the Planning Division that guides how land is used. It is the systematic assessment of land potential balanced with environmental impacts and current and future demands. The primary goal of land-use planning is to balance the needs of the resident population with the needs of the environment.

In the interest of preservation and cultural heritage the physical planning division is also charged with the responsibility of protection of architectural and cultural heritage of Dominica. They may by authority restrict the demolition, renovation or extension of any building which needs to be preserved. The division also carries out the function of environmental protection. Where any part of the country is considered to be environmentally vulnerable, the division has the function of advising the government to declare such an area a protected area.

### ***Caribbean Public Health Agency***

The Caribbean Public Health Agency (CARPHA) is a regional CARICOM institution and the lead agency in matters related to public health, including water quality and water pollution prevention and management. CARPHA serves as a reference laboratory for water quality assessments and as an advisory body on environmental health issues. It collaborates with the Environmental Health Unit in Dominica in performing testing and analysis for that Department, as well as other ministries, agencies, and the private sector who may wish to employ its technical services. This organization has a well-equipped laboratory to assist its functions and a wealth of technical experts who provide advice and reference on a range of environmental management issues.

### ***Solid Waste Management Authority***

The Dominica Solid Waste Management Authority was established for the management of solid waste in Dominica. Their primary function is the collection and disposal of household waste; however, they are also mandated to collect and dispose of medical waste. The corporation also manages the country's only landfill in the community of Fond Cole, where waste is buried in lined trenches.

### ***National Emergency Management Office***

The Office of Disaster Management (ODM) is part of the Ministry of Environment, Climate Resilience, Disaster Management and Urban Renewal structure. It manages the country's emergency operations and is committed to taking proactive and timely measures to prevent or reduce the impact of disasters on the Dominican people and economy. ODM works closely with the National Emergency Planning Organization (NEPO), a governmental organization with responsibility for the planning and organization of counter-disaster measures at central level.

One of NEPO's key functions is to develop, operate, and maintain a National Emergency Operations Centre in accordance with requirements specified in the National Disaster Plan. The National Emergency Planning Organization (NEPO) Advisory Committee is the senior Dominican disaster

management body. The general direction and control of the Organization resides with the Honourable Prime Minister through this committee. The functions include:

- Management of the National Disaster Plan
- Assign responsibilities to NEPO members
- Ensure adequate manpower, training and physical resources for emergency operations before, during, and after a national disaster
- Ensure adequate public awareness programmes on disaster preparedness
- Ensure that vulnerable areas are properly mapped and that a data base exists for effective management action
- Monitor the activities of the annual disaster work program
- Advise on the coordination of emergency activities by voluntary organizations, locally and internationally
- Advise on the coordination and planning of disaster related activities.

### ***Labour Relations and Occupational Health and Safety Department***

Labour relations are managed by the Labour division of the Ministry of National Security. Their functions include the resolution of disputes between employee and employer and also is responsible for occupational Safety and Health including Employee safety at work sites. The department collaborates with the MOHSS EHD to implement the requirements of the Occupational Health and Safety Guidelines by conducting safety inspections of worksites and investigation of injuries and conditions arising out of work-related conditions. Employees are bound by the Occupational Disease Notification regulations, which mandate the reporting of work-related injuries and conditions to the Labour Division, after which investigations are carried out.

## **2.3 World Bank Safeguard Policies**

The World Bank projects and activities are governed by Operational Policies (OP), which are designed to ensure that the projects are economically, financially, socially and environmentally sound.<sup>1</sup> The World Bank's policy on Environmental Assessment (OP 4.01) is used to identify, avoid, and mitigate the potential negative environmental impacts associated with Bank lending operations. This policy is considered to be the umbrella policy for the Bank's "environmental safeguard policies", which among others include: Natural Habitats (OP 4.04), Forests (OP 4.36), Pest Management (OP 4.09), Physical Cultural Resources (OP 4.11), and Safety of Dams (OP 4.37). The Bank's "social safeguard policies" include Involuntary Resettlement (OP 4.12) and Indigenous Peoples (OP 4.10).

Under OP 4.01, the Bank will undertake environmental screening of each proposed project to determine the appropriate extent and type of environmental assessment required. Proposed projects are classified into one of four categories, depending on the type, location, sensitivity, and scale of the project and the nature and magnitude of its potential environmental impacts. The categories of potential environmental impacts are classified as A, B, C and FI. This project is classified as Category B, summarized in the box below, meaning that environmental impacts for the type of works anticipated under the project are expected to be moderate to minimal in nature and can be readily managed through the application of appropriate and well-established engineering and management measures.

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<sup>1</sup>Source: <http://www.worldbank.org/opmanual>

Category	Description
Category B	Category B project has potential adverse environmental impacts on human populations or environmentally important areas, including wetlands, forests, grasslands, and other natural habitats - which are less adverse than those of Category A projects. These impacts are site specific; few, if any of them, are irreversible; and in most cases mitigation measures can be designed more readily than for Category A projects.

The World Bank Safeguard Policy OP 4.01 requires that an Environmental and Social Management Framework (ESMF) be prepared along with an Environmental and Social Management Plan (ESMP) to guide the project’s screening of project risks and its implementation of recommendations to reduce those risks. This program-level ESMF includes guidance during project execution for screening possible sub-projects (i.e., individual civil works or other project-related activities) and identify complex projects which would require additional studies to comply with safeguards policies. All future subprojects which are as yet not identified in detail are included within this single ESMF document and will be incorporated into the Project Operations Manual (POM) to serve as a guide for environmental management of future subprojects or activities once they are defined in sufficient detail for execution. The ESMF as a public document, serves to inform stakeholders and guide environmental management of activities to be implemented.

The other World Bank Safeguard Policies dealing with natural habitats, physical cultural resources, pest management, and forests will not be applicable to the Dominica OECS project. The policies are described briefly below to guide MOHSS assessment of sites during pre-design screening (see Section 5.1).

- **Natural Habitats (OP/BP 4.04)** strictly limits the circumstances under which any Bank-supported project can affect or alter natural habitats (land and water areas where most of the native plant and animal species are still present) as well as parks, natural areas, or other declared protected areas. Projects must avoid, minimize, restore, or offset any activities that cause degradation of natural habitat. Projects that would cause significant conversion or degradation of critical natural habitat (legally protected areas, or those with high conservation value) are not eligible for funding.
- **Physical Cultural Resources (OP/BP 4.11)** seeks to avoid, or mitigate, adverse impacts on cultural resources (movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance) from development projects that the World Bank finances. In addition, as a standard practice, a chance-find procedure is required for all projects with earth-moving activities (excavation, trenching, grading, or plowing) to stop work and notify authorities to prevent damage or destruction of these resources if encountered.
- **Pest Management (OP 4.09).** Vector management in public health projects is governed by the World Bank Operational Policy 4.09 *Pest Management* and Bank Procedures 4.01 Annex B *Application of EA to Projects Involving Pest Management*. These policies apply to all projects involving vector management, regardless of if the project finances pesticides. The Guidebook

on Pest Management provides further guidance, background, tools and references. The policy also requiring training, equipment, and facilities to handle, store, and apply these products properly.

- **Indigenous Peoples (OP 4.10)** The Bank provides project financing only where free, prior, and informed consultation results in broad community support for the project by Indigenous Peoples who are affected by the project. Such Bank-financed projects include measures to (a) avoid potentially adverse effects on the Indigenous Peoples' communities; or (b) when avoidance is not feasible, minimize, mitigate, or compensate for such effects. Furthermore, Bank-financed projects must be designed to ensure that the Indigenous Peoples receive social and economic benefits that are culturally appropriate and gender and intergenerationally inclusive.
- **Involuntary Resettlement (OP 4.12).** For the purposes of this policy, "involuntary" means actions that may be taken without the displaced person's informed consent or power of choice. The Bank's policy requires that projects avoid, minimize, or otherwise mitigate land acquisition and associated adverse impacts. Where resettlement is deemed unavoidable, the project must assist all affected people to improve, or at least restore, incomes and living standards

The PIU must screen all potential facility sites, for potential risks using the screening tool in this document (section 5.1). Because this project is a category B project, any activity that could be categorized as category A will be screened out.

## 3.0 DESCRIPTION OF EXISTING ENVIRONMENT

### 3.1 General Context

Dominica is located between the two French islands of Guadeloupe to the north and Martinique to the south. Dominica is the most northerly, largest and mountainous of the Windward Islands. With an area of just over 750 square kilometres, its steep slopes rise to elevations of over 1,000 metres in some locations, with a few areas along the coast providing limited expanse of flat lands. Reflecting a rugged physical topography, most of the population and infrastructure are located on the coast, making Dominica particularly vulnerable to strong winds and high seas.

The islands volcanic natural history remains evident in continuing seismic activity and in scenic attractions, such as the Valley of Desolation and the Boiling Lake, which together with dense forests populated with an abundance of natural lakes and waterfalls, provide the basis for a growing eco-tourism industry. Dominica has a forest area of 45 000 hectares – constituting more than half of the island's 75 000 hectare over all land area.



become reliant on tourism, particularly cruise tourism and services. The country's GDP per capita is US \$7451.00 (Invest Dominica 2015) with real growth of 0.5% realised in 2018. (CDB 2018).

Dominica's economy has been vulnerable to numerous shocks including market conditions and particularly natural disasters over the years. Initial assessment conducted immediately after Hurricane Maria concluded total damages of EC\$2.51 billion (US\$930.9 million) (Conversion Rate EC 2.67 to 1\$US) and losses of EC\$1.03 billion (US\$380.2 million). Most damages were sustained in the housing sector (38 percent), followed by the transport (20 percent) and education sector (8 percent). The greatest losses were sustained in the agriculture sector (32 percent), followed by the tourism (19 percent) and transport sector (14 percent).

Similarly, Tropical Storm Erica in August 2015, ravaged the country resulting in total damage and loss of EC\$1.3 billion (US\$483 million), equivalent to approximately 90% of Dominica's Gross Domestic Product (GDP).

Dominica was originally populated by Amerindian peoples, known as Kalinago or Caribs, and is the only island in the Caribbean still to possess distinct communities of these indigenous people of the Caribbean. Population estimates for 2011 census indicate that Dominica had a population of approximately 71,293 persons (a decline from 74,750 in 1994), including two thousand Kalinago, the remaining survivors of the first inhabitants of the island. The people are generally described as predominantly of African descent, mixed race, and Kalinago. There are other identities which include white, Syrian Lebanese, East Indian, Haitian, and Chinese, although the composition of some of these groups is relatively small. The persistence of the Dominica's people has contributed greatly to the preservation of aspects of its historical culture, such as the French-creole language, traditional dances, Kalinago heritage, peasant farming, the practice of Christianity, and the tradition of socializing at shops, religious ceremonies, and streets.

Topographic conditions have forced human settlements onto narrow coastal areas, particularly in the south and west, with approximately 44,000 persons (62%) living along the coast. The largest community is Roseau (the capital city) and its environs, with 14,847 persons representing almost 21% of the total population.

The 2008/09 Country Poverty Assessment (CPA) found that poverty in Dominica was high by Caribbean standards - around 28.8% of the population considered to be poor. Additionally, around 3.1% of households are indigent, i.e. very poor, with poverty being found in both urban and rural areas.

### **Human settlement patterns and colonial history**

The country's undulating topography and rugged terrain leaves very little land space for human settlements. Most people reside in the Parish of St. George, which includes the capital, Roseau, with 30% of the population, and 12% residing in the St. Paul Parish (Census, 2011). These parishes are situated along the west coast of Dominica, where communities are located along the coastline adjoining the Caribbean Sea.

The country was inhabited by the Kalinago before it was visited by the Europeans in the late 1400s. In 1627, the English took theoretical possession without settling, but by 1632 the island had become a de facto French colony; it remained so until 1759 when the English captured it. In 1660, the English and French agreed to leave the Caribs in undisturbed possession. Dominica changed hands several times

between the two European powers; however, the English finally took possession in 1805 (Hornichurch, 1995), until it became independent in 1978.

The colonial history meant that Africans were brought to the country to work as slaves on sugar cane plantations. Many ran away to the hills, where they found refuge in the dense forests and attempted to challenge their colonial masters for their freedom (Honichurch 2017).

The present population of the country represents its history with most people being of mixed African and Kalinago descent, with a small percentage of European and Middle Eastern origin. The Kalinago of Dominica are one of the last remaining Indigenous populations in the Caribbean. They settled along the East coast of the country and the Carib Reserve Act of 1978 legislated guidelines and rules by which the people were to be administered. The act also made provision for autonomy and residence of the people on the land which they settled.

### 3.4 Biological Resources

Dominica is a lush green country with over 75% of the country covered in forests containing rich fertile soils ideal for agriculture although forest cover has declined significantly because of severe storms. These forests act as a protection for the water resources which flows from the mountains into rivers making water one of the country's most abundant resources. Dominica's origin and topography has created numerous natural attractions and sites including one of the largest boiling lakes in the world and numerous fresh water pools and lakes and waterfalls.

Dominica is also home of the two indigenous parrots the imperial parrot, or sisserou (*Amazona imperialis*), and the smaller red-necked parrot, the Jacko (*Amazona arausiaca*). There are many hummingbirds, of which the blue-headed (*Cyanophaia bicolor*) is native only to Dominica and the neighbouring island of Martinique. The large frog known as crapaud or mountain chicken (*Leptodactylus fallax*), one of four amphibian species on the island, was long an emblematic part of Dominica's fauna (and a national dish), but it has become highly endangered because of a fungal disease.

Pumice, a volcanic rock used chiefly for building purposes, is the most important commercial mineral. There are also deposits of clay and limestone. Extensive copper deposits in the northeast have been investigated for possible exploitation however no attempt has been made to mine this copper.

### 3.5 Geo-hazards

The country is vulnerable to a number of natural hazards such as hurricanes, earthquakes, volcanic activity, drought, tsunamis, flooding, and landslides. The effects of these phenomena can be exacerbated by the activities of population, such as deforestation, indiscriminate garbage disposal, poor building practices, and unplanned settlements in environmentally sensitive areas.

The country is geologically very young and completely volcanic in its origin. There is a related risk to earthquakes and landslides are a common feature especially during heavy rainfall events. Historically, the country has been affected by hydro meteorological hazards, some of which have caused severe devastation to the economy and livelihoods.

The country's origin also makes it vulnerable to volcanic activity and is considered one of the most volcanically active islands in the Caribbean. Although volcanic eruptions have not taken place since 1880, the island continues to prepare for an eventual eruption. Seismic activity continues with regular earthquake activity and Dominica is home to numerous hot springs and a very large boiling lake.

With the increased frequency of more intense weather events as a result of climate change, the possibility for disasters to occur increases, placing increased strain on the limited national technical and financial resources and the country's ability to respond.

### 3.6 Physical Cultural Resources

While it is Dominica's natural resources and its scenery that attracts huge numbers of tourists, the country's landmarks are also worth visiting. Roseau is the island's center of government, commerce, health services, education, and communications. The largest French settlement, it was named after the reeds that grow along the nearby Roseau River. Most buildings are small-scale, ranging from Victorian wood and stone townhouses with large verandas and fretwork to newer, more hurricane-resistant concrete structures. The city is dwarfed by the multi-story cruise ships that call at its newly rebuilt port. A large black and white crucifix and shrine on Morne Bruce overlooks the city. Old stone forts built by the British and expanded by the French include Fort Young in Roseau (now a hotel) and Fort Shirley in Portsmouth (in Cabrits National Park). The Roseau Public Library, built in 1906, is a treasure trove of local, regional and international books! St. Patrick's Roman Catholic Cathedral, located within downtown Roseau was built in the 1700s, partially marks the end of Anglican suppression of Catholicism as well as the spread of the Catholic Church in the British colonies. While the building stands in near ruins, mass is held there on occasion. The Barracoon Building, built as slave barracks, is a colorful and cheerful looking building with a dark history as a center of slavery on Dominica.

The history and culture of the indigenous peoples of Dominica can be appreciated through the Kalinago Cultural Center. This large museum, spread out like a village, presents the heritage of some of the last remaining traditionalist natives on the island of Dominica. Another popular destination is Museum of Rum, in La Plaine, southeastern Dominica. Visitors to the Museum of Rum will be able to explore the ruins of the distillery, as well as learn about a number of artifacts that have been gathered over the years. While the island and people of Dominica have grown and changed over the decades, at the Old Mill Cultural Center, they remember and preserve that culture, teaching it to their children and to the visitors who show interest.

## 4.0 POTENTIAL NEGATIVE IMPACTS

The Project is expected to bring numerous positive benefits, but there is also a risk of negative impacts in the social and environmental areas if certain activities are not appropriately managed.

As described earlier in this ESMF, Component 1 of the Project would include the renovation of three health care facilities, including the facilities in Wesley, St Joseph and Castle Bruce, the improvement of laboratory capacity and improvements in Biomedical Waste Management at these facilities. In Wesley, it is also envisaged that a small expansion in the number of rooms will be done. The negative impacts are few, however this project will ensure that mitigation measures are implemented at each stage of the component to reduce the impact on the environment and the population.

Under Component 2, the project is expected to strengthen public health surveillance with special emphasis on communicable diseases such as vector borne diseases and leptospirosis. A GIS system of surveillance will be implemented to monitor vector populations, communicable diseases and human populations at risk to these diseases. Component 2 also proposes to strengthen disaster coordination and response through the improvement in the EOC.

Under Component 3, the Project includes the strengthening of the PIU and developing systems to monitor the implementation of the ESMF and the overall project during implementation.

Negative environmental and social impacts could result from several of the project activities, as summarized below:

- Refurbishments at selected health facilities presents occupational health and safety risks typically associated with small civil works, such as those arising from not using safety equipment, or workers not properly managing heavy equipment.
- Upgrading of facilities should also include adequate treatment of wastewater. Diesel generators may also be used for emergency power back-up, requiring adequate ventilation, fuel storage, and safety measures. During operations, these systems must be adequately maintained to minimize potential releases to the environment.
- Refurbishments can also impact the neighbouring areas through increased traffic, dust and noise, stormwater runoff from disturbed areas or concrete mixing areas, inadequate debris disposal, and poor sanitary facilities on the work site.
- Health care services will be relocated and as such, risks associated with this relocation are expected. Relocation is expected to result in the discontinuation of some services, service provision in areas which may not be suited for that purpose including waste disposal facilities and may not provide access to those who may need it most.
- Unexpected risks from small civil works include destruction of historical artefacts during earth-moving activities, damage to historical buildings or facades, or other impacts to physical cultural resources.
- Refurbishments at selected health facilities could create sources of medical waste, equipment or supplies needing proper management and disposal.
- Construction waste will need to be disposed of properly as will any hazardous material, such as asbestos, mercury, chemicals that may also be discovered during demolition, repairs, or refurbishment.
- During operation of the health care facilities, there may be increased use and scope of services, resulting in additional sources of medical waste needing proper treatment and disposal.

- The health and safety of health care workers could be affected by waste management practices as well as by hygiene conditions, isolation and storage procedures for bio-infectious, radiologic or genotoxic waste.

The potential negative impacts can be grouped into two categories: those associated with typical small civil works, and those associated with medical waste. Each is discussed in more detail in the following two sections.

#### 4.1 Negative Impacts associated with Small Civil Works

There is the possibility of the occurrence of typical works-related negative impacts associated with the small civil works (refurbishment of selected health facilities) for the Project. Each of the impacts is described in more detail below.

- **Increased traffic can generate conflict.** There is always the possibility of increased traffic for civil works of certain sizes especially when the works are occurring adjacent to a main highway or any busy road. The potential for vehicular/vehicular and pedestrian/vehicular conflict increases as the scale of works increases, if proper traffic management procedures are not implemented. This can lead to negative response from the nearby residents or the community affected. The matter of safety also becomes a great concern in relation to the speed of the vehicles as well as the alertness of the drivers as they traverse the highways and through communities especially if there are children within the vicinity who may be accustomed to playing on the roads or sidewalk areas. The breakdown of a large project vehicle causing the blockage of a well-travelled route can escalate tensions within a community, especially if it contributes to loss of travel time to work, school, or returning home. This may be the case at many of the health facilities selected for refurbishment.
- **Increased noise levels** from activities adjacent to or within communities and residential areas can be deemed as an unnecessary and unwanted nuisance affecting local business and day to day activities. Care must be taken in the judicious usage of any form of heavy noise and vibration equipment. Associated vibrations from the use of heavy equipment such as rollers can negatively impact surrounding communities, causing nuisances by shaking household items and possibly affecting the stability of nearby structures.
- **Poor Solid and Liquid Waste Management** can be detrimental to both the terrestrial and to the nearby marine environment. The mishandling of chemicals, detergents, greases, oils, building materials, can lead to the poisoning of the terrestrial and marine environment. The management of human wastes on site is very critical to ensuring a healthy working environment and reduce the risk of faecal contamination. Managing excavated soil is also important especially when there is potential for stormwater runoff into drains, rivers, and coastlines. In addition, care is needed when soil is being transported to another site for use or storage. Care must be taken to ensure the appropriateness of the transport and the protocols for transporting and storing the soil, using BMPs for erosion control and safe transport.

- **Hazardous Materials.** At times hazardous materials may be discovered, especially when older buildings are being refurbished. Such materials may include asbestos in ceiling tiles or roof panels, medical waste in storage areas or debris piles, paints or solvents in maintenance areas, or fuels such as diesel tanks or contaminated soils. Improper handling or disposal of these materials can lead to impacts to health of workers or the community, or pollution of watercourses and nearby lands.
- **Air pollution** can come from a number of sources. Vehicles and machinery can produce noxious fumes such as carbon monoxide, diesel fumes, as well as burnt oil fumes which can be a nuisance to nearby facilities or communities. The mishandling of particularly noxious chemicals such as solvents or chemical washes, greases, as well as the burning of solid wastes on the work site, especially chemical containers, can lead to air pollution resulting in negative health impacts.
- **Terrestrial and Marine Pollution.** The potential for terrestrial and marine pollution can occur with indiscriminate disposal of both solid and liquid wastes. The mishandling of chemicals and especially waste oils can poison the landscape. Improper disposal of human wastes can lead to similar effects. This also applies to pesticides used in termite treatment of new or existing buildings. With the occurrence of civil works projects along or adjacent, or within the coastal waters, there is the possibility of impact on the marine ecosystem which must be evaluated as project details become clear.
- **Soil Erosion and Land Slippage** can occur if land clearing and excavation practices, as well as poor site drainage can lead to exposed soil. Opening of roadways, trenching for installation of water lines, grading or clearing, may all destabilize the soil surface and eventually be the cause for landslides at a later time. Accordingly, if any of these activities become related to the project, careful planning is required to ensure that soil erosion is minimized, and that landslide potential is not exacerbated. Best Management Practices (BMPs) for slope stabilization should be used.
- **Occupational Health and Safety Issues.** Worker safety is critical to any operation, the mishandling of equipment, the improper storage and usage of various chemicals and materials on site, high levels of continuous noise and fumes, as well as inadequate or improperly used safety equipment can cause serious injury and down time to the workers and project and should therefore be avoided. If outside labour is required, proper facilities for housing will be provided for workers.
- **Loss of or Damage to Physical Cultural Resource** may occur during any type of earth works associated with refurbishment or expansion activities, there is the possibility of coming across or “chance finding” what may appear to be an historical or cultural artifact, which may need to be studied and preserved by the relevant authorities. In cases like this, the resource could be lost due to careless activities prior to the relevant authorities determining whether or not it is worthy of preservation. It is therefore recommended to consult with local stakeholders as to the final design of facility, and the disposition of any potential physical and cultural resources,

because the valuation of such items is ultimately subjective, and they are of most value to local stakeholders.

- **Loss of Land, Access, or Livelihood.** In some cases, it is necessary to acquire land, remove crops when clearing government lands, or relocate businesses so a project activity can proceed. Although this scenario is not anticipated, if it is deemed necessary through any project changes this will be done according to prevailing law and World Bank Policy OP 4.12.

## 4.2 Negative Impacts associated with Medical Waste

According to the WHO<sup>2</sup>, waste and by-products from the health sector cover a diverse range of materials, as the following list illustrates:

- Infectious waste: waste contaminated with blood and other bodily fluids (e.g. from discarded diagnostic samples), cultures and stocks of infectious agents from laboratory work (e.g. waste from autopsies and infected animals from laboratories), or waste from patients with infections (e.g. swabs, bandages and disposable medical devices);
- Pathological waste: human tissues, organs or fluids, body parts and contaminated animal carcasses;
- Sharps waste: syringes, needles, disposable scalpels and blades, etc.;
- Chemical waste: for example, solvents and reagents used for laboratory preparations, disinfectants, sterilants and heavy metals contained in medical devices (e.g. mercury in broken thermometers) and batteries;
- Pharmaceutical waste: expired, unused and contaminated drugs and vaccines;
- Cytotoxic waste: waste containing substances with genotoxic properties (i.e. highly hazardous substances that are, mutagenic, teratogenic or carcinogenic), such as cytotoxic drugs used in cancer treatment and their metabolites;
- Radioactive waste: such as products contaminated by radionuclides including radioactive diagnostic material or radiotherapeutic materials; and
- Non-hazardous or general waste: waste that does not pose any particular biological, chemical, radioactive or physical hazard.

Health-care waste contains potentially harmful microorganisms that can infect hospital patients, health workers and the general public. Other potential hazards may include drug-resistant microorganisms which spread from health facilities into the environment. Adverse health outcomes associated with health care waste and by-products also include:

- sharps-inflicted injuries;
- toxic exposure to pharmaceutical products, in particular, antibiotics and cytotoxic drugs released into the surrounding environment, and to substances such as mercury or dioxins, during the handling or incineration of health care wastes;

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<sup>2</sup> <http://www.who.int/mediacentre/factsheets/fs253/en/>

- chemical burns arising in the context of disinfection, sterilization or waste treatment activities;
- air pollution arising as a result of the release of particulate matter during medical waste incineration;
- thermal injuries occurring in conjunction with open burning and the operation of medical waste incinerators; and
- radiation burns.

The Project may increase the use and scope of services at facilities, resulting in additional sources of medical waste needing proper treatment and disposal. This is also the case for work during emergency response or epidemics. The health and safety of health care workers could be affected by waste management practices as well as by hygiene conditions, isolation and storage procedures for bio infectious, radiologic or genotoxic waste. Such risks, if not mitigated, may also affect nearby communities.

## 5.0 MITIGATION MEASURES

Mitigation measures address the potential impacts of project activities to avoid or reduce any negative impact on the environment or on people. As indicated in the section on impacts, there is the potential for negative impacts associated with small civil works and rehabilitation, and there are potential impacts associated with the generation and management of medical waste.

The careful implementation of mitigation measures will allow for the reduction or avoidance of any adverse impacts. These efforts start in the pre-design phase with the screening of possible sub-projects for consideration, and include efforts during the design, implementation, and operation phases. The generic mitigation measures proposed for the most likely environmental, social, and health and safety impacts are presented in Appendix 1. In addition, Appendix 4 presents a table of the key impacts and mitigation measures at all project stages.

### 5.1 Pre-Design Phase

It is understood that all the health care facilities to be refurbished will be located on lands already owned by the Government, and in areas that are unoccupied. However, it is possible that conditions have changed, that new parcels or locations might be better suited for improvements, or that needs may evolve over the course of the project. In addition, the specific details of the health care facilities where improvements and refurbishments will be done are not yet known and will not be known until a survey is performed during the early stages of project implementation. Therefore, it will be necessary to conduct a screening process and verify that the expected works are in line with those envisioned in the ESMF, and that there are no new, unexpected, or unacceptable environmental and social risks that have not been taken into account in the ESMF.

During the pre-design phase, the PIU officer will use his/her training and experience to make a determination based on the degree of impact likely to be caused by the project due to its size, proximity to a coastal area, marine or terrestrial reserve and the existing topography that may be disturbed. Other environmental and social risks or potential impacts should be kept in mind during the pre-design screening process, such as infringement on lands (whether legally occupied or not), presence of vulnerable persons, existence of hazardous materials or conditions, etc. In the pre-design phase, the questions in Table 1 below should be reviewed, addressed, and recorded.

The objectives of the screening are to (1) identify sub-projects that are not consistent with the proposed OECS project, in line with the current ESMF (exclusion criteria); (2) to determine the WB environmental category for each sub-project and the WB instruments needed (ESIA/ESMP) (categorization criteria); and (3) identify the mitigation measures that will be required to implement the sub-project. To this end, the screening is performed in 3 stages and for each stage a specific section of the Table is applied: Section A: Exclusion criteria; Section B: WB Categorization; Section C: specific mitigation required.

**Table 1. Pre-Design (Screening) Questions for Health Facility Refurbishments**

<b>Sub-project title</b>		
<b>Sub-project location/address</b>		
<b>Sub-project brief description</b>		
<b>1. Exclusion criteria</b> ((if response is Yes to any of the questions below, reconstruction in the proposed site is not eligible and a new site must be selected)	<b>Yes/No</b>	<b>Observations</b>
<b>1.</b> Is facility located in known flood or flashflood risk area/spot?		
<b>2.</b> Is facility located in an area susceptible to landslides?		
<b>3.</b> Is facility located on top of or adjacent to known fault-line?		
<b>4.</b> Is facility located in a protected area or will the refurbishment / expansion of the facility be located in protected area?		
<b>5.</b> Is facility located under a transmission line?		
<b>6.</b> Is facility located in an area where known Physical Cultural Resource (PCR) exist?		
<b>7.</b> Will the refurbishment / expansion of the facility result in significant conversation or degradation of critical natural habitat?		
<b>8.</b> Is refurbishment / expansion of the facility proposed to be in an area where residential, agricultural or other economic activities are currently taking place (legally or not)? If Yes, the activities in this site should not proceed, as it would require the implementation of OP 4.12 .		
<b>2. Project Classification (Projects classified as category A are not eligible for this operation)</b>		<b>If Yes: Classification is</b>
1. Is the proposed refurbishment/expansion project likely to have only minimal or No adverse environmental impacts?		<b>Category C</b>
2. Is the proposed refurbishment/expansion project likely to have mainly adverse environmental impacts that are small-scale, site-specific, temporary, reversible, and limited to the civil works site or replacement time frame and for which mitigation measures are readily known and easily implemented?		<b>Category B</b>
3. Will a specific Environmental and Social Management Plan (ESMP) be available for the nature and scale of the proposed works, including all measures needed to prevent, minimize, mitigate, or compensate for adverse impacts and improve environmental performance?		<b>Category B</b>
4. Will the proposed refurbishment/expansion works likely have primarily significant adverse environmental impacts that are sensitive, diverse, or unprecedented <sup>3</sup> ?		<b>Category A</b>
5. Will the proposed refurbishment/expansion works likely negative impacts affect an area of influence that significantly exceeds the facilities footprint?		<b>Category A</b>

<sup>3</sup> Unprecedented impacts are those which have not been experienced before in the project's area of influence.

6. Will the proposed refurbishment/expansion works involve physical resettlement or economic displacement of a significant number of people?		<b>Category A</b>
<b>3. Characteristic of Sub-project or Activity:</b>	<b>Yes/No</b>	<b>Observations<sup>4</sup></b>
<b>General accessibility and logistics</b>		
1. Does the facility have good access, a functional entry, and a road that does not need major repairs or extensions?		
2. Is the work site flat, clear, and levelled, and not require cutting of slopes or major earth movement, except small amounts?		
3. Is the work site outside a flood zone, wetland, river or coastal flood plain?		
4. Is the work site an area with high water table, or a poor drainage zone?		
5. Will the refurbishment/expansion generate significant quantities of demolition waste?		
6. Is the facility connected to (or has the possibility to be connected to) public potable water services?		
7. Is the facility connected to (or has the possibility to be connected to) public sewage services?		
8. Is the facility serviced by regular waste collection by Authorized Collectors?		
9. Is the facility serviced by regular Health Care/Medical waste collection by Authorized Collectors?		
<b>Biodiversity</b>		
10. Will the sub-project involve works in rivers, canals, or drains?		
11. Will the sub-project involve land disturbance or site clearance?		
12. Could the project activities affect any natural or protected areas, Parks, natural areas, or Forest Reserves within 1 km of the Project?		
<b>Physical Cultural Property</b>		
13. Could the works adversely affect cultural property, including archeological sites or historic buildings, artwork, visual aesthetics, or other physical cultural resources?		
14. Is the sub-project located near a recognized PCR conservation area or heritage site?		
15. Does the sub-project involve significant excavations and/or movement of earth?		
<b>Pest management</b>		
16. Does the activity or project involve the use of pesticides, herbicides, or other agents to destroy pests or control vectors, except in small quantities?		

<sup>44</sup> Refer to the mitigation measures and BMP available and that will be implemented.

17. Will the project use of chemicals, agrochemicals, corrosives, and solvents?		
<b>Air quality/noise</b>		
18. Will the project use machinery?		
19. Will the refurbishment works involve marble, concrete, ceramics, wood, etc.?		
20. Will the project activities generate volatile Organic Compounds VOCs (paints, asphalt heating, preparation and application, etc.)?		
21. Will the project involve major and/or minor demolition works?		
22. Will the project involve Asbestos management?		
23. Will the project involve the installation of air conditioning units/systems?		
24. Will the project have the potential to generate odors?		
<b>Soil contamination, erosion, sedimentation</b>		
25. Will the project involve hazardous materials management and disposal (e.g. asbestos, medical or infectious waste, solvents or gasoline) excepting small amounts?		
26. Will the project involve large quantities of technological wastes (E-waste)?		
27. Will the project have the potential to cause soil erosion?		
28. Will the project have the potential to cause topsoil loss?		
29. Will the project have the potential to involve soil compaction?		
30. Will the project involve concrete foundations/impervious layers?		
31. Will the project involve equipment on-site fueling or storage?		
<b>Social impacts and community health and safety</b>		
32. Is the land where works will take place free from encumbrances and is in possession of the Public/government land?		
33. Can the government demonstrate that they are the legal title holder of the land?		
34. Will the work activities require temporary or permanent land acquisition (other than willing buyer-seller at market price), reduce other people's access to economic resources (land, water, pasture, crops) upon which they rely, require taking of crops or temporary occupation of lands, or evict squatters?		
35. Will people permanently or temporarily lose access to facilities or services?		
36. Will the services be temporarily relocated during refurbishment/construction?		
37. Will sub-project generate temporary labor influx during construction in excess of 20 workers?		
38. Will the sub-project cause traffic impacts and accessibility issues?		
39. Could the sub-project cause utility damage?		
40. Will the sub-project affect physical integrity of weak structures/houses adjacent to construction sites?		

41. Will the project have the potential to adversely affect vulnerable people and underserved groups (e.g., elderly poor pensioners, physically challenged, women, particularly head of households or widows, etc.) living in the area?		
<b>Occupational Health and Safety</b>		
42. Will the sub-project involve potential physical hazards?		
43. Will the sub-project involve fire hazards?		
44. Will the sub-project involve slippage, falling & working at heights?		
45. Will the sub-project involve manual handling and lifting?		
46. Will the sub-project involve electrocution?		
47. Will the sub-project involve excavation works?		

As previously stated, it is expected that the sites to be refurbished and small civil works will pass the screening criteria with no problem and will be found suitable for improvements. In such cases the standard mitigation measures would be all that is needed to minimize any risk of negative environmental and social impact.

Alternatively, if at any site the application of the screening table above identifies impacts that will not be able to be mitigated through the standard mitigation measures in Appendix 1, then a specific Environmental Assessment and ESMP must be developed for that site and proposed works.

## 5.2 Design Phase

It is expected that the projects would receive adequate technical review by qualified technical professionals to ensure their technical and environmental soundness. Engineering review for all plan details and designs would be integral in this process.

The design should include adequate wastewater treatment and disposal systems, such as package treatment plants and chlorination, where appropriate for the size, capacity, and services offered at the particular health facilities. The design should also include adequate facilities for management of solid waste and medical waste, where appropriate for the size, capacity, and services offered at the particular health facilities.

If local permits are required from the Physical Planning Department or other agencies, then these should be processed according to regulations. Any conditions or stipulations resulting from local permits must also be added to the ESMP for the works and becomes an additional compliance requirement.

Land acquisition is not anticipated because the health care facility refurbishments will typically occupy the same physical footprint<sup>5</sup>; in addition, the facilities are already located on government (Crown) property. However, adjustments to plans, titling issues, temporary access during rehabilitation or

<sup>5</sup> Except in Wesley, where a small expansion will be implemented.

renovation, or other needs may occur that require parcels to be occupied temporarily, purchased, or accessed. In such cases it is necessary to avoid triggering the Involuntary Resettlement Policy (OP/BP 4.12) by the removal of persons or their assets such as crops or structures, or by requiring access or occupation without recourse or recompense. Therefore, any works or activities to be financed as part of this project or at a later stage will be on government lands which are unoccupied and unencumbered by informal settlers or their assets. Demonstration of this ownership will be required as part of the screening and site selection process and is included in the mitigation plan.

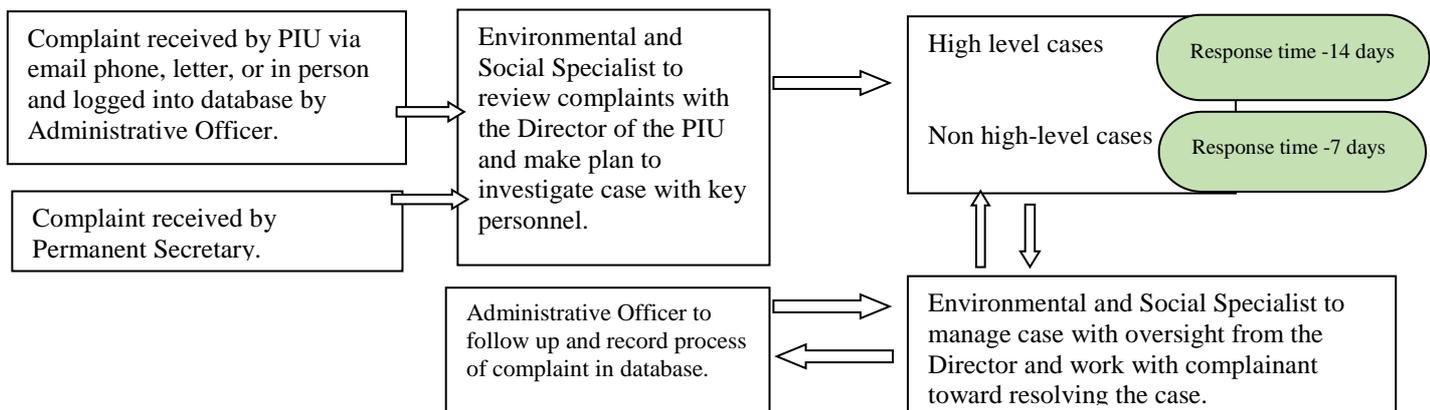
Privately owned land or land purchased through willing-seller and willing-buyer is acceptable, provided that the land acquisition must occur by mutual agreement in exchange for a notarized purchase contract based on the market price at the date of acquisition. Any temporary access agreements should be equitable, voluntary, and documented in writing.

### 5.2.1 Grievance Redress

Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to a project-level grievance redress mechanism (GRM). Separately, contractors shall be required to have a method to handle grievances at the construction site, the details of this are included in Appendix 1. At the Contractor's level, all complaints or related issues can be sent to the designated email account or given in person or over the telephone, as posted on the work site.

During the pre-design phase of the project the Ministry of Health and Social Services will develop the Project-level GRM to register, track, address and resolve any complaints raised by individuals or groups. Reported issues should include a name, date and contact information with a detailed description of the case; however, anonymous complains can also be received. The GRM forms in appendix 1 can be adapted for this purpose. The PIU will be responsible for managing the GRM; all reported cases will be logged by the administrative officer of the PIU and directed to the PIU Environmental and Social Specialist, as shown in the flow chart below. The Environmental and Social Specialist will meet with the director of the PIU to discuss the nature of the case and how to assign the case to the appropriate personnel.

It is expected that there will be a normal response time of 7 days for each case; however high-level cases may require up to 14 or more days to respond. The Director of the PIU will report high level cases to the WB where necessary. The PIU will maintain a Data Base, managed by the administrative Officer, to log all complaints and to track each from date received to date resolved and highlight how each case was investigated and resolved. If not resolved, or in case the complainant does not feel comfortable filing a complaint with the PIU, the complainant can access directly the Permanent Secretary of the Ministry of Health and Social Services, who will engage with the director of the PIU and the ESS Specialist. These complaints will also be recorded and tracked by the Administrative Officer. All GRM records will be available to WB staff during supervision missions.



**Flow Chart 1 Basic process for Project level GRM**

The WB’s Grievance Redress Service (GRS) is another mechanism whereby people aggrieved by a WB project can contact Bank Management directly if they feel harmed by a project. The GRS is based in Washington, D.C., and ensures that complaints received are promptly reviewed and an action plan is established to address concerns. This avenue is available once an individual or a community has taken their complaint up with the project level GRM; this mechanism extends to complaints about procurement.

### 5.3 Implementation Phase

General impacts typical of small civil works have been identified in the preceding section of this ESMF, and the mitigation actions that will be taken have been identified.

Appendix 1 provides the standard mitigation measures in the form of Best Management Practices (BMPs) that will be included in the bidding documents for the works and become contract clauses to be incorporated into the requirements of the contractor who will undertake the civil works. Additional mitigation measures would be derived from any conditions imposed by any statutory agency who reviewed the sub-projects and provided recommendations or conditionalities. These should also be converted to contract clauses, as necessary.

Community engagement during the implementation of works is required in order to minimize social risk and ensure orderly and transparent execution of project activities. Communities also serve an important monitoring function and provide valuable feedback on contractor performance, design, and operation. The Ministry of Health and Social Services will be required to provide information to communities on a regular basis throughout the works.

### 5.4 Operations Phase

The chief environmental risk during the operation of the health facilities relates to the management of medical waste. During operation of the health care facilities, including times of emergency response or epidemics, medical waste will require proper treatment and disposal, as there may be potential negative effects on patients, health care workers and to the public in general. To minimize these risks, the project will support the development of the national health care waste management plan (TOR in Appendix 2).

At the present time, there is a draft plan for health care waste management which requires review and adoption by Dominica. Principles of the plan are in place at some health care facilities however the country does not have the capacity to manage biomedical waste safely. While laboratory waste is treated prior to disposal, other biomedical waste generated nationally is not being treated.

Medical waste generated at the main hospital is presently being disposed at the national landfill in a special hole dug for that purpose and covered after disposal. Waste generated at other facilities, including private facilities, are collected in the general waste stream and disposed in the landfill.

There are no special facilities for the disposal of technological waste. Like medical waste, technological waste (E-waste) is disposed in a lined cell at the landfill and covered at intervals. Dominica has developed guidelines for infection control for the prevention of health care related diseases and conditions and includes management of medical waste at the point of generation. (Infection Prevention and Control Manual, 2015 Edition). Health care staff are familiar with these guidelines and facilities are provided for adhering to these guidelines. While there are guidelines developed for transport and disposal, the country lacks the equipment necessary to implement these guidelines.

The Ministry of Health and Social Services with the assistance of PAHO is presently installing two incinerators at the Princess Margaret Hospital (PMH), which will serve as the disposal site for medical waste. These incinerators have been installed and are expected to become operational before the commencement of this project.

## **6.0 INSTITUTIONAL ARRANGEMENTS**

The link between the predicted environmental impacts, the needed mitigation measures identified during the screening and assessment process, provisions for budgeting the costs of such measures, and the roles of those responsible for ensuring that the mitigation measures are carried out are summarized in Appendix 3 – Mitigation Table.

### **6.1 Project Implementation Unit (PIU)**

The Ministry of Health and Social Services will have the overall responsibility for project implementation. The Project Implementation Unit (PIU) will be physically located at the PMH.

A Project Manager will lead the day-to-day implementation of the project and will report to the Permanent Secretary in the Ministry of Health and Social Services (MOHSS) on the coordination of efforts with other partners, and for technical coordination of activities financed under the project.

The PIU team will include the following specialists:

- Monitoring and Evaluation Specialist
- Project Financial Management Specialist
- Procurement Specialist

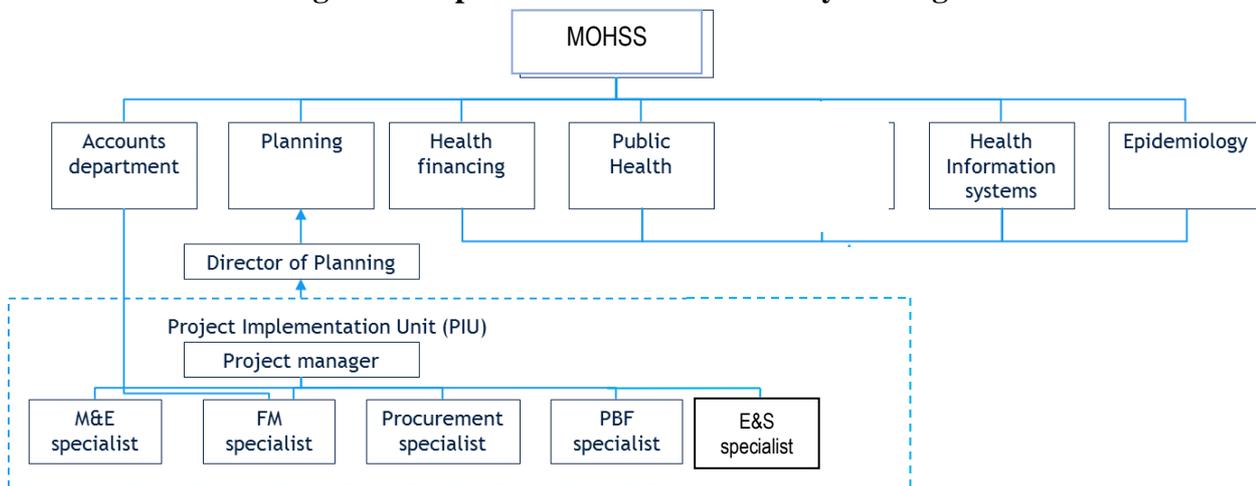
In addition, an Environmental and Social Specialist (or separate Environmental and a Social Specialists) will be included in the PIU team and will be responsible for monitoring the Project and implementing the ESMF, including supervision of construction works to verify compliance with the

applicable BMP and mitigation measures, Workers’ Code of Conduct and with the Project-level GRM, as well with the Contractor-level GRM. Additionally, the Environmental and Social Specialist(s) in the PIU will also be responsible for all consultation and stakeholder engagement activities.

Furthermore, the PIU team will be supported by technical staff of the MOHSS for specific areas of the project, such as health financing, public health, human resources for health, health information systems, epidemiology, among others.

The figure below provides an overview of the structure that will support and implement the project.

**Figure 3. Implementation and Fiduciary Arrangements**



## 6.2 Environmental Performance Requirements and Clauses for Works Contracts

Appendix 1 provides the standard mitigation measures in the form of BMPs that will be included in the bidding documents for the works and become contract clauses to be incorporated into the requirements of the contractor who will undertake the civil works.

These standard environmental and social related measures were developed and, as mentioned above, are to be appended to, or incorporated into, the bidding documents and to the contracts, as necessary, depending on the type of works to be conducted or the findings of the screening checklist (Table 1) by the appraising project officer. These form part of the environmental management plan and the mitigation measures presented there. These clauses are general and may be modified to conform to applicable laws and contract procedures and shall remain in force throughout the contract period.

The generic environmental, social and health and safety mitigation measures provided in Appendix 1 constitute a Generic ESMP designed to address the following general conditions for small civil works, roads, buildings, and other works expected to have minor impacts:

- Permits and Approvals

- Site Security
- Site Clearing and Removal of Vegetation and Trees
- Discovery of Antiquities
- Worker Occupational Health and Safety
- Noise Control
- Use and Management of Hazardous Materials, fuels, solvents and petroleum products
- Pest Control and Use and Management of Pesticides
- Use of Preservatives and Paint Substances
- Site Stabilization and Erosion Control
- Air Quality
- Traffic Management
- Management of Standing Water
- Management of Solid Wastes - trash and debris; E-Wastes
- Management of Liquid Wastes
- Workers' Code of Conduct
- Grievance Mechanism

Additional requirements for the following special conditions are also within Appendix 1:

- Management of Medical Wastes
- Management of Asbestos

It is expected that this Generic ESMP will be incorporated into all bidding documents and contracts, as applicable. In addition, specific project-related recommendations may also be forthcoming from statutory bodies that are part of the permitting agencies such as and these can be added to contract clauses as well. Finally, if an EIA has been conducted for a particular sub-project due to its environmentally sensitive or complex nature (see section 5.1), then the specific recommendations for mitigation measures in that EIA should also be included as contract clauses.

For purposes of cost estimation and budgeting, by including the Generic ESMP (Appendix 1) in all bidding documents, the Project will ensure that the contractors are aware of the environmental, social and health and safety mitigation requirements and include cost items for such purposes in their proposals.

Appendix 1 also includes a Verification Checklist that is meant as an example to guide Contractors and the PIU E&S Specialist in supervisory activities to verify compliance with the ESHS requirements.

### **6.3 Supervision, Monitoring, and Reporting**

The person or entity responsible for on-ground implementation and abiding by the contract clauses, recommendations, and mitigation measures will be the contractor. The contractor will be required to provide reports to the PIU on at least a monthly basis, that include adherence to the Generic ESMP and other contract clauses.

The agency with the responsibility to supervise and monitor the various works, activities, and sub-projects is the PIU. The PIU will designate a field representative/s who shall conduct periodic inspections to assure environmental and social compliance and adherence to the ESMF. In addition to WBG requirements, the PIU will also be responsible for ensuring the proper application of any national or local environmental, social and health and safety requirements.

Appendix 5 presents a sample of a monitoring checklist to be used during construction phase (by the Contractor and the Supervising Engineering Consultant - SEC).

Reporting to WBG on the ESMF will be included in quarterly reports under a separate section on Safeguards.

#### **6.4 Health Care Waste Management System (HWMS)**

The Ministry of Health and Social Services (MOHSS) will be responsible for implementing the HWMS. The Project Implementation Unit (PIU) under the MOHSS will request the services of a qualified consultant (individual or firm) to research and develop a Health Care Waste Management System (HWMS) that should be consistent with ISO 9001 and shall include a capacity building component.

## **Appendix 1 Generic Environmental and Social Management Plan – Generic ESMP for Small Civil Works**

The following are standard mitigation measures to address environmental and social impacts and risks of small civil works. These mitigation measures are the core of a generic, standardized ESMP (Environmental and Social Management Plan) for these types of small works and the typical associated minor impacts which can be routinely addressed with Best Management Practice (BMPs). These requirements are general and may be modified to conform to applicable Dominica laws, regulations, including specific requirements or recommendations from statutory permitting agencies, such as the Physical Planning Division or the Ministry of Health, and other contract requirements for such works. These are the mitigation measures which are expected of all professional contractors who are performing civil works and represent the minimum standard of execution for environmental, social and health and safety protection during the execution of such works.

Therefore, this Annex 1 – Generic ESMP for Small Civil Works should be included in the bidding documents and in the Construction Contract with specific Contractors. In addition, if an Environmental Assessment (EA) or Environmental Impact Assessment (EIA) has been conducted for a sub-project due to its environmentally sensitive or complex nature, then the specific recommendations for mitigation measures in that EA or EIA should also be included as contractual requirement.

This Generic ESMP includes 19 sections that address different basic requirements to ensure that the most likely environmental, social and health impacts of the proposed works under this Project are addressed, including basics of a Workers' Code of Conduct and Grievance Redress Mechanism (GRM). Section 20 includes a general checklist to verify compliance with the requirements established herein.

### **1. Permits and Approvals**

The contractor shall be responsible for ensuring that he or she has all relevant legal approvals and permits required to commence works, including any permits required prior to land clearing and removal of trees.

### **2. Site Security**

The contractor shall be responsible for maintaining security over the work site including the protection of stored materials and equipment. In the event of severe weather, the contractor shall secure the work site and associated equipment in such a manner as to protect the site and adjacent areas from consequential damages. This includes the management of stored materials, sanitary wastes, additional strengthening of erosion control and soil stabilization systems and other conditions resulting from contractor activities which may increase the potential for damages.

In the event of emergencies, such as medical emergencies, flooding or fires, the Contractor shall implement an Emergency Response Plan.

### **3. Site Clearing and Removal of Vegetation and Trees**

In Dominica, it is unlikely that removal of vegetation and trees will be required for the proposed upgrading and refurbishing of the health centers under the Project, with the exception of the proposed expansion of infrastructure in Wesley, with construction of additional rooms. Nevertheless, should it be required, contractors should prepare a plan for the site clearing and removal of vegetation and trees. The following procedures must be included, as a minimum:

- The necessary permits must be secured prior to starting to clear the site.
- The usual procedures of signaling and isolation of the area, as to prevent the occurrence of accidents. Pollution controls must also be in place to mitigate dust and noise impacts in surrounding communities. Special care must be taken in case the health facility will continue to operate throughout the refurbishing/construction works.
- Routes of entry and exit of trucks and equipment should be defined in advance, according to the Traffic Management (see section 12).
- The debris generated in removals and demolitions should be segregated, temporary stored onsite and removed to an authorized disposal site according to the Waste Management Plan (see section 14)
- Suppression of vegetation
  - Removal of vegetation must be limited to the authorization issued by applicable authorities in Dominica and according to the proposed suppression plan where all elements will be identified and cataloged (specie, girth and DBH<sup>6</sup>); removal of trees with DBH greater than 14 inches should be avoided, as possible.
  - The areas or the elements to be suppressed shall previously identified and marked with colored tape in order to allow quick visualization and avoid cutting unauthorized trees.
  - Tree cutting shall be performed by specially trained staff. The team shall count with the PPEs and the appropriate equipment and tools.
  - The use of fire or chemicals is strictly prohibited.
  - A certified copy of the authorization to suppress vegetation, including the map of the boundaries of the area of intervention must be maintained onsite.
- In earth movement and earth works, the topsoil rich in nutrients should be stored in temporary areas near work areas for later use in the earthworks and landscaping. When stockpiling *topsoil*, soil pile should not be higher than 1.3 m (4 feet) high and should not remain for more than 1 year and preferably should be used within less than 6 months. Topsoil stockpile should be covered to prevent soil erosion and contamination by weeds and should be treated with *temporary* soil stabilization and erosion, including temporary drainage systems, as measures for erosion control and to prevent siltation.

#### **4. Discovery of Antiquities**

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<sup>6</sup> Diameter at Breast Height (DBH)

If, during the execution of the activities contained in this contract, any material is discovered onsite which may be considered of historical or cultural interest, such as evidence of prior settlements, native or historical activities, evidence of any existence on a site which may be of cultural significance, all work shall stop and the supervising contracting officer shall be notified immediately, and the Chance Find Procedure outlined herein shall be followed:

- The area in which the material was discovered shall be secured, cordoned off, marked, and the evidence preserved for examination by the local archaeological or cultural authority (Dominica National Trust).
- No item believed to be an artefact must be removed or disturbed by any of the workers.
- Work may resume, without penalty of prejudice to the contractor upon permission from the contracting officer with any restrictions offered to protect the site.

## **5. Worker Occupational Health and Safety**

The Contractor must designate a person responsible for Hygiene/Safety/Environment who will ensure that the hygiene, safety and protection rules of the environment are followed rigorously by all and at all levels of execution.

All working sites must be equipped with First Aid kits and a responsible person trained in administering first aid treatment. In addition, the nearest additional health services must be identified and advised of the work being performed and the potential for need of ambulance and care in case of medical emergencies during construction. An Emergency Preparedness and Response Plan must be prepared.

The contractor shall ensure that all workers operate within a safe environment. Sanitation facilities shall be provided for all site workers. All sanitary wastes generated as a result of project activities shall be managed in a manner approved by the contracting officer and the local authority responsible for public health. The contractor shall ensure that there are basic medical facilities on site and that there are staff trained in basic first aid. Workers must be provided with the necessary protective gear as per their specific tasks such as hard hats, overalls, gloves, goggles, boots, etc. The contractor shall provide the contracting officer with an occupational health and safety plan for approval by the local health authority prior to the commencement of site activities. The Occupational Health and Safety Plan will include the following minimum content:

- Definition of the responsibilities of the Environmental, Health and Safety Officer
- Procedures for Inspections and Audits
- Job Hazard Analysis
- Manual of safe work procedure<sup>7</sup> (SWP) for key activities (site clearing, tree removal, trench and excavation, access /egress, installing scaffolds, working on ladder, working on heights, lockout-tagout (LOTO), housekeeping and materials storage, manual and mechanical lifting, lifting and hoisting, confined space entry, fall-arrest rescue, and others, as applicable)

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<sup>7</sup> Also known as Standard Operating Procedures, or Safe Work Practice.

- Training
- Reporting and investigating Accidents, identifying Root Cause, and acting upon prevention and corrective measures.
- Emergency Preparedness and Response Plan addressing as a minimum: fire, medical emergencies and natural hazards emergencies, such as floods and landslides.

The appropriate posting of information within the site must be done to inform workers of key rules and regulations to follow.

## **6. Noise Control**

The contractor shall control noise emissions generated as a result of contracting activities to the extent possible. In the case of site locations where noise disturbance will be a concern, the contractor shall ensure that the equipment is in good working order with manufacturer supplied noise suppression (mufflers etc.) systems functioning and in good repair. Where noise management is a concern, the contractor shall make reasonable efforts to schedule activities during normal working hours (between 8 am and 4 pm). Where noise is likely to pose a risk to the surrounding community either by normal works or working outside of normal working hours or on weekends, the contractor shall inform the contracting officer and shall develop a public notification and noise management plan for approval by the contracting officer.

Specific elements of the noise control activities by the contractor shall include: work activities will occur within specified daylight hours, e.g. 8:00 am to 4:00pm; community / public to be informed in advance of any work activities to occur outside of normal working hours or on weekends; sites should be hoarded wherever possible; during operations, the engine covers of generators, air compressors and other powered mechanical equipment shall be closed, and equipment placed as far away from residential areas and other sensitive receptors as possible; there will be no excessive idling of vehicles at sites; noise suppression equipment or systems supplied by manufacture will be utilized; ensure all vehicles and equipment are properly serviced; the contractor must develop and implement a public notification and noise management plan, particularly when the health centers continue to operate throughout the upgrading works.

## **7. Use and Management of Hazardous Materials, fuels, solvents and petroleum products**

The use of any hazardous materials including pesticides, oils, fuels and petroleum products shall conform to the proper use recommendations of the product. Waste hazardous materials and their containers shall be disposed of in a manner approved by the contracting officer. A site management plan will be developed by the contractor if the operation involves the use of these materials to include estimated quantities to be consumed in the process, storage plans, spill control plans, and waste disposal practices to be followed. This plan and the manner of management are subject to the approval of local authority responsible for safety, and waste management, and the contracting officer.

Elements of the hazardous materials management shall include: contractor must provide temporary storage on site of all hazardous or toxic substances in safe containers labeled with details of composition,

properties and handling information (Safety Data Sheets - SDS<sup>8</sup>); the containers of hazardous substances shall be placed in a leak-proof container to prevent spillage and leaching. Hazardous materials may be temporarily stored in areas that have impervious floor, are covered, include secondary containment, controlled access, a logging procedure for entry and removal of materials, and where the containers are stored according to the compatibility of materials.

## **8. Pest Control and Use and Management of Pesticides**

The project will not fund activities that involve the purchase or use of significant quantities of pesticides. For incidental, minor use of pesticides, the use of pesticides shall be approved by the contracting officer and shall conform to the manufacturers' recommendations for use and application. Any person using pesticides shall demonstrate that they have read and understood these requirements and are capable of complying with the usage recommendations to the satisfaction of the contracting officer. All pesticides to be used shall conform to the list of acceptable pesticides that are not banned by the relevant local authority. All pesticides used in the Project must be registered and licensed by the Pesticides Control Board (PCB) of Dominica.

If termite treatment is to be utilized, ensure appropriate chemical management measures are implemented to prevent contamination of surrounding areas, and use only licensed and registered pest control professionals with training and knowledge of proper application methods and techniques. Construction sites must also ensure that control of rodents is performed. When using or storing pesticides onsite the following must be observed:

- Always store pesticides
  - In a locked, well ventilated cupboard in a storeroom
  - Away from food and water supplies
  - Out of the reach of children
  - In covered properly labelled, intact bottles or packages
- Do not purchase pesticides in, or transfer them to, unlabelled plastic containers or plastic bags
- Do not transport pesticide together with food, animal feed or drinks
- Always use the correct pesticides to control pest or disease
- Read the instruction on the pesticides label before use.
- Use the correct dosage of pesticides according to the instructions on the label
- Observe the safety precaution given on the label
- Do not eat, drink or smoke while using pesticides
- Wear protective clothing as necessary while using pesticides (gloves, eye, shields, respirators, overalls, boots)
- Use the proper application equipment for applying pesticides
- Always ensure that pesticides spray equipment is properly maintained and calibrated
- Do not use empty pesticides containers to store water or drinks, but instead dispose them together with the hazardous wastes.
- Do not wash pesticides equipment and containers in water bodies (rivers, lakes, sea, streams); effluents must not be discharged on soil or in drainage systems without prior treatment.

## **9. Use of Preservatives and Paint Substances**

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<sup>8</sup> SDS, formerly known as Material Safety Data Sheet – MSDS.

Paints with toxic ingredients or solvents or lead-based paints will not be used; banned chemicals will not be used on any project. All paints and preservatives shall only be used with the approval of the contracting officer. Information shall be provided to the contracting officer who describes the essential components of the materials to be used so that an informed determination can be made as to the potential for environmental effects and suitability can be made. Storage, use, and disposal of excess paints and preservatives shall be managed in conformance with the manufacturers' recommendations and as approved by the contracting officer. The contractor shall provide the contracting officer with a list of materials and estimated quantities to be used, storage, spill control and waste disposal plans to be observed during the execution of the contract. This plan is subject to the approval of the contracting officer.

## **10. Site Stabilization and Erosion Control**

The Contractor shall implement measures at the site of operations to manage soil erosion through minimization of excavated area and time of exposure of excavated areas, preservation of existing ground cover to the extent possible, provision of approved ground cover. Where excavations are made, contractor shall implement appropriate stabilizing techniques to prevent cave-in or landslide. Measures shall be approved by the contracting officer.

The contractor must ensure that appropriate erosion control measures, such as silt fences, are installed. Proper site drainage must be implemented. Any drain clogged by material or sediment must be unclogged as soon as possible to prevent overflow and flooding. The use of retaining structures and planting with deep rooted grasses to retain soil during and after works must be considered. The use of bio-engineering methods must be considered as a measure to reduce erosion and land slippage. Keep angle of slopes within limits of soil type. Balance cut and fill to limit steepness of slopes. All slopes and excavated areas must be monitored for movement.

All materials, including chemicals, must be properly stored. The contractor will establish appropriate erosion and sediment control measures such as hay bales, sedimentation basins, and / or silt fences and traps to prevent sediment from moving off site and causing excessive turbidity in nearby streams, rivers, wetlands, and coastal waters.

An erosion management plan will be required where the potential exists for significant sediment quantities to accumulate in wetlands, lakes, rivers and nearshore marine systems. This plan shall include a description of the potential threat, mitigation measures to be applied, and consideration for the effects of severe weather and an emergency response plan.

If works are along coastal marine areas or near major streams and river, water quality monitoring must be done before works begin, and at regular intervals to determine turbidity levels and other quality parameters. Vehicles and machinery will be washed only in designated areas where runoff will be collected, adequately treated to retain sediments and avoid polluting natural surface water bodies.

## **11. Air Quality**

The following conditions apply to work sites for the control of air quality, including dust control:

- Materials such as sand, cement, or other fines should be kept properly covered.
- Cement should be kept stored within a shed or container.
- The sand and fines can be moistened with sprays of water.
- Unpaved, dusty roads should be compacted and then wet periodically.
- During interior demolition debris-chutes shall be used above the first floor.
- Demolition debris shall be kept in controlled area and sprayed with water mist to reduce debris dust.
- During pneumatic drilling/wall destruction dust shall be suppressed by ongoing water spraying and/or installing dust screen enclosures at site.
- The surrounding environment (sidewalks, roads) shall be kept free of debris to minimize dust.
- There will be no open burning of debris / waste material at the site.
- There will be no excessive idling of vehicles at work sites.
- The bins of all haulage vehicles transporting aggregate or building materials must be covered on all public roads.

## **12. Traffic Management**

In the event that refurbishment activities should result in the disruption of area transportation services, including temporary loss of roadways, blockages due to deliveries and site related activities, the contractor shall provide the contracting officer with a traffic management plan including a description of the anticipated service disruptions, community information plan, and traffic control strategy to be implemented so as hours to minimize the impact to the surrounding community. This plan shall consider time of day for planned disruptions, and shall include consideration for alternative access routes, access to essential services such as medical, disaster evacuation, and other critical services. The plan shall be approved by relevant local authority and the contracting officer.

Elements of the traffic management plan to be developed and implemented by contractor shall include: alternative routes to be identified in the instance of extended road works or road blockages; the public to be notified of all disturbance to their normal routes; signposting, warning signs, barriers and traffic diversions must be clearly visible and the public warned of all potential hazards; provision must be made for the safe passages and crossings for all pedestrians where work-related traffic interferes with their normal route; there must be active traffic management by trained and visible staff at the site or along roadways as required to ensure safe and convenient passage for the vehicular and pedestrian public; Adjustment of working hours to local traffic patterns, e.g. avoiding major transport activities during rush hours or times of livestock movement.

Specifically, the traffic management plan must include:

- Construction vehicles will be restricted to a speed of no more than 10km/h when traversing within the access area to the construction facility.
- When possible, construction vehicles will be restricted to using a specific route, one which minimizes wide interaction of community members with construction vehicles.
- The Contractor shall schedule delivery hours for materials to avoid peak hour traffic and minimize traffic disruption;

- Construction vehicular traffic will be restricted to off-peak hours where possible (e.g., 7:30 am- 8:30 am and 12:30 pm – 1:30 pm) to minimize interaction with community members, particularly school children or users of the health center, if it will be maintained operational throughout the upgrading/refurbishing/construction. If necessary, flag persons shall direct the movement of vehicles on entering the area, within the construction site.
- If needed, Contractors should undertake preparatory activities, such as road shoulder clearing and grubbing and pot hole filling to ensure the thoroughfare is adequate from movement of construction vehicles and community members.
- At no time should there be trucks or other construction equipment left standing on the road way or shoulders. In exceptional situations, the Contractor must submit a request for approval from the Contracting officer, justifying why such situation is necessary and what road signs and other accident preventive measure will be put in place.
- Access to the construction/works site by unauthorized persons shall be restricted. An enclosure shall be installed at an early stage of the civil works. Security gates shall be installed to further restrict unauthorized access. Persons wishing to enter the construction site must first report to the site office at the entrance of the site.
- All heavy-duty machines shall be operated by competent, licensed and authorized personnel only.
- When appropriate, warning signs shall be installed and positioned at adequate distances of 100 m – 300 m on both ends of the carriageway leading up the construction site to raise awareness to road users (e.g., in Wesley, for the construction of additional rooms).
- No night works or delivery of materials at night shall be permitted.
- During non-working periods (e.g., weekends) all equipment shall be kept at the designated site area to avoid visibility obstruction.
- All stakeholders will be informed of the works to be executed, inclusive of its description, the accurate commencement time, estimated completion time and any potential impact that may occur (updates shall be given as work progresses).
- In the event of accidents or incidents, an incident report shall be recorded, and investigation immediately launched.

### **13. Management of Standing Water**

Under no circumstances shall the contractor permit the collection of standing water as a consequence of contractor activities without the approval of the contracting officer and consultation with the relevant local environmental health authority. Recommendations from that local authority on how to manage and treat the standing water must be implemented. The condition of the standing water must be monitored by the contractor to ensure that it does not present itself as a breeding ground for any pests such as mosquitoes.

### **14. Management of Solid Wastes -trash and debris; E-Waste**

The contractor shall provide the contracting officer with a solid waste management plan as part of a site waste management plan that conforms to the solid waste management policies and regulations of the relevant Dominica authority. Under no circumstances shall the contractor allow wastes to accumulate so as to cause a nuisance or health risk due to the propagation of pests and disease vectors. The site waste management plan shall include a description of how wastes will be stored, collected and disposed of in

accordance with current law. Additionally, the contractor shall provide for the regular removal and disposal of all site wastes and provide the contracting officer with a schedule for such removal. Specific elements of the contractor's waste management plan shall include: contractor to abide by all pertinent waste management and public health laws; waste collection and disposal pathways and sites will be identified for all major waste types expected from demolition and refurbishment activities; debris and demolition wastes will be stored in appropriate bins; all waste will be collected and disposed of properly in approved landfills by licensed collectors; the records of waste disposal will be maintained as proof for proper management as designed; whenever feasible the contractor will reuse and recycle appropriate and viable materials (except asbestos). The solid waste management plan must follow, as a minimum:

- Segregation and classification of wastes according to the 4 common types of wastes found in construction sites, and should be disposed of in collectors (drums or plastic bags):
  - Hazardous Waste (e.g., waste from workshops, such as waste oils, packaging, used towels and toweling, parts, tires, automotive batteries, lamps, material contaminated with oil, fuel, paint, solvent, etc.; medical waste in the "red bags" from the First Aid services);
  - Organic waste (e.g. leftover food, leftover waste, plastic dishes, plastic wrappers and cutlery with food scraps, napkins, etc.);
  - Common waste (office wastes, clean plastic cups of water, coffee and soda; clean plastic bottles; pet bottles; clean plastic parts, packaging);
  - Construction waste (general construction waste, wood, ferrous waste, shavings, wood, remnants of concrete, masonry waste);
- In all generating areas there should be enough collectors for waste collection generated in each activity, so that, in the period between the collection of the collectors, the waste generated remains adequately conditioned.
- To ensure adequate housekeeping and maintenance of the construction site, wastes should be collected frequently as to avoid overflow of collection bins and should be stored provisionally in place reserved and sheltered from the winds and located away from watercourses and neighbors.
- If feasible, wastes could be further segregated in separate and color-coded containers, in the following categories:
  - Organic and common wastes not contaminated with hazardous products
  - Clean recyclable plastics
  - Scrap metal
  - Clean paper and cardboard
  - Clear glass
  - Material contaminated with hazardous materials
  - Solid health wastes
  - Rubber remnant
- Hazardous wastes shall be transported by specially authorized/licensed carriers and disposed in an authorized/licensed facility, with records of collection and disposals maintained for proof of compliance;

- All wastes must be removed from site by authorized/licensed waste collection companies/entities and disposed of in authorized/licensed landfills, with records of collection and disposals maintained for proof of compliance.
- No burning of wastes on site shall be permitted.

#### **14.1 – Electronic Waste Management (E-Waste)**

The proposed upgrading/strengthening of the power supply and lighting system, and laboratory data management system may generate limited small to moderate amount of electronic wastes (E-waste). These may include electronic equipment that is near or at the end of its useful life. These products can contain heavy metals like cadmium, lead, copper, and chromium that can contaminate the environment. Therefore, they shall not be disposed of in the trash. Examples of e-wastes that may be generated by the Project include, but not limited to:

- Computer monitors, printers, scanners, keyboards, mice, cables, circuit boards, lamps, clocks, flashlight, calculators, phones, answering machines, digital/video cameras, radios;
- Kitchen equipment (toasters, coffee makers, microwave ovens)
- Laboratory equipment (hot plates, microscopes, calorimeters, fridge, freezers)

Any laboratory equipment that has the possibility of being contaminated with chemical, biological, or radioactive substances, therefore must not be discarded with ordinary waste and must be treated as hazardous waste.

Before starting any civil works, the Ministry of Health in Dominica shall develop and implement an E-Waste Management Procedure to address the e-wastes produced under the Project. The procedure shall identify and classify the types of wastes and its compatibility, segregate all potentially contaminated wastes (mainly from the laboratory), assess potential ways to reuse other e-wastes that are not contaminated, including donation of used equipment that are in working conditions, identify what can be recycled to recover valuable metals, only if dismantling and recovering of materials can be performed safely with no risks to workers, community and the environment.

At a larger scale, an E-Waste MP could contribute to reduce the amount of wastes that are disposed of in the landfill and thus extend its useful life, which is approaching its end (with only 2 years to go).

#### **15. Management of Liquid Wastes**

The contractor shall provide the contracting officer with a liquid waste management plan as part of a site waste management plan that conforms to the waste management policies and regulations of the relevant Dominica authority. Under no circumstances shall the contractor allow liquid wastes to accumulate on or off the site, or to flow over or from the site in an uncontrolled manner or to cause a nuisance or health risk due to its content. The site waste management plan shall include a description of how these wastes will be stored, collected and disposed of in accordance with current law. Additionally, the contractor shall provide for the regular removal and disposal of all site wastes and provide the contracting officer with a schedule for such removal.

Specific elements of the contractor's liquid waste management plan shall include: contractor to abide by all pertinent liquid waste management and public health laws; waste collection and disposal pathways and sites will be identified for all major waste types expected from demolition and refurbishment activities; liquid and chemical wastes will be stored in appropriate containers separated from the general refuse;; liquid wastes must not be allowed to accumulate on or off the site, or to flow over or from the site in an uncontrolled manner or to cause a nuisance or health risk due to its contents.

In general, liquid effluents of small civil works will be only comprised of the sanitary effluents from workers and management. If public sewage system is not available, adequately-sized septic systems should be installed, according to the number of users.

#### **16. Special Condition - Management of Medical Wastes during refurbishment works**

In the event that the contractor discovers medical wastes, the contractor shall provide the contracting officer with a medical waste management plan as part of a site waste management plan that conforms to the waste management policies and regulations of the relevant Dominica authorities. The plan shall include a description of how these wastes will be stored, collected and disposed of in accordance with current law. The contractor must ensure that all persons handling medical wastes are provided with proper protective clothing. All medical wastes must be secured in specially labelled and sealed containers and disposed of according to relevant local legislation at specified disposal sites. Medical wastes must be kept separate from the other waste streams on site.

The waste management plan provided by the contractor must ensure that all persons handling medical wastes are provided with proper protective clothing. All medical wastes must be treated as hazardous. All medical wastes must be secured in specially labelled and sealed containers separate from other wastes streams. All medical wastes must be disposed of according to relevant local legislation at specified disposal sites.

#### **17. Special Condition - Management of Asbestos during refurbishment works**

In the event that during the course of work activities the contractor discovers asbestos as part of the existing site that requires stabilization and removal, the contractor shall contact the relevant local authorities and the contracting officer immediately. If work has already commenced, all work in the area must stop immediately. An asbestos management plan must be prepared by the contractor and approved by the relevant local health and waste management authorities and the contracting officer describing how this material will be stored, collected and disposed of in accordance with current law, and identifying the approved experienced professional who will undertake this work. The plan must include:

- Description of the issue and extent of contamination
- Site safety measures
- Stabilization techniques to be employed
- Storage and transport plan
- Approved disposal procedure

- Worker awareness and training
- Appropriate PPE

In preparing the plan, the contractor should liaise with the relevant local health and waste management agencies to ensure that the adequacy of the measurements being proposed.

Site management shall consist of enclosing relevant sections of the site with appropriate material by the contractor. Where possible the asbestos and its location must be appropriately contained and sealed to minimize exposure, and any asbestos shall be marked clearly as a hazardous material. Stabilizing friable asbestos will be done prior to removal (if removal is necessary) and it will be treated with a wetting agent to minimize asbestos dust. Asbestos will be handled and disposed by skilled & experienced professionals using appropriate PPE (personal protective equipment) such as respirators and tyvec suites which will be provisioned to workers to protect them and prevent contamination with asbestos fibres. Respiratory protection together with measures to prevent the contamination of clothing and inadvertent transport of asbestos fiber off-site shall be provided to all exposed workers. If asbestos material is to be stored temporarily, the wastes should be securely enclosed inside closed containments and marked appropriately. Security measures must be implemented against unauthorized removal of asbestos from the site. No removed asbestos will be reused.

## **18. Workers' Code of Conduct**

The objective of the Worker's Code of Conduct (hereinafter, the Code) is to avoid or minimize as much as possible, any negative impact that could be produced because of interrelations between the workers inside the local areas of influence and the outskirts of the Project Area. The Contractor shall implement a Workers' Code of Conduct consistent with the guidelines included herein to assist all employees to:

- Understand expected standards of conduct and behavior;
- Comply with relevant laws and policies;
- Demonstrate and promote good ethical work practice;
- Respect colleagues, supervisors and community members.

Contractors shall ensure that each worker receives a written copy of the Code as part of the induction process and as part of the Contract. As a requirement to be hired, all workers must sign a copy of the Code, where they acknowledge it and certify they have read it and accepted its terms, promising to comply with its terms thoroughly and at all times. Additionally, copies of the Code shall be made available at a visible location at the project site.

Under the Workers' Code of Conduct all workers shall:

- Consider people equally without prejudice or favor;
- Act professionally with honesty, consistency and impartiality;
- Take responsibility for situations, showing leadership and courage; and
- Place the public interest over personal interest.
- Observe standards for safety.

- Be fiscally responsible and focus on efficient, effective and prudent use of resources.

The workers are obliged to comply with the rules and procedures indicated in the Code, so as to maintain good relations with the local community in the direct area of influence of the Project. Any worker may be subject to disciplinary actions and/or may be fired if their behavior while he/she is employed on the project goes against the rules stated in the Code. However, workers shall have access to the Grievance Redress Mechanism (GRM) for the Project (see section 19).

Under the Workers' Code of Conduct, as a minimum, worker shall comply with the following rules:

#### *Rules Regarding the Local Population*

- The local population is defined as all people that live within the direct area of influence of the Project, or in the areas used for the transportation of equipment and materials required for the activities of the Project.
- All workers are expected to behave adequately at all times and must avoid improper relations with the local population. The Contractor will not tolerate any form of harassment or discrimination, including behavior, comment, jokes, slurs, email messages or any other social media, pictures, photographs, or other conduct that contributes to an intimidating, disrespectful or offensive environment.
- All workers shall avoid any discriminatory conduct based on gender, age, disability, race, language, culture, political affiliations, philosophy, religion, or any other basis.
- All workers must comply, at all times, with all applicable environmental and health and safety rules and regulations.
- Should the worker fail to comply with the Code or behave in such a way that he/she creates a problem with the local population, the corresponding action must be communicated to the Contractor, detailing what happened, so that the Company can carry out an investigation.

#### *Rules regarding the Construction*

- All workers are required to show at all times a transparent and honest behavior, and a high level of personal responsibility and professionalism, either in or out of the Project Area.
- All workers shall comply with all applicable laws, rules and regulations.
- Workers shall immediately inform management about any kind of sickness or symptom that may affect their ability to carry out their work-related obligations properly.
- Workers shall use adequate personal protection equipment during their activities within the Project Area, including Project Vehicles.
- Workers are not allowed to smoke or make an open fire within or in the surroundings of the Project Area or near any Project Property, including Project Vehicles.
- Workers are not allowed to engage in gambling while at work and using company assets for gambling are prohibited, including during breaks. For purposes of this standard, "gambling" is defined as playing a game for money or property or betting on an uncertain outcome. Prohibited gambling activities include, but are not limited to: Games (e.g., cards, dice, and dominoes) played for money or

property, including electronic games (online poker, roulette, etc.); betting on sporting events, bingo, etc.

- Workers are forbidden to possess, use or carry any kind of illegal drugs, medical paraphernalia, narcotics or alcoholic beverages within the Project Area or any Project property, including Project Vehicles.
- Workers are not allowed to possess or carry weapons, such as firearms, explosives, ammunitions, knives, clubs, etc., within the Project Area or any Project Property, including Project Vehicles.
- All workers shall not receive or hand over money, goods or other objects of value in order to obtain benefits, receive favors or influence decisions, third parties, or themselves.
- Workers shall not use Project funds or equipment, or other articles provided for the Project for their personal benefit or any other unauthorized use.
- Pets are not allowed in the Project Area.
- Fishing, hunting and deforestation is also forbidden within the Project Area and its immediate surroundings.
- For security reasons, workers may not abandon the Project Area without permission.

## **19-Grievance Mechanism**

The arrangements for a grievance redress mechanism (GRM) is included in this Generic ESMP with the objective to formalize the management of grievances at the Contractor's level, to minimize the social risks to the Project and to resolve issues as they arise. The grievance process outlined here, provides an avenue for individuals to voice their concerns and gives transparency on how grievances will be managed internally, which aims to reduce conflict and strengthen relationships between external stakeholders.

The Contractor's team shall meet and discuss, inter alia, grievance and resolutions. The Contractor shall designate a Responsible Person (usually the Environmental, Health and Safety Officer) to implement the GRM and ensure that all grievances are properly and timely recorded, evaluated, and responded to within a reasonable timeframe that is communicated to the complainant. Records of all complains shall be kept for future references and lessons learned.

The grievance redress mechanism procedure described herein shall apply to all employee and external stakeholders during the construction activities. However, at the Project level, a GRM will be available for the life of the Project, including the operational phase of the facilities.

### **Term**

### **Definition**

Grievance

An issue, concern, problem, or claim (perceived or actual) that an individual or community group wants addressed by the company in a formal manner.

Grievance Mechanism

A formalized way to accept, assess, and resolve community complaints concerning

the performance or behavior of the company, its contractors, or employees.

This includes adverse economic, environmental and social impacts.

Internal Stakeholders

Groups or individuals who work directly within project, such as employees and sub-contractors.

External Stakeholders

Groups or individuals outside the project who are not directly employed or contracted but are affected in some way from the decisions of the project, such as customers, suppliers, community, NGOs and the government.

## **GRIEVANCE REPORTING CHANNELS**

The Contractor shall communicate this procedure to its workers and external stakeholders to raise awareness and offer transparency of how stakeholders can voice their grievances. Various channels for external stakeholders to vocalize their grievances formally include:

### **By Phone**

<b>By telephone to Personnel</b>	<b>Telephone Number</b>
On site health and safety officer	(Include #)

EHSS Personnel	(Include #)
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Project Manager/Site Manager	(Include #)
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### **Face to face**

Stakeholders can voice their grievance to the Onsite health and safety Officer, or any supervisory employee who will then escalate using the correct process.

### **By E-mail**

<b>By E-mail to Personnel</b>	<b>Telephone Number</b>
On site health and safety officer	(Include email)

EHSS Personnel	(Include email)
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Project Manager/Site Manager	(Include email)
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Grievance shall also be accepted if provided in written, by mail, to the Project/Site Manager and if received during stakeholder consultation meetings or other community interactions.

## **The Grievance Mechanism Process**

### ***Receive Grievance***

### **In Person/ over the phone/by email or in public meetings/stakeholder engagement events**

If a grievance is received face to face or over the phone/e-mail and the stakeholder wishes to address the grievance formally, it is the responsibility of the employee who receives the grievance to complete a Grievance Lodgment Form (see example below). Once the form is completed the employee will then pass the form on to the EHSS Personnel for processing.

### ***Evaluate and Investigate***

All formal grievances will be logged in the External Grievance Register (see example below) and Grievance Lodgment Forms will be saved in Contractor's database for record of correspondence.

### ***Screen***<sup>9</sup>

<b>Category</b>	<b>Description</b>	<b>Grievance Owner</b>
Level 1	When an answer can be provided immediately and/or Contractor is already working on a resolution	Onsite health and Safety Officer
Level 2	One off event	Supervisor level or above
Level 3	Complaint is repeated Any complaint (one off or repeated) that indicates breach of law or applicable policy/regulation	Executive level Construction Manager/ EHSS Personnel/ EHSS Specialist
	High-profile grievances that if not resolved promptly may represent significant risks to the environment or community.	

### ***Acknowledge***

A grievance will be acknowledged, by the grievance owner, within two working days of a grievance being submitted. Communication will be made either verbally or in written form (stakeholders will outline their preferred method of contact on the Grievance Lodgment Form (see example below in Table 1). The acknowledgement of a grievance will include a summary of the grievance, method that will be taken to resolve the grievance and an estimated timeframe in which the grievance will be resolved. If required, the acknowledgment provides an opportunity to ask for any additional information or to clarify any issues.

### ***Investigate***

The grievance owner is responsible for investigating the grievance. The investigation may require the grievance owner to make site visits, consult employees, contact external stakeholders and complete other activities. Records of meetings, discussions and activities will all be recorded during the investigation. Information gathered during the investigation will be analyzed and will assist in determining how the grievance is handled and what steps need to be taken in order to resolve the grievance.

### ***Act***

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<sup>9</sup> The onsite health and safety officer is responsible for liaising on with the external stakeholder/s and work on a resolution. Grievances will be screened depending the level of severity in order to determine how the grievance is approached and addressed. See table categorizing the different levels

Following the investigation, the grievance owner will use the findings to create an action plan outlining steps to be taken in order to resolve the grievance. The grievance owner is responsible for assigning actions, monitoring actions undertaken and making sure deadlines are adhered to. Once all actions have been completed and the grievance owner feels the grievance has been resolved, they will then formally advise the external stakeholder via their preferred method of contact.

### ***Follow up and close out***

The grievance owner will make contact with the external stakeholder/s three weeks after the grievance is resolved. When contacting the external stakeholder, the grievance owner will verify that the outcome was satisfied and also gather any feedback on the grievance process. Minutes of the meeting will be recorded and saved in database. Table 2 provides an example of a Grievance Register format. If required, the grievance owner may need to follow up with the external stakeholder on numerous occasions to confirm all parties are satisfied.

### ***Appeal***

If the external stakeholder is unhappy with the resolution and/or does not agree with the proposed actions, then the grievance owner needs to escalate the matter to the executive management team. The executive team will review the grievance and all documentation gathered throughout the investigation and determine whether further actions are required to resolve the grievance. The Contractor is fully committed to resolving an internal/external stakeholder's grievance so if we are unable to resolve a complaint or a stakeholder is unhappy with the outcome, the Contractor may seek advice from other independent parties.

### ***Reporting***

Information outlining the number of grievances, time to resolution and outcomes of grievances will be communicated in Contractor's monthly reports. The GRM may be evaluated and updated when required, to continually improve its stakeholder engagement.

***Storing of grievances:*** All records, including grievance forms, investigation notes, interviews and minutes of meetings will be securely filed in the Contractor's database to ensure privacy and confidentiality is maintained for all parties involved.

Table 3 below presents an example of a Grievance Redress Mechanism checklist to assist in the development of a Contractor-level GRM.

**TABLE 1: EXAMPLE OF GRIEVANCE LODGMENT FORM**

Name: \_\_\_\_\_ Address: \_\_\_\_\_  
Company (if applicable): \_\_\_\_\_  
Date: \_\_\_\_\_ Time: \_\_\_\_\_  
Preferred Contact Method:  Telephone  Email

Please provide contact details: \_\_\_\_\_

Supporting documents attached?  Yes  No

How often have you experience this issue?  Once  2-5 times  all the time  N/A

Please provide details of your grievance  
(Problem/Complaint)

What outcome are you seeking?

Additional Information

Claimant Signature: ..... Date:  
.....

Contractor' Representative Signature: ..... Date:  
.....

**Office Use only** Received By:  
**Stakeholder**

**Reference:**  
Forwarded to Env. Officer On  
(Date): \_\_\_\_\_

**TABLE 2: EXAMPLE OF GRIEVANCE REGISTER**

<b>Nature of Incident/ Complaint/Correspondence</b>	<b>Stakeholder</b>	<b>Date Received</b>	<b>Grievance Owner/ Received by</b>	<b>Level (1, 2, 3)</b>	<b>Grievance Description and Cause</b>	<b>Outcome</b>	<b>Please indicate 'accepted' or 'not accepted'.</b>	<b>Actions/ Notes</b>	<b>Signature of Contractor and Date</b>
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**TABLE 3 – EXAMPLE OF A GRM CHECKLIST**

<b>Process</b>	<b>Description</b>	<b>Time frame</b>	<b>Responsibility &amp; Remarks</b>
Establish composition of Complaint Committee members & procedures	Set up Complaint Committee (CC); Publish article in newspaper and provide notice the on-work site before the start date of works and provide contact information for complainants receiving.	2 weeks before start of civil works	Complaint Committee comprises of Facilities Manager, Contractor’s Project Manager, others (as applicable)
Reception of grievance	Complaints can be filed face to face, via phone, via letter, or via e-mail, or recorded during public/community interaction	Day of receipt	Email: add Phone: add Postal address: add
Grievance assessed and logged	Significance assessed, and grievance recorded or logged (i.e. in a log book)	4-7 days upon receipt	Significance criteria Level 1 - one off event; Level 2 - complaint is widespread or repeated; Level 3- any complaint (one off or repeated) that indicates breach of law or applicable policy/regulation
Grievance is acknowledged	Acknowledgement of grievance to complainant	4 - 7 Days upon receipt complaint	CC Secretariat confirms receipt of the complaint to the complainant via e-mail or letter
Development of response	Grievance assigned to appropriate party for resolution  Proposal response with input from management	4 - 7 Days upon receipt complaint  10 - 14 Days upon receipt complaint	CC
Response signed off	Redress action approved at appropriate levels	4-18 days upon receipt of complaint	CC; for level 2 and 3 complaints also, Contractor Management /PIU

Implementation and communication of response	Redress action implemented and update of progress on resolution communicated to complainant Redress action recorded in grievance log book	18-24 days upon receipt of complaint	Contractor/PIU
Complaints Response	Obtain confirmation complainant that grievance can be closed or determine what follow up is necessary	24-30 days upon receipt of complaint	CC
Close Grievance	Record final sign off grievance If grievance cannot be closed, obtain expert advice third party, refer to mediation or ultimately court of law (as applicable)	30 – 34 days upon receipt of complaint	Final sign off by CC and for level 2 and 3 complaints, Contractor Management/PIU

## 20. Verification Checklist

This ESHS checklist aims at facilitating verification of compliance with the requirements established herein for all small civil works performed under this Project in Dominica. By incorporating the checklist in the bidding documents, Contractors are aware of the specific elements that will be supervised and inspected and can adequately plan to ensure compliance. In addition, it also serves as an example for the Contractor’s ESHS Specialist to perform its own supervision and reports.

The checklist has four sections:

- Part 1 This section describes the specific civil works project activity
- Part 2 This section describes the general conditions that will be checked before and during civil works activities;
- Part 3 This section describes the specific safety checks that will be done before and during civil work activities;
- Part 4 This section is a checklist to monitor compliance with the procedure of the grievance redress mechanism and the handling of complaints relating to the works.

This checklist can also be used as an example to be developed by the PIU officer responsible for ESHS aspects, according to the specifics works performed at each site.

**Part 1: description of specific civil works project activity**

Item	Yes/No/ Describe
Project details (attach separate construction documents plans and photos)	
Consultations	
Identify when public was informed about the works	
Inform existing complaints	
Building permits required and obtained? Details	
Date of commencement of works	
Completion of works	
Final technical Drawings and specification reviewed and approved? Evidence	

**Part 2: General checklist**

CONDITIONS	CHECK AS APPLICABLE/ Add pictures of any non-conformities observed
<p><b>Respect for the national laws and regulations.</b> The Contractor and subcontractors must: know, respect and apply the laws and regulations in force in the country relating to the environment, to the disposal of solid and liquid wastes and noise standards, to the working hours, etc.; to take all appropriate measures in order to minimize the impacts on the environment; to assume the responsibility for all complaints linked to failure to respect the environment.</p>	
<p><b>Permits and authorizations before works.</b> All implementation of works must be subjected to initial procedure of information and administrative authorizations. Before beginning works, PIU or Contractor must obtain all the necessary permits for the implementation of planned works. Before the start of works, PIU or Contractor must confer with the residents with whom arrangements</p>	

<p>can be made for facilitating the progress of the works. This can be done by articles in newspaper, internal newsletters and website of Contractor/PIU.</p>	
<p><b>Meeting of works take off.</b> Before the starting of works, a kick-off meeting needs to be organized with PIU/contractor(s)/engineer, to discuss the scope of works, their duration, Safety and Health plan, etc.</p>	
<p><b>Use of local labor.</b> It is preferred that the Contractor use as much as possible local staff/workers. Where qualified staff is lacking, labor outside Dominica can be hired.</p>	
<p><b>Respect for work schedules.</b> The Contractor must ensure that the work schedules respect the laws and national regulations in force as well as the local environment. All derogation is submitted, as far as possible, for the approval of PIU. the Contractor must avoid executing works during the hours of rest, Sundays and public holidays.</p>	
<p><b>Protection and safety of construction work staff.</b> The Contractor must place at the disposal of the staff protective clothing that are in a good state, as well as all protective accessories and security appropriate for their activities (helmets, boots, belts, masks, gloves, glasses, etc.). The Contractor must keep strict watch on the wearing of the protective facilities in the works areas. A permanent control must be done to this effect and, in case of default corrective measures (warning, penalization, and dismissal) must be applied to the concerned staff.</p>	
<p><b>Safety of construction site.</b> The Contractor needs to ensure that the necessary safety materials (fire extinguishers, blankets, etc.) are on site during the execution of the works. Scaffolding, portable stair cases, etc. need to be stable and safe according to regulations. Safe work procedures and practices must be implemented.</p>	
<p><b>Responsibility for Hygiene, Security and the Environment.</b> The Contractor must designate a person responsible for Hygiene/Safety/Environment who will ensure that the hygiene, safety and protection rules of the environment are followed rigorously by all and at all levels of execution, for the workers as well as for the</p>	

<p>population and other people in contact with the works area. The Contractor must prohibit access of the works area to the public and protect the area with fencing and road signs to indicate different entrances as appropriate and to take all measures for order and security to prevent accidents</p>	
<p><b>Measures against hindrances to traffic.</b> The Contractor must avoid obstructing public access and must permanently maintain the flow of traffic and access for residents during the entire civil works implementation period. The Contractor will ensure that no excavation or trench remains open when not in immediate use, without adequate sign boards accepted by PIU and ensure that the temporary deviations allows movement without any danger.</p>	
<p><b>Care for the works area and re-organization at handing over of the site.</b> The Contractor should ensure it is clean for immediate use. Contractor cannot be relieved of commitments and responsibility concerning their use without the good state of the site having been confirmed. The Contractor will take care of necessary arrangements to restore the site to a good condition. Contractor is held responsible for the removal of all equipment and materials and properly dispose of what may be considered waste and cannot abandon these items on the site or in the vicinity. Once the works are completed, the Contractor must: (i) withdraw the materials, solid and liquid waste, excess materials, fences etc. (ii) rectify the defects of the drainage system and fill all excavated zones; (iii) afforest the zones initially deforested with suitable species, in collaboration with the local forestry services,; (iv) protect and ensure safety from the remaining dangerous works (wells, open trenches, protrusions, etc.); (v) make the pavements, sidewalks, gutters, rails and other works returned safely accessible to the public; (vi) decontaminate the polluted soils (the contaminated parts must be cleaned and covered with sand); and (vii) clean and destroy the drainage pits. After the withdrawal of all materials, Contractor must produce written minutes reporting</p>	

restoration of the site and include this in the minutes of receipt of works.	
<b>Protection of unstable zones.</b> During the dismantling of the works in unsteady places, the Contractor must take the following precautions not to accentuate the unsteadiness of the ground: (i) avoid any heavy circulation and any overload in the area of unsteadiness; (ii) preserve as much as possible the plant cover or reconstitute this later by using local species adapted in case of risks of erosion.	
<b>Notification of noncompliance.</b> The construction supervisor at PIU notifies the contractor in writing of all cases of defect or noncompliance of the environmental and social measures. The Contractor must correct all defects in accordance with the instructions duly notified to him by the construction supervisor. The resumption of works or extra works resulting from noncompliance of contract provisions are at the cost of the Contractor.	
<b>Sign boards for the works site.</b> The Contractor should place, before the start of the works and every time the need arises, sign boards a long distance from the site (exits, routes used by the engines, etc.) in accordance with the laws and regulations in force.	
<b>Management of solid wastes.</b> The Contractor must deposit domestic wastes in insulated trash cans that should be emptied periodically. The Contractor must eliminate or recycle wastes in an ecological and rational way, or send them, if possible, to existing dump sites.	
<b>Protection against noise pollution.</b> The Contractor is required to limit the noises in the work area that could seriously be a nuisance to the residents, either over a long time, or by their long duration outside of the normal hours of work. The levels not to be exceeded are: 55 to 60 decibels during the day; 40 decibels at night.	
<b>Public services and assistance.</b> The Contractor must imperatively provide access to public and emergency services in all places. When a street is blocked, the Contractor must study with the PIU arrangements for the maintenance of the access for vehicles from the fire and ambulance services.	

<p><b>Contractor Journal.</b> The Contractor must update a journal of the building site, in which will be consigned the complaints, failures or incidents with a significant impact on the environment or with an incident with the population. The Contractor must inform the public in general and the bordering populations in particular, of the existence of this journal, with the indication of the place where it can be consulted.</p>	
<p><b>Grievance Redress Mechanism.</b> Please refer to Part 4 below</p>	

**Part 3: Construction safety checklist**

<ul style="list-style-type: none"> <li>• <b>Personal protective equipment (PPE)</b></li> </ul>	Yes	No	N/A	Comments/pictures of non-conformities
<b>Hard hats:</b> Supplied by employer and worn when required				
<b>Boots:</b> Supplied by employer and worn when required				
<b>Hearing protection:</b> Supplied by employer and worn when required				
<b>Eye protection:</b> Supplied by employer and worn when required				
<b>Respiratory protection:</b> Supplied by employer and worn when required				
<b>Gloves:</b> Supplied by employer and worn when required				
<ul style="list-style-type: none"> <li>• <b>Ladders at the worksite</b></li> </ul>				
Correct size and material for the job				
Used correctly, firm foundation, fully opened,				
Free from obvious defects				
<ul style="list-style-type: none"> <li>• <b>Scaffolds at the worksite</b></li> </ul>				
Fall protection used if over 10 feet tall				
Set up on levelled, stable footing,				
Platform appropriate width for type of scaffold				
Footboard and guardrail				
Means of access				

<ul style="list-style-type: none"> <li>• <b>Fall protection at the worksite</b></li> </ul>				
Fall protection provided for heights 6 ft. or more				
Slide guards are installed across full width and all sides				
Guardrails are constructed sturdily				
<ul style="list-style-type: none"> <li>• <b>Machine hazards; power tools and machines used at this site</b></li> </ul>				
Workers have appropriate PPE and keep clothing away from machinery				
Workers are trained on the use of power tools				
Machines are guarded as needed				
<ul style="list-style-type: none"> <li>• <b>Heavy machinery / building equipment (as applicable)</b></li> </ul>				
Workers are trained on the proper procedures to safely operate all pieces of equipment they will be working with				
Workers are aware of surroundings. Be aware of swing radius. When digging all underground utilities, such as sewer, water, gas and electrical, have been identified and clearly marked				
<ul style="list-style-type: none"> <li>• <b>Heat stress: if is heat a major problem at this site</b></li> </ul>				
Are workers provided with enough water and appropriate rest breaks				
<ul style="list-style-type: none"> <li>• <b>Electrical hazards: if are present at this worksite</b></li> </ul>				
Work on electrical circuits or energized equipment is begun only after all power sources have been identified, de-energized and locked out or tagged out (LOTO).				
Overhead and underground electrical power lines are located, identified, and avoided				
Work performed by authorized ad competent personnel				

• <b>Actions or changes</b>				
Talked to your organizers about health and safety concerns and possible changes/training				
Talked to foreman or contractor about health or safety concerns				
Suggested changes in equipment or procedures				

**Part 4: GRM Checklist**

<b>Process</b>	<b>Description</b>	<b>Yes</b>	<b>No</b>	<b>Evidence/Comments</b>
Reception of grievance	Complaints can be filed face to face, via phone, via letter, or via e-mail, or recorded during public/community interaction			
Grievance assessed and logged	Significance is assessed, and grievance is recorded or logged (i.e. in a log book)			
Grievance is acknowledged	Acknowledgement of grievance to complainant			
Development of response	Grievance assigned to appropriate party for resolution			
Response signed off	Redress action approved at appropriate levels			
Implementation and communication of response	Redress action implemented and update of progress on resolution communicated to complainant; Redress action recorded in grievance log book			
Complaints Response	Confirmation from complainant that redress action is accepted...			

Closed Grievance	Record of final sign off grievance			
Grievance not closed	If grievance cannot be closed, record of follow-up step, as applicable (third party advice, mediation, court of law.			
Other (as needed)				

## Appendix 2 TOR for Consulting Services to develop a Health Care Waste Management System (HWMS)

### 1. Program Background

The Government of Dominica with the assistance of the WBG is developing the OECS Project to improve the resilience of the health system and to improve the responsiveness of health service delivery during public health emergencies. The project is comprised of three components. Component one includes the retrofitting of three health facilities and improvements in laboratory capacity. Component two includes improvements in public health surveillance of communicable diseases including vector borne diseases and leptospirosis while improving the response to outbreaks of these diseases, and component three will serve to improve emergency response to public health emergencies and disasters.

Under the project, the national health care waste management plans will be updated for activities that include the minor refurbishments and the proper disposal of medical equipment. The development of the HWMS will also include capacity-building for health care workers through occupational health and safety training, including exposure to diseases, medical waste and the use of certain equipment with radiation. Accordingly, the Project Implementation Unit (PIU) under the MOHSS is requesting the services of a qualified consultant (individual or firm) to research and develop a Health Care Waste Management System (HWMS).

### 2. Technical Background

According to the WHO<sup>10</sup>, waste and by-products from the health sector cover a diverse range of materials, as the following list illustrates:

- Infectious waste: waste contaminated with blood and other bodily fluids (e.g. from discarded diagnostic samples), cultures and stocks of infectious agents from laboratory work (e.g. waste from autopsies and infected animals from laboratories), or waste from patients with infections (e.g. swabs, bandages and disposable medical devices);
- Pathological waste: human tissues, organs or fluids, body parts and contaminated animal carcasses;
- Sharps waste: syringes, needles, disposable scalpels and blades, etc.;
- Chemical waste: for example, solvents and reagents used for laboratory preparations, disinfectants, sterilants and heavy metals contained in medical devices (e.g. mercury in broken thermometers) and batteries;
- Pharmaceutical waste: expired, unused and contaminated drugs and vaccines;
- Cytotoxic waste: waste containing substances with genotoxic properties (i.e. highly hazardous substances that are, mutagenic, teratogenic or carcinogenic), such as cytotoxic drugs used in cancer treatment and their metabolites;

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<sup>10</sup> <http://www.who.int/mediacentre/factsheets/fs253/en/>

- Radioactive waste: such as products contaminated by radionuclides including radioactive diagnostic material or radiotherapeutic materials; and
- Non-hazardous or general waste: waste that does not pose any particular biological, chemical, radioactive or physical hazard.

Health-care waste contains potentially harmful microorganisms that can infect hospital patients, health workers and the general public. Other potential hazards may include drug-resistant microorganisms which spread from health facilities into the environment. Adverse health outcomes associated with health care waste and by-products also include:

- sharps-inflicted injuries;
- toxic exposure to pharmaceutical products, in particular, antibiotics and cytotoxic drugs released into the surrounding environment, and to substances such as mercury or dioxins, during the handling or incineration of health care wastes;
- chemical burns arising in the context of disinfection, sterilization or waste treatment activities;
- air pollution arising as a result of the release of particulate matter during medical waste incineration;
- thermal injuries occurring in conjunction with open burning and the operation of medical waste incinerators; and
- radiation burns.

The project may create an increase in use and scope of services, resulting in additional sources of medical waste needing proper treatment and disposal. This is also the case for work during emergency response or epidemics. The health and safety of health care workers could be affected by waste management practices as well as by hygiene conditions, isolation and storage procedures for bioinfectious, radiologic or genotoxic waste. Such risks may also affect the nearby communities.

At the present time, there is no formalized plan for health care waste management in Dominica. The existing draft plan for health care waste management requires review and adoption by Dominica. Principles of the plan are in place at some health care facilities, however the country does not have the capacity to manage biomedical waste safely. While laboratory waste is treated prior to disposal, other biomedical waste generated nationally is not being treated. Medical waste generated at the main hospital is presently being disposed at the national landfill in a special hole dug for that purpose and covered after disposal. Waste generated at other facilities, including private facilities, are collected in the general waste stream and disposed in the landfill.

Dominica has developed guidelines for infection control for the prevention of health care related diseases and conditions and includes management of medical waste at the point of generation. (Infection Prevention and Control Manual-2015 Edition). Health care staff are familiar with these guidelines and facilities are provided for adhering to these guidelines. While there are guidelines developed for transport and disposal, the country lacks the equipment necessary to implement these guidelines.

The Ministry of Health and Social Services with the assistance of PAHO is presently installing two incinerators at the Princess Margaret Hospital (PMH) that will serve as the disposal site for medical waste. These incinerators have been installed and are expected to become operational before the commencement of this project.

### **3. Objective of the Consultancy**

To improve the management of medical waste and minimize risk to health care workers and the public, during project implementation the national health care waste management plan will be further developed and formalized in the form of a Health Care Waste Management System (HWMS). These Terms of Reference lay out the scope, activities and deliverables for development of the HWMS, which will be consistent with WBG Environmental Health and Safety Guidelines for Health Care Facilities.<sup>11</sup> The HWMS will be adequate to the scale and type of activities and identified hazards for the country and will be implemented and operated by the MOHSS.

### **4. Scope of Work**

The scope of work includes conducting a preliminary evaluation and verification of current health care waste management, identifying infrastructure and capacity needs, developing written protocols and procedures for health care waste management, and providing training and outreach.

#### ***Task 1 – Evaluate current health care waste management***

The first task is to establish baseline information on the current status of health care waste management. Data on the number and type of generators, volumes and types of wastes for various facilities, number and registration of transporters, status of landfill operations, functioning of bioclave, etc. will be generated by the consultant based on interviews and field visits. Any emissions to air, water or soil must be considered, as well as compliance with national law and best practice.

With regards to health care worker protection and community health and safety, the Consultant will assess current practice for occupational health and safety, including training, use of protective equipment, isolation and segregation of wastes, and other factors that could affect exposure to infections or diseases, exposure to wastes or hazardous materials, radiation, and fire safety.

#### ***Task 2 – Identify infrastructure and capacity needs***

The Consultant will review the inventory to be prepared by the MOHSS of the capacity, condition, and needs of the primary health care facilities. Combining this with the Task 1 results, the Consultant will evaluate the adequacy of the existing physical infrastructure available in primary health care facilities and associated facilities in terms of location and size of areas where wastes are stored, temperature and condition of wastes, segregation and isolation of wastes. In

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<sup>11</sup> [http://www.ifc.org/wps/wcm/connect/topics\\_ext\\_content/ifc\\_external\\_corporate\\_site/sustainability-at-ifc/policies-standards/ehs-guidelines](http://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/policies-standards/ehs-guidelines)

addition, evaluate liquid waste disposal practices such as type of disposal system (septic tank, leach field, cesspool, sewer system, package treatment plant), types of wastes expected, whether chlorination is needed, and level of treatment. The consultant will also evaluate level of training and capacity of health care workers, landfill workers, and waste transporters. Based on the evaluation, the consultant will provide recommendations for physical and capacity improvements.

### ***Task 3 – Develop Protocols and Procedures***

The consultant will prepare a formal set of protocols and procedures that will constitute the HWMS to be implemented by the MOHSS. The HWMS will integrate the following:

- WBG EHS Guidelines for Health Care Facilities<sup>3</sup>
- Dominica Environmental Health Services Act (No. 8 of 1997) <sup>12</sup>
- Solid Waste Management Act<sup>13</sup>
- WHO guidelines for management of solid health care waste at Primary Health Care Facilities<sup>14</sup>

The HWMS procedures must address waste minimization, reuse and recycling; waste segregation; on-site handling, collection, transport and storage; transport to external facilities; and, treatment and disposal. The HWMS shall be prepared in collaboration with the MOHSS and subject to their review and approval.

The roles, responsibilities and duties of the MOHSS and health care facility operators will be included, and an assessment made of capacity gaps to implement the program, with corresponding recommendations for training and capacity building.

### ***Task 4. Provide training and outreach***

The Consultant will prepare a presentation on the results of Tasks 1-3 and deliver it to the MOHSS as part of a one-day workshop/seminar, which will include training and instruction on the HWMS. All training materials will be provided to the MOHSS for subsequent delivery to each of the 33 primary health care facilities in the country.

## **5. Reporting Requirements and Deliverables**

The consultant will report to the MOHSS designated contact person. Shortly after the Consultant has mobilized his/her resources and after having met the staff of the MOHSS and visited key project sites, the consultant will present a brief inception report and work plan to ensure that both parties ( the Consultant and the MOHSS.) are in agreement that the assignment will be carried

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<sup>12</sup> <http://www.dominica.gov.dm/laws/1997/act08-1997.pdf>

<sup>13</sup> <http://www.dominica.gov.dm/laws/2008/act3-2008.pdf>

<sup>14</sup> <http://www.who.int/iris/handle/10665/43123>

out as planned and as stipulated in the contract. The inception report will incorporate a work plan for the development of the different activities and deliverables.

Each of Tasks 1-4 will also have a specific deliverable, as follows:

- Task 1 Report - Findings of the assessment of current practice
- Task 2 Report – Recommendations for infrastructure and capacity
- Task 3 Report – HWMS
- Task 4 – Presentations and Training Materials

Each of the deliverables shall be provided in Draft form, to which the MOHSS. will revert comments within 2 weeks. The Final versions of each deliverable will then be provided taking into account and addressing the comments provided.

## **6. Logistics and Timing**

The assignment is anticipated to last for a period of 14 weeks, or three to four months, as per the following tentative schedule:

<b>Task</b>	<b>Duration (weeks)</b>
Inception Report	2
1	4
2	2
3	4
4	2

The Consultant shall ensure that he/she is adequately supported and equipped in terms of personal technical equipment (transportation, laptop, software and field tools),

The MOHSS will arrange and coordinate access, arrange requested interviews, provide reports and respond promptly to data requests to facilitate the assignment. The MOHSS will provide comments to Draft deliverables within two weeks of receipt.

## **7. Qualifications**

The Consultant or Firm must have at least 5 years of experience in the field of environmental assessment, environmental management, or environmental supervision, with direct and relevant project experience in medical waste planning and/or management. Experience in the Caribbean is a benefit. Fluency in the English language is required.

## Appendix 3 Consultation and Public Disclosure

### 1. Consultation

Describe how members of the public and organizations were consulted during the drafting of this document. Add any key feedback and action taken. Include any images or useful photos.

#### Public consultation

Type of consultation held	Description, location, and Date	Feedback received, and responses given
<p>Radio</p> <p>One radio discussion conducted at each of Dominica's four radio stations</p> <p>Kairi FM</p> <p>DBS Radio</p> <p>Q95 FM</p> <p>Vibes Radio</p>	<p>April 26<sup>th</sup> 10-1030 am</p> <p>April 27<sup>th</sup> 9:30 – 10:30 am</p> <p>April 29<sup>th</sup> 9:00 – 9:30 am</p> <p>April 29<sup>th</sup> 10: 00 – 10: 30 am</p>	<p><b>-Callers to the radio stations were concerned about the short time frame for the public disclosure.</b></p> <p><b>We mentioned the GRM included in the ESMF to allow for community complaints and redress during the life of the project</b></p> <p><b>- Some were concerned about whether ESMF were prepared for other projects such as the Marigot Hospital. It was explained that the Marigot Hospital was not part of the project and that the ESMF could not address that construction of that hospital</b></p> <p><b>- callers spoke about the delineation of the Kalinago territory and Castle Bruce.</b></p> <p><b>It was explained that the project will not have any significant impact on the Kalinago since there are health facilities in the territory which serves the Kalinago.</b></p>

<p>Copies of the ESMF placed at the Health Facilities and Village Council Offices in each of the communities</p>	<p><b>April 26, 27th</b></p>	<p><b>- one caller was concerned about the project disruption of the health services in Castle Bruce during construction.</b>  <b>I explained that health service delivery will continue at a new site during construction and all services will be available during construction</b></p> <p><b>No feedback yet.</b></p>
<p>In person meetings          Consultations were held with each of the health teams in the three communities carded for health center development. Wesley, Castle Bruce, St Joseph</p>	<p><b>Meetings held on March 25<sup>th</sup>, 27<sup>th</sup> and 28<sup>th</sup></b></p>	<p><b>Concerns included</b></p> <p><b>-Disruptions in service delivery during construction. An alternative site was discussed however teams were concerned about the availability of alternatives since Hurricane Maria reconstruction of suitable buildings had not completed. In Castle Bruce a building was identified however it was still being used as a shelter</b></p> <p><b>- Project timeline and the approaching hurricane season was a concern. It was explained that this ESMF was just preliminary activities and project may not begin before the end of the hurricane season.</b></p> <p><b>- In Wesley there was concern among the team about the perception that the communities in the health district may have about the</b></p>



	through Dominica government web portal April 29, 2019 (see screen shot below)	
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**Image 1 ESMF Focal Point Mt Stille on radio taking calls on the proposed project and the draft ESMF**



Image 2 Online public announcement and posting of draft ESMF on Dominica Government web portal

The screenshot shows a web browser window displaying the Dominica Government web portal. The address bar shows the URL: [dominica.gov.dm/notices/865-environmental-and-social-management-framework-esmf-for-the-oecs-regional-health-project](http://dominica.gov.dm/notices/865-environmental-and-social-management-framework-esmf-for-the-oecs-regional-health-project). The page features a green navigation bar with the following menu items: HOME, LAWS, MINISTRIES, DEPARTMENTS, ABOUT DOMINICA, and CONTACT US. The main content area displays the title "Environmental and Social Management Framework (ESMF) for the OECS Regional Health Project" and a brief introductory paragraph. A "Service Centre" dropdown menu is visible on the right side of the page, listing various services such as Government Directory, Notices, Vacancies, Scholarships, Forms, Government Publications, Services, and Dominode. The Windows taskbar at the bottom shows the time as 4:23 PM on 4/30/2019.

Government of Dominica  
**Web Portal**

HOME LAWS MINISTRIES DEPARTMENTS ABOUT DOMINICA CONTACT US

Home / Notices /  
Environmental and Social Management Framework (ESMF) for the OECS Regional Health Project

## Environmental and Social Management Framework (ESMF) for the OECS Regional Health Project

This project is expected to create many positive impacts and social benefits both for the community and the health service delivery system in Dominica. There are also negative consequences which may occur as a result and for which measures should be put in place to mitigate these negative impacts. To reduce or minimize these negative impacts, this ESMF was developed in keeping with the World Bank's requirements and Dominica's commitment to address those project-related negative outcomes which will affect communities and individuals. We have identified potential risks analyzed strategies for risk minimization and provided guidance during project implementation

Service Centre

- Government Directory
- Notices
- Vacancies
- Scholarships
- Forms
- Government Publications
- Services
- Dominode

Type here to search

4:23 PM  
4/30/2019



Image 3 Photos of Stakeholder consultation Castle Bruce

## Appendix 4 Mitigation Table, Responsibility and Costs

### Design phase

Activity	Potential impact of activity	Mitigation action/s	Agency or organization responsible for conducting mitigation measure.	Ministry and unit responsible for monitoring effectiveness of mitigation measures.	Frequency	Means of verification	Cost of mitigation and source of funds
Minor construction activities to upgrade health facilities and laboratory (upgrades of electrical system; improve water system, by changing fixtures, upgrade plumbing, install solar water heaters; replace external doors and windows; increase storage facility/capacity). other retrofit activities as identified <sup>15</sup> .	Temporary relocation of services (in total or partially) may be necessary while refurbishing existing health centres, thus raising issues regarding the continuity of the provision of their health services	<p>1.Communication/consultation with communities to determine best options</p> <p>2.Communication and signage campaign regarding temporary relocation of service(s)</p> <p>3. Provide referrals and referral services to alternative service locations during rehabilitation.</p> <p>4. Develop Grievance Mechanism at project Level</p>	<p>1.Ministry of Health</p> <p>2. Ministry of Health</p> <p>3. Ministry of Health</p> <p>4. PIU</p>	PIU Environmental and Social Safeguard specialists	Timely prior to starting changes	<p>1.Evidence of consultation</p> <p>2.Evidence of campaign and presence of signs</p> <p>3.Evidence of no-cost referrals</p> <p>4. Evidence of Database at PIU</p>	<p>1.Cost of communication plans/implementation /included in Project</p> <p>2. Included in project cost</p> <p>3. MOHSS</p> <p>4. Included in project costs</p>

<sup>15</sup> Smarting of 3 health centers (Castle Bruce, St. Joseph, and Wesley). Wesley includes also extension of physical structure and construction of additional rooms.

Activity	Potential impact of activity	Mitigation action/s	Agency or organization responsible for conducting mitigation measure.	Ministry and unit responsible for monitoring effectiveness of mitigation measures.	Frequency	Means of verification	Cost of mitigation and source of funds
Project design for new/refurbished infrastructure (health centres, laboratory, hospital)	Inadequate consideration of potential ESHS <sup>16</sup> impacts and risks	<p>1. Include an ESMF for the Program, including a generic ESHS management plan (Generic ESMP) in Appendix 1<sup>17</sup> to address the potential impacts of small construction activities.</p> <p>2. Disclose and consult Draft ESMF, including the Appendix 1.</p> <p>3. Include Appendix 1 in bidding documents for proposed works.</p>	PIU	PIU Environmental and Social Safeguard specialists	Prior to launch of bidding process	<p>1. Draft ESMF, including Appendix 1.</p> <p>2. Evidence of disclosure and consultation of Draft ESMF, including Appendix 1.</p> <p>3. Bidding document including Appendix 1.</p>	<p>1. Included in project costs</p> <p>2. Cost of consultation included in project costs</p> <p>N/A</p>

### Construction phase

<sup>16</sup> Environmental, social, and health and safety - ESHS

<sup>17</sup> Appendix 1 includes the generic ESMP with Best Management Practices (BMPs) for small civil works.

Activity	Potential impact of activity	Mitigation action/s	Agency or organization responsible for conducting mitigation measure.	Ministry and unit responsible for monitoring effectiveness of mitigation measures.	Frequency	Means of verification	Cost of mitigation and source of funds
Construction/refurbishing of health centres and laboratory	1. Refurbishment and upgrading of health care centres may uncover sources of medical wastes, asbestos, mercury, chemicals or other hazardous materials may be discovered during demolition, repairs, or refurbishment.	1. Each Contractor will be required to follow, as a minimum, the generic ESHS management plan (Generic ESMP) in Appendix 1 <sup>18</sup> to address the potential impacts of small construction activities. This includes the BMP for a Construction Waste management, Solid Waste management, Hazardous Waste management, E-wastes management, and procedures to use of minor amounts of pesticides, such	Contractor hired for performing the works.	PIU Environmental and Social Safeguard specialists/Supervision Firm	Weekly Supervision	1. Construction Progress Reports, Supervision Reports	The cost of implementing all the ESMP must be included in the cost of the construction, as estimated for the bidding documents.

<sup>18</sup> Appendix 1 includes the generic ESMP with Best Management Practices (BMPs) for small civil works.

		<p>as termite treatment for building foundations and control of rodents, ants, and other fly animals, to be done through licensed registered professional contractors; however, the use or purchase of significant amounts of pesticides (e.g. for vector control must be excluded in the screening process.</p>					
	<p>2. Soil and water contamination from inadequate disposal of demolition and site clearing wastes, solid and liquid wastes generated onsite, electronic wastes (e-Wastes) – computers and</p>	<p>2. See requirements in (1) above</p>					

	<p>other medical equipment.</p> <p>3. Pest infestation during demolition, site clearing and construction.</p>	<p>3. See requirements in (1) above</p>					
	<p>4. Community unease with foreign workers (cultural clashes, sexual harassments, among others)</p>	<p>1.Contractors will preferably hire locals, as much as possible.</p> <p>2.Contractors will implement a Workers' Code of Conduct, consistent with the generic one included in the Appendix 1. The Code of Conduct will be part of the worker's contract, and each worker must receive a copy of it, and must provide a written acknowledgement of its receipt. It will cover the minimum aspects outlined in Appendix 1.</p>	<p>Construction Contractor(s).</p>	<p>Ministry of Health; PIU Environmental and Social Safeguard specialists; Construction Supervision Firm</p>	<p>4.Weekly Supervision</p>	<p>4.ESMF, including Appendix 1 approved and disclosed.</p>	<p>The cost of implementing all the ESMP must be included in the cost of the construction, as estimated for the bidding documents</p>

	5.Environmental nuisances and pollution (noise, dust, soil contamination - terrestrial and marine - by liquid and solid wastes) during construction	5. Each Contractor will be required to implement, as a minimum, the generic ESHS management plan (Generic ESMP) in Appendix 1 to address the potential impacts of small construction activities, including, but not limited to, limit construction hours to 7am-7pm week days, comply with noise standards, and promote this publicly; use dust suppression techniques, use dust control measures such as enclosures and covers, increase of moisture contents of materials, install dust barriers; install sewage systems for workers, etc.).					The cost of implementing all the ESMP must be included in the cost of the construction, as estimated for the bidding documents.
	6.Soil, water pollution resulting from	6. Contractors will be required to implement a	Construction Contractor(s).	Ministry of Health; PIU Environmental	6.Weekly Supervision	6. ESMF, including Generic ESMP,	The cost of implementing all the ESMP must

	inadequate management and disposal of constructions debris	Construction Management Plan consistent with the Generic ESMP included in Appendix 1.		and Social Safeguard specialists; Construction Supervision Firm		approved and disclosed; Construction Supervision Reports.	be included in the cost of the construction, as estimated for the bidding documents
	7.Environmental degradation from vegetation removal, soil compaction, strip and removal of topsoil.	7. Contractors will be required to (a) implement an Environmental Management Plan consistent with the Generic ESMP included in Appendix 1 <sup>19</sup> , and (b) Consult with Planning/Forestry Agency and obtain approval (if required) prior to removal.	Construction Contractor(s).	Ministry of Health; PIU Environmental and Social Safeguard specialists; Construction Supervision Firm	7.Weekly Supervision	7. ESMF, including the Generic ESMP, approved and disclosed; Construction Supervision Reports.	The cost of implementing all the ESMP must be included in the cost of the construction, as estimated for the bidding documents
	8. Uncovering of archaeological resources during earth movement, levelling, and excavation for foundation of buildings.	8. Contractors will be required to implement a Chance Finds Procedure during construction and such procedure will be consistent with those included in the Generic ESMP	Construction Contractor(s).	Ministry of Health; PIU Environmental and Social Safeguard specialists; Construction Supervision Firm	8.Weekly Supervision	8. ESMF, including the Generic ESMP, approved and disclosed; Construction Supervision Reports.	The cost of implementing all the ESMP must be included in the cost of the construction, as estimated for the bidding documents

<sup>19</sup> In general, removal of trees is not expected as a result of the refurbishing/upgrading activities proposed, with exception of the construction of an expanded infrastructure with new rooms in Wesley. However, when and if required, tree removal will not proceed without a plan that estimates the number, species type, girth measurement at breast height of tree to be cut down as well as plan for replacement; in addition, in any type of area of natural habitat, whether designated legally or not, it will require review and permission from the PIU environmental specialist, and NO from the Bank env specialist.

		in Appendix 1 of this document; train workers in the procedure; include reference to the procedure in Workers' Code of Conduct.					
	9. Infestation of pests during construction	9. Contractors will be required to implement procedures for Site Pest Control during construction, consistent with those measures included in the Generic ESMP in Appendix 1.	Construction Contractor(s).	Ministry of Health; PIU Environmental and Social Safeguard specialists; Construction Supervision Firm	9.Weekly Supervision	9. ESMF, including the Generic ESMP, approved and disclosed; Construction Supervision Reports.	The cost of implementing all the ESMP must be included in the cost of the construction, as estimated for the bidding documents
	10.Health and safety risks to workers (risks of accidents, such as trip and falls, falls from heights, electrical shocks, struck by falling objects, vehicle accidents, excessive noise and vibrating tools/equipment, among the prevalent) during	10. Contractors will be required to implement a Workers' Health and Safety Management Plan, as part of the Generic ESMP included in Appendix 1 of this ESMF, including, as applicable, the Job Hazard Analysis, the applicable engineering, administrative and	Construction Contractor(s).	Ministry of Health; PIU Environmental and Social Safeguard specialists; Construction Supervision Firm	10.Weekly Supervision	10. ESMF, including the Generic ESMP, approved and disclosed; Construction Supervision Reports.	The cost of implementing all the ESMP must be included in the cost of the construction, as estimated for the bidding documents

	construction works.	control measures, adequate PPEs and standard operating procedures.					
Transportation of heavy equipment, building materials	1. Health and safety risks to communities adjacent to the works and to access roads (uncontrolled access to the site and exposure to risks; risks of accidents between pedestrians and vehicles and Project vehicles; etc.)	1. Contractors will be required to implement a Community Safety Management procedure as part of the Generic ESMP included in Appendix 1 of this ESMF, including limiting vehicle speed in access roads, installing adequate signage to call attention to traffic risks.	Construction Contractor(s).	Ministry of Health; PIU Environmental and Social Safeguard specialists; Construction Supervision Firm	Weekly Supervision	1. ESMF, including the Generic ESMP, approved and disclosed; Construction Supervision Reports.	The cost of implementing all the ESMP must be included in the cost of the construction, as estimated for the bidding documents.
Closure and decommissioning of construction sites	1. Contamination and pollution from construction materials left behind; risks of accidents with: holes left unprotected, rebars unprotected from impalement risks, wood	1. Contractors will be required to the Generic ESMP in Appendix 1, which includes procedures for Site Decommissioning.	Construction Contractor(s).	Ministry of Health; PIU Environmental and Social Safeguard specialists; Construction Supervision Firm	1. Weekly Supervision	1. ESMF, including Appendix 1 (Generic ESMP) approved and disclosed; Construction Supervision Reports.	The cost of implementing all the ESMP must be included in the cost of the construction, as estimated for the bidding documents

	<p>uncleared from steel nails, etc.</p> <p>2. Contaminated site by hydrocarbon and/or chemicals spills.</p>	<p>2. Decontaminate site prior to decommissioning construction.</p>			<p>2. Inspection prior to payment of last instalment to Contractor.</p>		
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## Operation and Maintenance phase

Activity	Potential impact of activity	Mitigation action/s	Agency or organization responsible for conducting mitigation measure.	Ministry and unit responsible for monitoring effectiveness of mitigation measures.	Frequency	Means of verification	Cost of mitigation and source of funds
Generation of wastes, hazardous wastes and medical wastes.	1. Water and soil contamination	1. Health Care Centres and Laboratory will be required to prepare and implement a Health Care Waste Management System (HWMS) consistent with the IFC guidelines for the safe handling of Health Care Facilities <sup>20</sup> wastes, including procedures for segregation, handling, treatment and final disposal of	Health Centre Operator/Manager	Ministry of Health/ PIU Environmental Specialist	Annually (???)	1. Health Care Waste Management System; PIU annual reports	Cost of consultancy for preparing the HWMS included in project.  Cost of implementing the Minister of Health partially in the project (acquisition of trucks to transport medical waste))

<sup>20</sup> [https://www.ifc.org/wps/wcm/connect/topics\\_ext\\_content/ifc\\_external\\_corporate\\_site/sustainability-at-ifc/policies-standards/ehs-guidelines](https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/policies-standards/ehs-guidelines)

		infectious, pathological, chemical, pharmaceutical, cytotoxic, and/or radioactive, as applicable to each specific facility.					
	2. Personal injury from medical waste (needle stick injuries, exposure to toxic or infectious materials, contamination, radioactive burns, cuts, among others)	2. Health Care Centres and Laboratory will be required to implement a Workers' Health and Safety Plan, consistent with the IFC EHS Guideline for Health Care Facilities mentioned above.	Health Centre Operator/Manager	Ministry of Health/ PIU Environmental Specialist ??	Annually (???)	2. Workers' Health and Safety Management Plan; PIU Semi-annual reports	Ministry of Health
	3. Spread of health care associated infections (HAIs)	3. Health Care Centres and Laboratory will be required to follow the Dominica Guidelines for Infection Prevention & Control Manual (2015 edition).	Health Centre Operator/Manager	Ministry of Health/ PIU Environmental Specialist ??	Annually (???)	3. Health Care Waste Management System; PIU Semi-annual reports	Ministry of Health

Treatment of medical wastes with chemicals	1.Unintended release of chemical or biological hazards, including drug-resistant microorganisms, into the environment	1. Health Care Centers and Laboratory will be required to follow the Dominica Guidelines for Infection Prevention & Control Manual (2015 edition).	Health Center Operator/Manager	Ministry of Health/ PIU Environmental Specialist ??	Annually	1.Health Care Waste Management System; PIU Semi-annual reports	Ministry of Health
Disposal of untreated health care wastes in landfills	1.Contamination of drinking, surface, and ground waters	1.The Country will prepare a Medical Waste Management Plan prior to the start of works.	Ministry of Health;	Ministry of Health/ PIU Environmental Specialist ??	Annually	1. National Medical Waste Management Plan	Ministry of Health responsible for costs
Operation of incinerators or open burning of wastes	1.Emission of dioxins, furans and particulate matter	1. Countries will verify the correct operation of the incinerator, including sorting materials prior to incineration and, checking adequate temperature and humidity of wastes according to the manufacturer's specification for the incinerator.	Hospital Operator/Manager where the incinerator is located	Ministry of Health/ PIU Environmental Specialist ??	Annually	1. National Medical Waste Management Plan; PIU Semi-annual reports	Ministry of Health

		2. The Medical Waste Management Plan will prohibit open burning of medical wastes					
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### Appendix 5 Sample Monitoring Checklist to be used by the Contractor and the Supervising Engineering Consultant (SEC) during construction phase.

Activities		Monitoring requirements /Inspection items	Frequency* (Contractor/SEC)	Checklist response - Week ....- Month/Year							Evidence required
				Sat	Sun	Mon	Tue	Wed	Thu	Fri	
1	Screening, safeguarding, Approval and disclosure process	<ul style="list-style-type: none"> <li>Number of sub-projects that have been screened and categorized</li> <li>Number of sub-projects requiring and ESMPs</li> <li>Number of sub-projects needing simple measures</li> <li>Number of ESMPs prepared</li> <li>Number of ESMPs implemented</li> <li>Number of sub-projects implemented needing correctives actions/mitigation measures</li> </ul>	During implementation								Review, approval, as needed, disclosure documents. Reporting
2	Demolition and/or excavation waste	<p>Please indicate the status of the waste container(s), whether they are full, half full, or empty. Please provide photo evidence of the site.</p> <p>Please rate the cleanness of the site from 1 to 3 (1 indicates <sup>II</sup> no accumulation <sup>11</sup> and 3 indicates “ random accumulation across many areas of the site”. Please provide de photo evidence of the e site.</p> <p>Did you obtain a proof for the waste collection? Please keep receipt as r record</p> <p>Is waste disposal l proof checked and copy archived? Pl ease keep receipt as record</p>	<p>Daily/weekly</p> <p>Daily/weekly Upon collection/weekly</p> <p>Upon disposal/weekly</p>	Fu ll	Fu ll	Fu ll	Fu ll	Fu ll	Fu ll	Full  1  X	<p>Three weekly Photos of different dates</p> <p>Three weekly Photos of different date es</p> <p>Record of collection receipt Record of disposal receipt</p>
3	Hazardous waste and materials	<p>Please indicate the status of the waste container(s), whether r they are full, half full, or empty. Please provide photo evidence of the site. Are there any uncontained or improperly disposed hazardous wastes? Please provide photo evidence of the site.</p> <p>Please rate the cleanness and organization of hazardous us chemicals' storage and containers of the site from 1 to 3 (1 indicates <sup>II</sup> Clean, organized and no</p>	<p>Daily/weekly</p> <p>Daily/weekly</p> <p>Daily/weekly</p> <p>Upon collect</p>	Fu ll	Fu ll	Fu ll	Fu ll	Fu ll	Fu ll	Full  1	<p>Three weekly Photos of different dates</p> <p>Three weekly Photos of different dates</p>

	management	accumulation" and 3 indicates II random accumulation across many areas of the site". Please provide photo evidence. Did you obtain a proof for the waste collection? Please keep receipt as record Is waste disposal proof checked and copy archived? Please keep receipt as record	ion/weekly Upon disposal/weekly	1	1	1	1	1	1		Three weekly Photos of different dates Record of collection receipt Record of disposal receipt
4	Noise	Does the work schedule comprise of machinery/equipment associated with high noise emissions (more than 70 dBA at source)? Please indicate number of noise complaints received - Please update the Complaints Register/ Record with the new complaints received Is PPE made available? Is PPE used? Please provide photo.	Daily/weekly Daily/weekly Daily/weekly Daily/weekly	-	-	-	-	-	-	-	Record of complaints  Three weekly Photos of different dates
5	Dust	Does the work schedule comprise of machinery/equipment associated with high dust emissions? Please indicate number of dust complaints received- Please update the Complaints Register/ Record with the new complaints received Are dust wetting procedures are being applied? Please provide de photo evidence of the site. Is PPE made available? Is PPE used during dusty conditions? Please provide photo evidence of the site.	Daily/weekly Daily/weekly Daily/weekly Daily/weekly Daily/weekly	X	X	X	X	X	X	X	Record of complaints Three weekly Photos of different dates  Three weekly Photos of different dates
6	Paints	Is the type of paint purchased from a reputable/known brand? Please keep receipt as record What is the amount of Paint purchased? Please keep receipt as record Do the types of paint purchased contain harmful chemicals (such as )? Please keep MSDS as a record Is PPE made available? Is PPE used during paint works? Please provide photo evidence of the site.	monthly/monthly monthly/monthly Daily/weekly Daily/weekly Daily/weekly	-	-	-	-	-	-	-	Record of purchase receipt Record of purchase receipt Record of MSDS  Three weekly Photos of different dates
7	Asbestos	is Asbestos waste being contained according to the Asbestos management plan? Please provide photo evidence of the site. Is PPE made available? Is PPE used during Asbestos exposure?	Daily/weekly Daily/weekly Daily/weekly Upon collect	X	X	X	X	X	X	X	Three weekly Photos of different dates  Three weekly Photos of

		<p>Please provide photo evidence of the site.</p> <p>Did you obtain a proof of for the waste collection? Please keep receipt as record</p> <p>Is waste disposal proof checked and copy archived? Please keep receipt as record</p>	<p>ion/weekly</p> <p>Upon disposal/weekly</p>	X	X	X	X	X	X	X	<p>different dates</p> <p>Record of collection receipt</p> <p>Record of disposal receipt</p>
8	Physical hazards from demolition waste, equipment and vehicles	<p>Please indicate the number of injuries/incidents - Please update the Incident Log</p> <p>Please indicate the number of complaints received/ incidents - Please update the Complaints Register with the new complaints received Driver and operator t testing report checked? Please keep a copy of the testing reports</p> <p>Driver and operator training report checked? Please keep a copy of the training reports</p> <p>Have you reviewed and confirmed exclusion zones? Copy of the site layout indicating all exclusion zones</p>	<p>Daily/weekly</p> <p>Daily/weekly</p> <p>monthly/monthly</p> <p>monthly/monthly</p> <p>Daily/weekly</p>								<p>Incident Log</p> <p>Complaints Register</p> <p>Copy of the testing report</p> <p>Copy of the training reports</p> <p>Site layout with all exclusion zones</p>
9	Fire hazards	<p>Are the fire extinguishing instruments checked? Please complete relevant log</p> <p>Have you checked flammable material containers &amp; storage ? Please provide photo evidence Please indicate number of injuries &amp; incidents - Please update the Incident Log</p>	<p>weekly/ weekly</p> <p>weekly/weekly</p> <p>Daily/weekly</p>								
10	Other occupational health & safety (Slippage and Falling - Working at heights - manual handling & lifting - electrocution - Exposure to biological hazards)	<p>Is the approved occupational health and safety plan being applied?</p> <p>Please indicate number of accidents and near-misses. Please keep an updated log</p>	<p>Daily/weekly</p> <p>Daily/weekly</p>	X	X	X	X	X	X	X	<p>EHS approved plan and monitoring checklist</p> <p>Accident Log</p>
11	Worker influx	<p>Please indicate the number of complaints received/ incidents - Please update the Complaints Register with the new complaints received</p>	<p>Daily/weekly</p>								<p>Complaints register</p>
12	Traffic & accessibility	<p>Please indicate the number of complaints received/ incidents - Please update the Complaints Register with the new complaints received</p>	<p>Daily/weekly</p>								<p>Complaints register</p>

13	waste burning	- Please indicate the number of complaints received/ incidents - Please update the Complaints Register with the new complaints received	weekly Daily/weekly	X						X	X	Photo evidence Complaints register	
14	Equipment on-site fueling	Have you checked the integrity of the impervious layer for the onsite fueling activities? Please provide photo evidence of the site	weekly Daily/weekly									Photo evidence	
15	Utility damage	Please indicate the number of complaints received/ incidents - Please update the Complaints Register with the new complaints received	Daily/weekly									Complaints register	
16	Chance finds  ESMF – Transfor	Have you prohibited the use of equipment associated with high vibration close to the chance-find site? Please provide a copy of the procedure	Daily/weekly									Copy of the procedure	
		Have you reviewed permitting procedures? Please provide a copy of the permits	Daily/weekly										Copy of the permits
		Has a guard been assigned to secure the chance find area?  Please provide a photo evidence of the site	Daily/weekly										Photo evidence

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