

**Government of Sint Maarten  
National Recovery Program Bureau  
Sint Maarten Wastewater Management Project**

**SUMMARY OF THE TERMS OF REFERENCE**

**FOR THE DESIGN OF THE EXPANSION OF THE SEWERAGE NETWORK AND THE IMPROVEMENT  
OF THE WASTEWATER TREATMENT PLANT OF SINT MAARTEN,  
ENVIRONMENTAL AND SOCIAL ASSESSMENT OF THE WASTEWATER TREATMENT PLANT  
AND THE SUPERVISION OF CONSTRUCTION WORKS**

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## Abbreviations and Acronyms

BMP	Biodiversity Management Plan
BoQ	Bill of Quantities
C-ESMP	Contractors' Environment and Social Management Plan
CoC	Code of Conduct
E&S	Environmental and Social
EOI	Expression of Interest
ESF	Environment and Social Framework
ESHS	Environment, Social, Health and Safety
ESA	Environment and Social Assessment
ESMP	Environment and Social Management Plan
GEBE	Gemeenschappelijk Elektriciteitsbedrijf Bovenwindse Eilanden/ Common Electricity Company Windward Islands
GHG	Green House Gases
GIS	Geographic Information System
GoSM	Government of Sint Maarten
GRM	Grievance Redress Mechanism
IBA	Important Bird Area
LMP	Labour Management Procedures
NRPB	National Recovery Program Bureau
OHS	Occupational Health and Safety
PIU	Project Implementation Unit
REOI	Request for Expression of Interest
RfP	Request for Proposal
SEA	Sexual Exploitation and Abuse
SH	Sexual Harassment
SEP	Stakeholders Engagement Plan
SOP	Standard Operating Procedures
SWAMP	Sint Maarten Wastewater Management Project
SXM	Sint Maarten
SXM TF	Sint Maarten Trust Fund
ToR	Terms of Reference
VROMI	Ministry of Public Housing, Spatial Planning, Environment and Infrastructure
WHO	World Health Organisation
WSS	Water Supply and Sanitation
WWTP	Wastewater Treatment Plant

# 1 INTRODUCTION AND CONTEXT

## 1.1 Context

**Investments in wastewater are proposed to be funded under the Sint Maarten Recovery Reconstruction and Resilience Trust Fund.** The Steering Committee of the Sint Maarten Recovery Reconstruction and Resilience Trust Fund agreed on March 9, 2022, to allocate funds to develop new activities and strengthen social and utility services. This confirms the strong commitment and support of the Steering Committee to prioritizing investments in wastewater collection and treatment, to reduce risks to public health and protect Sint Maarten’s Surface waters and beaches from environmental degradation, preserving the country’s extraordinary natural assets and enhancing the sustainability of recreation for residents and the tourism economy.

## 1.2 Sectoral and Institutional Context

**Sewerage network coverage is low in Sint Maarten.** Prior to the COVID-19 pandemic, Sint Maarten experienced a rapid economic development along with the 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 neighborhoods of Sint Maarten, leaving significant areas and percentage of population uncovered. Although the GoSM has made several wastewater investments over time including the construction of a wastewater treatment plant (WWTP) and development of sewerage infrastructure in various residential and commercial districts, it is estimated that only 23 percent of GEBE’s (Gemeenschappelijk Elektriciteitsbedrijf Bovenwindse Eilanden/Common Electricity Company Windward Islands) water customers have sewerage connections.

Less than 11% of the properties in the country, corresponding to appx. 2,000 properties are connected to wastewater system<sup>1</sup>. This situation has resulted in inadequate sanitation, affecting large segments of the population and tourism sector.

**Sint Maarten lacks adequate wastewater network infrastructure.** The country’s single existing public biological treatment plant located on A. T. Illidge Road (originally constructed in 1992, upgraded and enlarged in capacity in 2013), is designed to service the Greater Philipsburg area

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<sup>1</sup> Country Sint Maarten Sewerage Master Plan 2020-2030



Maarten for the period 2019 to 2025. The planned investments are expected to be financed by the Government of the Netherlands through the SXM TF.

The areas highlighted in the Strategic Framework aim to:

- (i) promote sustainable economic recovery,
- (ii) support citizens and resilient communities, and
- (iii) build the foundations to improve long-term resilience and good governance.

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. Moreover, among the seven prioritized areas identified as critical for investment in the long-term, sewage management is emphasized along with hurricane-resistant schools and shelters, psychosocial support and mental health, tourism recovery, and low-income housing. Proper sewage management is critical for human health, environmental wellbeing, mitigation of flood risk, ocean cleanliness, recreation and tourism, and the long-term resilience of the country. Therefore, the proposed project will significantly contribute to Sint Maarten's development agenda.

NRPB lays out priorities and a roadmap for Sint Maarten's recovery, reconstruction, and resilience following Hurricane Irma. Under the proposed interventions, the urgent need for expanding the existing sewage network and upgrading the wastewater treatment infrastructure on the island has been emphasized. Furthermore, the proposed project is closely in line with what sets forth in the Sint Maarten National Development Vision 2020-2030.

**However, prior to the implementation of any of the above earmarked activities, a comprehensive assessment of the WWTP needs to be undertaken in order to inform a structured way forward.**

## 2 BACKGROUND

Maintaining efficient sewage collection and treatment systems is a growing concern in order to facilitate possible expansion of the network to accommodate more households. An improvement of the WWTP operation and maintenance practices will contribute to balancing overall performance as well as to reducing pollution risks of water bodies.

Adopting a preventive maintenance system will allow the achievement of the required levels of service (reliability) whilst optimally utilizing the available resources (efficiency). For this, a ‘plan-do-check-act’ approach is recommended for which performance assessment is of utmost importance. Such an assessment is currently hampered by lack of comprehensive and reliable operation data. Thus, developing and implementing a methodology for data collection and performance assessment of the existing WWTP is crucial. This should then enable a sound evaluation of the extra connections that can be made, without overloading the existing facility. The necessary improvement measures at the WWTP to maximize extra connections, while still meeting effluent requirements, need to be defined.

The treated effluent from the WWTP is discharged into the Fresh Pond, which is connected via a channel to the Great Bay Area which is only opened during times of excessive rainfall. Fresh Pond receives additional flows from surface run-off and from the Great Salt Pond through a lock and channel. Water quality assessments on Great Salt Pond carried out in 2019<sup>2</sup> indicated high presence of contaminants attributed to influx of sewage and terrestrial run-off from surrounding areas and leachate discharges from the Municipal Solid Waste site(s), which are also located within the Pond. Both the Great Salt Pond and the Fresh Pond have been identified as Important Bird Areas (IBAs) by BirdLife International because they support populations of various threatened or restricted-range bird species. Both Ponds are also affected by plastics and other waste items (solid and liquid) which affect the biodiversity in the area.

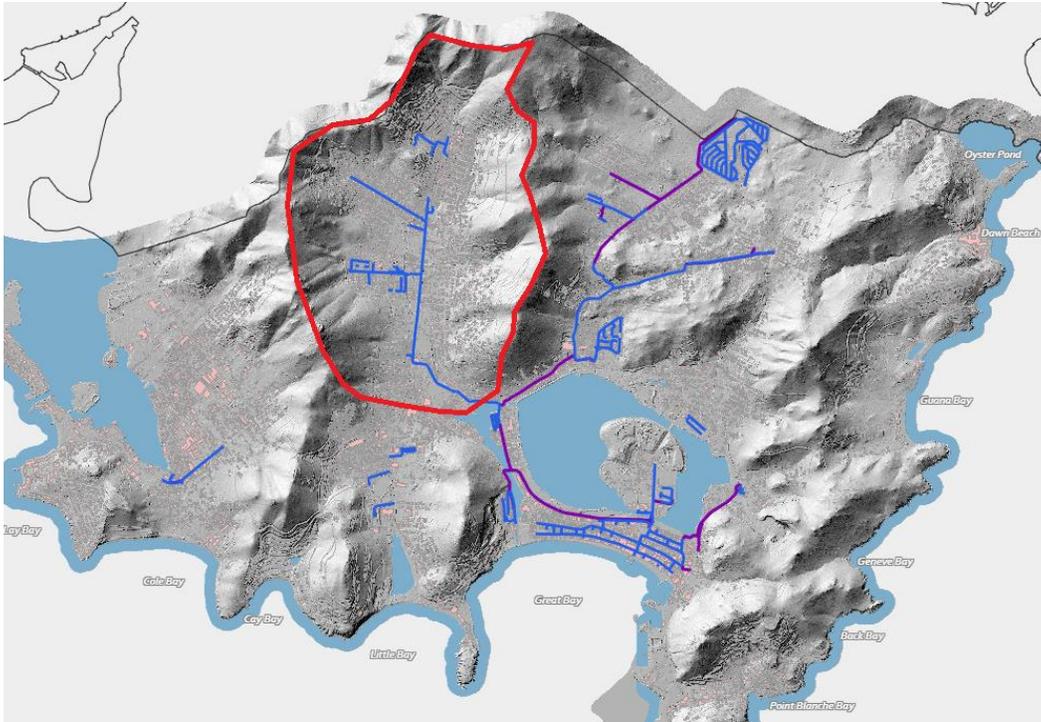
A project team established within the NRPB will be responsible for managing the entire project. The NRPB will apply part of the proceeds of the project for the consultancy services towards the sewerage network design and the WWTP technical, environmental and social assessments.

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<sup>2</sup> [ESIA-Landfill -Jan23-compressed.pdf \(nrpbxm.org\)](#)

### 3 OBJECTIVES OF THE CONSULTANCY

The objective of this assignment consultancy is to investigate and determine a technically viable, economically feasible, environmentally sound and socially responsive intervention for the upgrade of the WWTP and the upgrade/expansion of the existing sewer network in the Greater Cul de Sac area and it could be extended in case of funds availability to other areas following the Government's priorities.



Area of the project: Cul de sac (in red)

The consultancy will also assess the

- (1) Environmental & Social baseline conditions of the WWTP area of impact,
- (2) Environmental and Social (E&S) risks and impacts of the WWTP operation, upgrades, and future operations,
- (3) Capacity of the affected water bodies to receive the effluent discharge.

The consultancy will not include E&S assessments of the expansion of the sewer network.

The consultancy will also provide construction site supervision of the civil works that will be carried out for the installation of the sewerage network and improvement of the existing WWTP.

## 4 SCOPE OF THE CONSULTANCY SERVICES

The required consultancy services will be implemented in two phases. The first one for the design and Environmental and Social assessment and the second one for the construction site supervision.

### 4.1 Technical Consulting Services

In order to assist in decision-making regarding rehabilitation and/or upgrade of the existing infrastructures the following approach will be pursued.

1. Assessment of existing sewerage network and WWTP.
2. Pre-design study for the expansion of the sewerage network and improvement of the WWTP.
3. Detailed engineering designs and preparation of RfP documents for expansion, modifications and/or upgrades of the sewage network and the WWTP.
4. Proposals management and evaluation.

### 4.2 E&S Consulting Services

1. Define the E&S baseline conditions within the project area of impact, considering direct and indirect risks and impacts of WWTP operation.
2. Carry-out literature research and/ or consultations with Nature Foundation Sint Maarten and Environmental Protection in the Caribbean (EPIC) in order to describe the Flora and Fauna of the Fresh Pond and identify endangered and protected species and characterize the sensitivity of the Fresh Pond as the receiving body of the effluent.
3. Carry-out an Environmental & Social Assessment (ESA) of the WWTP's current operations, potential upgrades, and future expansion/operations with emphasis on effluent quality, sludge management, odor nuisance, noise pollution, energy consumption, health and safety, usage of chemicals, pollution prevention and emergencies response.
4. Participate in meaningful consultations with key stakeholders according to the project Stakeholders Engagement Plan (SEP) in support of and coordination with the NRPB.

### 4.3 Supervision Consulting Services

1. Construction site supervision of sewerage network and the WWTP.

2. Support to review the certifications, as built drawings, substantial and final completions and assisting to the Defects Liability Period.

The Consultant shall work closely with the different relevant institutions of the GoSM, particularly VROMI, and the NRPB which will administer the contract, as well as with other project related stakeholders.

The Consultant shall consider the requirements of the GoSM including official norms and standards on sewerage infrastructures and wastewater management.

## 5 DELIVERABLES

### 5.1 Deliverable 1 – Sewerage network and Wastewater Treatment Plant Assessment

The sewerage network and the WWTP assessment study shall be carried out in accordance with the following guidelines. The aim of this deliverable is to identify technical, economic, environmental and social performance needs through an integrated assessment. The nominated Consultant will be required but not limited to perform the following tasks:

### 5.2 Deliverable 2 – Environmental & Social Assessment of the WWTP current operation and planned expansion

The Consultant shall carry out an Environment and Social Assessment (ESA) for identifying the impacts of the current WWTP operation, risks and impacts related to proposed civil works and those associated with the additional sewage inflow and operation of the upgraded WWTP.

### 5.3 Deliverable 3 – Detailed engineering design, technical specifications and tender documents

- Topographical survey
- Geotechnical survey
- Detailed engineering design
- Tender documents for construction

### 5.4 Deliverable 4 – Proposals Management and Technical Proposals Evaluation support

- Together with NRPB conduct the pre-proposal meeting(s), reply to questions by bidders, elaborate RFP Amendments and/or Addendums if needed, and prepare any necessary

circular letters, including those related to pre-proposal meeting report(s), which will be sent to all Proposers.

- Assist with opening of proposals and prepare the minutes of the proposal opening.

## 5.5 Deliverable 5 – Construction Site Supervision

The Consultant shall monitor the contractor’s program of works, oversee the ESHS compliance, supervise all construction works implemented under the Project including the expansion/rehabilitation of the WWTP and the sewer network, and monitor the actual progress, all in close coordination with the NRPB Project Manager. The Consultant shall participate in all site inspections and preconstruction surveys as well as supervision visits during the works implementation phase.

- Site inspections and preconstruction surveys.
- Supervision visits during civil works.
- ESHS Supervision.

## 6 KEY STAFFING REQUIREMENT

The Consultant (Consulting firm) shall provide the key personnel required as follows. In general, the requirements distinguish between ‘key personnel’ and ‘non-key personnel’. A short description of the ‘key personnel’ and ‘non-key personnel’ with their experience and anticipated tasks in the performance of the project must be presented.

The Consultant shall be required to make appropriate use of available local expertise to ensure that local conditions and capacities are best considered. In the selection of local individuals, any conflicts of interest must be avoided.

The Consultant shall also note that governmental officials and civil servants could be proposed only if their hiring would not create a conflict of interest and does not conflict with any national laws, regulations or policies.

Specialists can cover multiple tasks both in the technical assessment, and/or in the Environmental & Social Assessment, and/or in the elaboration of RfP documents, as long as the necessary minimum professional requirements are being met, and the project schedule convincingly demonstrates the necessary and timely availability of those experts for multiple tasks.

The Consultant is expected to provide a team including the following **key experts**:

#### 6.1. Phase 1- Design and Preparation of Tender Documents

- Team Leader
- Wastewater Process Engineer.
- Hydraulic Engineer.
- Environmental, Social, Health and Safety (ESHS) Specialist

#### 6.2. Phase 2 – Site supervision

- General Supervision Engineer (“Resident Engineer”)
- Site Supervisors
- ESHS Specialist

The below **non-key staff** is only indicative. The Consultant may modify the list or propose additional non-key staff to ensure successful completion of the task.

- Social/Community Development/Engagement Specialist,
- Sanitation Specialist for onsite systems,
- Financial/Institutional Specialist,
- Operation & Maintenance Specialist,
- Hydrologist,
- Water Resource Expert,
- Civil/Structural Engineer,
- Mechanical Engineer
- Electrical Engineer,
- Geotechnical Expert,
- GIS Expert,
- Surveyor,
- Aquatic Ecologist
- Environmental Specialist
- Occupation Health and Safety Specialist,
- Gender Specialist

- Ornithologist

## 7 DURATION OF THE CONSULTANCY

The sewerage network and WWTP assessment consultancy and pre-design studies shall be completed in a period of seven (7) months, including the period for the required review and approvals by the NRPB, and the World Bank.

Evaluation of EOI and bids will be carried out in May 2024 and supervision works will last until March 2028. The following graph presents the estimated schedule. Deadlines for each deliverable are estimates:

## 8 WORKING ARRANGEMENTS

Phase 1 - Team Leader and ESHS Specialist will be required to provide deliverables 1 to 4. Once the technical support is provided to the technical evaluation of EOI and the report is released the consultant will not have any activity until the construction contract is signed. The expected date for this signature is June 2024.

Phase 2 – Once the construction contract is signed, the consultant will resume activities providing the required site supervision until the end of the contract.

In both phases, oversight and supervision of the consultancy will be done by NRPB Wastewater Project Manager. Coordination with VROMI focal point for this project will be necessary to plan, develop and implement of any activity included in the contract.

## 9 GRIEVANCE REDRESS AND DISPUTE RESOLUTION

Communities and individuals who believe that they are adversely affected by the project activities may submit complaints to the existing project-level Grievance Redress Mechanism (GRM) available at <https://nrpbxm.org/complaints-procedure/>.

The Consultant shall:

- Ensure the establishment and effective functioning of grievance redress related systems at Contractors' operating sites as mentioned in the previous sections of this ToR. This entails ensuring training, proper identification of complaints, confidential logging thereof,

referring to the NRPB's GRM when necessary, addressing labor complaints and reporting to the NRPB in accordance with the E&S instruments, and C-ESMP.

- Report to the NRPB monthly as part of the ESHS reports, or immediately as appropriate based on the E&S instruments and NRPB's GRM procedure.

## 10 CODE OF CONDUCT (CoC)

The Consultant shall have an NRPB approved **Code of Conduct (CoC)** for all their employees and persons under their direction engaged in the project, including provisions related to Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH).

The consulting firm shall take all necessary measures to ensure that each worker is made aware of the CoC including specific behaviours that are prohibited and understands the consequences of engaging in such prohibited behaviours.

These measures include providing instructions and documentation that can be understood by the workers and seeking to obtain that person's signature acknowledging receipt of such instructions and/or documentation, as appropriate.

In addition, the consulting firm shall submit an outline of how this CoC will be implemented. This will include:

- how it will be introduced into conditions of employment/engagement with the consulting firm personnel;
- what training will be provided (to include SEA/SH awareness, roles and responsibilities of project personnel);
- how it will be monitored; and
- how the consulting firm proposes to deal with any breaches.

If SEA/SH complaints/incidents are received and/or observed by the Consultant, then those must be referred to NRPB's GRM.

### **Public Health Provisions:**

The consulting firm is required to implement and enforce compliance with all the applicable public health directives including, but not limited to, safety and national health legislation/policies, directives of the NRPB, international protocols and WB practice.

Also, the consulting firm is recommended to stay current and implement, as applicable, on work sites or during meetings or stakeholders' consultation sessions, the international safety and health practices for the management of infectious diseases, to deal with any emerging pandemic.

The consulting firm is to review and monitor the measures proposed by the Contractor to be implemented for the duration of the Works to prevent or minimize the possibilities of an outbreak of infectious diseases amongst personnel, sub-contractors and neighbouring communities.