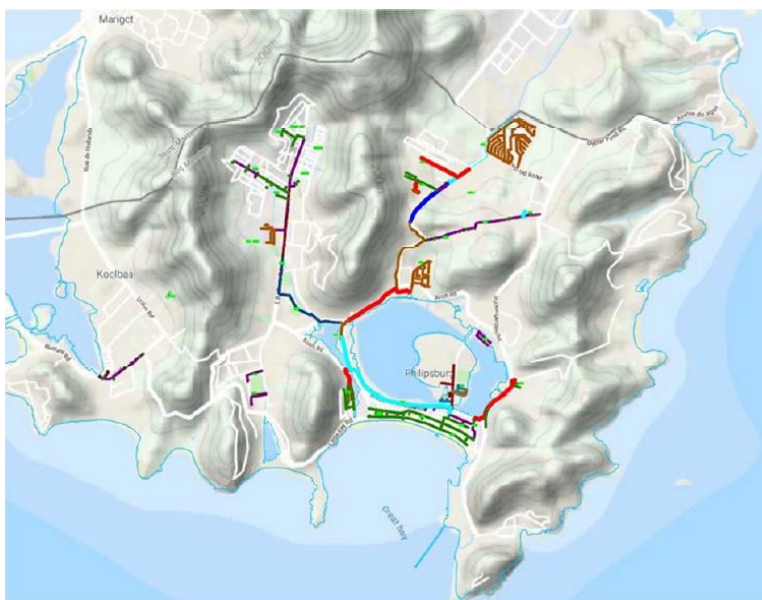


Sint Maarten

Wastewater Management Project

Environmental and Social Management Plan (ESMP) For the Expansion of the Sewerage Network and Household Connections

April 28th , 2026



Version	Date	Changes
v0.1	25 th Oct 2024	Preliminary approved
v0.2	18 th Dec 2025	Updated based on preliminary design
v0.3	28 th Apr 2026	Updated based on final design

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Abbreviations and Acronyms

AIDS	Acquired Immune Deficiency Syndrome
C-ESMP	Contractor's – Environmental and Social Management Plan
CoC	Code of Conduct
DOC	Department of Culture
ES	Environmental and Social
EHS	Environmental Health and Safety Guidelines
ESCP	Environmental and Social Commitment Plan
ESHS	Environmental, Social, Health and Safety
ESS	Environmental and Social Standards
ESMP	Environmental and Social Management Plan
GBV	Gender Based Violence
GEBE	Gemeenschappelijk Electriciteitsbedrijf Bovenwindse Eilanden
GDP	Gross Domestic Product
GoSM	Government of Sint Maarten
GRM	Grievance Redress Mechanism
HIV	Human Immunodeficiency Virus
LMP	Labour Management Procedures
MECYS	Ministry of Education, Culture, Youth and Sport
MoGA	Ministry of General Affairs
MOJCS	Ministry of Justice,
MSIP	Management Strategies Implementation Plan
NRPB	National Recovery Program Bureau
NRRP	National Recovery and Resilience Plan
OHS	Occupational Health and Safety
PIU	Project Implementation Unit
PJIA	Princes Juliana International Airport
PMT	Project Management Team
SDG	Sustainable Development Goals
SEA	Sexual Abuse and Exploitation
SEP	Stakeholders Engagement Plan
SH	Sexual Harassment
SIMARC	Sint Maarten Archaeological Center
SOGI	Sexual Orientation and Gender Identity
SXM	Sint Maarten
VROMI	<i>het ministerie van Volkshuisvesting, Ruimtelijke Ordening, Milieu en Infrastructuur</i> Ministry of Public Housing, Spatial Planning, Environment, and Infrastructure
VSA	het ministerie van Volksgezondheid, Sociale Ontwikkeling en Arbeid Ministry of Public Health, Social Development and Labour
WSS	Water supply and sanitation

1 Executive Summary

Existing public sewerage network coverage is severely limited, and covers only some districts and neighbourhoods of Sint Maarten, leaving significant areas and percentage of the population uncovered. Although the Government of Sint Maarten (GoSM) has made several wastewater investments over time, including construction of a wastewater treatment plant (WWTP) and development of sewerage infrastructure in various residential and commercial districts, it is estimated that less than 11 percent of the properties in the country, corresponding to approximately 2,000 properties, are connected to the sewerage network, serving around 15% of the population.

This Environmental and Social Management Plan (ESMP) was drafted to manage the Environmental and Social risks and impacts which may arise from the implementation of the “Sint Maarten Wastewater Management” Project, in particular the sub-component 1.1 related to the expansion of the sewerage network and component 2, and towards ensuring that the activities to be developed are in line with the national legal framework and the relevant World Bank Environmental and Social Standards (ESS).

This ESMP assesses the Environmental and Social (E&S) risks and impacts of components 1 and 2 of the project, except the Wastewater Treatment Plant (WWTP) upgrade and operation (sub-component 1.2), which will be addressed in a separate E&S instrument, and proposes risk management measures following the mitigation hierarchy. The “Wastewater Management” Project aims to (i) increase access to safely managed sanitation services; and (ii) improve sustainability and resilience of wastewater management.

The project is co-funded by the Sint Maarten Recovery and Reconstruction Trust Fund and the Government of Sint Maarten. The Trust Fund is financed by the Government of the Netherlands and administered through a tripartite partnership of the Sint Maarten and the Netherlands governments, and the World Bank.

The project will consist of three components:

(a) Component 1: Wastewater infrastructure investment

Identification, design, supervision, rehabilitation, expansion, improvement, operation, and maintenance of the Sint Maarten public infrastructure for wastewater collection, treatment, and disposal.

This ESMP focus on the following sub-component 1.1 “Improving the coverage and resilience of wastewater collection”, by:

- (a) expanding the existing sewerage networks to enable connections for residents and commercial enterprises, including decommissioning of old structures from the sewerage network system;
- (b) rehabilitating critical parts of the existing sewage system to improve its climate resilience and increase its operational efficiency;

(b) Component 2: Technical assistance for sustainable and resilient wastewater management

This component includes the following activities: (2.1) Strengthening the capacity of VROMI. (2.2) Strengthening of the legal, policy, and regulatory framework. (2.3) Developing a national sanitation strategy. (2.4) Improving management of fecal sludge from septic tanks. (2.5) Developing focused technical analysis on understanding the effects of wastewater pollution on coastal water quality. (2.6) Developing and testing a system for monitoring seawater quality.

(c) Component 3: Project management

Strengthen the project management and coordination capacity of the Project Implementing Entity, including coordination and technical supervision of Project implementation, financial management, procurement, monitoring and evaluation, environmental and social standards management and oversight, and supporting Operating Costs.

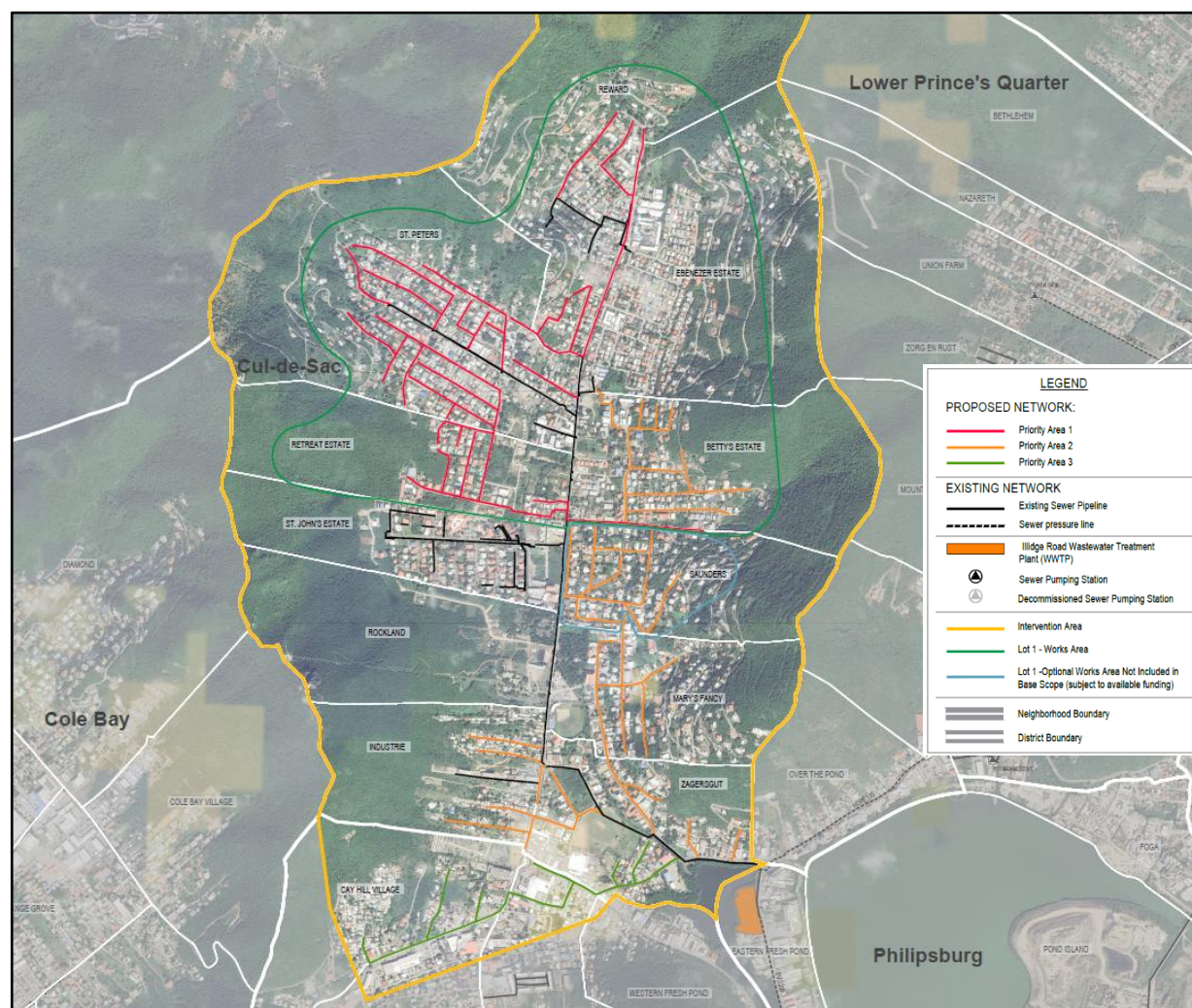


Figure 1: Overview of sewage network expansion area in Cul-de-Sac (Priority Area 1)

The potential adverse risks and impacts on the environment during the implementation phase of the first sub-component related to network expansion, will be temporary in nature and mainly localized around the project area of works. The environmental impact is mainly related to traffic hindrance, air emissions from vehicles, dust generation from earth works, construction waste/soil collection and disposal, wastewater collection and disposal, hazardous materials accidental spillage, stormwater runoff and noise pollution from construction activities which will potentially occur during works in the urban area where the works will take place. During operation phase, main environmental impacts are indirect and related to the sewage treatment, such as increased resources consumption (e.g. energy consumption, chemicals usage), increased treated effluent disposal, and increased sludge from the operation of the WWTP. Overall, the Project will have significant positive environmental impact on ground, surface and marine waters, recreation, tourism and public hygiene.

Occupational Health and Safety (OHS) risks associated with civil works and construction will occur. Those risks are mainly associated with falling into trenches, electricity shock and caught-in/between accidents. Other health/safety factors may include dust inhalation, contact with sewage, noise, falling objects, etc.

Components 2 and 3 are expected to lead to environmental benefits and any negative environmental impacts are expected to be low/minimal.

The type of social risks related to Sub-Component 1.1: Network Expansion, are likely to be: (1) potential temporary interruptions to the normal operation of businesses along planned civil works route while crews install connections; (2) potential temporary interruption to access to businesses/residences along the planned civil works route; (3) cost implications for new residences and commercial businesses connections to the expanded service in those areas and the proposed tariffs; (4) noise, dust, influx of traffic, altered traffic patterns and the other nuisance impacts occurring as a result of the civil works; (5) potential damage to residence and business infrastructure along the planned civil works route; and (6) the presence of workers in the identified neighbourhoods and typical OHS risks consistent with minor civil works.

Component 3, Project Management, would have the same risks as with the other projects comprising the NRPB portfolio. Some of which include possible delays of project approval or implementation phase, budget overrun, challenges with attracting specialized consultants and coordination with Government. Those risks may affect the E&S footprint of the project, for example in case certain activities are not funded.

Table 1 below summarizes the Environmental and Social risks and impacts of Sub-Component 1.1, along with the proposed mitigation measures for minimizing any adverse effects. More detailed information can be found under Chapter 6.

Table 1: Summary of Potential E&S risks and impacts and mitigation measures

Potential Risks and Impacts	Mitigation Measures
Physical changes in the area: <i>Temporary physical changes will be caused by trenching works and pavement removal, altering the urban environment.</i>	○ After trenchworks are completed, roads shall be restored to previous condition. ○ If vegetation is removed, then it should be restored through seeding and planting as appropriate.
Use of natural resources: <i>Sand, energy & water usage will increase during construction and operation of the activity, affecting those natural resources</i>	○ Sand for trenches pipe bedding shall be originated from a licenced supplier. Excavated soil shall be cleaned and used for backfilling. ○

Potential Risks and Impacts	Mitigation Measures
Solid waste: Waste will be produced in the construction stage from excavation and construction materials, which may lead to pollution if not properly handled.	- Excavated soil will be sifted and reused for trenches backfilling, where suitable. - Cement and asphalt shall be crushed and reused as aggregate.
Air emissions: Dust emission from excavation and construction works. Exhaust emissions from vehicles and machinery which may cause respiratory and ocular challenges and impact the surrounding natural environment	- Water surfaces for minimizing dust or other dust suppression techniques - Limit the pilling of loose materials - Store and transport soil in covered bins/containers - Limit vehicles speed
Pollution: Spills of sewage, fuels, engine oils, may be released during construction which can lead to soil and water contamination	- Limit the onsite storage of hazardous materials - Sewage shall only be disposed at the WWTP - The Contractor shall have a plan for responding in case of accidental pollution and a spill kit on each site.
Wastewater: Wastewater produced by construction workers which can lead to soil and water contamination if improperly handled.	Wastewater from portable toilets shall be collected regularly and disposed at the WWTP.
Noise: Noise and vibration levels will increase during construction activities which can impact workers and disrupt nearby communities, schools, businesses and services.	- Noise levels will be monitored and controlled with appropriate measures. - Noise from metal sheet crossings shall be reduced with appropriate frame support.
Occupational Health & Safety: Workers may be injured during construction activities	Health and Safety planning is an integral part of any construction activity and shall be addressed extensively in the Health and Safety Manual that contractors are required to prepare to the supervising engineers satisfaction prior to the start of works. Management Strategies and Implementation Plans (MSIPs) will be prepared for all the activities. PPEs will be provided to all workers. Training will be provided to workers. Sanitation facilities will be provided. Compliance will be ensured by Contractor's and Supervisor's Environmental, Social, Health and Safety (ESHS) experts.
Community Health & Safety: There might be an impact on the immediate communities and commuters from additional noise, dust and traffic. Open trenches may pose a fall hazard to pedestrians and especially children, elderly and people with mobility issues.	Mitigation measures will be in place to deal with noise, dust, road safety and other possible risks and impacts. Safe access to houses and businesses will be ensured by placing pedestrians/cars crossings. Where adequate unobstructed width that allows two-way traffic cannot be provided, appropriate traffic control must be considered, such as flag-person, stop/go boards, portable traffic lights, etc. Trenches will be barricaded and warning lights will be placed for nighttime.
Cumulative impacts: Multiple roads might be trenched simultaneously, increasing the overall potential of community nuisance due to traffic, noise and dust.	The local impact from numerous trenched roads shall be assessed by Contractor in his schedule, especially as relates to traffic arrangements. The length of open trenches will be limited to necessary.
Traffic: Traffic disturbance will be caused by the works. Road closure is possible.	Contractor will prepare a Traffic Management Plan and receive a waiver by the authorities. Road closure shall be avoided and only allowed in cases where there are no other practical means to ensure the road safety.
Cultural resources: Accidental damage to monuments/cultural sites due to proximity and vibration. Chance Finds are possible	Contractor shall protect the monuments in proximity of the works (listed in section 5). A Chance Finds Procedure in line with this ESMP shall be prepared by Contractor.

Potential Risks and Impacts	Mitigation Measures
Ecology and water resources: <i>Minimum impact is expected other than potential silt and hazardous materials runoff. Overall, the impact will be positive.</i>	The project will have an overall positive impact by reducing the sewage runoff into surface and underground water bodies. Excavated soil shall be removed daily to prevent silt runoff during storm events. Contractor shall be prepared to contain any accidental spillage of hazardous compounds like engine oil.
Access to houses/businesses: <i>Accessibility may be temporarily hindered.</i>	Contractor will prepare a Traffic Management Plan and include pedestrians' mobility considerations, for ensuring houses and businesses are accessible at all times.
Access to services: <i>Temporary interruption to services may be realized during household connection works</i>	The Contractor will consult with and inform households owner/tenants in case works need interfere with existing utilities.
Exclusion of households: <i>The final connection between the public network and all private homes within the project scope will be funded.). There is a risk of complaints or disagreements raised due to exclusion of some households from the sewer network due to the selection criteria for the new connections as per project design.</i>	The expansion of the network is planned considering fair and transparent technical and economic criteria, with the aim of connecting as many households as possible within the available budget. Stakeholders' consultation and awareness campaigns are/will be held periodically for informing the public.
Resistance to the introduction of tariffs: <i>The introduction of cost recovery principles through direct funding of services by tariffs can create resistance among residences and commercial businesses and disproportionately affect the most vulnerable. Charging more for sewerage/wastewater management services may impact lower-income households who may struggle to afford the higher prices, particularly where there were no charges. This perception of the negative impact on the more vulnerable members of the community can potentially generate resistance, as is common when governments introduce new or increased taxes or fees to their community.</i>	Utilisation of an inclusive and participatory approach to the new tariff design, to be led and introduced to the community by the relevant government entities. Dialogue with the end users and consideration of their concerns and perspectives in decision making through effective stakeholder consultations, as a component of the SEP. This can be used to promote an understanding of the need for reform in cost recovery for the use of the services. Additional mitigation measures may include potential subsidizing part of the cost for the most vulnerable households, as well as introducing tariffs comparable with the current septic tanks' maintenance cost.
Infrastructure Maintenance. <i>If left unattended the infrastructure will deteriorate over time, increasing the risk of accidental pollution, and cost of operation-</i>	The government will continue to and improve on covering the cost of managing the wastewater assets and will commit to improving via the introduction of tariffs and/or taxes in a diligent manner.
Climate adaptation: <i>Hurricanes/storms may cause rainwater infiltration which compromises the network resilience. Seismic activity may affect the pipelines and pumping stations' integrity, leading to accidental sewage release.</i>	The current sewerage network has been assessed for probable rainwater intrusion which compromises efficient operation of the system. Hydraulic modelling takes under account the wet season flow variations for ensuring sufficient conveyance capacity.
Sensitive Receptors: <i>Sensitive receptors (schools, houses of worship, medical facilities, etc.) will be in proximity with works sites and may be impacted by nuisance and accessibility limitations.</i>	Contractor shall identify all sensitive receptors before works commencement, consult with affected parties and propose mitigation measures to minimize nuisance, to the supervising engineer's satisfaction.
Employment and/or Income Opportunities: <i>Construction works generally increase employment and income opportunities through job openings and construction materials selling.</i>	The local economy is generally expected to benefit from the works. There will be minimum interruption to business operations

Potential Risks and Impacts	Mitigation Measures
Interrupted access to homes/businesses.	Accessibility to homes and businesses will be maintained to the fullest extent possible. This will be done through clear directions for movement of people, erection of appropriate signage for access, placing of crossings over trenches, and scheduling of works. Also, appropriate media will be used to keep the community fully informed of activities.
Labor and Working Conditions: Fair payments may not always be guaranteed on construction works, especially for unskilled labor. Workers from abroad may need to be introduced.	The NPRB has developed Labor Management Procedures (LMP) applicable to the project, which has been publicly disclosed. The project has a GRM for workers detailed in the general NPRB's institutional GRM. The contractor will also keep employment records.
SEA/SH, Substances, Criminality, Improper behavior. <i>Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH) or improper behavior is a possibility on/around construction sites.</i>	-Code of Conduct shall be signed by all project workers (direct and contracted) before starting works, including provisions on SEA/SH. -All project workers (direct and contracted) will receive training on SEA/SH. Contractors and the supervision firm will provide sensitization trainings to their employees. -NRPB has in place a GRM for all stakeholders and workers, which can receive SEA/SH grievances. -Contractors will have in place a general GRM and one for workers, which can receive SEA/SH grievances.
Induced Disagreement Due to Works: <i>Hindrance of traffic and restricted accessibility to homes/businesses may result in disagreement coming from local community.</i>	Stakeholders' consultations and awareness campaigns will be held periodically during project implementation as a component of the Stakeholder Engagement Plan (SEP) to address matters. Contractor shall inform affected residents/businesses for the upcoming works and measures in place.
Contractor's ESHS Compliance: <i>There is a risk that civil works contractors may not fully comply with the ESHS requirements of the project activity and thus increasing the potential of occupational injuries, community nuisance and hazards and environmental accidents.</i>	-Contractors will need to engage experienced and qualified ESHS personnel. - MSIPs and Health and Safety Manual will be prepared by contractor and approved by Supervising Engineer -A Supervisor will be engaged for monitoring performance and compliance -Contractor will be preparing monthly reports -Contractor will be reporting incidents/accidents
Stakeholder Engagement: <i>Inadequate stakeholder engagement and information disclosure may hinder successful sewage network design and implementation.</i>	- NPRB has developed and is implementing a SEP. - Environmental and Social risk management documents are publicly disclosed. - The NPRB's institutional GRM is in place for resolving complaints

2 Purpose and Contents of the Environmental and Social Management Plan

2.1 ESMP and Next Steps

NRPB has developed a Preliminary ESMP for the network expansion, which was submitted for the World Bank's prior review and no objection. WB cleared the document on October 25th, 2024 and it was then disclosed on NRPB's website on November 4th, 2024.

The ESMP is intended to be a practical tool during project activity design, monitoring and implementation and describes the steps involved in identifying and mitigating potential negative environmental and social impacts induced by the Project activity related to the network expansion. The ESMP includes a detailed screening of the risks and impacts of the project's activity related to the network expansion, the mitigation measures to avoid or minimize any negative impact, the relevant World Bank's ESSs, and the budgeting for the costs of the proposed measures.

During the implementation phase of the project activity, the technical details of the works are being prepared, informing about the exact routing of the network expansion, type of materials/equipment to be used, bill of quantities and all other specifications that will help to better understand the scope details.

Now that those technical details are known, the NRPB has updated the Preliminary ESMP, reassessed the E&S screening and proposed mitigation measures accordingly and has consulted the updated ESMP with stakeholders on December 10, 2025. The design has been finalized and the updated ESMP document, which reflects the final design, is shared with the World Bank for approval, and thereafter will be considered as the Final ESMP and disclosed before the launch of the works tender.

2.2 Contents of the ESMP

This ESMP consists of the following sections:

- **Section 1:** Executive Summary
- **Section 2:** Purpose and Contents of the ESMP.
- **Section 3:** Project Description. This section describes the activities carried out under the Project, background and cost.
- **Section 4:** Legal and Policy Framework. This section explains the relevant ESSs and the relevant national legislation applicable to the project.
- **Section 5:** Baseline Environmental and Social Conditions. This section describes the existing environmental and social conditions of the project activity area.
- **Section 6:** Environmental and Social Risks and Mitigation Measures. This section describes the environmental and social setting of the project activity area and potential environmental and social impacts and risks associated with the project activities. It also describes proposed detailed management plans, mitigation measures to address these impacts and risks and a monitoring plan.
- **Section 7:** Implementation Schedule for Environmental and Social Risk Management Instruments
- **Section 8:** Project Institutional Arrangements and Capacity. This section describes the institutional arrangements for implementation of the project and the ESMP.

- **Section 9:** Annexes.

3 Project Description

The objectives of the Project are to (i) increase access to safely managed sanitation services; and (ii) improve sustainability and resilience of wastewater management. The project will consist of three components:

1. Wastewater infrastructure investment
2. Technical assistance for sustainable and resilient sanitation management
3. Project management

While the direct project beneficiaries from new sewerage access will be around 10,500 people residing in the priority areas that are expected to be covered by the project financed sewerage expansion, the majority of Sint Maarten population will benefit from improved septic tanks management, more efficient WWTP operation, and safer environment and improved water quality on the island.

3.1 Project Components

The Project components are as follows:

Component 1: Wastewater infrastructure investment

Identification, design, supervision, rehabilitation, expansion, improvement, operation, and maintenance of the Sint Maarten public infrastructure for wastewater collection, treatment, and disposal, including *inter alia*:

1.1 Improving the coverage and resilience of wastewater collection, by:

- (a) expanding the existing sewerage networks to enable connections for residents and commercial enterprises, including decommissioning of old structures from the sewerage network system;
- (b) rehabilitating critical parts of the existing sewage system to improve its climate resilience and increase its operational efficiency;

1.2 Rehabilitating and upgrading operation of the existing A. TH. Illidge Wastewater Treatment Plant, including: upgrades of both wastewater treatment and sludge treatment lines, upgrades of equipment needed for measurement and analysis of wastewater, improvements of plant energy efficiency, upgrade of plant SCADA, and support to the Recipient to prepare the contract for the operation of the plant and wastewater collection system.

Component 2: Technical assistance for sustainable and resilient wastewater management

Development of the framework for the provision of sustainable and resilient wastewater services, through:

2.1 Strengthening the capacity of VROMI for planning, regulation, and supervision of wastewater services through training, knowledge transfers, and IT support, including preparation of a roadmap for improving VROMI capacity.

2.2. Strengthening of the legal, policy, and regulatory framework on provision of sustainable and resilient wastewater services by building on existing plans and ordinances, including the developing and adoption of a financially viable wastewater management model, development and adoption of a proposal for a sustainable and viable wastewater management financing model, support to the private sector contracting for operation of the wastewater system, and establishment of an enabling policy framework to enhance service provider's operational, financial, and institutional capacity to cope with climate- and non-climate related disasters and shocks.

2.3. Developing a national sanitation strategy together with implementation plans for phased expansion of said strategy and a wastewater management system.

2.4. Improving management of fecal sludge from septic tanks, through the review and development of locally appropriate standards for safe containment, collection, and treatment of fecal sludge; licensing and monitoring of fecal sludge emptying service providers.

2.5. Developing focused technical analysis on understanding the effects of wastewater pollution on coastal water quality, which would feed in to design of a seawater quality monitoring system and the identification of additional measures for reduction of surface and seawater pollution.

2.6. Developing and testing a system for monitoring seawater quality in coastal areas/beaches and the surface water quality of inland ponds.

Component 3: Project management (US\$2 million)

Strengthen the project management and coordination capacity of the Project Implementing Entity, including coordination and technical supervision of Project implementation, financial management, procurement, monitoring and evaluation, environmental and social standards management and oversight, and supporting Operating Costs including: (i) project monitoring and evaluation activities; (ii) environmental and social risk mitigation measures; (iii) training of Project Implementing Entity and Recipient staff; (iv) annual audits for the Project and providers; and (v) establishment of citizen engagement measures and grievance redress mechanisms for the Project activities.

3.2 Background of the Project

3.2.1 Wastewater Management in Sint Maarten

Sint Maarten experienced a rapid economic development along with population growth for a few decades, however, this growth was not followed by sufficient investment in the wastewater infrastructure. As a result, existing public sewerage network coverage is severely limited, and covers only some districts and neighbourhoods of Sint Maarten, leaving significant areas and percentage of population uncovered. Although the GoSM has made several wastewater investments over time, including construction of the A. Th. Illidge Road WWTP wastewater treatment plant (WWTP) and development of sewerage infrastructure in various residential and commercial districts, it is estimated that less than 11% of the properties in the country are connected to the wastewater system, corresponding to approx. 2,000 properties, serving around 15% of the population.

The existing sewer network in Sint Maarten extends across six districts - Cul de Sac, Great Bay (Philipsburg), Cole Bay, Little Bay, Lower Prince's Quarter, and Upper Prince's Quarter - and is composed of gravity sewers, pumping stations, and pressurized pipelines. The gravity system comprises approximately 28 kilometers of PVC pipes with diameters ranging from

100 mm to 500 mm, installed between 1990 and the most recent expansion in 2015. Complementing this system are 14 pumping stations, equipped with pumps rated between 2 kW and 46 kW, and about 8 kilometers of pressurized HDPE pipelines with diameters between 75 mm and 315 mm. This intervention will allow the coverage in the district of Cul-de-Sac to increase from 20% to 40% by 2028, or an additional total of approximately 1,000 house connections. At the national level, this corresponds to an increase in overall coverage from 15% to 23%.

The design ensures sufficient hydraulic capacity and service coverage across the targeted areas, taking into account both existing demand and projected population growth. This planned expansion represents a significant step towards improving sanitation services and strengthening the long-term resilience of the wastewater system. The hydraulic model confirms that the existing sewer network in Cul de Sac has sufficient capacity to receive flows from the proposed extensions, enabling integration without risk of surcharge. The hydraulic model further indicates that the proposed sewer network generally operates within the recommended design velocity range of 0.6–3.0 m/s, ensuring satisfactory self-cleansing conditions throughout most of the system.

Furthermore, the country's single municipal biological treatment plant is located on A. TH. Illidge Road (originally constructed in 1992, reconstructed and enlarged in capacity in 2013) and is designed to service the eastern part of the island, including the Greater Philipsburg area, Cul de Sac, Upper Prince's Quarter and the Lower Prince's Quarter areas. The WWTP has the nominal capacity to treat 4715 m³ of sewerage/day (up to 60,000 population equivalents based on BOD5 loading) and is currently operating at approximately 50 percent of its design hydraulic load. Additionally, it receives between 550 m³/d and 1200 m³/d of household septic sludge delivered by trucks to the plant, depending on the season. Treated wastewater is discharged into the Fresh Pond, a small water body further connected to the sea via a blocked canal that is occasionally used for water discharge during large rainfall events.

Climate-change exacerbated extreme weather events are contributing to direct or indirect discharge of untreated wastewater, leading to land, surface water and sea pollution. After storms and hurricanes, septic systems tend to overflow and sludge collection and transport to the country's wastewater treatment plant can eventually interrupt for a considerable period, leading to land, surface water, and coastal water pollution. Even without extreme weather events, in the most densely developed areas of Sint Maarten, significant amounts of septic systems are saturated, leading to groundwater pollution and sewage runover to public roads and private properties. Clean surface, coastal and bathing waters and rich biodiversity constitute the island's major assets, which are essential for the development of a tourism-based economy. However, this richness of nature is acutely threatened by the pollution created by these direct or indirect discharges of untreated wastewater.

The unsatisfactory status of wastewater management in Sint Maarten results from several socio-economic, technical, and institutional issues, including (i) budget deficits which leave no room for capital expenditures, or budget allocation prioritized for other projects; (ii) lack of a wastewater financing model and no tariff or billing system for the provision of public wastewater services (currently there are no tariffs or connection fees being charged to the customers connected to the sewer system); (iii) absence of a formally adopted sewerage development master plan; (v) limited capacity - insufficient data, fragmented knowledge and lack of clearly defined roles and responsibilities among the main stakeholders active in the water sector; and (vi) limited public awareness regarding wastewater pollution, in part due to the absence of comprehensive and continuous water quality monitoring of surface waters (ponds, lagoons, and channels) and along Sint Maarten's beaches.

3.2.2 Trust Fund

Following the devastation caused by Hurricanes Irma and Maria, the GoSM prepared a consolidated National Recovery and Resilience Plan (NRRP) that prioritizes immediate, short, medium and long-term needs for the recovery, reconstruction and resilience of Sint Maarten. This Plan includes estimates of the financial requirements, costs and investments that are necessary to build Sint Maarten back better.

Additionally, in April 2018, to support rapid and sustainable recovery from Hurricane Irma, the Government of the Netherlands established the Sint Maarten Recovery, Reconstruction and Resilience Trust Fund (Trust Fund) for up to EUR 470 million to be managed by the World Bank. The Trust Fund is governed by a Steering Committee composed of representatives from the GoSM, the Netherlands, and the World Bank. Since July 2018 selected activities that include housing repair, school repair, health facilities and services improvement, and social safety nets have been implemented under the framework of the Sint Maarten National Recovery and Resilience Plan (NRRP). To carry-out the implementation of the Trust Fund, the GoSM established the NRPB, which serves as the Project Implementation Unit (PIU) for the GoSM.

The Steering Committee of the Sint Maarten Recovery Reconstruction and Resilience Trust Fund agreed on March 9, 2022, to allocate US\$10M of funding for the improvement of wastewater services (co-financed by GoSM with an additional US\$15M).

Investments in wastewater are proposed to be funded under this Trust Fund, to reduce risks to public health and protect Sint Maarten's Surface waters, ground water and coastal areas (beaches etc.) from environmental degradation, preserving the country's extraordinary natural assets and enhancing the sustainability of recreation for residents and the tourism economy. The proposed project will directly contribute to the two key objectives identified under Focus Area 1 - Promote Sustainable Economic Recovery, which are resilient utility services and improved sanitation services.

3.3 Technical Scope of Works

3.3.1 General

The technical scope of works refers only to the first sub-component of Component 1, i.e. the expansion of the sewer network. It does not refer to the upgrade and operation of the WWTP (second sub-component of Component 1), which will be addressed in a separate E&S instrument.

Expansion of Sewer Network.

The proposed project activities consist of a sewerage expansion underground trenching program of approximately 11 km distributed over Cul-de-Sac district of the Eastern Sint Maarten (Dutch Caribbean) geographical coverage, with sewage pipes diameter of 200 mm. Main areas to be serviced by the expansion are the Cul-de-Sac neighbourhoods and part of Cay Hill. As can be seen from image below, those neighbourhoods already have limited sewerage coverage and central pipelines connected to the WWTP, which can be expanded laterally into the neighbourhoods. As with the existing sewer network, the expansion of the network will be undertaken within the existing road infrastructure.

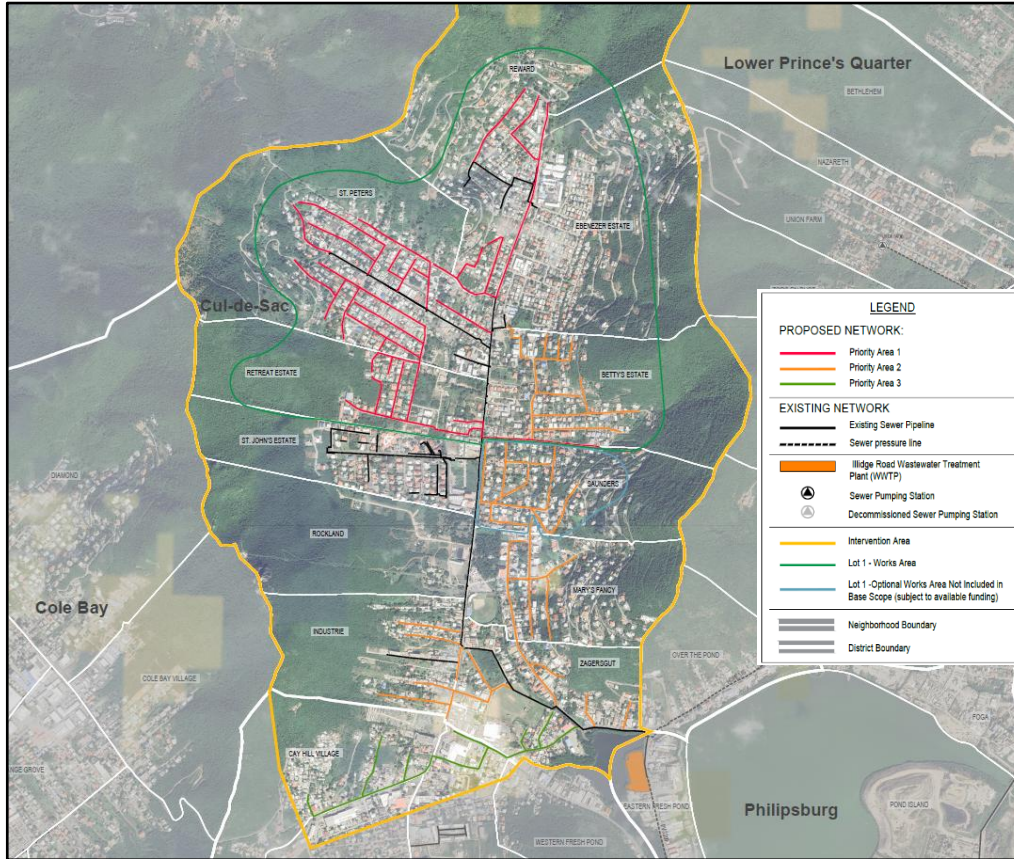


Figure 2: Cul-de-Sac area, showing each neighborhood with current and expanded sewerage network

Given the constrained budget envelope and the need to ensure an implementable and phased investment program, the proposed interventions were prioritized and structured into progressive implementation packages. The sewer network expansion and household connections were organized into three priority areas, enabling a staged roll-out of new service coverage while focusing first on the zones with the highest impact and feasibility. It should be noted that the design for all 3 priority areas is completed.

The base scope to be included in the current procurement package and funded under this project comprises:

All interventions within Priority Area 1, specifically in the following neighborhoods:

- o South Reward,
- o St. Peters,
- o Retreat Estate
- o Betty's Estate

The total extent of the sewer network included in the base scope is estimated at approximately 11km of pipeline, including associated manholes and household connections.

In addition to the base scope, the following interventions may be implemented only in case funds prove sufficient:

- o Saunders Estate neighborhood within Priority Area 2.

These works correspond to an approximate sewer network length of 2.1 km, including associated manholes and household connections.

The major activities to be undertaken to expand the sewer network include:

- Establishing road traffic controls to establish safe working arrangements within the roads. Trenching works (removal surface cover of vegetation, soil, concrete, asphalt). Average cover depth of 2.25 m. Trench width average of 0.7m.
- Installation of sewerage pipelines.
- Installation of HDPE manholes at an average spacing of 30 m.
- Earthworks (backfilling) and resurfacing. Pipes shall be installed on a compacted sand bedding, with a minimum thickness of 200 mm, and covered with at least 200 mm of compacted sand above the pipe crown. Final backfill material shall consist of excavated soil, free from debris or rocks.



Figure 3: Example of trenching works taking place along a narrow street of Cul de Sac

Private household connections

As part of the network expansion, there will be new connections of public sewage to private properties installed, with a total of approximately 1.000 house connections expected. The exact number of properties to be connected will be determined prior to the start of the works by carrying out a door-to-door inventory survey.

Connecting the non-connected private households to the main public sewerage network will require the following activities:

- Installation of starter inspection chambers ($\approx 0.60 \text{ m} \times 0.60 \text{ m} \times 0.80 \text{ m}$, or other approved site-adapted dimensions) inside each property but outside the building, as shown in Figure 3 provided in the previous section;
- Connection to the external inspection pit installed by the Main Contractor, using a nominal-diameter pipe of 125 mm that upsizes to 150 mm where two or more connections merge;
- Optional back-flow preventers may be fitted at the pit outlet, ideally before any other plumbing fixtures or connections, with the intention of always preventing wastewater from returning from the main sewage network;
- Excavation, bedding and back-fill: minimum 100 mm clean-aggregate bedding ($\leq 10 \text{ mm}$ aggregate) followed by layered back-fill (first 20 cm gravel, remainder compacted soil) to achieve the required compaction and slope;
- Slope and hydraulic design: a uniform minimum gradient of 1.5 % for gravity flow; where gravity is insufficient, pump stations must provide 2 %–4 % slope;
- Testing and verification: water-tightness testing of pipes (EN 1610:2015, 3.5 m head, max 6 m at low end) and watertightness testing of inspection chambers before and after back-fill; failure triggers repair at contractor expense;
- Demolition of existing onsite septic tanks/soak pits, safe disposal of wastewater, and restoration of all disturbed private-lot and public-domain elements (pavements, curbs, landscaping, etc.) to original or improved condition;
- Documentation provision of as-built drawings (digital and paper) and monthly progress reports;
- Quality-control & compliance adherence to VROMI Design Standards (Sewerage 2020), the Sewerage Policy (2022) and the Household Wastewater Discharge Regulation (2008), with the higher of any conflicting standards prevailing; all activities require prior written approval from the Supervision Engineer.

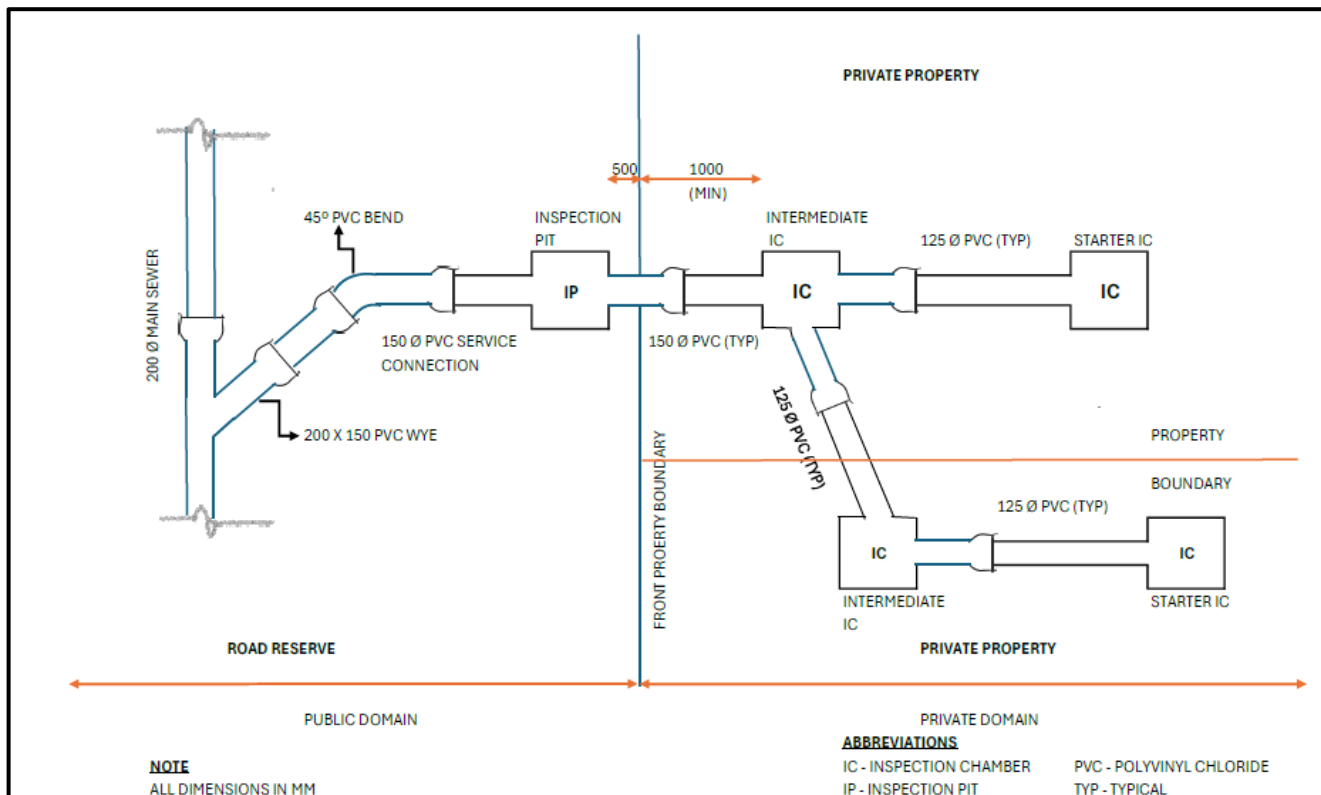


Figure 4: Sketch of main sewer network and how individual house drainage connects

This network expansion and associated household connections works will be completed by until June 2028. The below Table summarizes the anticipated project implementation milestones.

Table 2: Project Implementation Milestones

Milestone	Time
Launch of Works Tenders (Main Works and Private House Connections)	May 2026
Award of Works Contracts	August 2026
Start of Construction Works	September 2026
Completion of Construction Works	June 2028

The table below provides a neighborhood-level breakdown of the proposed sewer network. [Annex 8](#) provides the full list of roads, per neighborhood, where the network will be expanded into, as part of the current project.

Table 3: Total Proposed Sewer Network by neighborhood

District	Neighborhood	Material	Diameter (mm)	Length (m)
Cul de Sac	South Reward	PVC	200	2360
	St. Peters	PVC	200	4360
	Betty's Estate	PVC	200	2566
	Retreat Estate	PVC	200	1770
	Saunders (Optional)	PVC	200	2130
	Total			11056 (+2130)

3.3.2 South Reward

In South Reward, the proposed sewer network expansion comprises the construction of several new sewer lines in strategic locations:

- Pigeon Pea Road: installation of a new sewer pipe approximately 378 meters in length, connecting downstream to the existing network on Arrowroot Road.
- Radish Road and Boulanger Road: construction of a 350-meter section, providing a link to the new sewer line planned along L.B. Scott Road.
- L.B. Scott Road: extension of a new sewer line beginning near Sint Dominic Primary School and running for approximately 970 meters, connecting to the existing system near the Sol Gas Station.
- Pear Road and Peach Road: construction of new sewers with lengths of 185 meters and 308 meters, respectively.

These extensions are designed to enhance wastewater service coverage and connectivity across the South Reward area, while ensuring integration with the existing sewerage infrastructure.

3.3.3 St. Peters

St. Peters is the neighborhood with the most extensive proposed sewer network expansion within the Cul de Sac basin. New sewer lines will be constructed in nearly all streets in the area connecting to the expanded main along St. Peters Road.

The affected streets are as follows:

- St. Peters Road: extension of the existing sewer line by approximately 273 meters, up to the intersection with Soursop Road.
- Soursop Road and adjacent streets: construction of a new sewer network extending through Lemon Road, part of Pomserette Road, and Sugarapple Road. The total length of this section is about 666 meters.
- Genip Road: construction of a 317-meter section connecting to the new network at Lemon Road.
- Pomserette Road and Sugarapple Road: additional sewer lines with lengths of 85 meters and 98 meters, respectively.
- Unnamed street/Apricot Road: a new 526-meter line starting in an unnamed street, continuing along Apricot Road, and discharging into the existing network on St. Peters Road.

3.3.4 Betty's Estate

Currently, the neighborhood of Betty's Estate has no sewer infrastructure. The network will be expanded into this area from the trunk line at Orchid Road. The network will be extended along Betty's Estate Road, and continue to Arbutus Road, with a total length of approximately 565 meters. This line will receive flows from multiple secondary branches, including Orchard Drive (87 m), Ebenezer Road (106 m), Gardenial Road (275 m), Frangipani Road, Passionflower Road, and Poinsetta Road (586 m combined), as well as Camelia Road (360 m).

From Arbutus Road, a new 480-meter connection will be constructed to convey the collected flow to the existing trunk sewer on L.B. Scott Road, thereby linking the new system to the island's sewerage infrastructure. In addition, a separate branch of approximately 197 meters will be built along Orchid Road.

3.3.5 Retreat Estate

As in Betty's Estate, this neighborhood currently lacks sewer infrastructure. The network will be expanded along all streets within the area, providing comprehensive wastewater service coverage. In addition to serving local demand, the new system is designed to intercept part of the wastewater flow generated in the adjacent neighborhood of St. Peters, thereby enhancing regional connectivity and optimizing the capacity of the existing infrastructure.

All wastewater from this neighborhood, together with the diverted flow from St. Peters, will ultimately discharge into the existing trunk sewer along L.B. Scott Road.

3.3.6 Saunders (Optional)

The following interventions may be implemented only in case funds prove sufficient. The proposed sewer network for the neighborhood of Saunders will primarily cover the lower part of the area, where residential density and accessibility are more favorable for infrastructure development.

The new sewer lines will discharge into the existing system along L.B. Scott Road. Owing to its lower elevation, the proposed network along Dahila Road will connect further downstream into the existing sewer on L.B. Scott Road.

The upper part of Saunders is characterized by more dispersed housing and steep terrain, which poses significant technical challenges for sewer installation. Consequently, this area was excluded from the current expansion scope in order to prioritize feasibility and cost-effectiveness. Nevertheless, for design flow estimation, the entire existing and projected population within the neighborhood was considered.

4 Legal and Policy Framework

4.1 World Bank Environmental and Social Standards (ESSs)

The World Bank's Environmental and Social Framework (ESF) enables the World Bank and Borrowers to better manage environmental and social risks of projects and to improve development outcomes. It offers broad and systematic coverage of social and environmental risks. This is done through a set of ten (10) Environmental and Social Standards (ESS) which set out the requirements that apply to Borrowers and Beneficiaries.

The ESSs set out the requirements for Borrowers and Beneficiaries relating to the identification and assessment of environmental and social risks and impacts associated with projects supported by the Bank through Investment Project Financing. The Bank believes that the application of these standards, by focusing on the identification and management of environmental and social risks, will support Borrowers in their goal to reduce poverty and increase prosperity in a sustainable manner for the benefit of the environment and their citizens.

The ten ESSs that establish the standards that the Borrower and the project will meet through the project life cycle, are as follows:

- ✓ ESS1: Assessment and Management of Environmental and Social Risks and Impacts
- ✓ ESS2: Labour and Working Conditions
- ✓ ESS3: Resource Efficiency and Pollution Prevention and Management
- ✓ ESS4: Community Health and Safety
- ✓ ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement
- ✓ ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources
- ✓ ESS7: Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities
- ✓ ESS8: Cultural Heritage
- ✓ ESS9: Financial Intermediaries
- ✓ ESS10: Stakeholder Engagement and Information Disclosure

The following ESSs were determined to be relevant to the Project activity:

ESS 1: Assessment and Management of Environmental & Social Risks and Impacts

This standard sets out the Borrower's responsibilities for assessing, managing and monitoring environmental and social risks and impacts associated with each stage of a project supported by the Bank through Investment Project Financing (IPF), in order to achieve environmental and social outcomes consistent with the Environmental and Social Standards (ESSs).

ESS1 calls for a suitable environmental and social assessment to identify project related risks, impacts, and appropriate mitigation measures, which for the sewer network extension and household connections is presented in this ESMP. The ESMP will be publicly disclosed and consulted with relevant stakeholders, to ensure understanding of the project and its implications.

ESS 2: Labour and Working Conditions

ESS2 recognizes the importance of fair, safe, and non-discriminatory working conditions for all project workers. It prohibits forced and child labor, promotes equal opportunity, and mandates strong occupational health and safety measures. It also requires a clear worker grievance mechanism and proper management of contracted and vulnerable workers. The standard seeks to safeguard workers while supporting sustainable development outcomes such as employment creation and income generation in the pursuit of poverty reduction and inclusive economic growth.

ESS2 applies to all project workers, in this project workers are anticipated to be people employed/engaged directly by NRPB and, through third parties such as, consultants and contractor's workers. Labour Management Procedures (LMP) applicable to the project are developed and are publicly disclosed. The Project will not employ any workers under the age of 18. Contractors shall be requested to develop and operate their own labour Grievance Redress Mechanism (GRM) for workers complaints. Next to that, the NRPB's GRM includes the labour GRM and is open to receive worker complaints, who are direct workers or contracted workers, that might arise in the project. The arrangements for handling project-worker complaints is described in the [LMP](#). The details of the Contractor's GRM will be made available to all workers and the NRPB's GRM for workers is available for all members of the public and for workers on NRPB's website.

ESS 3: Resource Efficiency and Pollution Prevention and Management

ESS3 recognizes that economic activity and urbanization often generate pollution to air, water, and land, and consume finite resources that may threaten people, ecosystem services and the environment at the local, regional, and global levels.

There are potential sources of pollution from the construction and operation of the project activities under component 1. Emissions to air, wastewater discharges and noise levels will need to comply with World Bank EHS Guidelines. Excavation and construction waste will be properly disposed as needed.

ESS 4: Community Health and Safety

ESS4 addresses the health, safety, and security risks and impacts on project-affected communities and the corresponding responsibility of Borrowers to avoid or minimize such risks and impacts, with particular attention to people who, because of their particular circumstances, may be vulnerable.

ESS4 is relevant to the project, since construction works may impact the urban community where those sites are located, increasing traffic/congestion and road accidents risks, noise & vibration levels, releasing dust to air and creating nuisance to sensitive receptors.

ESS 5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement

ESS5 is not considered relevant. Impacts covered under ESS5 during the civil works associated with the expansion and rehabilitation of the sewer network will be part of the exclusion list included in [section 6.9](#) of the ESMP. Locations requiring purchase of land or resettlement are not be selected for intervention under the project activity. Agreements will be signed with beneficiaries before carrying out the household connections.

ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources

ESS6 recognizes that protecting and conserving biodiversity and sustainably managing living natural resources are fundamental to sustainable development and it recognizes the importance of maintaining core ecological functions of habitats, including forests, and the biodiversity they support.

The wastewater from the expanded sewerage network will be directed to the existing WWTP and the treated wastewater will be discharged into the Fresh Pond. The Fresh Pond has a relatively lower salinity compared to other water bodies and a 2007

assessment by BirdLife International designated it as an Important Bird Area due to six bird species that are either globally threatened or range-restricted

ESS 8: Cultural Heritage: This standard sets out measures designed to protect cultural heritage throughout the project life cycle. It recognizes that cultural heritage provides continuity in tangible and intangible forms between the past, present and future. People identify with cultural heritage as a reflection and expression of their constantly evolving values, beliefs, knowledge and traditions.

ESS8 is relevant to the project activity since chance finds are possible during the excavation works. The trenching works will take place in proximity to five cultural heritage sites, which are listed in [section 5.6](#) of this ESMP. Provisions for managing potential impacts to cultural heritage, consistent with ESS8, are included in the mitigation measures of Section 6.2 and the Chance Finds Procedure under [Annex 1](#) of this ESMP.

ESS 10: Stakeholder Engagement and Information Disclosure

ESS10 recognizes the importance of open and transparent engagement between the NRPB and project stakeholders as an essential element of good international practice. Effective stakeholder engagement can improve the environmental and social sustainability of projects, enhance project acceptance, and make a significant contribution to successful project design and implementation.

A [Stakeholders Engagement Plan \(SEP\)](#) was developed for the project, that was publicly disclosed and consulted upon, which includes a schedule for engagement with the stakeholders as plans for civil works and services are developed and finalized.

4.2 Sint Maarten National Legislation

Sint Maarten, previously part of the Netherlands Antilles, became an autonomous country within the Kingdom of the Netherlands on 10 October 2010. The Kingdom of the Netherlands remains the 'State' under international law and is therefore constitutionally responsible for foreign relations (such as treaty-making affairs) and defence (for more information, see section 4.5). However, the GoSM has full autonomy over internal affairs, including (inter alia) the realization of applicable international environmental obligations and developing, implementing and enforcing domestic environmental legislation.

According to Article 22 of the Constitution of the Country of Sint Maarten (the Constitution), 'it shall be the government's constant concern to keep the country habitable and to protect and improve the environment and of the living environment and the welfare of animals'. The GoSM has established some existing policies and regulations regarding E&S management, such as pollution, labor and health issues, which uphold part of article 22 of the Constitution. There are also laws regarding development activities impacting critical habitats and biodiversity, however, degradation continues because of the lack of enforcement. Furthermore, there is still no comprehensive legislative framework related specifically to environmental protection, including no direct legal requirement for carrying out Environmental Impact Assessments (EIAs) for any development projects. Instead, Article 28a of the National Ordinance on Spatial Development Planning (AB 2021, no. 06) paragraph 1 states that written consent in the form of a *civil works permit* is required for works and activities of a *substantive/intrusive nature*¹ (hereinafter referred to as 'major civil works') that will be carried out in areas for which no preparatory decision or (finalized) development plan applies (see Table 4 for more details). More specifically, article 28a grants the Minister of VROMI discretion to decide whether to *grant or withhold written consent* for *specific* works and activities that fall under the six categories listed in paragraph 1 (excavation, road construction, water-related works, tree removal, demolition, water-drainage) and *under what conditions*. As stipulated under paragraph 4, a civil works permit may

¹ Article 28a of the National Ordinance on Spatial Development Planning (AB 2021, no. 06), para. 1, English translation of Dutch text: 'ingrijpende aard'.

be withheld if the proposed works and activities would, from the standpoint of public interest, give rise to *serious objections*² because of *irreversible damage to nature or the environment, the current use of the land and the surrounding lands, or irreversible infringement of the expected spatial development of the land and surrounding land*³. In accordance with paragraph 5, the Minister of VROMI can attach certain conditions to the permit to prevent such *serious objections*. For example, the Minister may set the condition that an ESIA and an ESMP is required as part of the application for a civil works permit (although the ordinance does not prescribe specific instruments). However, such E&S instruments are already required under the World Bank's regulations and may already be in line with article 28a.

Should the GoSM establish any relevant legislation on environmental protection during the implementation of this Project, the Project's Management Team will determine what the project will require to do to adhere to these policies. Although specific environmental protection laws are limited or non-existent, the GoSM has some existing legislation on the management of E&S issues. All applicable legislation, specific requirements and implications on the Project are summarised in the table below.

Table 4: Overview of Relevant National Legislation, Key Requirements and Their Implications for the Project

Applicable National Legislation	Applicable Scope / Specific Requirements	Implication(s) for Project
Permits/Licensing/Planning :		
Art. 28, of National Ordinance on Spatial Development Planning, AB 2021, no. 06⁴	- Written consent in the form of a <i>civil works permit</i> is required for <i>major civil works</i> and activities, including excavation, road construction, water-related works, tree removal, demolition, and water drainage, performed in areas where no preparatory decision or (finalized) development plan applies (para. 1). - Must meet any conditions set forth by the Minister of VROMI for the application of the civil works permit (para. 4).	- A <i>Civil Works Permit</i> will need to be obtained prior to the start of the network expansion. - Project team must prepare and submit any documentation required under any conditions that may be set by the Minister of VROMI for the application for the civil works permit. (<i>Subject to discussions on whether World Bank requirements already meet or surpass requirements under article 28a</i>). - Statutory timeline for application process needs to be taken into consideration. - Decision on granting the civil works permit can take up to 60-days (with possible 30-day extension)

² Ibid, para. 4, English translation of Dutch text: 'ernstig bezwaar'.

³ Ibid, English translation of Dutch text: 'onherstelbare aantasting van de natuur of het milieu; het huidige gebruik van de grond en de omliggende gronden; of, onherstelbare inbreuk op de te verwachten ruimtelijke ontwikkeling van de grond en de omliggende gronden'.

⁴ LANDSVERORDENING van de 8ste maart 2021 tot wijziging van de Landsverordening ruimtelijke ontwikkelingsplanning in verband met het herinvoeren van artikel 28a.

		If granted (or refused), the decision must be made public at the administrative office for 6 weeks for public inspection. Only after this period the works for the project can start.
National Ordinance containing measures with regard to setting up establishments that may cause nuisance, damage or danger, (AB 2015, no. 9) [Hindrance Ordinance]⁵ National Decree, Concerning General Measures, in implementation of Article 1, second paragraph, of the Nuisance Regulation, (AB 2013, GT no. 140) [Hindrance Decree]⁶	Not required for this sub-component 1.1 of the Project, and is already obtained for the WWTP (specifically, HP.12.006).	N/A
Traffic Ordinance (AB 2013, GT no. 133)	Must be observed for planning.	
Labor Legislation:		
Labour Legislation of St Maarten⁷ National ordinance concerning safeguarding labor in enterprises a.k.a. Safety Ordinance (AB 2013, GT no. 438). Safety Decrees I-III (AB 2013 GT no. 348; no. 280; no. 350) A National HIV and AIDS Workplace Policy (2012)	- Project must comply with all applicable labor laws. - The current labour legislation covers the topics of minimum wages, employee dismissal, prohibition of child labor, occupational injury, holidays and special leaves etc; however, there is no specific section on potentially vulnerable workers such as women, persons with disabilities, children of working age, migrant workers, contracted workers, and community workers.	LMP applicable to the project is developed and publicly disclosed, which will ensure compliance with national labor laws. - Contractors must develop their own Labour Grievance Redress Mechanism (GRM) developed for workers complaints, which will further ensure compliance with national labor laws, including the national HIV and AIDS Workplace Policy (2012). - In parallel, the NRPB's GRM includes the labour GRM and is open to receive worker complaints that might arise in the project.

⁵ LANDSVERORDENING houdende maatregelen ten aanzien van het oprichten van inrichtingen die hinder, schade of gevaar kunnen veroorzaken, AB 2015, no. 9; [Hinderverordening].

⁶ LANDSBESLUIT, HOUDENDE ALGEMENE MAATREGELEN, ter uitvoering van artikel 1, tweede lid, van de Hinderverordening, AB 2013, GT no. 140. [Hinderbesluit].

⁷ Landsverordening, van de 21ste oktober 2021 tot wijziging van het Burgerlijk Wetboek en enkele andere landsverordeningen in verband met de vervanging van de zevende titel A van Boek 7A door een nieuwe titel 10 van Boek 7 regelende voorschriften over arbeidsovereenkomsten (Landsverordening arbeidsovereenkomst).

Waste & Pollution Legislation:

• <u>Waste Ordinance</u> (AB 2013, GT no. 135)⁸ • <u>National Ordinance Wastewater</u> (AB 2013, GT no. 142)⁹ • <u>The National Ordinance for the Prevention of Pollution from Ships</u> (AB 2013, GT No. 298)¹⁰	• Promotes sustainable water use and determines how pollution created from waste and wastewater shall be managed. • Article 8 of the National Ordinance Wastewater is essentially the legal basis for component 1 of the project. It creates a legal obligation for households to be connected to the sewage system and forbids the discharge of wastewater in any other manner. General measures laying out how these obligations and prohibitions shall be handled will be determined in a national decree (currently being developed). • In accordance with the Waste Ordinance, the Contractor is required to ensure that excavation and construction waste, as well as wastewater discharges are properly managed and disposed of.	Excavation and construction waste and wastewater discharges will need to be managed (including removal) to comply with national legislation.
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Environmental Legislation

• <u>National ordinance, concerning management of nature and protection of the prevalent fauna and flora</u> (AB 2013, GT no. 809) ('Conservation Ordinance').¹¹ (Implementing legislation for international environmental law – see footnotes in section 4.3)	• The management of protection of flora and fauna, including vulnerable and endangered species, is the responsibility of the GoSM. • Nature Decree, Article 2, <i>general duty of care</i> states: • <i>'Everyone is obliged to observe such care for nature that adverse effects on nature, which may be</i>	Under the general duty of care, the Contractors are obliged to observe such care for nature and mitigate any adverse effects on nature which may be caused by the project works, insofar as reasonably possible. If it is not possible, then negative impacts must be limited as much as possible. The duty of care is therefore in line with World Bank regulations and is part of the legal basis for laying out mitigation measures in the ESMP.
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⁸ LANDSVERORDENING houdende regelen inzake het inzamelen en zich ontdoen van huisvuil, grofvuil, vloeibaar vuil, bedrijfsvuil, autowrakken en andere categorieën van vuil (AB 2013, GT no. 135).

⁹ LANDSVERORDENING, ter bescherming van het milieu en de belasting daarvan door afvalwater te beperken en zoveel mogelijk te voorkomen en daartoe regels te stellen met betrekking tot het afvalwater (AB 2013, GT no. 142).

¹⁰ LANDSVERORDENING houdende regels ter voorkoming van verontreiniging door schepen (AB 2013, GT No. 298).

¹¹ LANDSVERORDENING houdende regels inzake het beheer van de natuur en de bescherming van de daarin voorkomende dier- en plantsoorten (AB 2013, GT no. 809).

○ Sint Maarten Nature Policy Plan 2021 – 2025 has been drafted under the legal basis of the above Ordinances; but not yet finalized. • National Decree, entailing general measures, concerning management and protection of flora and fauna as well as nature parks (AB 2013, GT no. 143) ('Nature Decree')¹². • There are two relevant island policies that are not covered by legislation; • Beach Policy (Public notice August 1994). • Hillside Policy (Public notice No. 986/98). • Final Report on Environmental Standards for Sint Maarten 2025 - assessing the current and upcoming norms of the Hindrance Permit.	<i>caused by his/her actions or omissions, insofar as this can reasonably be required of him/her, are prevented or, if this is not possible, limited as much as possible.</i>¹³ • Measures to protect, conserve, maintain and restore natural habitats and biodiversity have been proposed; however, it has not been legalized. • There is not an adequate legal and regulatory framework to <i>guide</i> environmental and social impact assessments. Incorporating ecosystem services into national capital is not required under current legal mandates. • According to Final Report on Environmental Standards for Sint Maarten 2025) and article 15(a) of the Hindrance Ordinance), the permit applies not only to the establishment of a facility but also to the facility's <i>establishment, expansion, modification of operation(s), and/or operation(s)</i>.	
Energy Legislation:		
• National Energy Policy (2014) • Electricity Concessions Ordinance (AB 2013, GT no. 147)¹⁴ and the Electricity Concession of N.V. GEBE	• Policies and ordinances are in place to promote sustainable energy use. • While there are no obligations to implement sustainable energy use in the project, the national energy policy encourages such practice.	• Potential power outages due to load shedding should be taken into consideration for the planning of project operations and further encourages the use of renewable energy alternatives (which must comply with the concessions ordinance).

¹² LANDSBESLUIT, HOUDENDE ALGEMENE MAATREGELEN, houdende regels over het beheer en de bescherming van flora en fauna alsmede natuurschillen (AB 2013, GT no. 143).

¹³ English translation of Dutch text: 'Eenieder is verplicht zodanige zorg voor de natuur in acht te nemen dat nadelige gevolgen voor de natuur, die door zijn handelen of nalaten kunnen worden veroorzaakt, voor zover dat in redelijkheid van hem kan worden gevergd, worden voorkomen dan wel, indien dit niet mogelijk is, zo veel mogelijk worden beperkt', [National Decree, entailing general measures, concerning management and protection of flora and fauna as well as nature parks](#) (AB 2013, GT no. 143), Art. 2.

¹⁴ LANDSVERORDENING, houdende regels omtrent de verlening van een concessie voor de opwekking en levering van elektriciteit (AB 2013, GT no. 147).

Public Health Legislation:

- | | | |
|---|--|--|
| <ul style="list-style-type: none"> • Regulation of the Minister of Public Health, Social Development and Labour of March 5, 2018, establishing further rules regarding public health (Public Health Regulation)¹⁵ • National Decree, containing general measures, of August 4, 2017, establishing further rules regarding public health (National Public Health Decree) (AB 2017, GT No. 33).¹⁶ | <ul style="list-style-type: none"> • There are various provisions in the National Public Health Decree, in line with World Health Organization standards, that sets forth obligations for the protection of public health. • There are no current regulations that require facilities to inform adjacent communities of potential risks and hazards including hazardous wastes, traffic safety, impacts of labor influx and issues associated with security personnel. | <p>To ensure compliance with the National Public Health Decree, health and safety measures must be in place at project site.</p> <p>Contractors will need to engage experienced and qualified ESHS personnel prepare MSIPs and a Health and Safety Manual.</p> |
|---|--|--|

Monument & Cultural Legislation:

- | | | |
|--|--|--|
| <p>Applicable Law:</p> <ul style="list-style-type: none"> • National Ordinance laying down new rules regarding the foundations for the preservation of monuments (AB 2013, GT no. 336)¹⁷ <p>Legal Basis for Monument designation:</p> <ul style="list-style-type: none"> • National decree, entailing general measures of the execution of the Monuments ordinance (AB 2013, GT no. 50).¹⁸ • National decree pertaining to the criteria for the designation and | <ul style="list-style-type: none"> • Art. 5: <i>'It is prohibited without permission from the Minister of Education, Culture, Youth and Sport (ECYS) to, in whole or in part:</i> <ul style="list-style-type: none"> a) <i>to break down or move;</i> b) <i>to destroy or damage;</i> c) <i>to change in any way;</i> d) <i>to restore, use or have used in a way that damages or endangers it'</i> [i.e. the designated monument].²² • Art 7(3): Chance Finds from excavations and trenching works that consist of movable monuments (i.e. objects that the discoverer should reasonably assume are to be regarded as such) | <ul style="list-style-type: none"> • In case of any chance finds Contractors must ensure that the reporting mechanism under Art. 7(3) is adhered to. • Since activities are expected to be widely distributed throughout most residential areas in Cul-de-Sac, there will be protected locations in proximity to the works. There are 5 designated monuments in the Cul-de-Sac area (listed in section 5.6 of this ESMP), however, it is not expected that the project works will have any impact on the monuments as works will be carried out in the right of way. Therefore, no |
|--|--|--|

¹⁵ Regeling van de Minister van Volksgezondheid, Sociale Ontwikkeling en Arbeid van de 5e maart 2018, houdende vaststelling van nadere regels inzake de publieke gezondheid (Regeling publieke gezondheid).

¹⁶ LANDSBESLUIT, houdende algemene maatregelen, van de 4 augustus 2017 houdende vaststelling van nadere regels inzake de publieke gezondheid (Landsbesluit publieke gezondheid) (AB 2013, GT no. 336).

¹⁷ LANDSVERORDENING houdende nieuwe regels met betrekking tot de grondslagen voor het behoud van monumenten (AB 2013, GT no. 50).

¹⁸ LANDSBESLUIT, HOUDENDE ALGEMENE MAATREGELEN, ter uitvoering van de Monumentenlandsverordening (AB 2013, GT no. 50).

²² English translation from Dutch text: *'Het is verboden zonder vergunning van de Minister van Onderwijs, Cultuur, Jeugd en Sport, hierna te noemen: de minister, of in strijd met bij zodanige vergunning vastgestelde voorwaarden een beschermd monument geheel of ten dele: a.) af te breken of te verplaatsen; b.) te vernielen of te beschadigen; c.) in enig opzicht te wijzigen; d.) te herstellen, te gebruiken of te laten gebruiken op een wijze waardoor het wordt ontsierd of in gevaar gebracht'*, [National Ordinance laying down new rules regarding the foundations for the preservation of monuments](#) (AB 2013, GT no. 336), art. 5.

<u>protection of monuments</u> (AB 2013, GT no. 46).¹⁹ • <u>National decree monuments register</u> (AB 2013, GT no. 49).²⁰ • <u>National Decree on the design and working methods of the Monument Council</u> (AB 2013, GT no. 47)²¹	must be reported to the Minister of ECYS within three days, either by the discoverer him/herself or by the executor of the excavation work or his/her representative. • Currently there is no comprehensive regulation addressing potential adverse impacts on cultural property. • Legal protection relating to commercial use of cultural heritage also remains ambiguous.	other legal implications are expected for the project.
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4.3 Conventions and Guidelines

4.3.1 Convention Agreements

Under international law, the Kingdom of the Netherlands (KoN) is considered as the ‘State’. In accordance with article 3(1)(b) of the Charter of the Kingdom of the Netherlands (2010), foreign relations, including (inter alia) international agreements (such as treaties and conventions) are considered as ‘Kingdom Affairs’. Consequently, the local governments of the four individual autonomous countries, including Sint Maarten, are (usually) not authorized under Kingdom law to independently conclude treaties (except in particular subject matters). Instead, this is a collective process and carried out by the Kingdom Government, which is made up of representatives of all four autonomous countries within the KoN, including Sint Maarten. During the treaty making process, governmental consultations take place and each Kingdom partner decides whether a territorial limitation will be placed on the ‘applicability’ of the treaty (i.e. whether it will extend to all territories of the KoN or only some). As a result, this determines whether a treaty, once signed and ratified, will be implemented on the islands, including Sint Maarten. Thus, not all treaties become applicable to Sint Maarten. Although a treaty is signed and ratified by the KoN, this does not automatically mean that Sint Maarten is bound by this treaty. Two prime examples are the Paris Agreement and the Basel Convention, as the KoN is a party and these treaties have been implemented in the Netherlands, but have yet to be extended to the Caribbean part of the Kingdom, including Sint Maarten. However, in principle, all international agreements ratified by the KoN prior to 10 October 2010, for the then ‘Netherlands Antilles’, including reservations made, continue to apply to the now autonomous countries and special municipalities, including Sint Maarten.²³ Therefore, some environmental treaties are applicable (although not entirely transposed to domestic law), these include:

- The Convention on International Trade of Endangered Species (CITES)²⁴;

¹⁹ LANDSBESLUIT criteria aanwijzing te beschermen monumenten (AB 2013, GT no. 46).

²⁰ LANDSBESLUIT monumentenregister (AB 2013, GT no. 49).

²¹ LANDBESLUIT inrichting en werkwijze Monumentenraad (AB 2013, GT no. 47).

²³ International Maritime Organization (IMO). ‘Status of IMO Treaties, Comprehensive Information on the Status of Multilateral Conventions and Instruments in Respect of which the International Maritime Organization or its Secretary-General Performs Depositary or Other Functions’, (29 September 2021, IMO), p. 18 & 118

<<https://wwwcdn.imo.org/localresources/en/About/Conventions/StatusOfConventions/Status%20-%202021.pdf>> accessed 23 October 2025.

²⁴ Convention on International Trade in Endangered Species of Wild Fauna and Flora (adopted 3 March 1973, entered into force 1 July 1975) 993 UNTS 243 (CITES); Implementing legislation: [National ordinance, concerning management of nature and protection of the prevalent fauna and flora](#) (AB 2013, GT no. 809).

- The Convention on Biological Diversity (CBD)²⁵;
- The Convention on Migratory Species (CMS)²⁶;
- The London Dumping Convention²⁷;
- The Ramsar Convention on Wetlands²⁸;
- The Inter-American Convention for the Protection and Conservation of Sea Turtles (IAC)²⁹;

The following treaties, generally applicable to waste management, were considered in this assessment. However, it was concluded that these treaties are not applicable to this project and thus will not have any implications for the works being carried out for the network extension or household connections.

- Concerning Pollution Protocol from the Land-Based Sources and Activities (LBS Protocol) by the Cartagena Convention³⁰, specifically the Specially Protected Areas and Wildlife (SPA) Protocol.
- International Agreement on Transboundary Shipments of Waste (OECD), formally known as the OECD Council Decision C(2001)107/Final.³¹
- MARPOL convention: The International Convention for the Prevention of Pollution from Ships (MARPOL).³²

4.3.2 World Bank Group Environmental, Health and Safety (EHS) Guidelines

The World Bank Group Environmental, Health and Safety Guidelines (EHSs) are technical reference documents with general and industry specific examples of Good International Industry Practice (GIIP). EHS guidelines are applied as required by their respective policies and standards. The applicability of specific technical recommendations should be based on the professional opinion of qualified and experienced persons. When host country regulations differ from the levels and measures presented in the EHS Guidelines, Projects are expected to achieve whichever is more stringent. World Bank Group EHSs are available at:

²⁵ Convention on Biological Diversity (adopted 5 June 1992, entered into force 29 December 1993) 1760 UNTS 79 (CBD); [National ordinance, concerning management of nature and protection of the prevalent fauna and flora](#) (AB 2013, GT no. 809).

²⁶ Convention on the Conservation of Migratory Species of Wild Animals (CMS) (adopted 23 June 1979, entered into force 1 November 1983) 1651 UNTS 333 (CMS) (also known as the Bonn Convention).

²⁷ Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (adopted 29 December 1972, entered into force 30 August 1975) 1046 UNTS 120 (London Dumping Convention); Implementing legislation: [The National Ordinance for the Prevention of Pollution from Ships](#) (AB 2013, GT No. 298).

²⁸ Convention on Wetlands of International Importance Especially as Waterfowl Habitat (adopted 2 February 1971, entered into force 21 December 1975) 996 UNTS 245 (Ramsar Convention); [National ordinance, concerning management of nature and protection of the prevalent fauna and flora](#) (AB 2013, GT no. 809).

²⁹ Inter-American Convention for the Protection and Conservation of Sea Turtles (adopted 1 December 1996, entered into force 2 May 2001) 2164 UNTS 29 (IAC); Implementing legislation: [National ordinance, concerning management of nature and protection of the prevalent fauna and flora](#) (AB 2013, GT no. 809).

³⁰ Protocol Concerning Pollution from Land-Based Sources and Activities to the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (adopted 6 October 1999, entered into force 13 August 2010) (LBS Protocol to the Cartagena Convention); Implementing legislation: National ordinance, concerning management of nature and protection of the prevalent fauna and flora (AB 2013, GT no. 809).

³¹ OECD Council Decision on the Control of Transboundary Movements of Wastes Destined for Recovery Operations (C(2001)107/Final, adopted 14 June 2001) (OECD Transboundary Waste Decision).

³² International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 (MARPOL 73/78), UNTS 1340, 61 (found at [https://www.imo.org/en/about/conventions/pages/international-convention-for-the-prevention-of-pollution-from-ships-\(marpol\).aspx](https://www.imo.org/en/about/conventions/pages/international-convention-for-the-prevention-of-pollution-from-ships-(marpol).aspx)); See also, International Maritime Organization (IMO), 'Status of Conventions', <<https://www.imo.org/en/about/conventions/pages/statusofconventions.aspx>> accessed on 23 October 2025.

https://www.ifc.org/wps/wcm/connect/Topics_Ext_Content/IFC_External_Corporate_Site/Sustainability-At-IFC/Policies-Standards/EHS-Guidelines.

For this project, the applicable guidelines are:

- General EHS Guideline
- Water and Sanitation EHS Guidelines

4.3.3 Additional International Operational Guidance Applicable to this Project

- OSHA's Occupational Safety and Health Standards 29 CFR 1910
[1910 | Occupational Safety and Health Administration \(osha.gov\)](#)
- OSHA's Safety and Health Regulations for Construction 29 CFR 1926
[1926 | Occupational Safety and Health Administration \(osha.gov\)](#)
- World Bank's Technical Note on "Public Consultations and Stakeholder engagement in World Bank supported operations when there are constraints on conducting public meetings"
[2020-10-01-11-04-717aa8e02835a7e778b2fff46f531a8c.pdf \(portal.gov.bd\)](#)
- St Maarten Covid-19 Health & Safety Updates
[Government of St. Maarten \(sintmaartengov.org\)](#)
- United Nations Sustainable Development Goal #6: Clean Water and Sanitation: ³³"Ensure availability and sustainable management of water and sanitation for all."

³³ [THE 17 GOALS | Sustainable Development \(un.org\)](#)

5 Baseline Environmental and Social Conditions

5.1 Physiography

Sint Maarten is an island country in the Leeward Islands of the Caribbean. It is a constituent country of the Kingdom of the Netherlands. It encompasses the southern 40% of the Caribbean Island of Saint Martin, while the northern 60% of the island constitutes the French overseas territory of Saint Martin. Sint Maarten is centred on 18° 01'N Latitude and 63° 05' W Longitude. The island hinges between the Lesser and the Greater Antilles and lies between the Atlantic Ocean and the Caribbean Sea. Other neighbouring island territories include Saba, Sint Eustatius Anguilla, St. Kitts and Nevis and St. Barthélemy. The total land area of the entire island is 90 km² (15km long and 13 km wide at its widest point). The island features a series of jagged ranges of hills from north to south terminating at Pic Paradis, 424 m the highest point, on the French side of the island. The coastline is a series of beaches, coastal lagoons, rocky areas and mangroves, and the interior is characterized by many valleys, most of which are rather flat.

5.2 Climate

The climate of Sint Maarten is tropical with hot and sunny weather all year around. Daily average temperature ranges from 25 degrees Celsius (°C) in the period from January to March, to 28 °C between June and October. The night temperature rarely drops below 20 °C, while sometimes it can reach 35 to 37 °C during the day from June to November. Average annual rainfall is 1045 mm. In the period from June to November (but mostly from August to October), Sint Maarten can be hit by tropical depressions and hurricanes, as happens in general in the Caribbean.

5.3 Natural Hazards

Sint Maarten is highly vulnerable to natural disasters and adverse climatic events due to its location within the Atlantic hurricane zone. For the past decades, the country has been exposed to high winds, intense storms and numerous hurricanes including: Donna in 1960 (Category 3), Hugo 1989 (Category 3-4), Luis 1995 (Category 4), Lenny (1999), Gonzalo 2014 (Category 2-3) and Irma 2017 (Category 5 on Saffir-Simpson scale). Due to the size of the country, a single storm has the potential to impact the entire population directly. High winds, rainfall and flooding are the principal risk factors while the country is also vulnerable to earthquakes. Coastal areas are exposed to flood risk from storm surge and tsunamis. Increased urbanization along with climate change and limited country capacity to build with resilience adds to its vulnerability to natural hazards.

Sint Maarten has a tropical climate with an average annual rainfall of 1,045 mm. The official Hurricane season starts in June and ends in November making the project sites susceptible to flooding, subsidence, landslides, erosion and other adverse climate conditions. In addition, the project site is also susceptible to seismic activity.

5.4 Biological Environment

The major part of Sint Maarten is covered with secondary vegetation derived from either seasonal formations or dry evergreen formations. Only on the top of the hills, some more or less original semievergreen seasonal forest is found. This type of forest has regionally become extremely rare too. Because of its small area, this forest formation is very vulnerable. On the higher hills of the two ridges in the middle part of the island, and the hills of the eastern ridge, dense secondary woodland vegetation is growing, preventing erosion and with a high scenic value.

Along the coast and inland waterways remains of mangrove forests and other types of coastal vegetation survive, which are of high ecological value, and also have scenic value.

The fauna of St. Maarten is limited in species, not only because of St. Maarten's small size, but also because of habitat destruction, hunting and imported predators. Like the other Lesser Antilles, Saint Martin was never connected to a continent. Subsequently, it has a relatively low diversity of native fauna, particularly those that cannot fly. During the colonial period, most native habitats were destroyed for agriculture, including deforestation of the interior and the draining of mangrove wetlands. It is presumed that at least most of the current forests are secondary growth.

The introduction of non-native animals, both accidental (rats, mice) and deliberate (livestock, mongoose) has also been implicated in the destruction of habitat and the extinction of native species. More recently, development for tourism has resulted in further destruction and degradation of habitats such as the lagoon and the numerous salt ponds on the island.

Without peaks high enough to support a cloud forest, the highlands are primarily tropical deciduous forest, where many trees lose leaves during the dry season. Dry scrubland also makes up a good deal of the interior of the island, particularly in areas that are used as pasture for goats or cattle. There are numerous salt ponds on the island, and most are ringed with mangrove wetlands. While there are dry gulches that may fill temporarily after strong rains, there are no permanent rivers. Beaches and rocky shorelines ring the island, and in areas that are not developed, littoral (seaside) forest or scrub can be found. There is a large, enclosed lagoon in the southwest part of the island. In the seas surrounding the island, a mix of sand, seagrass beds and coral reefs can be found³⁴.

5.5 Demography and Socio-economy

Sint Maarten is a constituent country of the Kingdom of the Netherlands in the Caribbean. It is the most densely populated country in the Caribbean with a population of over 50,000 in an area of 34 square km and a per capita Gross Domestic Product (GDP) of U\$25,381. The official total population of Sint Maarten is 42,577 inhabitants, according to the Census 2022. Historical data from the World Bank indicates steady growth with stabilization around 50,000 inhabitants by 2050

English is the widely spoken language though both Dutch and English are the official languages of the country. In addition to the registered inhabitants, there is a significant group of unregistered migrants, estimated to be between 10,000 and 15,000.

³⁴ Source: The Incomplete guide to the Wildlife of Saint Martin

Tourism and tourism-related industry is the major source employment in the country. Only about 10 % of the land is considered suitable for domestic agricultural production, and over 90% of food products are imported. Nearly 30% of the male working population (45% for female workers) earn less than ANG 2,000 (USD 1,115) per month. Literacy rate in people over the age of 14 is 95.8%.

5.6 Social and Environmental Baseline Conditions of Project's Area of Impact

The location of the civil works under Component 1 are spread out in the neighbourhoods of Cul-de-Sac district in the Eastern part of Sint Maarten. Cul-de-Sac is mainly a residential area (10,346 residents according to the 2022 census) with commercial activity mainly observed along the main roads. In addition, there are: (pre) schools, sports and recreational facilities, medical facilities, pharmacies, community centers, hurricane shelters, churches, grocery stores, and other types of stores like salons, restaurants/bars, gas stations and car shops/garages present.

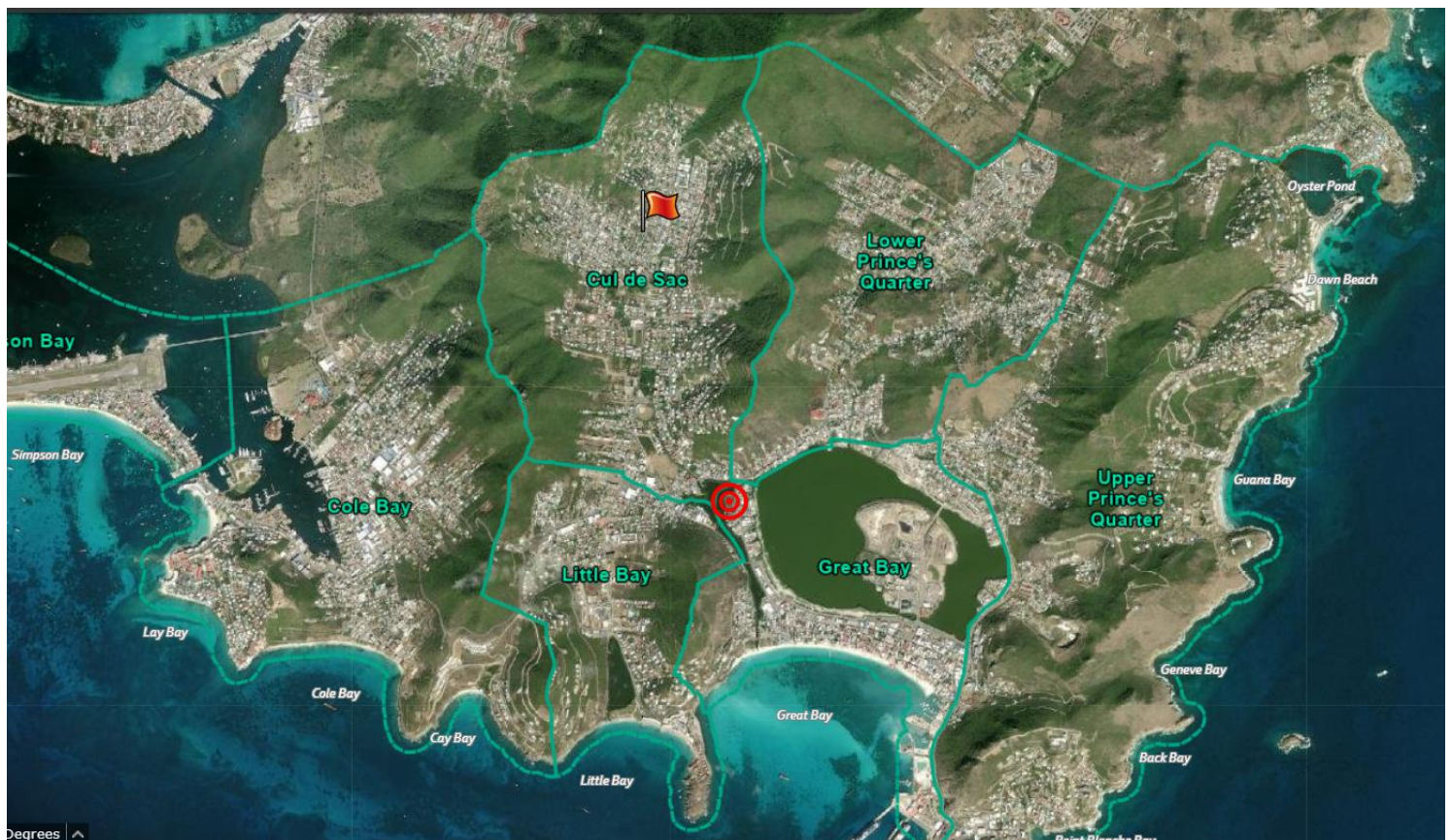


Figure 5: Overview of sewage network expansion area and location of the WWTP

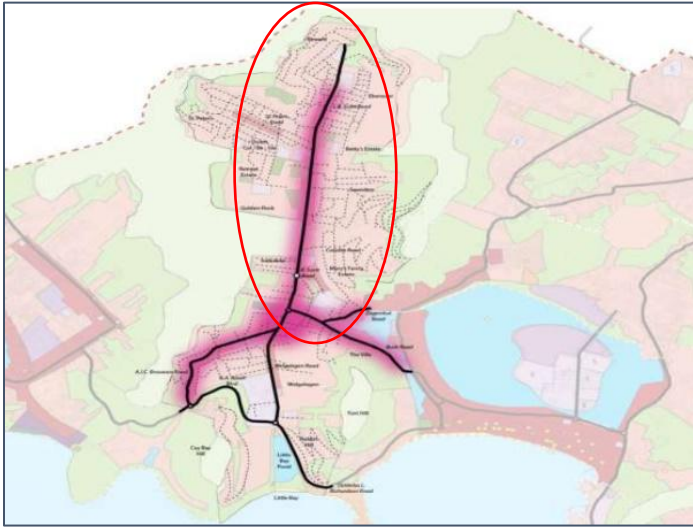


Figure 6: Traffic congestion map of Greater Cul de Sac area

The roads in the residential areas are in general narrow, particularly where parking is done either along the roadside or on the road shoulders. The district of Cul-de-Sac is known as an area with traffic congestions (see also **Error! Reference source not found.**). There is limited to no vegetation present on the road shoulders, but pedestrians may be hindered. In addition, accessibility to certain facilities either by car or on foot may also be affected during project execution.

Amongst others, project affected people include vulnerable groups such as the elderly, low-income households, children, persons with disabilities, women and potentially some marginalized immigrant groups.



Figure 7: Narrow Street within the residential area of Cul de Sac

Cultural Heritage Features

The project site(s) will be in close proximity to Sint Maarten's natural environment and cultural heritage sites, including the following 5 designated monuments and nature conservation sites:

The Cul-de-Sac district contains the following sites of cultural importance (see also Figure 8 below):

1. *Mary's Fancy Plantation*

The Mary's Fancy Plantation was constructed in the 18th century and initially grapes were grown. But when the sugar industry began on St. Maarten the Plantation made large investments to build a sugar factory on the grounds. This

location is now a designated monument that is purchased by the Algemeen Pensioenfonds Sint Maarten who are in the process of restoring it.

2. *Dutch Reformed Cemetery*

This monument is an early 18th century cemetery, with the graves of many early St. Maarten families, including the grave of John Philips, founder of Philipsburg. This location continues to be used as a public cemetery, and also has large trees present.

3. *Emilio Wilson Estate*

This monument consists of two sugar plantation complexes situated on one ownership property, these plantations are called Industry/Rockland and Golden Rock, which date from the 18th-19th centuries. Historic structural ruins are noted at each of the plantation complex areas, with associated various plantation activity areas, as well as the remnants of the plantation African slave village area.

4. *Ebenezer Plantation*

A 19th century complex of structural ruins from a Sugar Plantation, early owned by the Weymouth family.

5. *L.B. Scott Road #105 Monument*

This is a designated monument which is an early 20th century wooden house structure on a stone-mortar foundation, with traditional Caribbean ornamentation, from outside the city area.

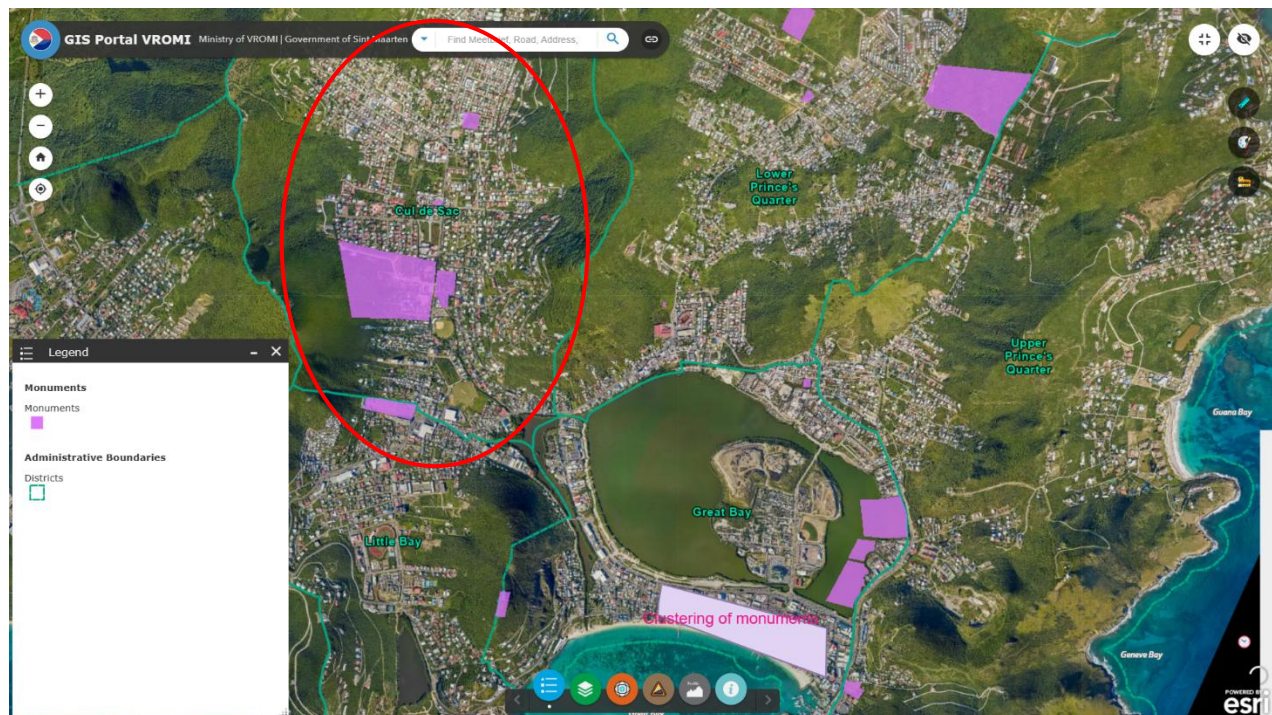


Figure 8: Map of listed monuments. Circled is Cul-de-Sac area.

Sites for nature conservation and biodiversity:

The natural environment (hills, ponds, lagoons, beaches etc. and associated Flora and Fauna) and undeveloped land are scarce resources for St Maarten, but these are not likely to be affected by the project activities. There is minimum vegetation observed in the project sites and significant wildlife is also not commonly present in the residential areas (with the exception of domestic animals). Effects on vegetation and wildlife are thus negligible. The trenching works will take place in residential areas of Low or Very Low Ecological Value (see also Figure 9). There are two sites designated for their nature conservation value in the vicinity:

6. *The Fresh Pond (Important Bird Area)*

This 2.5 km x 1 km pond, known as an Important Bird Area, is situated near the sewage treatment plant and receives effluent, as well as runoff from a major road in the Cul-de-Sac area, making it a significant focus due to its potential environmental impact and its significance as a habitat for unique bird species and surrounded by reeds, mangroves, and coconut palms.

7. *The Great Salt Pond (Designated Monuments, and Important Bird Area)*

While the Great Salt Pond does not lie in the Cul-de-Sac area, it is listed here due its proximity and interconnectedness to the Fresh Pond. Additionally, there are three monumental objects the remaining 18th and 19th century constructed salt pans and dikes of the Great Salt Pond, the salt of which had been exploited since pre-historic times and was one of the primary attractions to initially settle St. Maarten by the Dutch. It is also considered an Important Bird Area because it supports a large seasonal aggregation of laughing gulls.

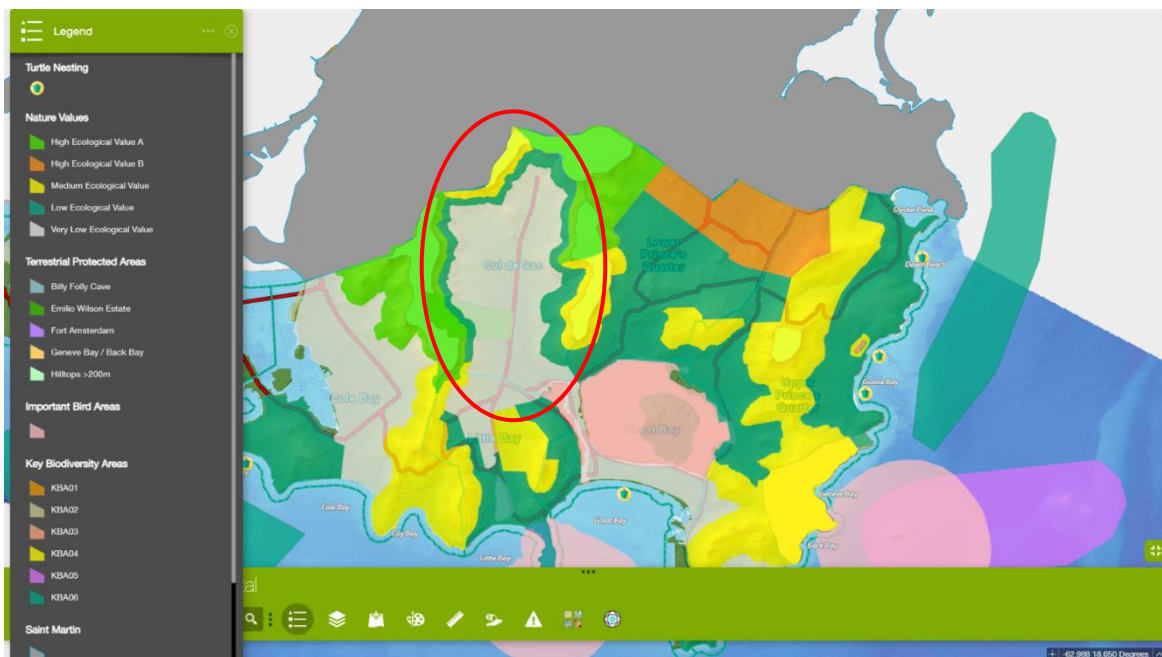


Figure 9: Nature and Environment data map. Circled is Cul-de-Sac area.

Water resources and flooding

Water wells have been historically present in the Cul de Sac area (see Figure 10), but the number of them and it's current use is limited.

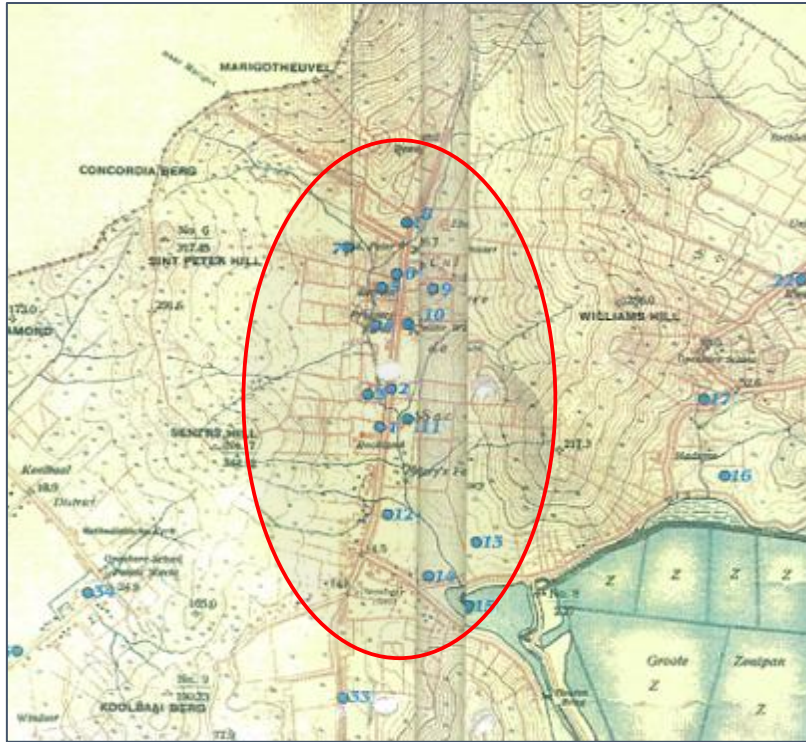


Figure 10: Sint Maarten historic map of wells in the Cul De Sac Area

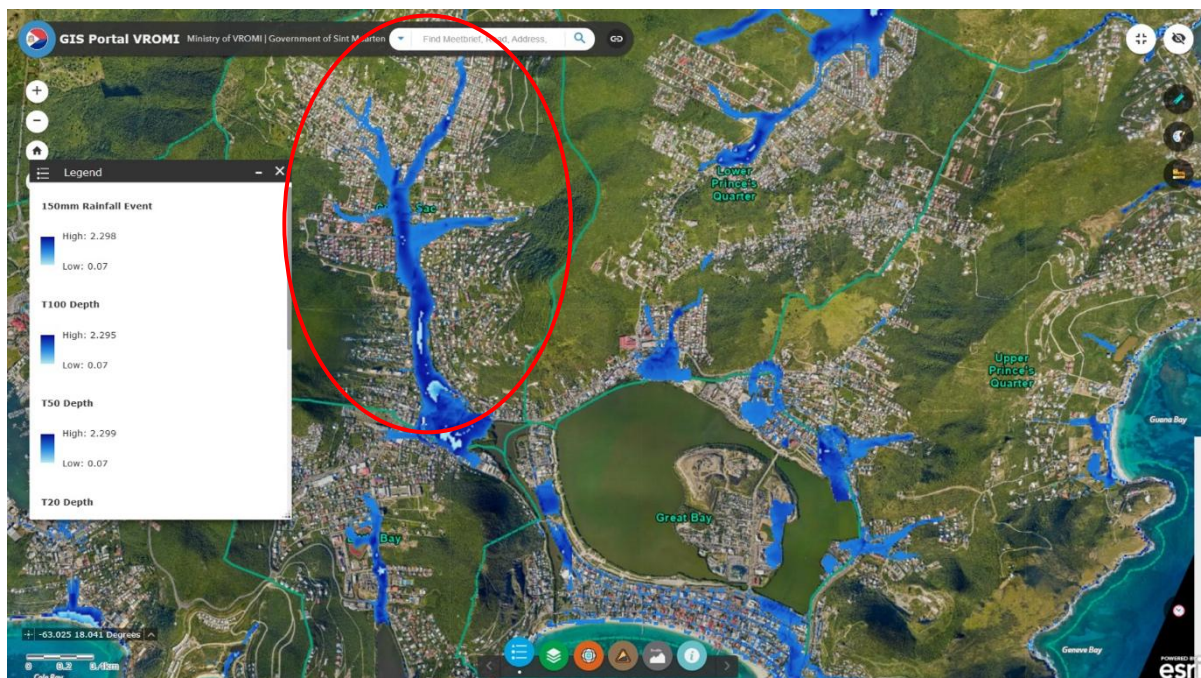


Figure 11: Flood assessment map. Circled is Cul-de-Sac area.

The Cul de Sac catchment has several characteristics contributing to flood risk (see also **Error! Reference source not found.**). For instance, urban areas are situated on low-lying zones. Besides, the existing drainage system, which is composed by channels, has insufficient capacity to avoid flooding. In addition, most of the streets are narrow, limiting the enlargement of these drainage channels. Recurrent inconveniences such as transport disruptions occur during small rainfall events, whereas heavy rainfall causes large-scale flooding with damage to residential and commercial buildings (ALVES *et al.*, 2019). Rainwater from Cul-de-Sac valley is directed into Fresh Pond as seen in Figure 12.

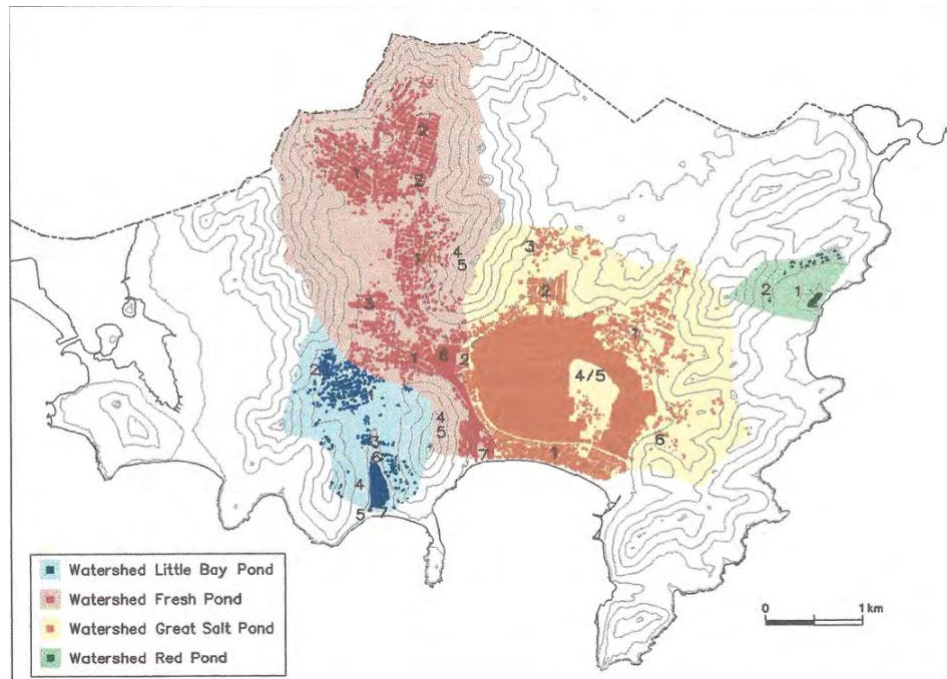


Figure 12: Watershed of Cul-de-Sac and other districts

6 Environmental & Social Risks, Impacts and Mitigation Measures

6.1 Environmental and Social Risks & Impacts

Based on the activities to be undertaken and the receptors identified, this section describes the main environmental and social risks and/or impacts that may occur. Section 6.2 identifies how these risks will be managed and the mitigation measures to be put in place to ensure that the project will proceed in accordance with the World Bank requirements and compliance with law, including minimising disruption and nuisance to the public.

The Screening Matrices presented below (Table 5 & Table 6) help identify the key aspects that need to be further examined and managed by adopting a comprehensive and rigorous set of questions related to a variety of environmental and social aspects.

The information collected will inform the actions of the project towards eliminating, reducing or mitigating potential negative environmental and social impacts. Each risk is presented in the form of a Screening Question, followed by a response and a description of what the likely effect can be. The risk rating is determined by the level of impact (varying levels of significance). Impacts can be negative or positive. Impact scale is classified as Low, Moderate, Substantial or High. Relevance of the impact to each of the subcomponents (1 to 3) and project phases (design, construction/implementation and operation) are also indicated. Actions for mitigation are then explained in the next section.

Impact Categorization	Impact Categorization	Component	Phases
(-) Negative (+) Positive	L – Low M- Moderate S- Substantial H- High	1 Civil Works (Network) 2 Technical Assistance 3 Management	D-Design C-Construction or Implementation O-Operation
Example: (-) (M) (1) (C&O) (Negative impact) (Moderate impact) (Component 1) (Construction & Operation phase)			

Table 5. Environmental Screening Matrix

Screening Questions	Yes/No/? Describe the likelihood of a significant effect	Rating
1. Will construction, operation or decommissioning of the proposed works involve actions which will cause physical changes in the area (topography, land use, changes in water bodies, etc.)?	<u>Yes</u> Construction works will be carried out for placing the underground services. Trenches will be opened for placing the pipelines and excavations works will take place for constructing the pits and manholes. Trenches will then backfilled and road surface repaired.	(-) (L) (1) (C&O)

Screening Questions	Yes/No/? Describe the likelihood of a significant effect	Rating
	Minor changes will be caused during construction stage but these are very localized, temporary and reversible following completion of trenching.	
2. Will construction or operation of the proposed works use increased natural resources such as land, water, materials or energy, especially any resources which are non-renewable or in short supply?	<u>Yes</u> Mineral and plastic imported resources are used for the manufacturing of pipes and equipment. 11kms of PVC pipelines are estimated for the network expansion. Energy will be required for transportation, machinery and tools. Energy is produced from non-renewable resources (fossil fuels). Energy will be consumed for the operation of the pressure sewage lines of the network, although the expansion only concerns gravity lines. Sand will be required for the partial backfilling of the trenches. There is a risk that sand may not be sourced following sustainable practices. Assuming 20cm sand bed depth, 20cm sand covering depth and 80cm wide trenches, then for a total of 1kms, 3.500m³ of sand will be required. The excavated soil will be sifted to remove large particles and used for backfilling the trenches as well.	(-) (M) (1) (C) & (-) (L) (1) (O)
3. Will the works involve use, storage, transport, handling or production of substances or materials which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health?	<u>Yes</u> There are materials that may be used during construction, that could be potentially harmful to human health and the environment if not properly handled. Quantities are usually small and materials are not readily stored onsite. Common hazardous materials that could be present on construction sites may include diesel, gasoline, solvents, adhesives, paints, cleaning fluids, car/equipment engine oil or other fluids, batteries, filters. Sewage may need to be pumped and disposed. During operation, hazardous materials are not expected to be used, but hazardous gases accumulate in the sewage network from the biological processes and sewage may be released from network leakage or pipes flushing.	(-) (L) (1) (C) & (-) (L) (1) (O)
4. Will the works require asbestos removal or extensive mold remediation actions?	Asbestos pipes have not been used in the past. All existing pipes are made of PVC.	n/a
5. Will the proposed works produce solid waste during construction or operation or decommissioning?	<u>Yes</u> Major solid waste streams are the trench/pits excavation soil and trench/pit excavation concrete and asphalt. Excavation soil will be sifted for rocks removal and the fine fraction will be reused as backfilling material for the trenches. Concrete and asphalt will be transported to the landfill where they can be crushed and reused in road works.	(-) (M) (1) (C) & (-) (L) (1) (O)

Screening Questions	Yes/No/? Describe the likelihood of a significant effect	Rating
	Assuming an 80cm wide and 2,25m average deep trench, the excavated soil volume is estimated at 19.800m ³ for the projected 11kms of pipework. During operation, minor solid waste quantities are expected from maintenance activities and pumping station cleaning. An indirect impact is that additional activated sludge will be produced from the sewage treatment at the WWTP.	
6. Will the proposed works release pollutants or any hazardous, toxic or noxious substances to air?	<u>Yes</u> Dust emissions are expected from trenching works and soil sifting. Construction vehicles and machinery will emit exhaust gases. During the operation phase, sewage gases will need to be vented into the air.	(-) (M) (1) (C) & (-) (L) (1) (O)
7. Will the proposed works cause excessive noise and vibration or release of light or heat energy?	<u>Yes</u> Noise and vibration levels will increase during the trenches digging phase mainly. Short term noise levels may be exceeded during specific phases of the works, even with noise control measures in place. This may have a temporary impact over sensitive receivers along the trenching route.	(-) (M) (1) (C)
8. Will the proposed works lead to risks of contamination of land and or water from releases of pollutants onto the ground or into surface waters, groundwater, coastal waters or the sea?	<u>Yes</u> Silt runoff from excavated soil and open trenches may occur during rain events, which will be directed into the ocean or surface waters. Workers' sanitation needs will accumulate grey and sewage wastewater. Spills of diesel, solvents or engine oil during construction is a risk. Sewage from pipelines may be released into the soil. During the operation phase, pipes or equipment failure may result in accidental release of sewage.	(-) (M) (1) (C&O)
9. Will the proposed works lead to risks of water borne disease due to surface waters or seawater contamination from pollutants or pathogens?	<u>Yes, potentially</u> Risks from water borne disease may be exacerbated by accidental release of sewage into surface waters or seawater.	(-) (L) (1) (C&O)
10. Will there be any risk of accidents during construction or operation of the Project which could affect human health or the environment?	<u>Yes potentially</u> Construction activities are associated with workers Health and Safety concerns. Injuries associated with accidents are possible in a construction site. Common risks are struck by object, fall, caught in-	(-) (M) (1) (C&O)

Screening Questions	Yes/No/? Describe the likelihood of a significant effect	Rating
	between. Environmental accident potential is not considered to be significant during construction period. During the operational phase, there is a risk of sewage release due to accidents or malfunction. Probability is low but the impact of such event would be significant. Maintenance of the network is also associated with confined spaces safety risk.	
11. Are there any other factors which should be considered such as consequential development which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the area?	<u>Yes</u> Works will likely spread in a number of roads simultaneously creating a cumulative impact in the local level. Private connections will be carried out by a separate Contractor, probably with a few weeks delay, thus nuisance to residents might accumulate. NRPB is funding multiple reconstruction and repair activities, for numerous beneficiaries. Those activities may coexist and impose a cumulative impact on the area. Specifically for the greater Cul de Sac area, NRPB is funding the repair of numerous school gyms & sports facilities. By the time this project will commence, some of those activities will be still ongoing. There is a small chance of overlapping with the proposed project. The expanded sewage network will increase the volume of wastewater that needs to be treated by the A. Th. Illidge Road WWTP. This is an indirect cumulative impact which is managed under a separate ESMP.	(-) (L) (1) (C)
12. Are there any areas on or around the location which are protected under international or local legislation for their ecological, landscape, cultural or other value, which could be affected by the project?	<u>Yes</u> Since activities are expected to be widely distributed throughout most of Cul de Sac residential areas, it is possible that there will be protected locations in proximity to the works. There are 5 designated monuments in Cul-de-Sac area. Also, the Hillside Policy prevents construction above the 200m altitude line, sets the guidelines for building at the range of 50-200m altitude and proposed 7 hillsides to be conserved as Natural Parks. Since works will take place in the right of way, no impact on protected areas is expected. Section 5.6 provides details about protected areas and monuments in proximity to project works.	(-) (L) (1) (C&O)
13. Are there any other areas on or around the location which are important or sensitive for reasons of their ecology, e.g. wetlands, watercourses or other water bodies, the coastal	<u>Yes</u> Such areas include for example the Great Salt Pond and Fresh Pond, both recognized as an Important Bird Area (IBA). The Cul-de-Sac catchment area discharges rainwater into Fresh Pond, which may be	(-) (L) (1) (C) &

Screening Questions	Yes/No/? Describe the likelihood of a significant effect	Rating
zone, mountains, forests or woodlands, which could be affected by the project?	negatively impacted in case of extensive silt runoff or accidental sewage spillage, but the probability of such events is small. Expanding the sewage network will have a significant positive effect on surface and ocean water quality, by preventing sewage runoff. Since the WWTP discharges the treated water into the Fresh Pond, an assessment is to be carried out for this specific pond, as part of a separate ESMP. Section 5.6 provides details about the ecological value of the project area.	(+) (M) (1) (O)
14. Are there any areas on or around the location which are used by protected, important or sensitive species of fauna or flora, e.g. for breeding, nesting, foraging, resting, overwintering, migration, which could be affected by the project?	<u>Yes</u> See previous point #12 regarding the IBA areas. No negative impact is expected from network expansion. Impact from water effluent on Fresh Pond will be assessed in a separate ESMP for the WWTP. Quality of waters, and consequently flora and fauna, will benefit from the project.	(-) (L) (1) (C) & (+) (M) (1) (O)
15. Are there any inland, coastal, marine or underground waters on or around the location which could be affected by the project?	<u>Yes</u> See above questions #12 & #13. No negative impact is expected from network works, only long-term improvement.	(-) (L) (1) (C&O) & (+) (M) (1) (O)
16. Are there any areas or features of high landscape or scenic value on or around the location which could be affected by the project?	<u>Yes</u> Some roads will be in proximity to areas of scenic value, like the hillsides and ponds. No impact on aesthetics is expected since works are subsurface.	(-) (L) (1) (C&O)
17. Are there any routes or facilities on or around the location which are used by the public for access to recreation or other facilities, which could be affected by the project?	<u>Yes</u> Trenching works will take place in the right of way of public roads. Trench digging will have an impact on accessibility of the roads in general, while the impact will vary according to roads size. Narrow will be mostly impacted, while temporary closing may be required for safety reasons. Access to certain facilities by car or on foot will be hindered during the time of starting the digging of the trench until closing it off. Access to businesses/residences along the planned civil works route will need to be maintained at all times.	(-) (M) (1) (C)
18. Are there any transport routes on or around the location which are susceptible to congestion, or	<u>Yes</u>	(-) (M) (1) (C)

Screening Questions	Yes/No/? Describe the likelihood of a significant effect	Rating
which cause environmental problems, which could be affected by the project?	Main roads leading to Cul-de-Sac are subject to congestion during peak traffic hours. Sewerage network already exists along most part of those roads. For the main L.B. Scott Road, an extension of a new sewer line is foreseen, beginning near Sint Dominic Primary School and running for approximately 970 meters, connecting to the existing system near the Sol Gas Station. Limited trenching is also expected on the locations where the proposed sewer from this project will join the existing sewer. Although main roads are not expected to be significantly affected, the project is expected to impact traffic congestion on and around the works location, by temporary closure of roads, rerouting and slowing down of traffic speed.	
19. Is the project in a location where it is likely to be highly visible to many people?	<u>Yes</u> The works will take place along the roads of residential areas and will be visible by residents and commuters. The effect is temporary since piping will be placed underground and after the backfilling of trenches, the road surface will be restored to its previous condition.	(-) (L) (1) (C&O)
20. Are there any areas or features of historic or cultural importance on or around the location which could be affected by the project?	<u>Yes</u> See question #11 related to registered monuments on the areas of the works. An effect on those monuments or other features is not foreseen since the works will take place in the right of way.	(-) (L) (1) (C&O)
21. Are there potential for chance finds which could be affected by the project?	<u>Yes</u> Chance finds are possible since project involves trenching and excavations works. Possibility of a find is low.	(-) (L) (1) (C)
22. Is the project located in a previously undeveloped area where there will be loss of greenfield land?	<u>No</u> Works will take place on residential areas along the public roads.	n/a
23. Are there existing land uses on or around the location e.g. homes, gardens, other private property, industry, commerce, recreation, public open space, community facilities, agriculture, forestry, tourism, mining or quarrying which could be affected by the project?	<u>Yes</u> Trenching will have an impact on accessibility of the roads in general, while the impact will vary according to roads size. Access to certain facilities by car will be hindered during the time of starting the digging of the trench until closing it off. Access to businesses/residences along the planned civil works route will need to be maintained at all times.	(-) (M) (1) (C)

Screening Questions	Yes/No/? Describe the likelihood of a significant effect	Rating
24. Are there any plans for future land uses on or around the location which could be affected by the project?	<u>No</u> Placing the underground services will not affect future land use, on the contrary it will benefit future residential development.	n/a
25. Are there any areas on or around the location which are densely populated or built-up, which could be affected by the project?	<u>Yes</u> Works will take place on the residential neighbourhoods of Cul de Sac, and thus are expected to affect a significant number of people, including residents, businesses and commuters. The impact is mainly about traffic congestion, road safety, accessibility, noise and dust.	(-) (M) (1) (C)
26. Are there any areas on or around the location which are occupied by sensitive land uses e.g. hospitals, schools, places of worship, community facilities, which could be affected by the project?	<u>Yes</u> Works will be carried out in residential areas. Sensitive receptors likely to be affected include: (pre-)schools, sports- and recreational facilities, medical facilities, pharmacies, community centers, churches and elderly facilities. The impact is mainly about traffic congestion, road safety, accessibility, noise and dust.	(-) (M) (1) (C)
27. Are there any areas on or around the location which contain important, high quality or scarce resources e.g. groundwater, surface waters, forestry, agriculture, fisheries, tourism, minerals, which could be affected by the project?	<u>Yes</u> The natural environment (hills, ponds, lagoons, seawaters) and land are scarce resources for St Maarten. Those resources are not expected to be negatively affected from the project, on the contrary the surface water and ocean quality is expected to improve from the sewerage network expansion.	(-) (L) (1) (C) & (+) (M) (1) (O)
28. Are there any areas on or around the location which are already subject to pollution or environmental damage e.g. where existing legal environmental standards are exceeded, which could be affected by the project?	<u>Yes</u> There are such areas (e.g. Fresh Pond, Great Salt Pond) but are not expected to be affected negatively by the project, on the contrary water quality improvement shall be expected to improve. The Fresh Pond will be assessed under a separate ESMP for understanding the baseline conditions and effect of WWTP effluent discharge. Additionally, under this project, water sampling and analysis is carried out for the Great Salt Pond, Little Bay Pond, Fresh Pond, Great Bay and Little Bay, for establishing the baseline conditions and improvements foreseen from the project.	(-) (L) (1) (C) & (+) (M) (1) (O)
29. Is the project location susceptible to subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions which could	<u>Yes</u> Many of the neighbourhoods where works will take place are subject to flood risk. Hurricane season in St Maarten officially begins in June and ends in late November. Refer to section 5.6 for a map of flood prone	(-) (M) (1) (C) &

Screening Questions	Yes/No/? Describe the likelihood of a significant effect	Rating
cause the works to require additional environmental considerations?	areas. The main impact of flood is the silt runoff from exposed trenches into the waterbodies, which affects fauna. The proposed project will have a positive impact on hurricane resilience by reducing the number of households relying on septic tanks, which may overflow in case of flood.	(+) (M) (1) (O)
30. Will pesticides, rodenticides or any other vector control products be used during any stage of project implementation and operation?	<u>No</u> Those products are not foreseen under this project.	n/a

Table 6. Social Screening Matrix

Screening Questions/Statements	Yes/No Describe the likelihood of a significant effect	Rating
Resettlement Impacts		
1. Do the works require temporary or permanent displacement of people from their current settlement/homes?	<u>No.</u> Works will not affect occupancy in private homes nor business activities in the areas therefore displacement is not part of the project.	n/a
2. Do the works require land acquisition?	<u>No.</u> Works requiring land acquisition will not be funded by the project.	n/a
3. Will the works cause temporary or permanent disruption of access to homes or businesses?	<u>No.</u> Access to homes and businesses will be maintained at all times, but ease of access may disproportionately impact less mobile persons. Works may temporarily hinder ease of access to homes and businesses, specifically by car, which means that less mobile persons will be disproportionately affected.	n/a
4. Will the work reduce the employment opportunities for the surrounding communities?	<u>No.</u> Construction works generally increase employment and income opportunities. Most of the roads that are scheduled to have trenching work, are residential roads. There are a few shops situated alongside these roads. During trenching work, the direct access to the front door may be temporarily affected while the trench is open. Similar trenching work took place during the Underground cabling project of ERP1. The trench in one specific location is expected to stay open only for a limited number of days at a time. Access will be facilitated by the installation of appropriate	n/a

Screening Questions/Statements	Yes/No Describe the likelihood of a significant effect	Rating
	structures (like temporary walkways), traffic and pedestrian management. Previous experience in the Underground cabling project indicates that businesses are able to operate normally under these circumstances. No indications, reports or complaints regarding the number of customers, or loss of income, has been observed or reported.	
5. Will the work cause limits to people's access to the water, public services or other resources that they depend on?	<u>Yes, potentially, temporarily and not all households at once.</u> Access to services and resources may be temporarily affected during excavation works. People with mobility problems may be temporarily hindered by the trenching works due to broken pavements, debris and heavy equipment.	n/a
6. Will there be a reduction in income for the communities?	<u>No.</u> There is no loss of income expected due to the project activities. Regarding the activity that requires trenching, please note the elaboration under point 4, which is equally relevant to this point 6.	n/a
Community Health and Safety		
7. Is there a chance that the work will cause labour influx ³⁵ to the area?	<u>Yes, potentially</u> Labor from abroad may be realized for the project, depending on the nationality of the awarded Contractor. Based on past experience from similar utilities projects (underground cabling), it is believed that local sub-contractors and local market have the capacity of performing the described works without the necessity of hiring from abroad. This kind of work requires a crew of 4-5 people. Depending on the duration of works, a few crews (4-6 based on experience) will be required to progress in parallel for completing the task. There will be heightened activity in the community with an influx of persons (workers) outside of the neighborhood, being present in the neighborhood for a period of time. A minimum 30% of local labour will be paid for the works, as per WB procurement regulations.	(-) (L) (1) (C)
8. Will the influx be considered significant for the resident community?	<u>Not likely</u> Potential impacts will be fully known once a contractor is appointed and decides on the sourcing of the required labor force. Details shall be clarified in consultation with the awarded contractor and will also depend on the timeframe of works execution. The perception of foreign labor replacing local access to jobs could be considered an impact that requires clear, transparent communication on followed processes.	(-) (L) (1) (C)
9. Based on the socioeconomic, cultural, religious and demographic	<u>Not likely</u>	(-) (L) (1) (C)

³⁵ Labor Influx is the rapid migration to and settlement of workers and followers in the project area.

Screening Questions/Statements	Yes/No Describe the likelihood of a significant effect	Rating
qualities of the resident community and the incoming workers, is there a possibility that their presence or interaction with the resident community could create adverse impacts?	Sint Maarten, as a tourism based economy, receives close to 2 million people from abroad annually and the resident community is therefore no stranger to being exposed to different cultures. Similarly, with over 100 nationalities residing in Sint Maarten, cultural diversity is a trait of the country. Adequate communications in the neighborhoods around the project sites when work is starting will be key to explain how works will commence and what communities can expect.	
10. Is there a possibility that the work will cause student delinquency, tardiness and disruptions to schools' regular schedules?	<u>No</u> Such an impact is not expected from the project. Access to schools will not be affected.	n/a
11. Is there a risk that the project will lead to gender disparity?	<u>Yes potentially</u> Employment patterns on construction projects generally favour males, resulting in women being overlooked for jobs on the site or being paid less than men, regardless of their skills and qualifications. This is also a possibility on this project.	(-) (L) (1&3) (C&O)
12. Is there a risk that the project will lead to Sexual Harassment (SH) and Sexual Exploitation and Abuse (SEA)?	<u>Yes potentially</u> The existence of a mixed gender work force at the project site may give rise to incidents of unwanted sexual advances, physical contact or sexual assault. The use of sexually inappropriate language resulting in discomfort is also a risk.	(-) (L) (1&3) (C&O)
13. Is there a possibility that there will be an increased exposure of the community to communicable diseases and other public health concerns?	<u>Yes, potentially</u> Risk of exposure to communicable diseases will be no more than as exists nationally. Accidental release of sewage during construction or operation phase may lead to public health concerns.	(-) (L) (1) (C&O)
14. Is there a risk that there will be increased health and safety risks or concerns for the Community during civil works?	<u>Yes</u> Trenching/excavation works may cause safety risks to the community because of falling in and slipping dangers. Dust and noise from those works, although temporary, may cause nuisance and health issues on vulnerable people.	(-) (M) (1) (C)

Screening Questions/Statements	Yes/No Describe the likelihood of a significant effect	Rating
15. Is there a vulnerable population affected (children, disabled, elderly, minority group etc.) requiring temporary relocation as a result of civil works?	<u>No</u> Temporary relocation will not be caused by the project, but accessibility of the elderly and people with mobility disabilities and children could be hindered by the trenching works.	n/a
Labor Issues		
16. Are there potential hazards to the workers?	<u>Yes</u> Occupational Health and Safety risks are related to construction works. Those risks are mainly associated with falling from a height, strike by object, trench collapse, electricity shock and caught-in/between accidents. Other health/safety factors may include dust breathing, contact with chemicals, noise, etc. During operation phase, risks include disease from microorganisms, inhalation of hazardous gases and entering confined spaces.	(-) (M) (1) (C) & (-) (L) (1) (O)
17. Will the work interfere with the health and safety of the worker/employee of the contractor?	<u>Yes</u> See point #14	(-) (M) (1) (C) & (-) (L) (1) (O)
18. Is there a risk that the workers will not receive the proper PPEs from the contractor?	<u>Yes</u> There is a risk that Contractor will fail to provide the right type of PPE for each activity or adequate number of PPEs for all personnel. There is also a risk of workers not wearing the provided PPEs due to lack of knowledge, training, discomfort and habits.	(-) (M) (1) (C)
19. Are there going to be workers housing facilities?	<u>Yes, potentially</u> Labor from abroad may be realized for the project, depending on the nationality of the awarded Contractor and his labor strategy. Housing facilities may thus be needed depending on the workforce numbers brought from abroad.	(-) (L) (1) (C)
20. Is there a concern that emergency situations procedures for the project site will not be incorporated?	<u>Yes</u> There is a risk that Contractor will fail to develop and implement appropriate procedures to manage emergency situations, as a result of natural or man-made disasters. Work related accidents, Hurricane, Flood, Pollution spill, Fire and Earthquake are the most relevant.	(-) (M) (1) (C)

Screening Questions/Statements	Yes/No Describe the likelihood of a significant effect	Rating
21. Is there a risk that children will be employed or engaged to work on the project?	<u>No</u> Minimum age of employment is 18 years old.	(-) (L) (1) (C)
19. Will workers practice behaviors which cause discomfort for other workers or members of the project communities?	<u>Yes, potentially</u> Due to the heightened interaction of the public with the work force and nuisance caused by traffic arrangements, there could be cases of improper behaviour in violation of the Code of Conduct.	(-) (L) (1) (C)
Community Engagement		
22. Are there concerns that sewerage connections will not be equally accessible to all?	<u>Yes, potentially</u> The project will not provide sewerage network coverage to the whole island of Sint Maarten. Based on the available budget, it is estimated that Cul de Sac district sewerage coverage will increase from 20% to 40%. The project aims at connecting as much as possible households within the available budget. The project will also fund the cost of the final connection between the public network and the private houses, unless presenting unfavorable technical conditions.	(-) (L) (1) (C)
23. Is there a potential for the work to induce disagreements?	<u>Yes, potentially</u> Due to the nuisance caused by traffic arrangements and ease of accessibility, there could be cases of induced disagreement with the public.	(-) (L) (1) (C)
Cost Implications		
24. Is there a possibility that vulnerable beneficiaries will be unable to afford to pay the rates introduced for this service?	<u>Yes, potentially</u> Some households currently pay low or no fees for wastewater disposal, including those who illegally dispose of wastewater in gutters. The transition to the new system and the payment of fees may present a new financial commitment which vulnerable beneficiaries may not be able to meet.	(-) (M)(1&2)(O)

6.2 Environmental & Social Mitigation Measures and Compliance with ESSs Requirements of the Project

Table below provides details about the mitigation measures for preventing and minimizing adverse environmental and social impacts/risks of the network expansion and household connection works. These measures will help deliver the works in accordance to the requirements of the World Bank and national laws and regulations. The responsibility for the implementation of the mitigation measures is indicated.

The legend below explains the abbreviations used for the impact/risk categorization, different project components and project phases.

Impact Categorization	Impact Categorization	Component	Phases
(-) Negative (+) Positive	L – Low M- Moderate S- Substantial H-High	1- Civil Works (Network) 2- Technical Assistance	D-Design C-Construction or Implementation O-Operation
Example: (-) (L) (1) (C&O) (Negative impact) (Low impact) (Component 1) (Construction & Operation phase)			

Table 7: Environmental and Social Mitigation Measures

Relevant Standard	Main E&S Impacts and Risks or Requirements, plus Categorization	Mitigation Measures	Responsibility
ESS1	Contractor/Operator does not have an organized plan to manage and comply with ESHS requirements during the operational phase of the project. (-) (M) (1) (O)	Prior to demobilizing, the Contractor shall prepare as built drawings showing the locations of the sewer network and a plan of the maintenance or management of the network that will be needed. The maintenance plan will identify what is needed to undertake the works safely.	Contractor (Supervisor, NRPB, VROMI to approve)
ESS1	Contractor does not comply with the ESHS contractual obligations on regular reporting. (-) (M) (1) (C&O)	Contractor Reporting & Monitoring: The Contractor shall prepare monthly environmental and social monitoring reports on the status of implementation of ESHS aspects and update review and, update if needed, the C-ESMP quarterly. A Reporting Template has been developed to aid Contractors in fulfilling their monthly reporting obligations. The Template is attached in ESMP Annex 2. The Contractor shall develop and regularly update an online database related to site inspection non-conformances. Regular meetings shall be held where ESHS matters will be discussed.	Contractors
ESS1	Project Management Team are not made aware of incidents and accidents which occur at the project site or project related activities. (-) (M) (1) (C&O)	Contractor reporting on incidents/accidents: The Contractors shall provide immediate (and in writing within 24 hours) notification to the Project Manager and NRPB of incidents as per the categories described in Section 6.7. After the initial written reporting, the Contractor shall undertake a root cause analysis and propose appropriate measures to avoid future incidents. A detailed report shall be submitted in writing, for NRPB's approval, within 3 days. The authorities (VSA) will have to be notified for any injuries or fatalities according to legislation. The Supervision Consultant shall investigate all incidents reported by Contractor. The NRPB Environmental and Social officers will monitor the reporting procedure and interject as necessary. The Contractor shall implement the recommendations of the Supervision Consultant and NRPB to avoid recurrence of these incidents. Further instructions in incidents/accidents reporting can be found in Section 6.7.	Contractors (Supervisor, NRPB to monitor)
ESS1	Civil works and design do not achieve a robust infrastructure and associated	Design firm is using best international practices for the network design and compared them with VROMI's guidelines, proposing improvements as necessary,	NRPB, VROMI, Design

Relevant Standard	Main E&S Impacts and Risks or Requirements, plus Categorization	Mitigation Measures	Responsibility
	environmental protection. (-) (L) (1) (C)	that ensures the system can operate safely and efficiently.	Firm
ESS1	Risk: Potential temporary loss of income by business due to possible accessibility restrictions (-) (L) (1) (C)	In planning the works, the Contractor will be required to: ○ Minimize the duration of traffic disturbance ○ Divide the trenching work into short sections, only moving onto the next section once the previous section has been closed ○ Provide safe crossings for pedestrians and cars while trenching works take place to facilitate customers mobility, at all times. ○ Avoid the closure of roads for traffic, as far as possible.	NRPB
ESS1	Climate adaptation. Rainwater intrusion into the network affecting its operation. (-) (M) (1) (D&C&O)	There are indications that rainwater intrusion is taking place, increasing the hydraulic load to the system and the WWTP. This issue has been assessed as part of the Technical Assessment for the project and measures are proposed to manage it. The Hydraulic modelling developed by the Design Firm takes under account the wet season flow variations for ensuring sufficient conveyance capacity.	NRPB, VROMI, Design Firm
ESS2 Labour and Working Conditions	Laborers, contractors and sub-contractors hired to work on the project are subjected to poor working conditions. Contractor does not comply with local and international labor policies and legislation. (-) (M) (1) (C)	The NRPB has adopted, disclosed and is implementing an LMP applicable to the Project. The Project will not employ any workers under the age of 18 years for any works. NRPB will incorporate the relevant aspects of the project's LMP, including clear and documented employment contracts outlining wages, hours, benefits and conditions of work. Incorporation of Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH) prevention for the workplace, where necessary, into the ESHS specifications of the bidding documents with firms and contractors and supervising engineer. Coordination with local service providers for referrals for survivors.	NRPB
ESS2	Workers aggrieved by the project have no formal means of reporting or lodging	A grievance mechanism will be provided for all project workers to raise workplace concerns.	NRPB

Relevant Standard	Main E&S Impacts and Risks or Requirements, plus Categorization	Mitigation Measures	Responsibility
	concerns. This includes contractors, subcontractors and other members of the public who provide labour to the project. (-) (M) (1) (C)	The NRPB has an institutional GRM that is active, receiving and responding to complaints. This GRM includes a GRM for project workers. The NRPB's Labour GRM has been updated in October 2022 and is available for project workers under the whole portfolio. NRPB's GRM and complaints procedure can be found on the website: Complaints Procedure – National Recovery Program Bureau (nrpbxm.org)	
ESS2		The NRPB will require the contractors to include, for NRPB's approval, a Worker's GRM as part of the C-ESMP, for the workers on the project site to file labour complaints, during the implementation of the works. The contractor will inform the workers of the GRM at the time of hiring and make it easily accessible to them. Contractors should establish a formalized confidential procedure or process for dealing with workers' grievances, separate from the community GRM. Key principles: ✓ assigning a responsible person to organise the resolution of grievances. ✓ defined timeframes for acknowledgement of the receipt of complaints and prompt subsequent resolution. ✓ practical arrangements for maintaining confidentiality, reviewing and resolving grievances, including resources and organisational arrangements. ✓ information on the grievance mechanism that is readily retrievable from a company web site, locations where project information in hard copy has been placed, and/or from company representatives. Grievance mechanisms should be appropriate for the scope of the project to allow effective resolution of issues in a timely manner. ✓ grievances should be registered and logged regardless of whether they were received in writing or verbally. A simple database is advisable to manage and monitor grievances. Further instructions in developing the Contractor's GRM can be found in Project's LMP.	Contractors (NRPB to approve)

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ESS2	Workers' behaviors both on and off the project site may negatively impact the wellbeing of colleagues on site and/or members of the community, reputation of the NRPB. (-) (M) (1) (C)	Code of Conduct for works Contractor: The Bidder shall submit the Code of Conduct that will apply to the Contractor's employees and subcontractors. In addition, the Bidder shall submit an outline of how this Code of Conduct will be implemented. This will include: how it will be introduced into conditions of employment/engagement, what training will be provided, how it will be monitored and how the Contractor proposes to deal with any breaches. The minimum content of the CoC is provided in Annex 4. The CoC shall be explained to workers and signed by them before mobilization to site.	Contractors (NRPB to approve)
ESS2	Workers are at risk of being injured on site due to inadequate knowledge of possible hazards and the required management plan and provisions for prevention. (-) (M) (1) (C&O)	Contractors are obliged to implement all reasonable precautions to protect the health and safety of workers. The Contractor shall prepare a H&S Manual and MSIPs for the different tasks on each site, for Supervising Engineers approval, to indicate how the tasks will be undertaken safely. The HSM will identify all hazards and establish the procedures (such as permit to work) needed to manage them. Contractor shall conduct regular site inspections and incident reporting	Contractors (Supervisor, NRPB to approve)
ESS2	Workers are exposed to hazards at the project site due to a lack of protective gear. (-) (M) (1) (C&O)	The H&SM and MSIPs will identify the required PPE to undertake the activities safely. Contractor shall provide, and ensure usage of, this personal protection equipment (PPE) for workers, such as safety boots, helmets, masks, gloves, protective clothing, goggles, respirators, body harness, and/ or ear protection as needed based on the work requirements and will have First Aid Kits available to address immediate/minor needs. Cutting and grinding power tools shall all have safety guards and spring-loaded switch on.	Contractors
ESS2	OHS	The contractor will be required to barricade all open trenches and provided with signs to prevent risk of workers or the public from falling into them. Trenches will need to be hard barricaded/fenced to physically prevent entry.	Contractors (Main Contractor mostly)

Relevant Standard	Main E&S Impacts and Risks or Requirements, plus Categorization	Mitigation Measures	Responsibility
	Falling from a height risks, around excavations (trenches, manholes, pumping stations, etc) (-) (M) (1) (C&O)	Contractor shall provide ladders, steps, ramps, or other safe means of egress for workers working in trench excavations 1.2 meters or deeper. <i>Ladders for entering trenches, pits and pumping stations shall be:</i> ✓ All straight ladders shall be tied off; ✓ Ladders shall be placed so that they form an angle no greater than 30° from vertical; ✓ Ladders shall extend at least 1 meter above the level to be served; ✓ The Contractor shall inspect ladders for cracked, broken, or defective parts before use; ✓ Set up ladders on stable surfaces; Use non-conductive ladders (e.g., fiberglass) and exercise extreme caution when working near power lines. Manholes shall have step ladders for entry and exit of workers, for O&M purposes.	
ESS2	<i>OHS</i> Entering confined spaces (risk of suffocation) (-) (M) (1) (C&O)	Workers entering confined spaces (e.g. manholes, pumping stations) shall be experienced and have confined space training.	Main Contractor
ESS2	<i>OHS</i> Electricity related risks (electric shock) (-) (L) (1) (C&O)	✓ Assume that electrical lines are energized until proven otherwise; ensure that grounding procedures are accomplished and that all sources of electricity are isolated; ✓ Inspect the work area for downed conductors and do not go near, drive over, or otherwise come into contact with them; ✓ Ensure that all workers assessing and repairing electrical installations are experienced; ✓ Use electrical-specific PPE (gloves, face shields) needed based on the type and approximate voltage of service; ✓ Unless de-energized and visibly grounded, maintain proper distance from overhead electrical power lines (at least 3 m) and/or provide insulating barriers.	Contractors

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ESS2	<i>OHS</i> Collapsing risk of excavations (-) (M) (1) (C)	✓ Provide support to trench walls (unstable soil) to avoid collapsing; ✓ Store all materials, including those removed from the trench or excavation, at least 2 feet away from the sides of the trench or behind a suitable restraining system; ✓ Drain out rainwater or ground water. ✓ Ensure that all adjacent buildings/structures or surface obstructions (e.g., trees, large rocks) near the trench are supported or removed. ✓ All excavations shall be inspected by a competent person at the start of each shift, and no works shall take place until is safe. ✓ Private Houses Connections Contractor shall ensure safe demolition and backfilling of septic tanks and absorption pits, preventing risks of collapse.	Contractors
ESS2	<i>OHS</i> Moving machines. Caught in between or run over risks. (-) (M) (1) (C)	✓ Personnel working on the ground must keep clear of moving equipment, wear high visibility vests and never work behind a working machine. Machine operators are not to move equipment without facing in the right direction; ✓ Ensure moving equipment is outfitted with audible back-up alarms; ✓ Establishing rights-of-way and site speed limits; ✓ Training of workers to verify eye contact with equipment operators before approaching the operating vehicle; ✓ Using inspected and well-maintained lifting devices that are appropriate for the load.	Contractors
ESS2	<i>OHS</i> Poor or no sanitation facilities, no drinking water, inadequate rest. Poor working/labor conditions. (-) (M) (1) (C)	The contractor shall: ✓ Arrange safe drinking water for workers; ✓ Provide adequate sanitation facilities (toilets and washing areas) at each location, that are gender appropriate. The maximum distance between the work face and sanitation facilities shall be less than 100m; ✓ Shade/rain protection and sitting for all personnel.	Contractors
ESS2	<i>OHS</i> Lack of proper OHS training.	Workers shall be given workplace specific induction training before mobilizing them to the site. This will inform workers about the hazards and risks they may face at the workplace, how the risks are controlled and what to do in an emergency. The induction training shall also include, as relevant, the	

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	(-) (H) (1) (C&O)	environmental and social measures and plans in place, e.g. the Code of Conduct, GRM for workers and waste management. Toolbox meetings on different topics, with emphasis on health and safety issues, shall be held daily before works of the day start. The employer should ensure that workers and sub-contractors, prior to commencement of new assignments, have received adequate training and information enabling them to understand work hazards and to protect their health from hazardous ambient factors that may be present. As a minimum the general induction: General Induction for Construction Workers: Safety, Health and the Environment (https://www.wbgkggtf.org/node/3823), shall be provided as training to all Contractor's Personnel.	
ESS2 & ESS4	Lack of proper planning for emergency situations (-) (M) (1) (C&O)	Contractors shall develop emergency procedures for responding to the following events: Fire, Flood, Hurricane, Worker accident, Environmental accident. The person responsible of administrating and organizing the plan will need to be identified. The plan shall identify which resources are available and have contingency plans in place to make up for any deficiencies. A list of emergency phone numbers shall be available on the site. Resources such as fire extinguishers, spills containment equipment, and first aid kits must be maintained and clearly identified. Personnel trained in first aid, should be included in the plan. Particularly for extreme weather events (hurricane preparedness), Contractor shall prepare an MISP that shall describe the Contractor's proposals for monitoring weather conditions, for assigning roles and responsibilities for preparing the site in advance, and the arrangements that will be put in place 3 days, 2 days and 1 day prior to the expected arrival time of the event, for: ○ Monitoring the weather conditions ○ Notifying workers ○ Securing jobsite materials ○ Securing hazardous materials ○ Plan for water removal ○ Ensure the security of the structure ○ Assess the post-storm damage and plan for recovery actions	Contractors

Relevant Standard	Main E&S Impacts and Risks or Requirements, plus Categorization	Mitigation Measures	Responsibility
		○ Have a dewatering pump available at all time in case of flooding risks or heavy rainfalls. ○ Entering into flooded excavations shall be prohibited prior to ensuring the slope stability.	
ESS2	Exposure of workers to infectious diseases (-) (L) (1) (C)	Contractor is being expected to assess the site-specific situation, following national regulations and WHO guidelines, putting in place mitigation measures to avoid or minimize the chance of infection by existing diseases, and planning what to do if either project workers become infected or the workers come in contact with community members affected.	Contractors
ESS3 Resource Efficiency and Pollution Prevention and Management	Natural resources consumption. (-) (M) (1) (C&O)	✓ Contractor shall adopt measures for minimizing fuel consumption from machinery and vehicles by regularly servicing equipment/vehicles, minimizing idle time, minimizing and comingle truck loads/movements. ✓ The Contractor shall be sifting the excavation soil and reuse it for backfilling the trenches, thus minimizing the need for clean sand. Sand used for backfilling shall be sourced from trusted supplier and shall be dredged with the approval of Government authorities. ✓ Sewage pumps installed on pressure lines shall be energy efficient, selected according to expected hydraulic flow and serviced regularly. ✓ Backfilling sand shall be sourced following sustainable extraction practices, that do not have a negative environmental impact and are subject to relevant environmental permitting from source country. Contractor will be responsible to inquire and present the appropriate documentation as part of the C-ESMP.	NRPB, Design Firm, Main Contractor
ESS3 & ESS4	Release of air pollutants. Construction dust and vehicles exhaust emissions. (-) (M) (1) (C)	Contractor will be responsible for minimizing dust emission as a result of works activities, monitoring dust levels, comply with WB EHS limits and apply mitigation measures. Those measures may include among others: ✓ Take appropriate measures to suppress dust generation, especially during active construction works that may create a lot of dust, such as cutting or sawing silica-containing materials, jack hammering, trenching, soil sieving, impact drilling, using heavy equipment, and during the dryer seasons. ✓ Limit soil piling and cover loose materials to avoid wind drifting. ✓ Minimizing dust from material handling sources, such as conveyors and bins, by using covers and/or control equipment (e.g. water suppression);	Main Contractor, Private Houses Contractor as applicable

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		✓ Minimizing dust from open area sources, including storage piles, by using control measures such as installing enclosures and covers, and increasing the moisture content; ✓ Dust suppression techniques should be implemented, such as applying water or non-toxic chemicals to minimize dust from vehicle movements and earthworks; ✓ Truck loads of loose materials should be covered; ✓ Truck speed should be regulated and truck routes should avoid residential areas. ✓ Vehicles and heavy equipment should follow the recommended maintenance schedule to ensure exhaust emissions are within the acceptable limits of the manufacturer. ✓ Inform the community of planned activities which may cause dust emissions in a timely manner. ✓ Planning activities in consultation with local communities and particularly with sensitive receptors, so that activities with the greatest potential to generate dust are planned during periods of the day/week that will result in least disturbance.	
ESS3	Release of wastewater. (-) (L) (1) (C) & (-) (L) (1) (O)	✓ Sewage shall be collected from pipes, pits and pumping stations, and disposed at the WWTP. ✓ Works Contractor shall provide sanitation facilities and collect and dispose black and grey water to the WWTP. ✓ Not allow ponding of water near the construction sites. ✓ Operational phase Contractor shall develop and implement a Leak detection and repair program	Contractors
ESS3	Solid waste disposal. (-) (M) (1) (C) & (-) (L) (1) (O)	Contractor shall identify waste materials expected on this project, and propose to the satisfaction of the engineer methods for their disposal method, and handling procedures. Contractor shall report metrics of material quantity disposed and keep Chain of Custody papers. Contractor shall comply with the Waste Ordinance regulations. Contractor shall characterize the solid waste according to composition, source, types of wastes produced, generation rates, or according to local regulatory	Main Contractor

Relevant Standard	Main E&S Impacts and Risks or Requirements, plus Categorization	Mitigation Measures	Responsibility
		requirements. Effective planning and implementation of waste management strategies should include: ○ Definition of procedures and operational controls for on-site storage; ○ Definition of options / procedures / operational controls for treatment and final disposal; ○ Prevent the commingling of non-hazardous and hazardous waste to be managed; ○ Collect waste timely and ensure safe storage. Avoid contact with rainwater. Protect from wind blow; ○ Dispose only at authorized sites; ○ Keep sites clean and tidy at all times. ○ Provide waste skips, bins or waste bags for temporary storage of waste material on-site (max. 1 day). ○ Excavated soil shall not be stored on the edges along the trenches for a period exceeding one day. During rainy days, excavation soil shall be directly loaded into trucks or skips for immediate removal. ○ Sift excavated soils for rocks removal. The fine material shall be reused as backfilling for the trenches. ○ The Contractor shall propose a yard where sifting will take place, which is subject to approval by NRPB and VROMI. If the yard is different than the current crushing facility at the Landfill site, then Contractor shall prepare an Environmental and Social Assessment, as part of the C-ESMP, for NRPB's approval, for identifying the risks and impacts of the activity and propose appropriate mitigation measures. The soil sifting site cannot be in a residential area, or at a distance less than 200m from the closest residence, or at a distance less than 300m from a sensitive receptor. This yard cannot be in proximity to ecological areas. ○ Concrete, asphalt and rocks will be collected separately and transported to MSW or other authorized facility. ○ The size of waste materials disposed at the landfill shall not exceed 15cm.	
ESS3	Fuels, pesticides and other hazardous substances storage, use and/or accidental release.	Works Contractor shall provide information about the types and amounts of hazardous materials present in the project. This information should be recorded and should include a summary table with the following information:	Main Contractor mostly

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	(-) (L) (1) (C)	○ Name and description (e.g. composition of a mixture) of the Hazmat ○ Classification (e.g. code, class or division) of the Hazmat ○ Internationally accepted regulatory reporting threshold quantity or national equivalent of the Hazmat ○ Quantity of Hazmat used per month ○ Characteristic(s) that make(s) the Hazmat hazardous (e.g. flammability, toxicity) Contractor shall ensure that the following key points are considered: ○ The Material Safety Data Sheets (MSDS) shall be kept on site for inspection. ○ Identify locations of hazardous materials and associated activities on the Sites Layout drawing . ○ Store hazardous materials in an area protected from rain, wind and heat, on impermeable surface. ○ On each road worksite, Contractors shall have a permanent spill kit appropriate for removing fuel, motor oil or other hazardous liquids that might be accidentally released onto a hard surface or soil. At a minimum the spill kit shall contain: a brush and dustpan, a shovel, nitrile/chemical resistant gloves, a heavy-duty plastic bag to dispose of contaminated materials and a 25kg bag of fine bentonite or equivalent absorption material (pads or granules for absorbing spills or leaks; sand is not acceptable). ○ Provide secondary containment, drip trays or other overflow and drip containment measures, for hazardous materials containers at connection points or other possible overflow points. Secondary containment structures shall be inspected to ensure the integrity and remove any liquid accumulation. ○ Not comingle empty containers or tools (e.g. paint buckets and brushes) with other solid waste. Collect and dispose separately in accordance with local requirements. ○ Hazardous waste containers shall be labelled as such. ○ Paints, solvents, and other hazardous fluids should not be poured or washed into the drain. ○ PPEs are available for workers in contact with such materials.	

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		Contractor shall have in place a procedure to handle any accidental spill. Training shall be provided to workers handling such materials. Incorporate in the training information from Material Safety Data Sheets (MSDSs).	
ESS3	Flooding and silt runoff release into waterbodies (-) (M) (1) (C)	○ Contractor shall monitor the weather for upcoming storms and cover the open trenches or use flood barriers along the open trenches, before any storm event hits the island, to prevent soil flushing. ○ Keep temporary stockpiles away from on-site drainage or stormwater flow paths. ○ Place control measures such as diversion drains up-slope or sediment fences down-slope. ○ Keep the trench open for the shortest time practicable and avoid opening them when the risk of rainfall is high. ○ Once utilities are laid, immediately backfill trench with subsoil and compact. Once compaction test is carried out, promptly restore the road to the previous condition, by pouring concrete or asphalt. ○ Sweep the dirt around trenches with a broom after each working day and when works are completed. ○ Have a dewatering pump available at all time in case of flooding risks or heavy rainfalls. ○ In case trenches are filled with water, pump water evenly over a stabilised vegetated area that will filter out the suspended clays. If that is not feasible, other silt control measures need to be considered such as silt bags or a collection tank for sedimentation, prior to discharge. Do not direct discharge from trenches in the event of flooding, towards the existing sewerage/drainage system. ○ Where vegetation was removed the Contractor shall repair the vegetation by top soiling and seeding or by top soiling and planting grass.	GoSM
ESS3	Trees cutting and vegetation clearance. (-) (L) (1) (C)	Contractor will need to inform NRPB for any trees that may interfere with the works and propose measures to work around the obstacle. Trees will only be allowed to be cut down with NRPB's and VROMI's prior approval. Where vegetation was removed the Contractor shall repair the vegetation by top soiling and seeding or by top soiling and planting grass.	NRPB, Contractors

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ESS4	Risk of complaints or disagreements raised due to exclusion of some households from the sewer network due to the selection criteria for the new connections (-) (L) (1) (C&O)	The expansion of the network is planned considering fair and transparent technical and economic criteria, with the aim of connecting as much households as possible within the available budget. As a result some households will be excluded. However, part of the project scope is also to fund the cost of the final connection between the public network and the private houses, as a motivation to pursue as much as possible homeowners to switch over from the use of septic tanks. In the remaining unconnected households/areas, different forms of decentralized sanitation systems will be considered as part of the National Sanitation Strategy (Component 2). To minimize complaints or disagreements stakeholder's consultations and campaigns will be held periodically to ensure that the public is fully informed and to minimize ambiguities.	NRPB, VROMI
ESS4	Ensure the sustainability of the investment (-) (M) (1&2) (O)	For the project's success, it is important that the government commits to cover the cost of managing the wastewater services. The sources for financing sanitation services are: (a) the monies paid by the users of the services ("tariffs"), (b) the monies provided by domestic taxpayers through governments ("taxes"), and (c) the monies provided by foreign countries ("transfers"). The preparation of the financing model to adequacy finance the development and the sustainability of the Project investments is foreseen in 2026.	GoSM
ESS4	Possibility that vulnerable beneficiaries may be unable to afford to pay the rates introduced for this service (-) (M) (1&2) (O)	The cost of the service will be recovered with a combination of government transfers, taxes and introduction of user tariffs. It is intended that introduced tariffs will be comparable with the current septic tanks' maintenance cost, that households already pay, annually or more frequently, for pumping out/cleaning services. Additionally, as part of Component 2, the possibility of potential subsidizing part of the cost for the most vulnerable households will be assessed and might be incorporated in the regulatory reforms. The preparation of the financing model to adequacy finance the development and the sustainability of the Project investments is foreseen in 2026.	NRPB, VROMI, GoSM
ESS4	Danger to members of the community/pedestrians (particularly children, the elderly and people with disabilities) falling into open trenches and	For trenching on public areas, Contractors shall:	Contractors

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	being hurt as a result of loose/uncovered excavated materials. (-) (M) (1) (C)	○ Ensure that trenches excavated in public areas shall be adequately hard barricaded and provided with signs to prevent risk of public falling into them. ○ Properly cover open trenches using cover boards (should be robust/safe for pedestrian/cars) especially at the end of the working day. ○ Trenches in roads with a width less than 3 m must be closed the same day, or covered every day to ensure safe passage of vehicles and pedestrians. ○ During weekends and public holidays all trenches must be closed and properly covered. ○ Outside normal working hours trenches must be filled up and/or covered and made safe by hard barriers and warning lights. ○ Safe pedestrian crossings shall be placed over open trenches to facilitate residents' mobility. ○ Limit the opening of trenches to the minimum necessary length. The minimum length will need to be agreed with the Supervisor. ○ All trenches shall be promptly closed in a timeframe to be agreed with the Supervisor. ○ Limit on-site material storage for areas with limited to no space (e.g. have a truck standby for delivery and collection). ○ Store all materials, including those removed from the trench or excavation, at least 2 feet away from the sides of the trench or behind a suitable restraining system; ○ Remove excavation soil daily from the site. ○ Ensure that all adjacent buildings/structures or surface obstructions (e.g., trees, large rocks) near the trench are supported or removed. ○ Clean off and properly close off the site after each working day.	
ESS4	Traffic and road safety related risks (-) (M) (1) (C)	The Contractor shall: ✓ Always maintain safe access to and egress from the site for the duration of the Works. The Contractor shall be responsible for conducting the Works without putting at risk members of the public or others who may be affected by the Works.	Contractors (as appropriate per scope of works)

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		✓ Not block the local streets/roads for traffic without first obtaining the required authorization from the Ministry of Public Housing, Spatial Planning, Environment and Infrastructure (Ministry of VROMI) and the Ministry of Justice; A Waiver request needs to be submitted to VROMI for approval. ✓ A Traffic layout prepared by the Contractor will be included in the Waiver request. The traffic police will inform the Ambulance and Fire Dept, as to the accessibility and rerouting of the traffic situation during the work period. Pedestrian crossings will need to be including in the plan to facilitate mobility. ✓ In consultation with the Ministry of VROMI inform the General Public of any scheduled blocking of roads (Newspaper ads and PSAs). ✓ In case approval is given for road closure, Contractor shall ensure pedestrian access past the works and to maintain vehicular access to all properties and premises within the closure area. ✓ If a road has to be closed for a period during the roadworks or sufficient road width to cope with traffic cannot be maintained, then detours may be required. When planning traffic detours the following should be considered: (i) keeping detour routes as short as possible, (ii) ensuring that routes for diverted traffic are suitable and can cope with the additional traffic, (iii) ensuring that the signing for diverted traffic is clear, consistent and is maintained. ✓ Employ safe traffic control measures, including road signs and flag persons to warn of dangerous conditions. ✓ Avoid movement of trucks and heavy equipment during traffic peak hours and school drop-off/pickup hours. ✓ The contractor shall manage available parking spaces in a responsible manner, shall encourage or facilitate joint transportation for staff. Personnel parking on the side of the road where works take place will not be allowed.	

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		<u>Traffic signs and control:</u> ✓ Safety precautions must be put in place for the duration of the works to notify the road users, by placing appropriate traffic signs, flashing lights, metal plates, vertical traffic hard barriers, in accordance with specifications provided by the Police Department. ✓ Further in line with local practice and Dutch guidelines, the necessary traffic signs should be present and placed correctly. All road users must be able to perceive the altered traffic conditions well before reaching the work zone, allowing safe reaction. Install appropriate traffic signs, beginning with the outermost signs and ending with those nearest the activity; at least 25m before the start of a trench and 10m after the entire trench. Use only clean, undamaged signage. Stabilise the worksite, erect longitudinal barriers (traffic cones, guide beacons) to prevent personnel from entering traffic.³⁶ If working in an area with intersections, at all corners traffic signs must be installed. ✓ Adequate unobstructed width is required to allow two-way traffic to flow safely past the work site. Where such widths cannot be provided, appropriate traffic control must be considered, such as flag-person, stop/go boards, portable traffic lights, etc. ✓ For narrow streets, where vehicle passage is obstructed by works, a flag-person shall be assigned for directing the traffic flow. ✓ Adequate warning/blinking (reflective or illuminated) lights must be used to ensure clear visibility at night and under reduced-visibility conditions, along the roadside of the trench. ✓ Signing, lighting and guarding equipment must be fixed to prevent it being blown over or out of position by wind or passing vehicles. The use of equipment with built-in weights is recommended. ✓ Regularly check that signs have not been moved or damaged. ✓ Contractor may refer to the <i>CROW Verkeersveiligheidsrichtlijn</i> (Traffic Safety Directive)³⁷ and the <i>CROW Verkeersmanagement</i> (Traffic	

³⁶ Wageningen University & Research. (n.d.). *Werken Langs de Weg*. Wageningen University Repository. <https://edepot.wur.nl/332442>.

³⁷ CROW. (n.d.). *Road-infrastructure-safety-management (RISM-II)*. <https://www.crow.nl/Onderwerpen/road-infrastructure-safety-management-rism-ii/>.

Relevant Standard	Main E&S Impacts and Risks or Requirements, plus Categorization	Mitigation Measures	Responsibility
		Management)³⁸ from the Netherlands for further guidance on traffic safety management during road works. <u>Pedestrians Safety:</u> ✓ The excavated area must be completely closed off to traffic and pedestrians. The trenches must be protected by erecting hard barricades and provided with signs to prevent risk of public falling into them and disallowing unauthorized access. ✓ A safe alternative route for pedestrians must be provided if the footway is to be closed or obstructed. In cases where temporary footways will have to be marked out within the road, they must be adequately signed and protected. Temporary footways should be at least 1m wide. They should be marked out with pedestrian barriers that include a handrail and a tapping rail (for blind or partially sighted people). <u>Crossings for vehicles and pedestrians:</u> Contractor must place safe pedestrian crossings over open trenches to facilitate easy access to all residences, shops, businesses and other facilities, at all times. Crossings shall be appropriate for people with reduced mobility and on wheelchairs. Contractor shall also place safe and robust vehicle crossings to facilitate traffic flow, solid waste hauling, emergency vehicles access and accessibility to all private and public parking spaces.	
ESS4	Unauthorized access to the construction site. Risk of accident. (-) (M) (1) (C)	Open trenches will be hard barricaded and warning signs/bands will be placed to prevent accidents. The site shall be equipped with signage that informs all workers and public of the regulations, hazards and site or job specific safety equipment required. Warning for unauthorized access shall be clearly visible. Contractor will need to specify type, dimensions and number of signs used per site.	Main Contractor

³⁸ CROW Smart Mobility. (2024). *Handboek verkeersmanagement – module regelaanpak* (Publication No. 2024-10). <https://crow-smartmobility.nl/wp-content/uploads/2024/10/Publicatie-Handboek-Verkeersmanagement-Module-Regelaanpak.pdf>.

Relevant Standard	Main E&S Impacts and Risks or Requirements, plus Categorization	Mitigation Measures	Responsibility
		Signage shall be posted for community members with information on different channels available to submit a complaint.	
ESS4	Entry into private properties for the sewage connections (-) (L) (1) (C)	Before the Contractor enters a private home, prior written permission from the owner of the private lot must be obtained by the Contractor and the same submitted to the Supervision Engineer. Such permissions will be obtained through a homeowner agreement, which will (inter alia) include the technical details of the sewage connection. Additionally, all workers shall have the Code of Conduct explained to them and signed beforehand for a thorough understanding on how to conduct themselves appropriately when entering private homes.	NRPB, Private House Connections Contractor
ESS4	Utilities disconnection due to accidental damage (-) (L) (1) (C)	Contractor shall review utility layout drawings and dig test pits or use CAT scanning tools to ensure that no accidental damage to underground utilities will be resulted from works. Contractor shall identify any low laying overhang utilities cables that may interfere with the works	Contractors
ESS4	Nuisance to the Community due to noise. (-) (M) (1) (C)	The Contractor shall: 1. Ensure that the Works do not result in an increase of noise at the nearest off-Site receptor of more than 3dB 2. Establish the baseline noise conditions before starting the works. 3. Regularly measure noise levels and take extra measures in case of non-compliance with the WB standards and limits 4. Install noise control devices, such as temporary noise barriers, noise quilts or deflectors for noisy activities. 5. Respect normal workings hours, from 8am to 5pm. 6. Do not undertake high noise activities before 9am. 7. The potential noise caused from car crossings shall be controlled by Contractor by selecting the right materials and manufacturing techniques, for example in case metal sheets are used as car crossings then those will need to be supported by a sturdy frame to prevent noise caused by bending. 8. Use exhaust muffling devices for combustion engines where possible; 9. Not working outside normal working hours.	Main Contractor

Relevant Standard	Main E&S Impacts and Risks or Requirements, plus Categorization	Mitigation Measures	Responsibility
		10. Maintain all equipment and vehicles to keep them in good working order. 11. Inform the community of planned activities which may cause noise nuisance in a timely manner. 12. Planning activities in consultation with local communities so that activities with the greatest potential to generate noise are planned during periods of the day that will result in least disturbance; 13. Avoiding or minimizing project transportation through community areas where possible; 14. Comingle loads for minimizing load/drop-off movements; 15. Limiting the hours of operation for specific pieces of equipment or operations, especially mobile sources operating through community areas; 16. Re-locating noise sources to less sensitive areas to take advantage of distance and shielding; 17. Developing a mechanism to record, resolve and respond to complaints.	
ESS4	Nuisance to sensitive receptors due to construction activities (-) (M) (1) (C)	The mitigation measures for minimizing noise, dust and traffic disturbance described above should prevent any significant negative impact. Contractor is also responsible for informing the wider Community about the works and actively identifying, before works commencement, the presence of sensitive receptors (schools, medical facilities, etc) and if there are people with health or other conditions, who are sensitive, and could potentially be disproportionately affected by construction nuisance. Receiving of complaints is another channel for identifying people requiring special attention. NRPB has hired a Community Engagement Specialist tasked with ensuring effective community engagement and communication, data collection, information exchange and grievance redress administration for the project affected persons and community who are living in the affected area of the Project.	Main Contractor, NRPB
ESS4	Cumulative impact from other construction activities	The local impact from numerous trenched roads shall be assessed by Contractor in his schedule, especially as relates to traffic arrangements. The Contractor shall execute trenching works across multiple streets with due consideration to traffic flow and public accessibility. A detailed work sequence must be prepared to	NRPB, Contractors

Relevant Standard	Main E&S Impacts and Risks or Requirements, plus Categorization	Mitigation Measures	Responsibility
	(-) (L) (1) (C)	minimize disruption, ensuring continuous access for residents, businesses, and emergency services. NRPB is funding numerous civil works in the greater Cul De Sac area, and the chance of overlapping is existing based on the current planning of projects. In such a case, NRPB should consider the possible cumulative impact on neighbourhoods and minimize long term impact on residents, businesses and users of the area, by utilizing appropriate measures like coordinating between different Contractors, creating synergies, adopting the program planning, enhancing the stakeholder engagement, etc. NRPB should convey this information to Contractors who may be required to adjust their C-ESMP accordingly and timely inform and engage stakeholders.	
ESS4	Community risks from emergency situations on the construction site (fire, flying objects, flood, etc.)	The Emergency Response plan prepared by Contractor shall describe the measures in place to minimize any negative impact on workers and community health and safety. More details are given under ESS2 above.	Contractors
ESS4	SEA/SH risks (-) (L) (1&3) (D&C&O)	* Any community complaint related to SEA/SH must be referred by the Contractor to the NRPB's Grievance Redress Mechanism (GRM) for proper handling. * Where necessary, complaints will be referred to appropriate service providers and/or law enforcement, based on the needs of the survivor and severity of the misconduct. * Workers will receive training on SEA/SH awareness, legal consequences of misconduct, and how to use the Contractor's and NRPB's grievance systems. * All construction workers must sign and comply with the Code of Conduct (CoC) before starting work. * The CoC forms part of the bidding requirements, and bidders must confirm they will enforce it among their staff. * Disciplinary actions will follow national labour laws and contract-specific procedures. * SEA/SH and CoC training will be provided before work starts and repeated regularly, including monthly refreshers or after any incident.	Contractors, NRPB

Relevant Standard	Main E&S Impacts and Risks or Requirements, plus Categorization	Mitigation Measures	Responsibility
		* Contractors will conduct toolbox talks before works begin and weekly during construction. * Supervisors or ESHS Officers will be assigned to manage SEA/SH-related issues in line with the CoC and the Contractor's GRM procedures.	
ESS4	Gender equality	Contractor to be encouraged to hire women or LGBTQ persons to work on their projects to ensure gender equity/distribution, once the female or LGBTQ applicants have the required skill, training or academic qualifications.	Contractors
ESS4	Labor Influx (-) (L) (1) (C)	As per the latest WB procurement requirements, a minimum 30% of local labour cost will be paid for the works. Bidders will be incentivized to increase further the local labor hiring percentage. Potential housing arrangements for non-resident workers should ensure workers are provided with adequate sanitary facilities, beds and space for their personal effects. Non-resident workers of the contractors shall not be allowed to utilize any of the project sites as a residential facility, for any duration (including overnight stays). The perception of foreign labor replacing local access to jobs could be considered an impact that requires clear, transparent communication on followed processes from NRPB. Adequate communications in the neighborhoods around the project sites on when work is starting will be key to explain how works will commence and what communities can expect. Contractors shall have, at all times, key personnel	Contractors, NRPB, Supervisor

Relevant Standard	Main E&S Impacts and Risks or Requirements, plus Categorization	Mitigation Measures	Responsibility
		available on all the sites, that speaks fluent English and is familiar with local culture. Provisions will be made to ensure all hired staff have the legal authority to work on the Dutch side of the island, evidenced by proper documentation, from the main contractors and sub-contractors.	
ESS8 Cultural Heritage	Adverse impact on Cultural Heritage (-) (L) (1) (C)	The contractor shall: ○ Adhere to the St. Maarten regulations concerning archaeological, historic and cultural heritage. ○ Carry out a survey prior to works commencement and identify any monuments or sites of cultural importance, in vicinity with the works. Use that information when preparing the MSIPs for the works activities. ○ Carry out the works in a manner that monuments will not be affected by vibrations and vehicle/equipment collision. ○ Set a buffer zone between monuments and road works. A typical 'Chance Find Procedure' (CFP) is annexed in the ESMP (Annex 1) that may assist the contractor in preparing the specific arrangements for the project.	NRPB, Contractors
ESS8	Encounter of previous unknown heritage during works (-) (L) (1) (C)	A Chance Finds Procedure shall be implemented by Contractor. A chance find can be both a risk and an opportunity.	Contractors
ESS 10: Stakeholder Engagement and Information Disclosure	Risk of inadequate identification of all relevant stakeholders, including project-affected parties and other interested parties, which may result in gaps in engagement and overlooked concerns. (-) (L) (1&3) (D&C&O)	NRPB has developed a Stakeholder Engagement Plan (SEP) and has already sought out the initial views of stakeholders on the project and E&S instruments through a public consultation process. The SEP was developed based on a comprehensive stakeholder analysis and categorization, which identified relevant stakeholder groups and informed the design of appropriate and proportionate engagement methods for each category. The final SEP was disclosed on the NRPB website in January 7th 2024. Future targeted consultations requesting feedback on major project components and activities are planned to take place as well and the consultation outcome will be included in the SEP and ESMP, as relevant and always informed to the Bank.	NRPB

Relevant Standard	Main E&S Impacts and Risks or Requirements, plus Categorization	Mitigation Measures	Responsibility
ESS10	Risk of inadequate sharing of information to allow stakeholders to understand the risks and impacts of the project. (-) (L) (1&3) (D&C&O)	The final ESMP will be disclosed on the NRPB website and its availability communicated through notifications in the Daily Herald and in social media (including the Facebook pages of the NRPB) and GoSM. A public consultation on the project design and E&S instruments took place on December 10th 2025. The results of this consultation are attached to the ESMP. As part of the Private House Connections Consultancy services, stakeholders in Cul-de-Sac area will be informed, through door-to-door visits, about the project's objectives, impacts, costs, implementation process and timeline, and specific effects on their properties.	NRPB, Private Connections Consultant
ESS10	Risk of lack of stakeholder and community knowledge about the project and inadequate engagement, consultation and dialogue with stakeholders and the project affected community. (-) (M) (1&3) (D&C&O)	Conduct Stakeholder Identification and Analysis. A SEP has already been developed. The SEP will be updated with new information following future consultations. Adequately document, and keep records of stakeholder engagement, including the description of stakeholders consulted, how the feedback was received, and taken into account, or the reasons why it was not. Reflect relevant stakeholder inputs in social and environmental risk management instruments and other project documents, as relevant, and inform the Bank.	NRPB
ESS10	Risk of non-targeted community communication and adequate time for residents to prepare for upcoming works. (-) (M) (1) (C)	Contractor shall conduct early stakeholder engagement and ensure that a communication plan is in place whereby the community will be timely informed of the exact location of the works, the duration, the type of activities and applicable restrictions so that they can plan their daily activities and business operations accordingly. Contractor shall prepare a Notification Letter to inform residents of the adjacent community about works duration and expected disturbance. Door to door handing out is necessary. Contractor shall place notifications on public spaces affected by works related to traffic disturbance and relocation of parked cars, as applicable. Private Houses Works Contractor shall inform house owners and tenants about upcoming connection works, duration, impact, and make sure a signed agreement is in place before start of works.	Contractors, NRPB

Relevant Standard	Main E&S Impacts and Risks or Requirements, plus Categorization	Mitigation Measures	Responsibility
		The Community Engagement Specialist hired for the project will play an important role in communicating and interacting with the affected persons within the Project's area of impact and will engage with the project affected people as per the Stakeholder Engagement Plan, to ensure effective communication between affected people and the NRPB. The Specialist will support the collection of grievances, keep a grievance redress tracker, grievance register and grievance resolution records and will coordinate with NRPB colleagues on the resolution of grievances. The Specialist may also have a role in the investigation of a complaint and the resolution thereof. He/she also will provide support and assistance to the Project Manager in organizing workshops, meetings, and consultations with the beneficiaries and/or stakeholders.	
ESS10	GRM. Stakeholders and members of the community may be dissatisfied or concerned with the project and related activities. (-) (M) (1) (C) & (-) (L) (1&3) (D&O)	Have a mechanism to receive and facilitate the resolution of concerns and grievances from the project. The NRPB Grievance Redress Mechanism is updated to be aligned with the ESF. It is active and will continue to be in place to process concerns and grievances which arise from the project, including the receiving of SEA/SH and anonymous grievances. NRPB's GRM can be found on the website: Complaints Procedure – National Recovery Program Bureau (nrpbxm.org) Contractors will be required to develop their GRM, following the guidelines provided by the NRPB, which shall be able to receive and manage community complaints related to works. However, as the contractor will not be in a position to respond to questions that are strategic or about non-works related aspects, the Contractor's GM will need to link to the project GM such that such comments are referred to NRPB for management/resolution.	NRPB, Contractors

6.3 Labour Management Procedures (LMP)

NRPB has developed [Labour Management Procedures](#) which outline the requirements for assessing and managing labour and working conditions for all components of the project. Additionally, there are typical Occupational Health & Safety risks (OHS) associated with the construction works under Component 1 which are expected. During project implementation, and according to the timeframe agreed in the ESCP, the NRPB will update, adopt, disclose, and implement the Labour Management Procedures. During project implementation, the Labour Management Procedures will be updated as needed.

A grievance mechanism for labour issues to be raised by project workers, is provided by the NRPB and any companies and contractors hired by the NRPB to perform tasks under projects.

GRM for Direct Workers: NRPB's workers can submit a complaint directly to the Human Resource (Human Resource) department.

GRM for Contracted Workers: Contracted workers can submit their complaint at the main Contractor. NRPB's Labour GRM is available for contracted workers when they are not comfortable submitting a complaint at the Contractor.

6.4 Stakeholders Engagement Plan (SEP)

A [Stakeholders Engagement Plan \(SEP\)](#) has been prepared for the Project consistent with the World Bank's Environmental and Social Framework (ESF) and ESSs which both take into consideration the various levels of capacity of civil society actors and plans for consultations with all stakeholders as the intended beneficiaries throughout the project life cycle. The SEP indicates the key stakeholders, engagement approaches for consultations, grievance redress procedures, and proposed consultation dates.

The project has a broad range of stakeholders, who will be either directly or indirectly impacted by project activities. These stakeholders are broadly categorised into two categories in accordance with ESS 10:

- (I) Project Affected Stakeholders
- (II) Project Interested Stakeholders

The SEP also identifies vulnerable or disadvantaged groups that will need additional measures during the engagement and consultations processes.

The timing of consultations and the consultation approach with these groups are elaborated on in the project's SEP.

6.4.1 Access to Information

The NRPB is committed to providing information to direct stakeholders, government agencies, beneficiaries as well as the wider general public on Sint Maarten of on-going project activities. This will take place through regular updates via various media channels as listed in the [SEP](#), through a variety of beneficiary feedback mechanisms. Finally, anyone can request specific feedback or post specific questions through a variety of social media and direct communication channels as listed in the feedback mechanism in the GRM and the SEP.

During the preparation of this project, drafts of the E&S risk management documents were publicly disclosed on the NRPB's social media and website and consultations held with stakeholders. These consultations will continue throughout the project life cycle at various levels, using the appropriate media.

A public consultation on the project design and E&S instruments took place on 10 December 2025. The results of this consultation has been attached to the ESMP.

6.4.2 Communications and Consultation Planning

The NRPB Communications Team, in collaboration with the E&S and Project Management Team is developing a communications strategy aligned with the project's SEP. The strategy will guide communication and disclosure activities, ensuring that messaging and materials are appropriately tailored to the stakeholder groups identified in the SEP and that information is effectively shared throughout project implementation.

In addition, a Stakeholder Engagement Monitoring Tool has been developed for this project and is maintained by the E&S Team. This tool records all stakeholder consultations and feedback, tracks actions taken in response, and ensures that the consultations outlined in the SEP are implemented across the various phases of the project. Feedback received will inform updates to project design, the Environmental and Social Management Plan (ESMP) and related instruments, as needed.

6.5 Grievance Redress Mechanism (GRM)

The NRPB has an existing GRM in place to fairly, efficiently and effectively handle concerns and grievances received from the Project's stakeholders. The NRPB's GRM has been updated and will be used in this project. The system is well established and provides a credible avenue for all Project beneficiaries and stakeholders to file their complaints during the Project's implementation. NRPB's GRM can be found on the website: [Complaints Procedure – National Recovery Program Bureau \(nrpbxm.org\)](https://nrpbxm.org).

Complaints received by the NRPB will be reviewed and managed by the Complaints Officer at the NRPB. Complaints received by the contractor in relation to the project will be handled in the following manner:

Contractors are obligated to report any submitted complaints, depending on the nature. Incidental reports are required to be submitted within 24 hours of the occurrence, depending on the level of urgency. Additionally, regular reports are expected in the Contractor's monthly ESHS reports to the NRPB. The NRPB's Complaints Officer instructs

the Supervisor and Contractors on the operation of their Project-level GRM with regards to the respective complaint and the Complaints Officer may take over the management of the complaint, if deemed necessary by the NRPB.

The GRM is described in more detail in the Stakeholder Engagement Plan.

Channels to Submit Grievances

The contact details for filing complaints will be posted at the Public Service Centers in Phillipsburg and Simpson Bay, and are:

Via an online form available on the NRPB's website: [Complaints Procedure – National Recovery Program Bureau \(nrpbxm.org\)](http://nrpbxm.org): By email to complaints@nrpbxm.org with the complainant's project name "Sint Maarten Wastewater Management Project" as the email's subject.

By mail to: National Recovery Program Bureau
 #57 Walter A. Nisbeth Road, Philipsburg, Sint Maarten
 Telephone Number: +1(721) 542-8886/7

In person at the address above where the person will be given complaints form to complete.

Labour Grievance Redress Mechanism for Workers (Labour GRM)

Contractors are required to develop their own labour grievance redress procedures, to manage concerns from their employees.

Further details on the requirements for the Contractor's GRM are available in the Labour Management Procedures (LMP) developed for this project. The LMP also addresses Occupational Health and Safety and other relevant labour issues. The Contractor is required to include a complaint handling procedure for workers' complaints in the C-ESMP.

Labour GRM for NRPB Staff and other project workers.

The NRPB's GRM is referred to as the Program-level GRM. As the overarching GRM it is opened to receive complaints from any project affected individual or group. In addition, the GRM contains a Labour GRM which is open to project workers, such as staff and consultants of the NRPB and project-workers hired by a contractor or their sub-contractor. Refer to Chapter 6 of the NRPB GRM.

6.6 Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH) Response Framework

In relation to this project there are a range of specific actions that will be in place to both mitigate against the risk of SEA/SH on the project and to respond if identified, these are detailed in Table below.

Table 8: Provisions for the Mitigation of Risks Associated with SEA/SH

Mitigation Measure	Details
	All NRPB workers shall sign the Code of Conduct (Annex 3)

NRPB measures	○ NRPB will promote and facilitate SEA/SH training for its staff. ○ The NRPB institutional GRM includes provisions to address SEA/SH grievances.
Contractors' measures	○ All contractors' workers are required to sign the CoC prior to starting any work. (See minimum requirements for Contractor Code of Conduct in Annex 4). ○ Workers must follow the Contractor's Training which shall include SEA/SH related topics. SEA/SH sensitisation training shall be repeated when necessary, particularly where an incident of non-compliance has occurred. ○ Contractor shall prepare a SEA/SH Response Plan describing the action they will take to manage SEA/SH Incidents/Complaints ○ Contractor shall report SEA/SH incidents as soon as they learn about the occurrence with a survivor centered approach.
SEA/SH service provider.	Cases will be referred to local service providers that assist SEA/SH survivors when required (e.g. Safe Haven). A list of such service providers will be developed and available to NRPB and contractors' appointed person.

Contractors shall prepare a plan and implement appropriate activities to reduce SEA/SH risks prior to civil works commencing and during execution such as:

- Have project workers undergo training and sensitization on SEA/SH. Describe the training program in detail. First training should be prior to, or combined with, signing the Code of Conduct. The training should be provided in the respective languages of the workers.
- Describe how the understanding of SEA/SH after the training, is being assessed.
- Describe how compliance with the Code of Conduct, with respect to SEA/SH, is being monitored.
- Describe how aspects that need more attention, will be identified and how these will be addressed.
- Have gender appropriate facilities for women and men working on the site.
- Visibly display signs around the project site (if applicable) that signal to workers and the community that the project site is an area where SEA/SH is prohibited.
- Monitor SEA/SH incidents using a simple tracking system to document events staff hear about and observe. This entails developing a simple, anonymous and confidential tracking system that staff can use to document when they observe/hear about SEA/SH incidents, in the program context.

6.7 Incidents & Accidents Reporting

6.7.1 Contractor Responsibilities

Despite significant efforts to manage environmental and social risks associated with project activities, incidents may occur. Contractors must have a written/documented procedure for the managing of incidents and accidents related to the project. The incident management and reporting process may comprise below steps.

- ✓ Step 1 Initial Communication – notify the relevant authorities, Supervisor and NRPB
- ✓ Step 2 Classification – identify how serious is the incident
- ✓ Step 3 Investigation – conduct root cause analysis (RCA) and identify necessary set of measures to as appropriate to address the root causes (aka corrective action plan (CAP))
- ✓ Step 5 Response – implement corrective actions
- ✓ Step 6 Follow Up – completion of corrective actions and develop necessary preventive actions to prevent similar incidents occurring in the future

Contractor shall report any accidents/incidents to the NRPB in writing within 24 hours after the incident, and immediately after the occurrence via email. Incidents/accidents to be reported include, but are not limited to, the following:

1. Inspection, investigation by, or warning or official order from, government regarding a (possible) violated policy, permit or legislation or permit conditions, as per the ESMP;
2. Any work-related fatality;
3. Accidents requiring medical treatment, in case of hospital admittance, in case of medical leave days, in case of permanent complete or partial invalidity of an employee, fractured or cracked bones or teeth, punctured eardrums or hearing loss;
4. Near miss events, which are legally required to be reported by the Contractor to the Labor Department immediately, no later than three days; following the [NATIONAL REGULATIONS containing \(general\) measures \(provisions\) for the security of work in enterprises \(overheid.nl\)](https://overheid.nl/584747).
5. A significant environmental incident as a consequence of which major pollution (air, water, noise, or land) or a significant adverse environmental impact (wildlife or local habitat) has occurred, is occurring, or is likely to occur;
6. Reported Code of Conduct violations in regard to human rights, discrimination against workers, drugs or other illegal activities, fraud & corruption, and conflict of interest;
7. Significant adverse effects or damage to private property (e.g., vehicle accident, damage from flying rock, working beyond the boundary);
8. Discovery and/or damage to cultural heritage, artifacts, monuments, sacred grounds, etc.;
9. Significant encroachment on private property
10. Displacement Without Due Process: The permanent or temporary displacement against the will of individuals, families, and/or communities from the homes and/or land which they occupy without the provision of, and access to, appropriate forms of legal and other protection and/or in a manner that does not comply with an approved resettlement action plan.
11. Burglary or theft of assets
12. Any confirmed Covid-19 case, or other infectious disease
13. Indication or incidents of child labor, forced labor or undocumented workers.
14. Sexual Orientation and Gender Identity (SOGI) related violence or discrimination incidents.
15. Any indication of gender based violence (GBV), sexual exploitation or abuse, sexual harassment or sexual misbehavior, rape, sexual assault, child abuse, or defilement, or other violations involving children.

16. Acts of Violence/Protest: Any intentional use of physical force, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, deprivation to workers or project beneficiaries, or negatively affects the safe operation of a project worksite.

The initial report from Contractor shall address the following questions.

- What was the incident? What happened? To what or to whom? ● Where and when did the incident occur? ● What is the information source? How did you find out about the incident? ● Are the basic facts of the incident clear and uncontested, or are there conflicting versions? ● What were the conditions or circumstances under which the incident occurred? ● Is the incident still ongoing or is it contained? ● Is the loss of life or severe harm involved? ● How serious was the incident? How is it being addressed?

For the initial report, depending on the nature of incident/accident, the Contractor shall use the reporting forms attached in **Annex 5**.

After the initial written reporting, the Contractor shall undertake an investigation and a root cause analysis and propose appropriate measures to avoid future incidents. A detailed report shall be submitted in writing, for NRPB's approval, within 3 days. After the Contractor's initial reporting on the root cause analysis (RCA) and corrective action plan (CAP), the Contractor should also report the completion of corrective actions and possible preventive actions. In case of a GBV incident, the Contractor follows the instructions from the NRPB.

A root-cause analysis of an incident reports the sequence of events and factual circumstances. The analysis identifies what failing(s) led to the accident, what safety measures were in place, and the risk information/training provided to workers on site. The level of supervision of unskilled labor should also be assessed. A root-cause incident investigation report for the accident, including corrective measures is expected to improve OHS conditions at the given site.

For the root cause analysis and Corrective Action Plan, depending on the nature of incident/accident, the Contractor shall use the reporting forms attached in **Annex 5**.

6.7.2 NRPB Responsibilities

NRPB shall promptly notify the World Bank, within 72 hours after learning of the incident or accident, of any incident or accident related to or having an impact on the Project which has, or is likely to have, a significant adverse effect on the environment, the affected communities, the public or workers, in accordance with the ESCP, the instruments referenced therein and the Environmental and Social Standards. The Incident Forms Part B (see **Annex 5**) template will be used for reporting according to the incident category.

The following are incident types to be reported using the environmental and social incident response process:

- i. **Fatality:** Death of a person(s) that occurs within one year of an accident/incident, including from occupational disease/illness (e.g., from exposure to chemicals/toxins).
- ii. **Lost Time Injury:** Injury or occupational disease/illness (e.g., from exposure to chemicals/toxins) that results in a worker requiring 3 or more days off work, or an injury or release of substance (e.g., chemicals/toxins) that results in a member of the community needing medical treatment.

- iii. **Acts of Violence/Protest:** Any intentional use of physical force, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, deprivation to workers or project beneficiaries, or negatively affects the safe operation of a project worksite.
- iv. **Disease Outbreaks:** The occurrence of a disease in excess of normal expectancy of number of cases. Disease may be communicable or may be the result of unknown etiology.
- v. **Displacement Without Due Process:** The permanent or temporary displacement against the will of individuals, families, and/or communities from the homes and/or land which they occupy without the provision of, and access to, appropriate forms of legal and other protection and/or in a manner that does not comply with an approved resettlement action plan.
- vi. **Child Labor:** An incident of child labor occurs: (i) when a child under the age of 14 (or a higher age for employment specified by national law) is employed or engaged in connection with a project, and/or (ii) when a child over the minimum age specified in (iii) and under the age of 18 is employed or engaged in connection with a project in a manner that is likely to be hazardous or interfere with the child's education or be harmful to the child's health or physical, mental, spiritual, moral or social development.
- vii. **Forced Labor:** An incident of forced labor occurs when any work or service not voluntarily performed is exacted from an individual under threat of force or penalty in connection with a project, including any kind of involuntary or compulsory labor, such as indentured labor, bonded labor, or similar labor-contracting arrangements. This also includes incidents when trafficked persons are employed in connection with a project.
- viii. **Unexpected Impacts on heritage resources:** An impact that occurs to a legally protected and/or internationally recognized area of cultural heritage or archaeological value, including world heritage sites or nationally protected areas not foreseen or predicted as part of project design or the environmental or social assessment.
- ix. **Unexpected impacts on biodiversity resources:** An impact that occurs to a legally protected and/or internationally recognized area of high biodiversity value, to a Critical Habitat, or to a Critically Endangered or Endangered species (as listed in IUCN Red List of threatened species or equivalent national approaches) that was not foreseen or predicted as part of the project design or the environmental and social assessment. This includes poaching or trafficking of Critically Endangered or Endangered species.
- x. **Environmental pollution incident:** Exceedances of emission standards to land, water, or air (e.g., from chemicals/toxins) that have persisted for more than 24 hrs or have resulted in harm to the environment.
- xi. **SEA/SH:** Sexual Exploitation: Any actual or attempted abuse of position of vulnerability, differential power or trust, for sexual purposes. Sexual Abuse: Actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions.
- xii. **SOGI:** Violence on the basis of SOGI or Discrimination on the basis of SOGI.
- xiii. **Other:** Any other incident or accident that may have a significant adverse effect on the environment, the affected communities, the public, or the workers, irrespective of whether harm had occurred on that occasion. Any repeated non-compliance or recurrent minor incidents which suggest systematic failures that the task team deems needing the attention of Bank management.

A subsequent report after investigation will be submitted to the Bank in a timeframe acceptable to the Bank. The report will include a description of such Significant Event, and the measures, if any, that the Recipient is taking or plans to take to address such Significant Event and to prevent any future similar event. In case the accident resulted in fatality/injury for worker or member of the public, then the accident Form Part C ([Annex 5](#)) template will be used

for reporting. In case of SEA/SH and SOGI incidents then the corresponding Part C forms shall be used (also in Annex 5).

The description of the Event shall address the following questions (if possible and relevant).

- What was the incident? What happened? To what or to whom?
- Where and when did the incident occur?
- What is the information source? How did you find out about the incident?
- Are the basic facts of the incident clear and uncontested, or are there conflicting versions?
- What were the conditions or circumstances under which the incident occurred?
- Is the incident still ongoing or is it contained?
- Is the loss of life or severe harm involved?
- How serious was the incident? How is it being addressed?

The report will contain a Root Cause Analysis (RCA), highlighting the reasons that lead into this incident. The Event description and RCA analysis will be shared with the World Bank preferably within 10 days after the occurrence of the Event. The RCA will be discussed with the Bank and agreements will be made on the corrective actions.

NRPB will prepare a Corrective Action Plan which will describe the set of measures (short, medium, long term), responsibilities and timelines for implementation, as appropriate to address the root causes to help prevent any recurrence of the incident and discuss this plan with the Bank. The Corrective Action Plan should be based around a summary table, with additional supporting text and information to adequately describe the measures and how they will achieve the corrective actions to address the immediate, underlying, and root causes identified in the investigation report. The Corrective Action Plan template found under Annex 5 should be used.

NRPB will keep the World Bank informed of the on-going implementation of the said measures and plans.

Incidents that do not require immediate WB reporting (based on requirement) will be still included in the semi-annual project reports, in agreement with NRPB.

6.8 E&S Survey of Roads

This section provides a questionnaire to be used by Main Contractor for assessing the basic E&S conditions of each road where sewage pipelines will be placed. This survey shall be carried out at least a month before commencing the works. This survey will feed the C-ESMP and help in proposing site-specific mitigations measures based on the current site conditions. The survey shall be complemented with photographic material of the current condition of sites. A layout must be prepared per road which shall be accompanied by a summary of the E&S analysis and the proposed mitigation measures per road, in a table format as below, and in line with the C-ESMP sub-plans.

Environmental & Social Risks	Details	Risk Mitigation Measures
Location of sensitive receptors	Include address, location, size and other details about sensitive receptors (including, among others, pre-school, schools, medical facilities, worship places, community centers, elderly facilities, etc.)	
Land use	Specify if land use is residential, commercial, mixed use, etc. Include details of affected business.	
Pedestrian and car crossings placement	Specify the number, location and type of pedestrian/car crossings to be placed for mobility accommodation.	

Monuments and other areas of archeological interest	Include details about such areas, size, importance, stability concerns, distance from site.	
Flood prone areas	Flood prone areas shall be identified and appropriate measures for risk mitigation to be proposed	
Rainwater trenches	Rainwater trenches shall be identified and appropriate measures to prevent blockage or wastewater runoff to be examined.	
Ponds or other water bodies	Water bodies shall be identified and appropriate measures to prevent wastewater runoff to be examined.	
Roadside parking spaces, bus stops, school drop-off/pick-up.	Contractor shall survey available parking spaces and take appropriate measures to facilitate residents/businesses needs. Also, indicate if there are bus stops and drop-off/pick-up areas for school children.	
Trees obstructing the works	Contractor shall identify any trees obstructing works and consult with NRPB prior to any action.	
Car wrecks obstructing the works	Contractor shall identify car wrecks obstructing works and prepare an action plan in agreement with NRPB.	
Narrowness of a street or high traffic roads	Contractor shall identify streets which because of their characteristics may require additional measures for ensuring smooth traffic flow	
Traffic volume and pedestrians use	Examine traffic characteristics, including volume, turning traffic, the traffic mix, traffic speeds. The number of pedestrians, with particular concern for children, and those with mobility difficulties	
Steep slopes	Contractor shall identify steep roads and the potential of soil wash out during rain events and propose measures to protect the environment from silt runoff.	
Parks, squares or other community public spaces	Contractor shall identify such spaces and take actions to ensure free and safe access.	

Car wrecks on the sides of the roads may obstruct the works and traffic. Contractor, as part the ESHS survey, must identify car wrecks suited on the roads and have a plan to manage such obstacles, before works commencement. Contractor shall inform and seek the assistance of the Police Department and the Ministry of VROMI. The Contractor shall have in place and implement a community communication plan for reaching out to vehicle owners and ask for their cooperation in removing their vehicles.

6.9 Exclusion List

6.9.1 Exclusion list related to resettlement or land acquisition

Resettlement and land acquisition has been avoided. NRPB has prepared an exclusion list to screen out any activities with potential impacts covered under ESS5 and act proactively to prevent any complications that may impact project schedule.

The following activities are excluded:

- Involuntary resettlement³⁹ or permanent or temporary physical and economic displacement of people and businesses.

³⁹ Resettlement is considered involuntary when affected persons or communities do not have the right to refuse land acquisition or restrictions on land use that result in displacement.

- Land acquisition⁴⁰.
- Property expropriation.
- Restrictions on land use⁴¹.
- Restrictions on land and other resources accessibility.
- Right of way exercised on private roads.
- Right of way exercised on private property.
- Use of private property for project activities in the absence of a signed agreement with the property owner.
- Restriction of access to resources, businesses and communal property.
- Land acquisition or land use restrictions occurring prior to the project, but which were undertaken or initiated in anticipation of, or in preparation for, the project.

An ESS5 screening tool has been developed (see [Annex 6](#)), with the purpose of early detected any situations potentially triggering ESS5, meeting the exclusion criteria and support in identifying alternatives routes/plots or technical solutions.

6.9.2 Exclusion list related to cultural heritage

Similarly, NRPB avoids any negative impact on cultural heritage, in line with ESS8 requirements, by excluding the following activities:

- Works located within a legally protected cultural heritage area or a legally defined buffer zone.
- Works where there is evidence or high probability of past human activity in the area.
- Relocation, conservation or rehabilitation of Built heritage.
- Restricted access to monuments and other aspect of cultural significance.

6.10 ESHS Monitoring Plan

Monitoring the implementation of the proposed Mitigation Measures during the construction works will be guided by Table 9, which indicates the monitoring parameters that could be considered to demonstrate the mitigation measures are being applied correctly. The Supervising Engineer and the Contractor are responsible for monitoring compliance with the requirements of the contract, although NRPB are ultimately responsible for ensuring that the Supervising Engineer is effective and that the mitigation measures described in this ESMP are delivering the intended results.

⁴⁰ Land "acquisition" refers to all methods of obtaining land for project purposes, which may include outright purchase, expropriation of property and acquisition of access rights, such as easements or rights of way.

⁴¹ "Restrictions on land use" refers to limitations or prohibitions on the use of agricultural, residential, commercial or other land that are directly introduced and put into effect as part of the project.

Table 9. Typical ESHS Monitoring Plan for Construction Works

Monitoring Parameter/Activity	Means of Monitoring	Compliance Indicator / Threshold Limits	Responsibility & Frequency
Jobsite General			
1. Clean and tidy jobsite	Visual inspection	Worksites shall be kept clean and free of excavated soil and garbage. Materials shall be stored without obstructing roads and passageways.	NRPB: monthly Supervisor: twice weekly Contractor: daily
2. Posters and safety signs in place	Visual Inspection	Shall be easily visible by all and posted on key locations within the site.	NRPB: quarterly Supervisor: weekly Contractor: daily
3. Emergency phone numbers posted	Visual Inspection	Shall be easily visible by all and posted on key locations within the site.	NRPB: quarterly Supervisor: weekly Contractor: weekly
Community Safety			
4. Barriers to prevent unauthorized access	Visual Inspection	All open trenches will need to be barricaded and provided with warning signs. Trenches and pits deeper than 2m will need to be fenced to physically prevent entry.	NRPB: quarterly Supervisor: twice weekly Contractor: daily
5. Safe pedestrian walkways	Visual Inspection	All pedestrian walkways shall be safe from hazards and not obstructed. Safe crossings are placed over trenches.	NRPB: monthly Supervisor: twice weekly Contractor: daily
6. No Obstruction on roads and sidewalks	Visual Inspection	All roads shall be open at all times except if otherwise approved by the Police Department and according to the C-ESMP. Safe car crossings shall be placed over trenches.	NRPB: monthly Supervisor: twice weekly Contractor: daily
7. Traffic signs are placed wherever required	Visual Inspection	According to the approved C-ESMP and Police Department waiver. Traffic shall be smooth and flag person assigned as necessary.	NRPB: monthly Supervisor: twice weekly Contractor: daily
Work Hazards & Occupational Health			
8. Personal Protective Equipment (hard hats, goggles, dust masks, boots, gloves, hearing protection)	Visual Inspection and Inventory List review	PPEs shall be provided to all workers. All workers shall use the appropriate PPEs for the tasks they perform.	NRPB: monthly Supervisor: twice weekly Contractor: daily
9. Access of trenches deeper than 1.2m	Visual Inspection	Ladders, steps, ramps, or other safe means of egress for workers is provided.	NRPB: monthly Supervisor: twice weekly Contractor: daily
10. Falling protection	Visual Inspection	If fencing or covers cannot be placed, then safety harnesses shall be used by all working around excavations deeper than 2m.	NRPB: monthly Supervisor: twice weekly Contractor: daily
11. Stable surface for ladders	Visual Inspection	The footing of ladders shall be on firm surface.	NRPB: monthly Supervisor: twice weekly Contractor: daily

Monitoring Parameter/Activity	Means of Monitoring	Compliance Indicator / Threshold Limits	Responsibility & Frequency
12. Power tools safety	Visual Inspection	Cutting and grinding power tools shall all have safety guards and spring-loaded switch on.	NRPB: monthly Supervisor: twice weekly Contractor: daily
13. First Aid kit	Visual Inspection	Worksite shall have adequate well stocked first aid kits	NRPB: monthly Supervisor: weekly Contractor: daily
14. Access to areas for rest (canteen)	Visual Inspection	Sheltered areas and sitting for all workers shall be provided for resting and having lunch.	NRPB: monthly Supervisor: weekly Contractor: weekly
15. Hygiene facilities	Visual Inspection	Portable toilets and hand-washing stations shall be provided onsite according to workforce number and gender, and being cleaned regularly.	NRPB: monthly Supervisor: twice weekly Contractor: daily
16. Drinking water supply	Visual Inspection	Enough potable cool water shall be available for all workers.	NRPB: monthly Supervisor: twice weekly Contractor: daily
Solid Waste			
17. Sufficient waste bins/skips in place	Visual Inspection	Number and type of bins/skips according to the C-ESMP. Non overfilled bins. Excavated materials shall be removed daily.	NRPB: monthly Supervisor: twice weekly Contractor: daily
18. Rain and wind protection	Visual Inspection	All bins and skips shall be covered with tarpaulin. Waste shall be removed daily. Open trenches shall be protected from soil flushing in case of storm.	NRPB: monthly Supervisor: twice weekly Contractor: daily
19. Segregate materials for recycling	Visual Inspection & Waste chain of custody records	Soil, concrete, asphalt, metals, plastic shall be separated and send for recycling. Waste records shall be kept.	NRPB: monthly Supervisor: twice weekly Contractor: daily
20. Waste chain of custody records	Visual inspection of records	All waste loads shall be recorded and disposed at approved locations, by licensed haulers.	NRPB: monthly Supervisor: twice weekly Contractor: daily
Dust			
21. Covered loose material stockpiles, waste skips and trucks	Visual Inspection	All loose material shall be covered with tarpaulin when not used	NRPB: monthly Supervisor: twice weekly Contractor: daily
22. Watering for dust prevention	Visual Inspection	Soil shall feel damp to the touch before excavation and soil movement works	NRPB: monthly Supervisor: twice weekly Contractor: daily
Wastewater			
23. Collection, storage and disposal in authorized facility	Visual Inspection and Disposal records	All wastewater produced from site shall be disposed at authorized facilities as per the C-ESMP. Records shall be kept.	NRPB: monthly Supervisor: twice weekly Contractor: daily
24. Silt stormwater runoff	Visual inspection	Silt bags shall be available to prevent silt runoff in case of trench flooding.	NRPB: monthly Supervisor: weekly Contractor: daily

Monitoring Parameter/Activity	Means of Monitoring	Compliance Indicator / Threshold Limits	Responsibility & Frequency
Noise			
25. Noise level at site boundaries <70dBA	Spot checks and statistical analysis	90% of daytime measured noise hourly values shall be below 70dBA	NRPB: monthly Supervisor: weekly Contractor: daily
26. Noise level at site boundaries with sensitive receptors <55dBA	Spot checks and statistical analysis	90% of daytime measured noise hourly values shall be below 55dBA	NRPB: monthly Supervisor: weekly Contractor: daily
27. Workers noise exposure <85dBA	Visual inspection	100% of workers operating power tools shall have ear protection on.	NRPB: monthly Supervisor: twice weekly Contractor: daily
28. Bending of metal sheets	Visual inspection	100% of road crossings metal sheets shall have a wooden supportive frame or other means of suppressing noise.	NRPB: monthly Supervisor: twice weekly Contractor: daily
Hazardous Materials			
29. Stored inside covered premises and on impermeable surface	Visual Inspection	Measures shall all be in place according to the approved C-ESMP	NRPB: monthly Supervisor: twice weekly Contractor: daily
30. Use of secondary spill containment equipment	Visual Inspection	Secondary spill containment shall be used for all onsite hazardous fluids storage and power generators, according to the C-ESMP.	NRPB: monthly Supervisor: twice weekly Contractor: daily
31. Spill Kit and Availability of absorption materials	Visual Inspection	Each road site shall have an appropriate spill kit for fuel and oils leakage. Absorption materials and tools shall be onsite to respond in any accidental release, as per approved C-ESMP.	NRPB: monthly Supervisor: twice weekly Contractor: daily
32. Safe storage of used oils and paint buckets	Visual inspection and records review	All empty containers of hazardous substances shall be returned to supplier.	NRPB: monthly Supervisor: twice weekly Contractor: daily
Fire & Electrical Safety			
33. Fire extinguishers number and type according to Fire Safety Plan	Visual Inspection	100% of fire extinguishers to be present and not expired	NRPB: monthly Supervisor: twice weekly Contractor: weekly
34. Flammable materials (fuel, waste, etc) are safely stored	Visual Inspection	Materials shall be protected from sun, away from heat sources and not stockpiled, as per approved C-ESMP.	NRPB: monthly Supervisor: weekly Contractor: daily
35. Flashback arrestors	Visual Inspection	Flashback arrestors shall be installed on all devices used in welding and cutting.	NRPB: monthly Supervisor: twice weekly Contractor: daily
36. Use of electrical equipment that is RCD (Residual Current Device)-protected	Visual Inspection and inventory check	All electrical equipment/power tools on site shall be RCD-protected.	NRPB: monthly Supervisor: weekly Contractor: daily
37. Electrical equipment shall be in good working condition.	Visual Inspection	Electrical equipment (including cords and leads) will be checked for faults and visible signs of damage. Faulty parts shall be replaced immediately.	NRPB: monthly Supervisor: twice weekly Contractor: daily

Monitoring Parameter/Activity	Means of Monitoring	Compliance Indicator / Threshold Limits	Responsibility & Frequency
38. Electrical equipment is protected from weather	Visual Inspection	All equipment shall be stored inside when not in use.	NRPB: monthly Supervisor: twice weekly Contractor: daily
Labor Management			
39. Number of workers that signed the CoC	Record review	100% of workers shall have the CoC explained to them and have it signed.	NRPB: monthly Supervisor: weekly Contractor: weekly
40. Workers' salary and insurance contribution shall be paid by employer	Record review	100% of workers shall be paid according to local labor legislation	NRPB: monthly Supervisor: weekly Contractor: daily
Files, Plans & Records			
41. Non-Conformances are logged	Record review	100% of non-conformances are logged in the online database	NRPB: monthly Supervisor: twice weekly Contractor: daily
42. Monthly Reports are submitted	Record review	100% of monthly ESHS reports are submitted within 2 weeks after the end of the month.	NRPB: monthly Supervisor: weekly Contractor: weekly
43. Workers are properly trained, including the Induction training before mobilization to site and regular toolbox talks.	Interviews and Record Review	100% according to the approved training plan in the C-ESMP	NRPB: monthly Supervisor: weekly Contractor: weekly
44. MSIPs are in place and kept up-to-date	Record Review	MSIPs are reviewed at least every 3 months and updated to ensure they remain pertinent.	NRPB: annually Supervisor: monthly Contractor: monthly
45. Equipment/Vehicles maintenance	Record Review	All vehicles/equipment shall be regularly maintained.	NRPB: monthly Supervisor: weekly Contractor: weekly
46. Safety Checklists	Record Review	Safety Checklists are filled in regularly for vehicles, equipment and machinery.	NRPB: monthly Supervisor: weekly Contractor: daily
47. Incidents & Accidents	Record Review	Incidents and accidents files are reported and recorded according to the ESMP	NRPB: monthly Supervisor: weekly Contractor: weekly
Community and Workers' Grievance Redress			
48. Complaints reports (from the community and workers)	Record review and project meetings	Records are up to date and complaints are satisfactorily addressed by contractor within 15 days. If not, they should be escalated to NRPB. NRPB's complaints channels are continuously monitored.	NRPB: monthly Supervisor: weekly Contractor: daily
49. Resolved and pending complaints received from the community and workers.	Records and report review		

6.11 Expected Costs of Mitigation Measures

The costs to mitigate the social and environmental risks are outlined in Table 10 below. The cost of the delivering of the ESHS requirements shall be a subsidiary obligation of the Contractor and no separate payments will be made for implementation of ESHS requirements. The cost of implementing ESHS mitigation measures is the full responsibility of the Contractor and as such, the Contractor is expected to ensure that the cost of delivering ESHS requirements is covered by the bid prices of the principal activities. The Contractor is also responsible for informing their subcontractors of the E&S requirements which they will need to adhere to. Other costs include the engagement of an external consultant to carry out the cultural assessment, costs related to stakeholder engagement (publications, gatherings, etc.).

Table 10: Costs of Environmental and Social Risks Mitigation Measures

Description	USD\$	Responsibility
ESHS mitigation measures related to construction works	n/a — (part of Contractor's bidding price)	Contractor
Environmental and Social Risk Management specialists of NRPB ⁴²	150 000	NRPB
Stakeholders Engagement and Consultations during implementation	70 000	NRPB
Community engagement consultant	120 000	NRPB
Training	5 000	NRPB
Total⁴³	345,000	

7 Project Institutional Arrangements and Capacity

⁴² Cost includes NRPB's input on E&S/Procurement integration (ToRs drafting and bids evaluation) and E&S monitoring.

⁴³ Cost is indicative. Most E&S aspects costs will be part of the project deliverables and unit prices of works bids.

7.1 Institutional Arrangements for ESMP Implementation

The National Recovery Program Bureau will act as the Project Implementation Unit (PIU) for the project and ultimately the implementation of the ESMP. The collaboration between the NRPB and the related Government Ministries (see section 8.3 to 8.7) will continue as the project proceeds throughout the project life cycle.

Each ministry has oversight and will contribute efforts and resources to ensure that the requirements of the ESMP are met, for example ensuring that permit and labor procedures are followed according to the law, which at times require interministerial efforts and/or resources (see section 8.3). However, the NRPB, the PIU, is accountable for the commitments in the ESMP. This section of the ESMP and Table 11 below outlines the responsibilities across the NRPB, the Supervising Engineer, and the contractor in ensuring that the expansion of the sewer network and the connections to households are completed as described in this ESMP.

NRPB E&S team currently consists of a team of seven professionals, that is the Department's Head, the Environmental Coordinator, two Environmental Specialists, two Social Specialists, and the Stakeholder Engagement Coordinator. The Environmental Coordinator, one Environmental specialist, and one Social Specialist were assigned to the Wastewater project for developing the E&S instruments and ensuring ESHS compliance throughout the project life cycle, although additional support can be obtained from the wider NRPB E&S team as needed.

The NRPB E&S team is also supported by the project manager, project coordinator, procurement specialists, communications, financial, legal and M&E departments.

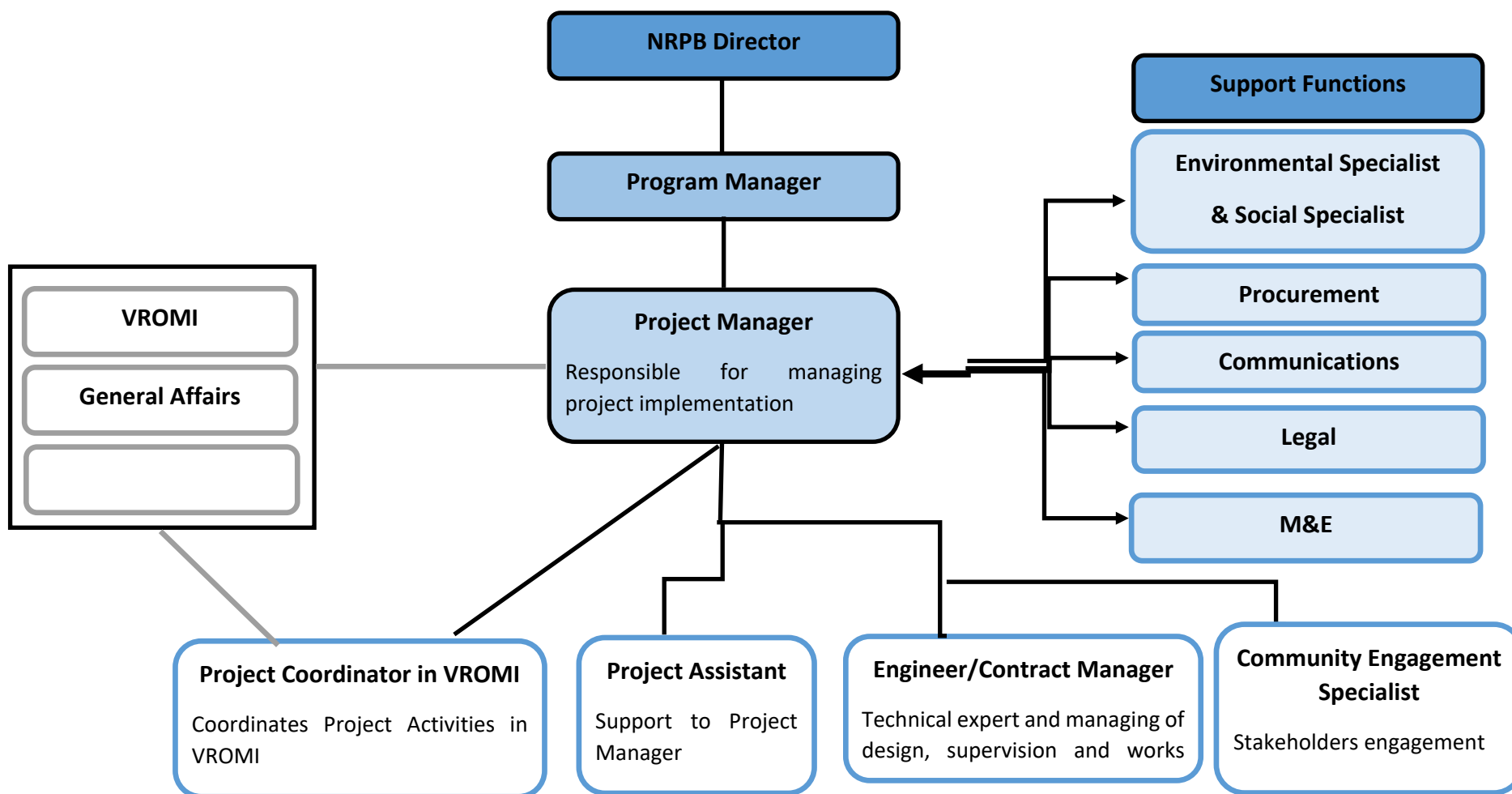
Additionally, the Contractor and Supervising Engineer will be required to have ESHS Specialists as key personnel. NRPB shall hire and maintain at least one supervision firm for the works with at least one Environmental, Social, Health and Safety (ESHS) specialist as key personnel of the firm to be on island throughout the duration of the construction works. NRPB shall also require the Contractors to hire and maintain throughout construction at least one Environmental, Social, Health and Safety (ESHS) specialist as key personnel. The Contractor's expert shall be on site during works implementation phase.

Table 11: Responsibilities for Environmental and Social Management during construction

Organization	Responsibilities
NRPB	✓ Overall oversight of E&S implementation of the project ✓ Ensure the design for the network expansion and household connections issued for construction incorporates E&S controls as needed ✓ Prepare the tender documents that include an appropriate specification for the works and TOR for the supervision appropriate for delivering the mitigation measures ✓ NRPB shall require contractors to hire and maintain throughout construction at least one Environmental, Social, Health and Safety (ESHS) specialist as key personnel, who will be responsible for implementing the contractors' environmental, social, health and safety responsibilities. ✓ Ensure that the Stakeholders Engagement Plan (SEP) that has been developed for the project is implemented. ✓ Promptly notify the Bank of any incident or accident related to the project which has, or is likely to have, a significant adverse effect on the environment, the affected

	communities, the public or workers, such as possible impact of natural hazards during Project implementation or any violations of the Code of Conduct. ✓ Investigate and report all significant incidents related to environmental, social and health aspects. Carry out root cause analysis for all major incidents, and recommended actions to be taken to rectify the failure that led to these incidents. ✓ NRPB shall hire and maintain at least one supervision firm for the works with at least one ESHS specialist as key personnel of the firm to be in place throughout the duration of the construction works. ✓ Carry out periodic site inspections to ensure ESHS compliance in workplaces. ✓ Review the Contractor's environmental and social documents. ✓ Manage the grievance mechanism for the project, as described in the SEP.
Supervisor	✓ Supervise the Contractor's delivery of the works in compliance with the ESHS requirements of the contract. Carry out regular site inspections and periodic ESHS audits as needed to discharge the supervisory responsibilities. ✓ Apply contractual remedies as appropriate to ensure Works compliance with the contract requirements ✓ Provide guidance to the contractor on implementation of ESHS aspects and provide training to the contractor's staff as needed ✓ Review Contractor's E&S documents, discuss with NRPB and approve when appropriate. ✓ Review Contractor's monthly ESHS Reports and opine accordingly ✓ Promptly notify NRPB of any incidents or accidents that have occurred ✓ Report and Investigate all incidents as listed in 6.7.1. Carry out root cause analysis for all incidents, and advise on the recommended actions to be taken to rectify the failure that led to these incidents.
Contractors	✓ Draft a Contractor's E&S documentation prior to works commencement for Supervising Engineers approval, including MSIPs and H&S Manual. ✓ Ensure the actions, tools, equipment and methods described in the E&S documents will deliver the requirements of the Contract. ✓ The Contractor shall submit comprehensive and concise Environmental and Social Management Strategies and Implementation Plans (ES-MSIP) which shall describe in detail the actions, materials, equipment, management processes etc., that will be implemented by the Contractor, and its subcontractors. ✓ The Contractor shall prepare as a minimum MSIPs for each Works activity listed on the Activity Schedule/Program. ✓ The Contractor shall not carry out mobilization to the Sites unless the Project Manager gives approval to the measures the Contractor proposes to address environmental and social risks and impacts. Collectively these MSIPs and the Code of Conduct will comprise the Contractor's Environment and Social Management Plan (C-ESMP). ✓ Review the E&S documentation periodically, at least quarterly, and update as needed in a timely manner. ✓ Prepare monthly ESHS reports ✓ Promptly notify Supervisor for accidents or incidents related to environmental, social and health aspects. ✓ Report and investigate all incidents as listed in 6.7.1. Carry out root cause analysis for all incidents and recommend actions to be taken to rectify the failure that led to these incidents.

Figure 13: Wastewater Project Organizational Chart



7.2 Ministry of Public Housing, Spatial Planning, Environment and Infrastructure (VROMI)

VROMI is responsible for making policy decisions, providing technical input during project design and implementation and will be responsible maintenance of the new infrastructure. NRPB will work closely with VROMI to ensure that the technical input and policy advice from VROMI is properly incorporated into the project.

The activities of VROMI are especially aimed at, but not necessarily limited to, the areas of management of the natural resources and environment and the development and management of a robust public infrastructure and public spaces.

The Ministry of VROMI Departments relevant for this Project are:

- **Infrastructure & Management**
This department for the works that need to take place in public spaces (road trenching, etc).
- **New Works**
This department will be involved if existing water, wastewater and electricity lines need to be updated and/or relocated or new ones need to be installed and if an excavation permit is required. New Works would coordinate the projects further within VROMI pertaining to required permits.
- **Permits**
The Permits Department is responsible for Building Permits and will therefore be the department where the plans for this project will have to be submitted to.
- **Inspection**
During any construction activities under this project the Inspection Department would have the responsibility to ensure that all being constructed is in accordance with applicable legislation pertaining to the Building Codes being followed during construction; Environmental Regulations being followed subsequent to operations starting and Electrical Inspections being up to code.

7.3 Ministry of Public Health, Social Development and Labour (VSA)

The Ministry of VSA amongst other aspects is responsible for Labour conditions/regulations during these works, for the public health at the work site. VSA is responsible for enforcing Occupational Health and Safety (OHS) regulations through its Inspectorate, which conducts workplace inspections, investigates complaints, and ensures compliance with labor and safety laws.

The mission of the Ministry of VSA is:

- to promote a healthy and social supportive community.
- to prevent unhealthy living conditions, protect socially vulnerable groups, promote employment opportunities and the general wellbeing of St. Maarten's society.
- to promote the general wellbeing and quality of life of our population by means of services such as of health protection, health promotion, labor mediation, labor & dismissal licenses,

- emergency medical services, social security, community development and social work & counselling and supervision.
- to secure accessibility to health insurance and social security systems.

7.4 Ministry of Education, Culture, Youth and Sport (MECYS)

The Department of Culture within the MECYS has the mission to develop, promote and safeguard the Tangible and Intangible Cultural Heritage of St. Maarten. If during construction, there are chance finds, the Ministry will be notified and advised.

7.5 Ministry of Justice

The Police Force of Sint Maarten (KPSM) falls under the responsibility of the Ministry of Justice. The Traffic Department of the Police will need to review and approve road traffic safety related issues applicable to trenching works.

7.6 Coordination between Ministries

In principle most indicated Ministries play a different role in the project and operate separately. However, the Ministry of VROMI (New Works) collaborates with the Ministry of Justice (Police) when it pertains to, for instance, road works and traffic management.

Additionally, there are focal points from the various Ministries in contact with the NRPB, as central contact point, pertaining to their part/relation in and to the project.

8 Annexes

Annex 1 – Chance Finds Procedure

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Abbreviations and Acronyms

CFP Chance Finds Procedure
 ESMP Environmental and Social Management Plan
 GoSM Government of Sint Maarten
 MECYS Ministry of Education, Culture, Youth and Sport
 TCR Tangible Cultural Resource

Glossary¹

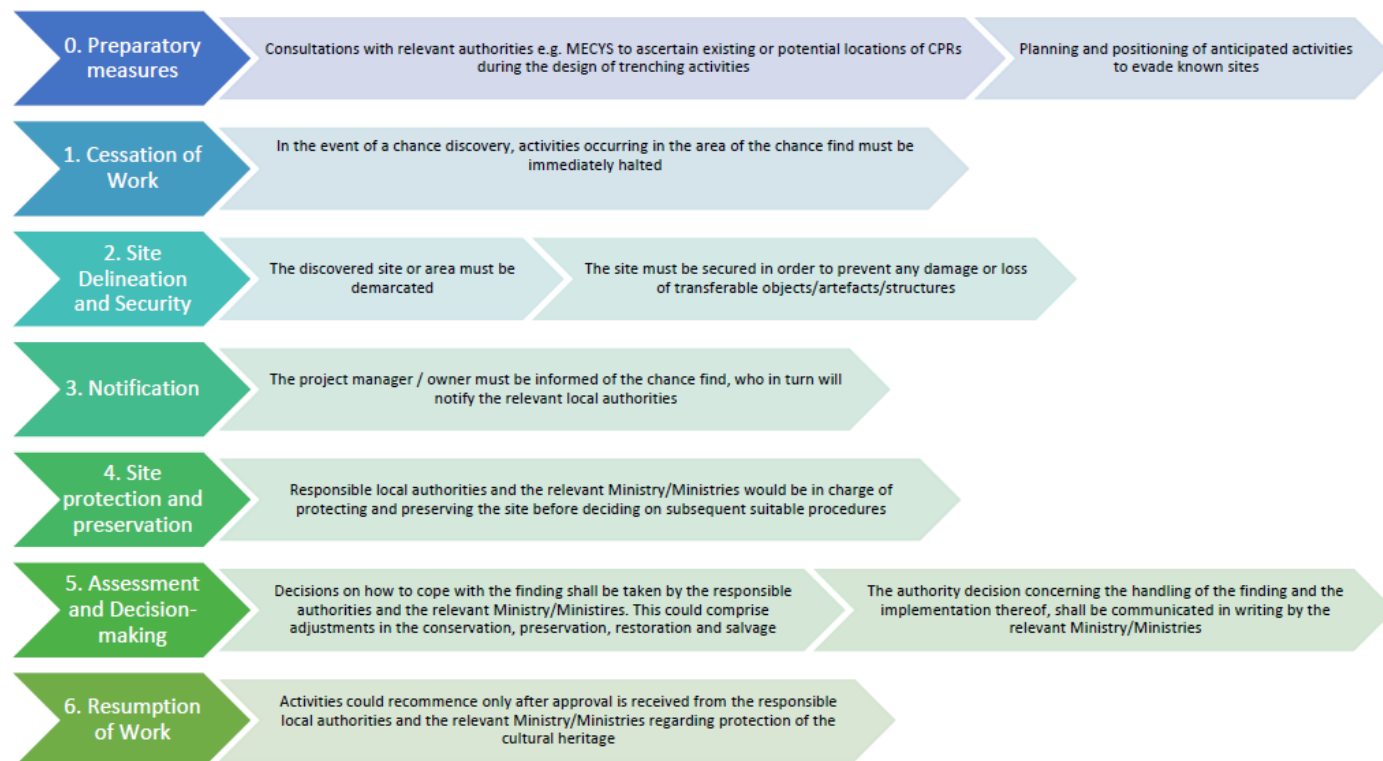
Term	Definition
Community	Usually defined as a group of individuals broader than the household, who identify themselves as a common unit due to recognised social, religious, economic or traditional government ties, often through a shared locality
Tangible Cultural Resources	Movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. Physical cultural resources may be located in urban or rural settings, and may be above or below ground, or under water. Their cultural interest may be at the local, provincial or national level, or within the international community

This CFP pertains to physical cultural resources located on land that may include movable or immovable objects, (groups of) structures, and sites and natural features/landscapes having archaeological, historical, religious, or other cultural significance or value.

¹Source:

The World Bank <http://documents.worldbank.org/curated/en/630381549872057906/pdf/Indigenous-and-Tribal-Peoples-Planning-Framework.pdf> ;
<http://documents.worldbank.org/curated/en/538931468079135118/pdf/SFG2052-EA-P155087-Box394883BPUBLIC-Disclosed-4->

Schematic overview Chance Finds Procedure



Roles and responsibilities

Roles and responsibilities attributed to the following actors under the Chance Finds Procedure (CFP) are:

Actor	Role(s) and/or responsibility/(ties)
Contractor	• Empower staff to stop works on (chance) discovery of artefacts • In the event of a chance discovery, activities occurring in the area of the chance find must be immediately halted • The discovered site or area must be demarcated and secured in order to prevent any damage or loss of transferable objects / artefacts / structures; no archaeological or historical object may be removed from the site without prior authorization issued by the Government • The Supervising Engineer must be informed of the chance find, and instructions followed for the next steps. • •
Supervising Engineer	Will notify the responsible local authorities e.g. MECYS, SIMARC etc., liaise with NRPB and instruct the Contractor on the steps to take in response to a chance find.
NRPB	• Advisory role to the other government entities and contractor with regard to the location of within the project area and the planning of activities. • Supporting role to the GoSM with regard to the protection and preservation of the site where the chance find occurred
MECYS	• Assessment and Decision-making on how to cope with the finding in relation to conservation, preservation, restoration and salvage of the find • Communicating the outcome of the assessment in writing to NRPB and the Engineer • Providing clear steps to be taken prior to the resumption of work.
VROMI	Supporting/advisory role to the other government entities in particular concerning the conservation, preservation, restoration and salvage of the find
SIMARC	Supporting/advisory role to the other government entities in particular concerning the conservation, preservation, restoration and salvage of the find

Chance Find Procedure Registration Form

Record Date (day-month-year): _____ 202...

Record Time: _____

Record Location: _____

Contact Information Key Informant

Name: _____

Phone: _____

Email: _____

Occupation / function: _____

Chance Find Details

1. Date of Chance Find (day-month-year): _____ 202...

2. Time of Chance Find: _____ AM / PM

3. Location of Chance Find (provide as much details as possible):

4. Nature of Chance Find

(Please check / tick the correct box)

- ☐ object
- ☐ structure
- ☐ group of structures
- ☐ site
- ☐ natural landscape
- ☐ skeletal remains

5. Has the Project Manager been notified by the contractor of the Chance Find?

☐ YES

☐ NO

6. Has the Project Manager notified relevant authorities? If YES, which authority was notified and when?

☐ NRPB. Date: _____ and Time: _____

☐ MECYS. Date: _____ and Time: _____

☐ VROMI. Date: _____ and Time: _____

☐ Police Department. Date: _____ and Time: _____

7. If NO, why was the authority not notified?

Delineation and security of the area of the Chance Find

8. How was the area of the Chance Find delineated and secured? [*Suggestion to also use photographic evidence*]

Assessment and Decision-making

8. a. Was an assessment/investigation carried out by responsible local authorities?

☐ YES

☐ NO

8.b. If YES, what was the outcome of the assessment conducted by the responsible local authorities?

8.c If NO, when can a final decision be expected?

9. Permission of responsible local authorities received on (*date*): _____

10. Resumption of activities on (*date*): _____

Annex 2 - Contractors' Reporting Template

Environmental, Social, Health & Safety Monthly Report Template

(*contractor to adjust content according to project specific requirements)

Cover Page

- Project Title
- Contractor's/Company's Name, Contact Information, Address
- Site Location
- Reporting Period
- Date of Report
- ESHS manager name
- ESHS Supervisor consultant name

Table of Contents

Include a table of contents

Project Progress Status

Brief Description of Project Progress Status for the reporting period

MSIPs, Health and Safety Manual and other documentation

List of the E&S documents that have been prepared, together with their approval date, and date of last review.

Accidents and Incidents

Provide a summary of all accidents/incidents reported during reporting period (and for previous periods in case still relevant)

Date of Incident/Accident/Non-Compliance	Description	Results (Injuries, Fatalities, Treatment)	Current Status/Update

Inspection Schedule

(List ESHS site inspection dates of current and coming month)

Site Description	Date	Date	Date	Date	Date	Date	Date	Date
ESHS Inspector Name								

GRM

Workers and community complaints and actions

Date of Lodging of Complaint	Site/Location of Complaint and Person Receiving	Nature of Complaint (Brief Description)	Action Taken to Resolve the complaint. If not resolved, state current status of the complaint, including follow-up actions

Training Overview

Provide an overview of trainings and toolbox discussions provided during the reporting period.

Training Topic	Date	Location	hrs	Instructor	Participants	% of Workers

Worker Induction						
Tool Box Talk: PPE use						
Tool Box Talk: Working on excavations						
Tool Box Talk: Scaffolds & Ladders						
TBT: Solid waste						
TBT: Wastewater, fuel, paints/solvents						
TBT: Fire response						
TBT: Code of Conduct and SEA/SH						
TBT: GRM						

(Training topics list is not inclusive. Please adjust according to project specific requirements)

(Toolbox topics list is not inclusive. Please adjust according to project specific requirements)

Non-Conformances

Date	Site	Inspector	Description of Non-conformance	Corrective actions	Date of Implementation & Responsibility	ESHS ID

ESHS ID

1. PPE's use and signage.
3. Working on Heights (scaffolding, ladders, harnesses, lanyards, etc)
4. Community health & safety (Security fencing and signage, noise, safe pedestrian walkways, no road obstructions, traffic signs, etc)
5. Occupational health & safety (toilet, washing station, resting room, drinking water, first aid kit, emergency phone numbers, valid fire extinguisher, etc)
6. Solid waste management, including dust prevention and a tide jobsite (skips, bins, tarps, recycling, etc)
7. Wastewater management
8. Hazardous materials. Mold management. Asbestos management. Fuels, paints, thinners, etc, storage & disposal.
9. Electrical hazards
10. Code Of Conduct violation, GRM/SEA/SH management, Accidents or Incidents reporting
11. Plans, Files and Records (C-ESMP reporting/updates, Permits/Licenses, Vehicles motor test/maintenance, training records, etc)

Metrics

Men Hours		Environmental Incidents		H&S Accidents		Near misses		Medical days ¹		Leave		ESHS Meetings		ESHS Inspections		ESHS Manager hrs	
Current month	To date	Current month	To date	Current month	To date	Current month	To date	Current month	To date	Current month	To date	Current month	To date	Current month	To date	Current month	To date
Non-Conformances (NCs)		Open NCs		Closed NCs		Stop Work Exercised		Warnings Given		Workers Removed from Site		CoC Violations		Grievances Submitted			
Current month	To date	Current month	To date	Current month	To date	Current month	To date	Current month	To date	Current month	To date	Current month	To date	Current month	To date		
Grievances Resolved		Waste Produced		Waste Recycled		Water Consumption		Wastewater production		Fuel Consumption							
Current month	To date	Current month	To date	Current month	To date	Current month	To date	Current month	To date	Current month	To date						

1. Caused by accident or occupational illness

Non-Conformances Statistics

ESHS ID	Explanation	Non-Conformances (Current Month)		Non-Conformances (Up to Date)	
		Total	Open	Total	Open
1.	PPE's use and signage.				
2.	Working on Heights (scaffolding, ladders, harnesses, lanyards, etc)				
3.	Community health & safety (Security fencing and signage, noise, safe pedestrian walkways, no road obstructions, traffic signs, etc)				
4.	Occupational health & safety (toilet, washing station, resting room, drinking water, first aid kit, emergency phone numbers, valid fire extinguisher, etc)				
5.	Solid waste management, including dust prevention and a tide jobsite (skips, bins, tarps, recycling, etc)				
6.	Wastewater management				
7.	Hazardous materials. Mold management. Asbestos management. Fuels, paints, thinners, etc, storage & disposal.				
8.	Electrical hazards				
9.	Code Of Conduct violation, GRM/GBV management, Accidents or Incidents reporting				
10.	Plans, Files and Records (C-ESMP reporting/updates, Permits/Licenses, Vehicles motor test/maintenance, training records, etc)				

Lessons learned

Describe lessons learned as a result of non-conformances, coming month initiatives for improvement and necessary future updates of the C-ESMP based on past experience.

Files & Records

Minimum Records to keep

- MSIPs, H&S Manual and other E&S documents

- Permits and licenses as applicable to the project
- Accidents and Incidents records, including investigations
- Non-conformances and corrective actions database
- GRM records
- Employee records including certificates, drivers licences, permits etc that they hold
- Signed Code of Conduct by all workers
- Training records (training dates, training place, name of instructor, training duration, name of participants, signatures of participants)
- Pre-work briefings (training dates, training place, name of instructor, training duration, name of participants, signatures of participants)
- Warnings given and workers removed from site
- Vehicles motor test records
- Equipment maintenance records

Annex 3 - NRPB's Code of Conduct



NRPB Code of Conduct

Environmental Social Health and Safety Management

The NRPB acknowledges that the overall wellbeing of Sint Maarten's population, the sound management of the man-made environment, the responsible use of our natural resources and the protection of our cultural heritage are key factors in the development of a more resilient and sustainable Sint Maarten. Social and environmental safeguards are, as such, a cornerstone of all our activities including, but not limited to, office management and the preparation, coordination, execution and evaluation of the recovery projects financed by the Sint Maarten Recovery, Reconstruction and Resilience Trust Fund.

The NRPB therefore strives to:

- Provide for, manage and maintain a safe working environment;
- Establish, implement and review internal and external environmental policies;
- Maintain sound environmental practices as an integral component of our daily activities;
- Minimize negative social and environmental impacts of all aspects of our operations;
- Minimize the generation of solid waste, prevent pollution and conserve natural and cultural resources;
- Conduct all our activities in compliance with applicable best practices, policies, local and international legal requirements;
- Apply applicable health and safety requirements as an essential component of all our programs and projects;
- Continuously improve our Occupational Health and Safety performance;
- Maintain respectful and productive interactions with members of the general public and other stakeholders;
- Respect, promote and protect applicable human rights;
- Promote gender equality and empowerment of women;
- Be intolerant of discrimination against any worker, consultant, individual or community (for example on the basis of family status, ethnicity, race, gender, sexuality, religion, language, marital status, birth, age, disability, or political conviction);
- Be intolerant of Gender Based Violence (GBV), inhumane treatment, sexual activity with children*, sexual harassment, use of illegal drugs and other illegal activities;
- Ensure that employees and contractors are qualified for the tasks they will be performing;
- Avoid conflicts of interest (such that benefits, contracts, or employment, or any sort of preferential treatment or favors, are not provided to any person with whom there is a financial, direct family, or personal connection);
- Actively engage with external consultants, contractors and other business relations to foster support for and adherence to the NRPB Environmental Social Health and Safety (ESHS) Policies and procedures, best practices, local and international legal requirements;
- Integrate ESHS requirements into procurement documents for works and supervision thereof;
- Encourage individuals to report violations of this Code as a duty;
- Ensure protection against retaliation for all who report violations of this Code, if that report is made in good faith.



The NRPB requires external- consultants, contractors and other business relations to:

- Protect the health, safety and welfare of all their staff, subcontractors and communities possibly affected by works and projects;
- Carry-out works in such a manner that minimizes negative impacts on communities, the environment, natural and cultural heritage;
- Commit to an NRPB approved Code of Conduct regarding Environmental, Social, Health and Safety (ESHS) matters;
- Appoint a person responsible for monitoring and reporting on matters related to ESHS;
- Submit to NRPB audits and reviews regarding ESHS and adherence to the approved Code of Conduct;
- Inform staff and consultants of, and allow access to, a Grievance Redress Mechanism without fear of reprisals.

(for the purpose of the policy statement, the term "child" / "children" refers to any person(s) under the age of 18 years.)*


Claret Connor
Director
National Recovery Program Bureau

Annex 4 - Contractors' Code of Conduct minimum content

We are the Contractor, *[enter name of Contractor]*. We have signed a contract with *[enter name of Employer]* for *[enter description of the Works]*. These Works will be carried out at *[enter the Site and other locations where the Works will be carried out]*. Our contract requires us to implement measures to address environmental and social risks related to the Works, including the risks of sexual exploitation, sexual abuse and sexual harassment.

This Code of Conduct is part of our measures to deal with environmental and social risks related to the Works. It applies to all our staff, labourers and other employees at the Works Site or other places where the Works are being carried out. It also applies to the personnel of each subcontractor and any other personnel assisting us in the execution of the Works. All such persons are referred to as “**Contractor’s Personnel**” and are subject to this Code of Conduct.

This Code of Conduct identifies the behavior that we require from all Contractor’s Personnel.

Our workplace is an environment where unsafe, offensive, abusive or violent behavior will not be tolerated and where all persons should feel comfortable raising issues or concerns without fear of retaliation.

REQUIRED CONDUCT

Contractor’s Personnel shall:

1. carry out his/her duties competently and diligently;
2. comply with this Code of Conduct and all applicable laws, regulations and other requirements, including requirements to protect the health, safety and well-being of other Contractor’s Personnel and any other person;
3. maintain a safe working environment including by:
 - a. ensuring that workplaces, machinery, equipment and processes under each person’s control are safe and without risk to health;
 - b. wearing required personal protective equipment;
 - c. using appropriate measures relating to chemical, physical and biological substances and agents; and
 - d. following applicable emergency operating procedures.
4. report work situations that he/she believes are not safe or healthy and remove himself/herself from a work situation which he/she reasonably believes presents an imminent and serious danger to his/her life or health;
5. treat other people with respect, and not discriminate against specific groups such as women, people with disabilities, migrant workers or children;
6. not engage in Sexual Harassment, which means unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature with other Contractor’s or Employer’s Personnel;

7. not engage in Sexual Exploitation, which means any actual or attempted abuse of position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another;
8. not engage in Sexual Abuse, which means the actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions;
9. not engage in any form of sexual activity with individuals under the age of 18, except in case of pre-existing marriage;
10. complete relevant training courses that will be provided related to the environmental and social aspects of the Contract, including on health and safety matters, Sexual Exploitation and Abuse (SEA), and Sexual Harassment (SH);
11. report violations of this Code of Conduct; and
12. not retaliate against any person who reports violations of this Code of Conduct, whether to us or the Employer, or who makes use of the grievance mechanism for Contractor's Personnel or the project's Grievance Redress Mechanism.

RAISING CONCERNS

If any person observes behavior that he/she believes may represent a violation of this Code of Conduct, or that otherwise concerns him/her, he/she should raise the issue promptly. This can be done in either of the following ways:

1. Contact [*enter name of the Contractor's Social Expert with relevant experience in handling sexual exploitation, sexual abuse and sexual harassment cases, or if such person is not required under the Contract, another individual designated by the Contractor to handle these matters*] in writing at this address [] or by telephone at [] or in person at []; or
2. Call [] to reach the Contractor's hotline (*if any*) and leave a message.

The person's identity will be kept confidential, unless reporting of allegations is mandated by the country law. Anonymous complaints or allegations may also be submitted and will be given all due and appropriate consideration. We take seriously all reports of possible misconduct and will investigate and take appropriate action. We will provide warm referrals to service providers that may help support the person who experienced the alleged incident, as appropriate.

CONSEQUENCES OF VIOLATING THE CODE OF CONDUCT

Any violation of this Code of Conduct by Contractor's Personnel may result in serious consequences, up to and including termination and possible referral to legal authorities.

FOR CONTRACTOR'S PERSONNEL:

I have received a copy of this Code of Conduct written in a language that I comprehend. I understand that if I have any questions about this Code of Conduct, I can contact [*enter name of Contractor's contact person(s) with relevant experience*)] requesting an explanation.

Name of Contractor's Personnel: [insert name]

Signature: _____

Date: (day month year): _____

Countersignature of authorized representative of the Contractor:

Signature: _____

Date: (day month year): _____

ATTACHMENT 1: Behaviors constituting Sexual Exploitation and Abuse (SEA) and behaviors constituting Sexual Harassment (SH)

ATTACHMENT 1 TO THE CODE OF CONDUCT FORM

BEHAVIORS CONSTITUTING SEXUAL EXPLOITATION AND ABUSE (SEA) AND BEHAVIORS CONSTITUTING SEXUAL HARASSMENT (SH)

The following non-exhaustive list is intended to illustrate types of prohibited behaviors

(1) Examples of sexual exploitation and abuse include, but are not limited to:

- A Contractor's Personnel tells a member of the community that he/she can get them jobs related to the work site (e.g. cooking and cleaning) in exchange for sex.
- A Contractor's Personnel that is connecting electricity input to households says that he can connect women headed households to the grid in exchange for sex.
- A Contractor's Personnel rapes, or otherwise sexually assaults a member of the community.
- A Contractor's Personnel denies a person access to the Site unless he/she performs a sexual favor.
- A Contractor's Personnel tells a person applying for employment under the Contract that he/she will only hire him/her if he/she has sex with him/her.

(2) Examples of sexual harassment in a work context

- Contractor's Personnel comment on the appearance of another Contractor's Personnel (either positive or negative) and sexual desirability.
- When a Contractor's Personnel complains about comments made by another Contractor's Personnel on his/her appearance, the other Contractor's Personnel comment that he/she is "asking for it" because of how he/she dresses.
- Unwelcome touching of a Contractor's or Employer's Personnel by another Contractor's Personnel.

A Contractor's Personnel tells another Contractor's Personnel that he/she will get him/her a salary raise, or promotion if he/she sends him/her naked photographs of himself/herself

Annex 5 - Incidents and Accidents Reporting Forms

Part B: To be completed within 24 hours

B1: Incident Details				
	Date of Incident:	Time:	Date Reported to PIU:	Date Reported to WB:
	Reported to PIU by:	Reported to WB by:		Notification Type: Email/'phone call/media notice/other
	Full Name of Main Contractor:		Full Name of Subcontractor:	

B2: Type of incident (please check all that apply) ¹
Fatality ☐ Lost Time Injury ☐ Displacement Without Due Process ☐ Child Labor ☐ Acts of Violence/Protest ☐ Disease Outbreaks ☐ Forced Labor ☐ Unexpected Impacts on heritage resources ☐ Unexpected impacts on biodiversity resources ☐ Environmental pollution incident ☐ Dam failure ☐ Other ☐

¹See Annex 1 for definitions

B3: Description/Narrative of Incident
<i>Please replace text in italics with brief description, noting for example:</i> I. <i>What is the incident?</i> II. <i>What were the conditions or circumstances under which the incident occurred (if known)?</i> III. <i>Are the basic facts of the incident clear and uncontested, or are there conflicting versions? What are those versions?</i> IV. <i>Is the incident still ongoing or is it contained?</i> V. <i>Have any relevant authorities been informed?</i>

B4: Actions taken to contain the incident			
Short Description of Action	Responsible Party	Expected Date	Status

For incidents involving a contractor:

Have the works been suspended (for example, under GCC8.9 of Works Contract)? Yes ☐; No ☐

Trading name of Contractor (if different from B1):

Please attach a copy of the instruction suspending the works.

B5: What support has been provided to affected people

Annex 1: Incident Types

The following are incident types to be reported using the environmental and social incident response process:

Fatality: Death of a person(s) that occurs within one year of an accident/incident, including from occupational disease/illness (e.g., from exposure to chemicals/toxins).

Lost Time Injury: Injury or occupational disease/illness (e.g., from exposure to chemicals/toxins) that results in a worker requiring 3 or more days off work, or an injury or release of substance (e.g., chemicals/toxins) that results in a member of the community needing medical treatment.

Acts of Violence/Protest: Any intentional use of physical force, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, deprivation to workers or project beneficiaries, or negatively affects the safe operation of a project worksite.

Disease Outbreaks: The occurrence of a disease in excess of normal expectancy of number of cases. Disease may be communicable or may be the result of unknown etiology.

Displacement Without Due Process: The permanent or temporary displacement against the will of individuals, families, and/or communities from the homes and/or land which they occupy without the provision of, and access to, appropriate forms of legal and other protection and/or in a manner that does not comply with an approved resettlement action plan.

Child Labor: An incident of child labor occurs: (i) when a child under the age of 14 (or a higher age for employment specified by national law) is employed or engaged in connection with a project, and/or (ii) when a child over the minimum age specified in (i) and under the age of 18 is employed or engaged in connection with a project in a manner that is likely to be hazardous or interfere with the child's education or be harmful to the child's health or physical, mental, spiritual, moral or social development.

Forced Labor: An incident of forced labor occurs when any work or service not voluntarily performed is exacted from an individual under threat of force or penalty in connection with a project, including any kind of involuntary or compulsory labor, such as indentured labor, bonded labor, or similar labor-contracting arrangements. This also includes incidents when trafficked persons are employed in connection with a project.

Unexpected Impacts on heritage resources: An impact that occurs to a legally protected and/or internationally recognized area of cultural heritage or archaeological value, including world heritage sites or nationally protected areas not foreseen or predicted as part of project design or the environmental or social assessment.

Unexpected impacts on biodiversity resources: An impact that occurs to a legally protected and/or internationally recognized area of high biodiversity value, to a Critical Habitat, or to a Critically Endangered or Endangered species

(as listed in IUCN Red List of threatened species or equivalent national approaches) that was not foreseen or predicted as part of the project design or the environmental and social assessment. This includes poaching or trafficking of Critically Endangered or Endangered species.

Environmental pollution incident: Exceedances of emission standards to land, water, or air (e.g., from chemicals/toxins) that have persisted for more than 24 hrs or have resulted in harm to the environment.

Dam failure: A sudden, rapid, and uncontrolled release of impounded water or material through overtopping or breakthrough of dam structures.

Other: Any other incident or accident that may have a significant adverse effect on the environment, the affected communities, the public, or the workers, irrespective of whether harm had occurred on that occasion. Any repeated non-compliance or recurrent minor incidents which suggest systematic failures that the task team deems needing the attention of Bank management.

Part C: To be completed following investigation

C1: Investigation Findings

Please replace text in italics with findings, noting for example:

- I. *where and when the incident took place,*
- II. *who was involved, and how many people/households were affected,*
- III. *what happened and what conditions and actions influenced the incident,*
- IV. *what were the expected working procedures and were they followed,*
- V. *did the organization or arrangement of the work influence the incident,*
- VI. *were there adequate training/competent persons for the job, and was necessary and suitable equipment available,*
- VII. *what were the underlying causes; where there any absent risk control measures or any system failures,*

--

C2: Corrective Actions from the investigation to be implemented (To be fully described in Corrective Action Plan)		
Action	Responsible Party	Expected Date

Part C cont.: To be completed following investigation

C3a: Fatality/Lost time Injury information

Immediate cause of fatality/injury for worker or member of the public (please check all that apply) ²:

1. Caught in or between objects ☐
 2. Struck by falling objects ☐
 3. Stepping on, striking against, or struck by objects ☐
 4. Drowning ☐
 5. Chemical, biochemical, material exposure ☐
 6. Falls, trips, slips ☐
 7. Fire & explosion ☐
 8. Electrocution ☐
 9. Homicide ☐
 10. Medical Issue ☐
 11. Suicide ☐
 12. Others ☐
Vehicle Traffic: 13. Project Vehicle Work Travel ☐
 14. Non-project Vehicle Work Travel ☐
 15. Project Vehicle Commuting ☐
 16. Non-project Vehicle Commuting ☐
 17. Vehicle Traffic Accident (Members of Public Only) ☐

Name	Age/DOB	Date of Death/Injury	Gender	Nationality	Cause of Fatality/Injury	Worker (Employer)/Public

²See Annex 2 for definitions

C3b: Financial Support/Compensation Types (To be fully described in Corrective Action Plan template)

1. Contractor Direct ☐ 2. Contractor Insurance ☐ 3. Workman's Compensation/National Insurance ☐
4. Court Determined Judicial Process ☐ 5. Other ☐ 6. No Compensation Required ☐

Name	Compensation Type	Amount (US\$)	Responsible Party

C4: Supplementary Narrative

Annex 2: Definition of fatality/injury immediate causes

1. **Caught in or between objects:** caught in an object; caught between a stationary object and moving object; caught between moving objects (except flying or falling objects).
2. **Struck by falling objects:** slides and cave-ins (earth, rocks, stones, snow, etc.); collapse (buildings, walls, scaffolds, ladders, etc.); struck by falling objects during handling; struck by falling objects.
3. **Stepping on, striking against, or struck by objects:** stepping on objects; striking against stationary objects (except impacts due to a previous fall); Striking against moving objects; Struck by moving objects (including flying fragments and particles) excluding falling objects.
4. **Drowning:** respiratory impairment from submersion/emersion in liquid.
5. **Chemical, biochemical, material exposure:** exposure to or contact with harmful substances or radiations.
6. **Falls, trips, slips:** falls of persons from heights (e.g., trees, buildings, scaffolds, ladders, etc.) and into depths (e.g., wells, ditches, excavations, holes, etc.) or falls of persons on the same level.
7. **Fire & explosion:** exposure to or contact with fires or explosions.
8. **Electrocution:** exposure to or contact with electric current.
9. **Homicide:** a killing of one human being by another.
10. **Medical Issue:** a bodily disorder or chronic disease.
11. **Suicide:** the act or an instance of taking, or attempting to take, one's own life voluntarily and intentionally.
12. **Others:** any other cause that resulted in a fatality or injury to workers or members of the public.

Vehicle Traffic

13. **Project Vehicle Work Travel:** traffic accidents in which project workers, using project vehicles, are involved during working hours and which occur in the course of paid work.
14. **Non-project Vehicle Work Travel:** traffic accidents in which project workers, using non-project vehicles, are involved during working hours and which occur in the course of paid work.
15. **Project Vehicle Commuting:** traffic accidents in which project workers, using project vehicles, are involved while travelling to (i) the worker's principal or secondary residence; (ii) the place where the worker usually takes his or her meals; or (iii) the place where he or she usually receives his or her remuneration.
16. **Non-project Vehicle Commuting:** traffic accidents in which project workers, using non-project vehicles, are involved while travelling to (i) the worker's principal or secondary residence; (ii) the place where the worker usually takes his or her meals; or (iii) the place where he or she usually receives his or her remuneration.
17. **Vehicle Traffic Accident (Members of Public Only):** traffic accidents in which non-project workers/members of the public are involved in an accident while travelling for any purpose.

Part B: To be completed within 24 hours - SEA/SH

B1: Incident Details		
Date of incident intake by the project/GM:	Date Reported to PIU:	Date Reported to WBG:
Reported to project/GM by: ☐ Survivor ☐ Third party ☐ Other: _____ Is a record of this incident in GM? Yes ☐ No ☐	Reported to PIU by: ☐ GM operator ☐ Directly, by Survivor ☐ Directly, by third party ☐ Other: _____	Reported to WBG by: ☐ PIU ☐ Directly, by Survivor ☐ Directly, by third party ☐ Other: _____

B2: Incident type (please check all that apply) See Appendix 1 for definitions
Sexual exploitation ☐ Sexual abuse ☐ Sexual harassment ☐

B3: Provide the following details from the GM record	
Age of survivor (if recorded in GM):	Have the national legislation or mandatory reporting requirements been followed? Yes ☐ No ☐
Sex of survivor (if recorded in GM): Male ☐ Female ☐ Other ☐	Was the survivor referred to service provision? ⁴⁴ Yes ☐ No ☐
Is the survivor employed by the project (as indicated by the survivor or complainant and reported in the GM)? Yes ☐ No ☐	Is the alleged perpetrator employed by the project (as indicated by the survivor or complainant and reported in the GM)? Yes ☐ No ☐

B4: Basis for further action	
a. Has the complainant provided informed consent to lodge a formal complaint? Yes ☐ No ☐	c. Has the survivor provided informed consent to be part of an investigation into misconduct? Yes ☐ No ☐
b. Does the employer have a suitable administrative process and capacity in place to investigate misconduct relating to SEA/SH in a survivor-centered way? Yes ☐ No ☐	d. Has the complaint been filed anonymously or through a third party? Yes ☐ No ☐
If the answer to any of these questions is no, has the GM assessed the risks and benefits of carrying out an investigation into the alleged misconduct, taking into account the survivor's safety and wellbeing? Yes ☐ No ☐	
Will an investigation into misconduct be undertaken in addition to an investigation into adequacy of project systems, processes or procedures? Yes ☐ No ☐	

Appendix 1: Incident Types

Incident Type	Example
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⁴⁴ When a complaint is filed by a third party, or the survivor has not reached out to the project, the project may not be able to confirm this information. In these cases, it may not be advisable for the project GM to attempt to reach the survivor, as this may jeopardize confidentiality, safety, and agency. Projects may attempt to find safe ways to pass information indirectly (such as through broad efforts to inform) about services available.

Sexual Exploitation: Any actual or attempted abuse of position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another. In Bank financed operations/projects, sexual exploitation occurs when access to or benefit from a Bank financed Goods, Works, Non-consulting Services or Consulting Services is used to extract sexual gain.	• A community member is promised employment on the World Bank financed project site in exchange for sex • A member of the project team connecting water lines to homes requests a sexual favor for access to water connection • A project worker denies passage of a woman through the worksite unless she performs a sexual favor
Sexual Abuse: Actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions. In Bank financed operations/projects, sexual abuse occurs when a project related worker (contractor staff, subcontractor staff, supervising engineer) uses force or unequal power vis a vis a community member or colleague to perpetrate or threat to perpetrate an unwanted sexual act.	• A project worker abuses a community member • A project worker has a sexual relationship with a child • A project worker befriends a child, supporting her and/or her family in exchange of sexual favors • A project worker stays in the cafeteria after dinner and sexually assaults a kitchen staff member • A project worker touches an administrative staff member's body. • A supervisor for a subcontractor asks his female colleague to join him for a business dinner with the main contractor. After dinner he asks her to entertain "the boss" in his room as an appreciation for the contract and her work.
Sexual Harassment: Any unwelcome sexual advance, request for sexual favor, verbal or physical conduct or gesture of a sexual nature, or any other behavior of a sexual nature that might reasonably be expected or be perceived to cause offence or humiliation to another, when such conduct interferes with work, is made a condition of employment, or creates an intimidating, hostile or offensive work environment. In Bank financed operations/projects, sexual harassment occurs within the context of a subcontractor or contractor and relates to employees of the company experiencing unwelcome sexual advances or requests for sexual favor or acts of a sexual nature that are offensive and humiliating among the same company's employees.	• A worker sends sexually explicit text messages to a coworker • A colleague leaves an offensive picture that is sexually explicit on a co-worker's desk • A project worker asks all female employees to greet him with a kiss on the cheek every day before work. • A project worker compliments his co-worker's body. • A project worker continuously invites a co-worker out for drinks or dinner after being told that they are not interested.

Part C: To be completed following investigation – SEA/SH

C1: Findings of the investigation		
Have sanctions against a perpetrator been recommended as part of an investigation into misconduct? Yes ☐ No ☐	Has an investigation into adequacy of project systems, processes or procedures been undertaken? Yes ☐ No ☐	
C2: Corrective actions to be implemented (To be fully described in Corrective Action Plan)		
Short Description of Action (SEA/SH examples)	Responsible Party	Timeline for completion/Status
<i>Referral of Survivor to holistic care services</i>		
<i>Undertake disciplinary investigation in accordance with GM timelines and confirmed process</i>		
<i>Disciplinary actions, including sanctions, to be applied following misconduct investigation by Employer</i>		
<i>Increased training on Codes of Conduct (CoC)</i>		
<i>Audit of implementation of SEA/SH safety mitigation</i>		
<i>Strengthened awareness training on project-related risks, CoC and how to report incidents for project-affected community</i>		
<i>Training for project supervisors on the need to follow guidelines of behaviour in CoC and their supervisory responsibilities</i>		
<i>Plan to improve coverage/quality of service provision</i>		
<i>Any other system strengthening measures or corrections for system failures that are necessary</i>		
C3: For incidents involving a Contractor:		
Has the incident been referred to the DAAB? Yes ☐ No ☐		

Part B: To be completed within 24 hours - SOGI

B1: Incident Details		
Date of incident intake by the project/GM:	Date Reported to PIU:	Date Reported to WBG:
Reported to project/GM by: ☐ Victim ¹ ☐ Third party ☐ Other: _____ _____	Reported to PIU by: ☐ GM operator ☐ Directly, by victim ¹ ☐ Directly, by third party ☐ Other: _____	Reported to WBG by: ☐ PIU ☐ Directly, by victim ¹ ☐ Directly, by third party ☐ Other: _____

1. If reporting is by victim care must be taken to adhere to any requests for anonymity.

B2: Incident type requiring confidentiality (please check all that apply)
Violence on basis of SOGI ☐ Discrimination on basis of SOGI ☐
See Appendix 1 for definitions

B3: Basis for further reporting	
a. Has the victim provided informed consent for this incident to be reported? Yes ☐ No ☐	b. Does national legislation or mandatory reporting apply to this case? Yes ☐ No ☐ c. If yes, has it been reported? Yes ☐ No ☐
If the answer to both a. & b. questions is NO, further reporting of this allegation is not required. However, further measures to strengthen SOGI prevention and mitigation on the project should be provided below.	

Further measures to strengthen SOGI prevention and mitigation		
Short Description of Action (<i>Examples: Please replace text in italics below with brief description of actions to be taken</i>)	Responsible Party	Expected Date
<i>Increased training on Codes of Conduct (CoC) and non-discrimination on the basis of SOGI</i>		
<i>Safety audit of project site focussing on SOGI</i>		
<i>Verification all employees sign and understand CoC</i>		
<i>Strengthened awareness on project-related risks, CoC and how to report incidents for project-affected community</i>		
<i>Active outreach to local civil society organisations working with social and gender minorities to ensure continuous risk monitoring and adaptation</i>		
<i>Training for project supervisors on the need to follow guidelines of behaviour in CoC and their supervisory responsibilities</i>		
<i>Plan to improve coverage/quality of service provision</i>		
<i>Additional training for GM focal points</i>		

Other (please detail)		
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B4: If consent has been provided or national legislation mandates reporting of the incident as indicated in B3, provide the following details from the available GM record

Age of victim (if recorded in GM):	
Sex of victim (as recorded in GM):	Male ☐ Female ☐ Other ☐
Has the victim self-identified as sexual or gender minority or are there indications that the case is related to SOGI (i.e., use of homo- or transphobic language)?	Yes ☐ No ☐
Was the victim referred to service provision?	Yes ☐ No ☐
Is the alleged perpetrator employed by the project (as indicated by the victim and reported in the GM)?	Yes ☐ No ☐

B5: Basis for investigation

Has the victim provided informed consent for this incident to be investigated?	Yes ☐ No ☐
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If the answer to this question is yes, complete part C below using the results of the investigation

Appendix 1: Incident Types

Violence on the basis of SOGI:

The threat or use of physical force that injures or abuses a person, or damages or destroys property, and that is motivated in whole or in part by the victim's real or perceived sexual orientation, gender identity, gender expression, or sex characteristics.

Discrimination on the basis of SOGI:

Discrimination means creating a distinction, exclusion, or restriction which has the purpose or effect of impairing or excluding a person based on their real or perceived sexual orientation, gender identity, gender expression, or sex characteristics from being on an equal basis with others.

Part C: To be completed following investigation where further reporting is permitted (see Incident Form SOGI Part B)

C1: Corrective actions from the investigation to be implemented (to be fully described in Corrective Action Plan)		
Short Description of Action (<i>Examples: please replace text in italics below with brief description of actions to be taken</i>)	Responsible Party	Expected Date
<i>Referral of victim to holistic care services</i>		
<i>Disciplinary actions, including sanctions, to be applied following misconduct investigation</i>		
<i>Measures to prevent similar instances from happening in the future</i>		
<i>Measures to address gaps in procedural manuals or implementation of procedures that contributed</i>		
<i>Measures to change/modify program practices to prevent recurrence</i>		
<i>Where additional training might be needed</i>		

Annex 6 - ESS5 Screening Tool

Screening Questions	Yes/No; Explain
1. Will works be carried out on a private road? If yes, is there a written agreement with road owner?	
2. Will works be carried out on a private parcel of land or will temporary easement be required? If yes, is there a written agreement with landowner?	
3. Will works be carried out on a Government owned parcel of land? If yes, is there a written agreement with Government?	
4. Will works cause any restriction to land use, resources, businesses or communal property?	
5. For final connection works on private houses and businesses, is there a written agreement with owner?	
6. Will works require land acquisitions or property expropriation?	
7. Will works cause involuntary resettlement or permanent or temporary physical displacement of people and businesses?	
8. Will works cause economic displacement of people and businesses?	

Annex 7 – Summary of Public Consultations and Dissemination of Project Information

7.1 Consultations before Appraisal

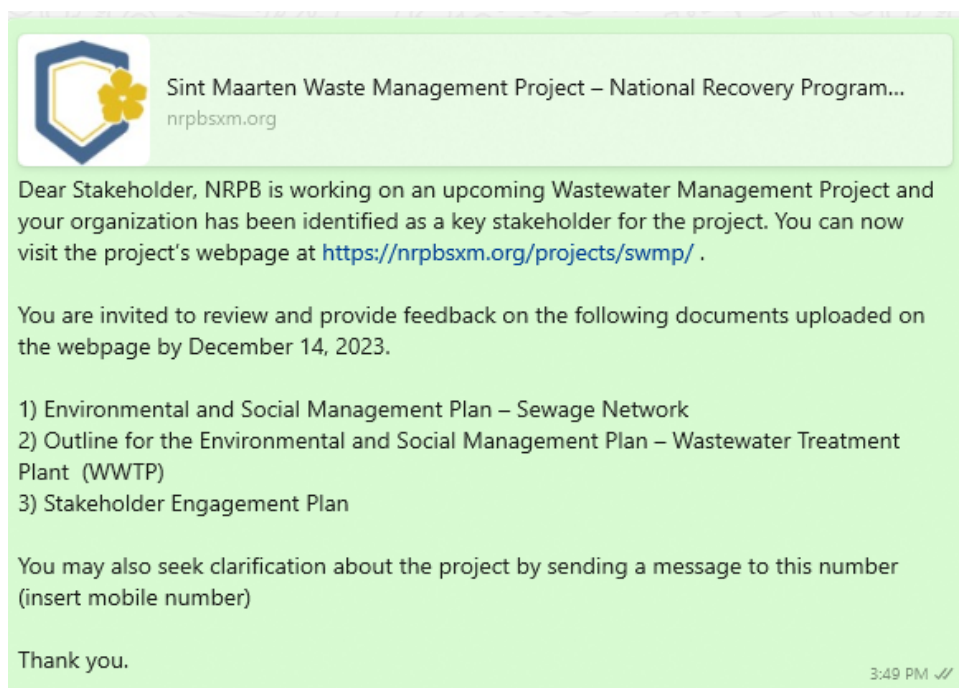
Several consultations were held with stakeholders leading up to appraisal in December 2023.

Date of Consultation	Stakeholders	Objectives of Consultation	Outcomes/Conclusions
16 March, 2023	Representatives of Interest Groups	To discuss with VROMI project managers and private contractors that are currently operating the Sint Maarten municipal wastewater treatment plant (WWTP) the identification of priority investments for its upgrading and the capital expenditure required for it.	The earlier need to construct a second sedimentation tank (as advised by the initial technical assessment), could be dropped, implying a reduction in the initial estimated costs for the required upgrades of the WWTP. • Some equipment replacement is needed, like Inlet pumps, a partial rehabilitation of Drying Beds, a new mechanical sludge dewatering stage, chemical precipitation facilities for phosphorus removal, disinfection of treated effluent, flow measurement, tools and spare parts, plus the adherent consulting firm services. • An improvement of the automation and SCADA (Supervisory Control and Data Acquisition) is recommendable to enhance the operations. • Disinfection equipment is needed to accomplish the requirements of VROMI's Hindrance Permit HP.12.006.
	Representatives of Environmental NGOs (EPIC and Nature Foundation)	To get a better understanding of the current situation of the quality of the coastal areas, including Fresh Pond and Salt Pond. Also, the intention was to be familiar with current activities of both NGOs and to get feedback from them that can determine a better approach for this project when designing activities.	It was agreed on implementing a limited number of surface water quality testing sites as part of project appraisal, with the aim of determining, broadly, the current level of contamination in inland water bodies and coastal waters of SXM and the contribution of pollution from the WWTP, as well as initiating the establishment of a baseline for future evaluation of project impact. NRPB will draft a ToR for the initial water testing, and details on locations, parameters measured, and frequency of measurement will be discussed and agreed upon between the WB and NRPB in the next stage of project preparation.

6 th November, 2023	Representatives of Interest Groups 2 sessions: Session 1: staff members of VROMI, the Ministry of Health and the Department of Police. Session 2: with representatives of districts and utilities that will be directly affected by and benefit from the project	To inform civil society representatives about the objectives, components and activities of the project, emphasizing the direct impact on the population during and after the interventions, including nuisance from trenching works necessary for the network expansion.	This information session was important and needed for the audience as they felt that any initiative in this domain has to be coordinated with the governmental institutions. VROMI staff had a lot of technical information that was deemed useful for the proper design of the project. The staff expressed their availability to collaborate during the future design phase. Session 2: Despite all efforts to gather all representatives of the districts, just one person attended the meeting the NRPB team decided to proceed. The conclusion is that once the infrastructure's design begins to be defined and the streets and properties that will be affected are known, people will become more interested in seeing and discussing the proposed options in future consultations.
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Request for Feedback on the elaborated Table of Content of the Network ESMP

The Table of Content (ToC) for the Network ESMP was disclosed on the NRPB website in November 2023. A WhatsApp number (+1-721-5865680) was established to share information on the project and to receive feedback from stakeholders. Stakeholders were invited to review and provide feedback on the *Environmental and Social Management Plan (ToC) – Sewage Network*, among other documents which were uploaded on the project website.



More information about appraisal stage consultations can be found in the Stakeholder Engagement Plan of the Project, by following the link:

<https://nrpbxm.org/wp-content/uploads/2023/12/SEP-SXM-Wastewater-management-project-P179067-CleanPersonal-Details-Removed-1.pdf>

7.2 Public disclosure of the Preliminary ESMP after conditional clearance by WB

The preliminary ESMP for the Sewerage network received conditional clearance from the WB on 29th of May, 2024. The ESMP was then updated accordingly and published for feedback on NRPB's webpage, newspaper, social media. Targeted emails were sent to relevant stakeholder groups. In all cases, a two weeks review period was considered. **No feedback was received.**

A summary of those public disclosures is provided in table below.

Media	Date	Targeted Stakeholders	Link/Image
Upload on NRPB's webpage	28 June, 2024	The general public	SWAMP-ESMP-Network - draft-for-public-consultation.pdf (nrpbxm.org)
Newspaper ad	5 July, 2024	The general public	See newspaper page image below
Social media (linkedin, facebook, etc)	Various dates	The general public	Same image as for the newspaper was used
Targeted emails	30 July, 2024	Community councils of Cul de Sac district, WYCCF, Community groups (Rotary Club), NGOs (EPIC, Nature Foundation), Professional Organizations (WISCU, WIFOL, Teacher Union, SHTA), Schools in Cul de Sac district, GEBE, Sports Associations (SMLL, SMSA), VROMI several departments, Police Department	See screenshot image below

The text of the targeted emails can be seen below. Due to an error on the deadline for feedback, a follow-up email was sent.

FW: SWAMP Network ESMP Public Consultation - Yiannis Roussos - Outlook - Personal - Microsoft Edge

about:blank

Delete Archive Report Reply Reply all Forward Zoom Read / Unread Categorize Flag / Unflag Print

FW: SWAMP Network ESMP Public Consultation Green category X

From: Info NRPB SXM <info@nrpbasm.org>
Sent: Tuesday, July 30, 2024 12:51 PM
To: Alvaro Vadillo <a.vadillo@nrpbasm.org>; Jo-Ann George <j.george@nrpbasm.org>
Subject: SWAMP Network ESMP Public Consultation

Dear Stakeholder,

Attached to this email you will find the draft Preliminary Environmental and Social Management Plan (ESMP) for the National Recovery Program Bureau's (NRPB) "Wastewater Management" Project, and specifically the Wastewater Collection sub-component.

An ESMP is an environmental and social risk management instrument which provides the standard set of mitigation, monitoring, and institutional measures to be taken during project implementation and operation to eliminate adverse environmental and social impacts, offset them, or reduce them to acceptable levels. This ESMP is drafted specifically for the works related to the sewerage network expansion and rehabilitation sub-component.

Why are you receiving this email?
The NRPB would like to invite you to review the draft Preliminary ESMP for the "Wastewater Management" Project - Wastewater Collection.

The "Wastewater Management" Project aims to (i) increase access to safely managed sanitation services; and (ii) improve sustainability and resilience of wastewater management. The sub-component 1.1: "Wastewater collection" aims at improving the coverage and resilience of wastewater collection, which will be done through:

- a. Expansion of the existing sewerage network, including transport pipelines, collection pipelines, pumping stations, house sewerage connection and other structures, to connect additional residents and commercial enterprises.
- b. Rehabilitation of critical parts of the existing sewage system to improve its climate resilience and operational efficiency.

The objective of this public consultation period is to ensure that all affected parties are informed and able to express their perspectives. This ensures that relevant concerns and potential impacts of the project are taken into account. As a direct stakeholder, we especially want to hear your concerns, if any, and this email is thus being sent to facilitate your access to the attached draft Environmental and Social Management Plan (ESMP).

What is needed from you?
We appreciate your feedback on this Plan!
If you could please review the document and send your comments/suggestions to us via info@nrpbasm.org or swmp@nrpbasm.org by July 31st, 2024 we can make sure to consider the received feedback in the preparation of the final document. The document can also be found on our website: [National Recovery Program Bureau \(nrpbasm.org\)](https://nrpbasm.org)

Thank you in advance for your contributions to reviewing this Preliminary Environmental and Social Management Plan (ESMP).
To learn more about the NRPB and "Wastewater Management" Project please visit the webpages <https://nrpbasm.org/about-nrpb/> and Sint Maarten Waste Management Project – National Recovery Program Bureau (<https://nrpbasm.org/projects/swmp/>).



NRPB

Regards,

Support Team
National Recovery Program Bureau
#57 Walter J.A. Nisbeth Road
Philipsburg, Sint Maarten
a.richardson@nrpbasm.org
NRPB : +1(721) 542-8886/7
www.nrpbasm.org

Follow-Up Email, informing stakeholders of the correct date for the submission of their feedback:

On Wed, Jul 31, 2024 at 11:26 AM Info NRPB SXM <info@nrpbxm.org> wrote:

Good morning,

Please note the corrected time for:

If you could please review the document and send your comments/suggestions to us via swmp@nrpbxm.org or info@nrpbxm.org by **August 13th, 2024** to make sure to consider the received feedback in the preparation of the final document.

Regards,



Support Team

National Recovery Program Bureau

#57 Walter J.A. Nisbeth Road
Philipsburg, Sint Maarten

a.richardson@nrpbxm.org

NRPB : +1(721) 542-8886/7

www.nrpbxm.org



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THE DAILY HERALD, Friday/Saturday, July 5 - 6, 2024



Scan To Review ESMP

www.nrpbxm.org/swmp



Sint Maarten Waste Water Management

Public Feedback Request For: Network Extension Works

The First Step

The Sint Maarten Wastewater Project will be implemented by the NRPB on behalf of the Government of Sint Maarten. The primary objective focuses on the wastewater concerns of the Dutch Cul De Sac district. The projected total impact will benefit approximately 10,000 residents. The project also aims to enhance and redesign the waste water plant and sewage network.

Community Awareness & Impact

The NRPB is aware that the project will impact residents, businesses, educational institutions and persons who frequent the area during project implementation.

Information about how the project implementation will be managed is available in the ESMP, viewable on the NRPB website.

Environmental and Social Management Plan

ESMP

An ESMP is a tool to help us mitigate, offset or reduce adverse environmental and social impact during project implementation. This ESMP covers the Network Extension works.

Deadline Feedback: Friday 19 July 2024



Contact Us

#57 Walter J.A. Nisbeth Road,
Philipsburg, Sint Maarten

+1 (721) 542-8886/7

www.nrpbxm.org
swmp@nrpbxm.org



NRPB
NATIONAL RECOVERY PROGRAM BUREAU



SintMaarten TRUST FUND



The newspaper ad as was published on Daily Herald, on 5th July, 2024.

The same image (with different dates) was posted on NRPB’s social media platforms.

7.3 Project Consultation during implementation, December 10th, 2025

A public consultation was held at the Belair Community Centre on December 10, from 6:00 p.m. to 9:00 p.m. The purpose of the consultation was to present the project design and the E&S instruments findings and recommendations, receive feedback from the stakeholders and address concerns, enhance transparency and integrate local context, in accordance with World Bank requirements.

Date of Consultation/Survey	Stakeholders	Objectives of Consultation/Survey	Outcomes/Conclusions
10 December 2025	<u>Open public consultation.</u> Approximately 50 participants attended the consultation in person. In addition, a live stream was provided through NRPB's online platform to allow individuals who were unable to attend physically to participate remotely. Approximately 15 participants joined the session online. An estimated 15 of the total participants were women. Presentations were delivered by VROMI, NRPB and the Project Consultant (Engidro)	The public consultation was held at the Belair Community Centre on December 10, from 6:00 p.m. to 9:00 p.m. The purpose of the consultation was to present the project design and the E&S instruments findings and recommendations, receive feedback from the stakeholders and address concerns, enhance transparency and integrate local context, in accordance with World Bank requirements.	Participants raised questions primarily focused on connectivity, technical feasibility, financing, community impact, and long-term sustainability. Residents sought clarity on mandatory connections for new developments, access issues in hilltop areas, and whether private properties would need to be crossed for network expansion. Technical experts clarified that alternatives and tailored engineering solutions are being explored, with a focus on using existing access routes and setting reasonable elevation limits for connections. Concerns also centered on traffic management during construction, opportunities for local contractors, and whether the project could be divided into smaller lots. The NRPB and Ministry emphasized adherence to international procurement rules while

			encouraging local participation. Financing and future sewage fees were recurring topics, with government confirming that a financial framework is under development, including potential differentiated rates and tourism-based levies. Residents questioned the WWTP's capacity, long-term maintenance funding, and contingency planning for cost overruns. The Ministry & Engidro explained that modelling confirms plant resilience, process improvements are planned, and contingencies are included in the budget. Participants also discussed expansion to other neighborhoods, resource recovery opportunities, youth engagement, and cross-border wastewater cooperation. The consultation demonstrated strong public interest in equitable access, transparency, and sustainable long-term planning, all of which are being incorporated into ongoing project design and policy development.
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Annex 8 – List of neighbourhoods and roads of sewerage expansion

District	Neighborhood	Road/Street
Cul de Sac	Reward	Pigeon Pea Road
		Radish Road
		L.B Scoot Road
		Pear Road
		Peach Road
		Boulangier Road
	St. Peters	St. Peters Road
		Genip Road
		Soursap Road
		Pomserette Road
		Sugarapple Road
		Avocado Road
		Unnamed Road
		Raspberry Road
		Tangerine Road
		Strawberry Road
		Lemon Road
		Lime Road
		Grapefruit Road
		Apricot Road
	Betty ´s Estate	Passionfruit Road
		Orchid Road
		Orchad Drive
		Ebenezer Road
		Betty's Estate Road
		Gardenia Road
		Passion Flower Road
		Frangipani Road
		Camella Road
		Poinsetta Road
	Retreat Estate	Arbutus Road
		Apricot Road
		Blueberry Drive
		Cantalope Road
		Kiwi Drive
		Honey Dew Road
		Stone Oven Drive

Saunders (Optional)	Meadowlands Drive
	Arbutus Road
	Flamboyant Road
	Buttercup Road
	Oleander Road
	Hybiscus Road
	Bougainville Road
	Amaranthus Road
	Dahlia Road

Annex 9 – Design Standards for the Sewerage Network and Household Connections

The sewer network is designed for a 30-year planning horizon, allowing sufficient capacity for projected population growth, increased tourism activity, and future extension of sewer coverage within the basin.

1. Planning Basis and Design Scenario

The technical design is based on Scenario 3A, which assumes full sewerage coverage in the Cul de Sac catchment, coordinated with parallel sewer expansion in Lower Prince's Quarter. Although not all areas are immediately served, ultimate population loads were included in the hydraulic assessment to ensure that trunk sewers are adequately sized for future connections without requiring structural modifications.

This planning approach provides flexibility for phased implementation while ensuring hydraulic continuity with the existing sewer network and the A. Th. Illidge Road Wastewater Treatment Plant.

2. Wastewater Flow Assumptions

Wastewater flows are derived from potable water consumption data for both the resident population and the tourism sector. Average domestic water consumption is assumed at 135 L/person/day. Tourism-related wastewater generation is represented by 650 L/tourist/day for stay-over visitors and 80 L/person/day for cruise passengers' onshore activities.

An average wastewater return coefficient of 80% is applied to estimate the Average Dry Weather Flow (ADWF). To account for groundwater infiltration and rainfall-derived inflow, Average Wet Weather Flow (AWWF) is calculated by doubling the ADWF, representing a 100% wet-weather allowance.

3. Peak Flow and Hydraulic Design

Peak Wet Weather Flows (PWPF) are calculated using population-dependent peak factors in line with European practice, providing a realistic representation of diurnal and hourly flow variations. This approach offers technical robustness while remaining compatible with local Sint Maarten design standards.

Hydraulic sizing is performed using Manning's equation under steady-state gravity flow assumptions, with a Manning roughness coefficient of 0.010. Pipes are designed to operate below critical depth and without surcharge under peak conditions.

4. Sewer Design Criteria

The principal sewer design criteria adopted for the project include:

- Minimum main sewer diameter of 200 mm;
- Minimum service connection diameter of 160 mm;
- Maximum depth-to-diameter ratios to prevent surcharge;
- Minimum design velocity of 0.6 m/s and maximum velocity of 3.0 m/s;
- Maximum allowable pipe slope of 15%, with anchoring where required.

Where minimum slopes or velocities cannot be achieved due to topographic or network integration constraints, such deviations are accepted provided appropriate maintenance measures are implemented during operation.

5. Pipe Materials and Structural Design

PVC-U pipes with stiffness class SN8 compliant with EN 1401-1 are specified for diameters up to 400 mm. Push-fit joints with elastomeric sealing rings ensure watertightness and accommodate minor settlement.

Structural verification of sewer pipes accounts for soil cover, traffic loading, and groundwater conditions. Protective measures such as reinforced concrete encasement are specified where cover is limited or at utility and watercourse crossings.

6. Trenching, Bedding, and Backfill

Pipes are installed in trenches sized according to pipe diameter and depth. A minimum standard cover depth of 1.4 m is adopted. Bedding consists of compacted sand or gravel with a minimum thickness of 100 mm, with geotextile separation used where required. Backfill materials are placed and compacted in layers to ensure long-term stability.

7. Manholes and Appurtenances

Manholes are provided at all changes in alignment, diameter, or slope, and at intervals not exceeding 60 m. Prefabricated plastic manholes with internal diameters of 1.0 m or 1.2 m are adopted depending on depth. Anti-flotation measures and traffic-rated covers are used where required.

8. Household Connections

Household connections comprise DN160 PVC pipes connecting the public sewer to boundary inspection chambers located within public land.

9. Hydraulic Modelling and Verification

A hydraulic model was developed to verify network performance under peak wet-weather conditions for the design horizon year. Modelling confirms that the proposed and existing sewer networks have adequate capacity and identifies localized rehabilitation works required to restore gravity flow.

10. Overall Design Approach

The adopted design standards provide a technically robust and practical solution that balances hydraulic performance, constructability, and long-term maintenance needs. The approach ensures that the sewer network can be implemented in phases while delivering reliable wastewater service and supporting future urban development in the Cul de Sac area.

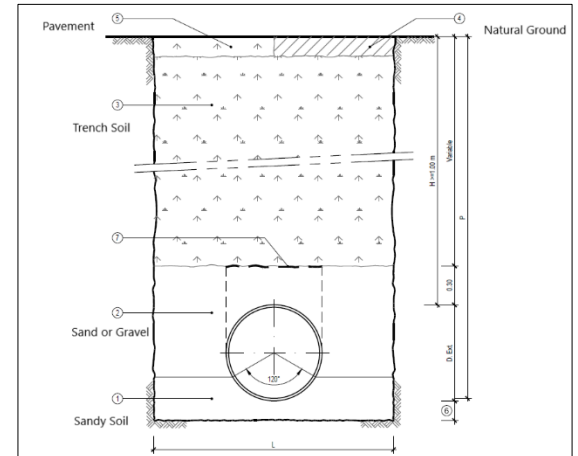


Figure 14: Sewage pipe laying