

## TC Document

### I. Basic Information for TC

▪ Country/Region:	BAHAMAS
▪ TC Name:	Support for Corporate Business Plan for the Water and Sewerage Corporation of the Bahamas
▪ TC Number:	BH-T1109
▪ Team Leader/Members:	Lewis, Gilroy Francis (INE/WSA) Team Leader; Sasaki, Keisuke (INE/WSA) Alternate Team Leader; Bonilla Merino Arturo Francisco (LEG/SGO); Carlos Rodrigues (INE/WSA); Guerrero Rivera, Marilyn Ivette (INE/WSA); Lopez, Liliana M. (INE/WSA); Machado, Kleber B. (INE/WSA); Mendoza Benavente, Horacio (LEG/SGO); Riquelme, Rodrigo (INE/WSA); Sergio Lee (INE/WSA); Wazir Browne (CCB/CCB)
▪ Taxonomy:	Client Support
▪ Operation Supported by the TC:	N/A
▪ Date of TC Abstract authorization:	24 Jul 2023.
▪ Beneficiary:	The Government of The Bahamas through the Water and Sewerage Corporation
▪ Executing Agency and contact name:	Water And Sewerage Corporation
▪ Donors providing funding:	OC SDP Window 2 - Infrastructure(W2B)
▪ IDB Funding Requested:	US\$150,000.00
▪ Local counterpart funding, if any:	US\$0
▪ Disbursement period (which includes Execution period):	24 months
▪ Required start date:	December 2023
▪ Types of consultants:	Individuals
▪ Prepared by Unit:	INE/WSA-Water & Sanitation
▪ Unit of Disbursement Responsibility:	CCB/CBH-Country Office Bahamas
▪ TC included in Country Strategy (y/n):	Yes
▪ TC included in CPD (y/n):	No
▪ Alignment to the Update to the Institutional Strategy 2020-2023:	Environmental sustainability; Gender equality; Institutional capacity and rule of law; Productivity and innovation; Social inclusion and equality

### II. Objectives and Justification

2.1 The objective of the TC is to support the preparation of studies and tender documents required for the planning and implementation of a Non-Revenue Water (NRW) Reduction Program for priority areas in the Family Islands<sup>1</sup> as set forth in the Water and Sewerage Corporation (WSC) Corporate Business Plan (CBP). In 2022, NRW in the Family Islands was equivalent to 55% of water supplied. WSC needs to develop a sound understanding of NRW levels, compositions, causes and impacts on financial performance and service levels to design and implement a sustainable solution. WSC proposes to contract a highly experienced NRW expert to support the development of an NRW program for the Family Islands. This support includes carrying out a baseline assessment to identify the causes and components of NRW; to identify high priority

<sup>1</sup> These include the North, Central & South Andros, Eleuthera, Abaco, Acklins, Bimini & The Berry Islands Inagua Long Island, Mayaguana, Exuma, San Salvador and Rum Cay.

actions WSC can take on its own as soon as possible and help in the preparation of an international competitive process to hire a specialized firm that would be responsible for reducing NRW in the Family Islands.

- 2.2 Unlike New Providence, the Family Islands do not have in place a formal program to reduce NRW. Since 2019 NRW has increased. In 2022, NRW totaled 2.7<sup>2</sup> (million imperial gallons per day (migd) up from 1.7 migd in 2019. This is equivalent to 55% of water supplied. The volume of water supplied with Reverse Osmosis (RO) has been increasing. In 2022, the volume of RO supplied was 2.3 migd, up from 1.4 migd in 2016. In addition, in 2022, RO represented 47% of total water supplied. The cost of RO water is considerably higher than the cost of water supplied from wells. Therefore, increasing the percentage of water supplied from RO leads to higher OPEX to WSC. Increased volumes of RO, high NRW, and low tariffs combine to produce highly negative Earnings Before Interest Taxes Depreciation and Amortization (EBITDA) margins for the Family Islands. In 2022, EBITDA for the Family Islands was negative B\$18.7 million (equivalent to an EBITDA margin of negative 306%, which is considerably worse than the negative 28% EBITDA margin registered that year for New Providence). As WSC increases the supply of water to customers in the Family Islands (and the increase is primarily through RO), without reducing NRW, the EBITDA margin for the Family Islands will worsen considerably. In addition to its financial implications, the absence of NRW reduction program also has negative implications to, among other things, the quality and reliability of service provision (low pressure or intermittency), the water security and climate resiliency (negatively affecting water supply-demand balance), and the energy use (and thus CO2 emissions). Therefore, it is important for WSC to reduce NRW in the Family Islands, for which a support by a specialized firm is considered necessary. In this area, the adoption of innovative technology and processes has an important role (see, for example, [Evaluation of Smart Water Infrastructure Technologies \(SWIT\) \(Arniella 2017\)](#)). Concretely, the WSC uses mechanical meters, and has high interest in implementing Advanced Metering Infrastructure (AMI) with the use of smart meters.
- 2.3 The Government of the Bahamas has indicated that it is essential to count on IDB's support for the effective implementation of the CBP and technical assistance for modernizing the water and sanitation sector in The Bahamas and institutional strengthening of WSC. WSC's operating efficiency can be improved by reducing NRW (in 2022 it reached the highest level since 2013), raising the productivity of its staff (the number of staff and compensation have increased sharply since 2019), and increasing the efficiency of its collection of trade receivables (at end-2022, WSC's net accounts receivables totaled B\$20 million). Reducing NRW and raising the productivity of its staff could lower operating expenses since water purchases and staffing account for nearly 90 percent of operating expenses. Increasing the efficiency of its collections could improve its cash flow and lessen its reliance on subsidies from the Government.
- 2.4 Due to their gender roles, women are the main users and managers of water in the home. When access to water is limited or nonexistent, women are the main ones in charge of looking for it and bringing it home (72% women and girls compared to 28% men and boys), both for family consumption and to fulfill their obligations, housework, and care.

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<sup>2</sup> Corporate Business Plan, Water and Sewerage Corporation (WSC), The Bahamas, 2023.

- 2.5 This TC is consistent with the Second Update to the Institutional Strategy (AB-3190-2) through the priority areas of: (i) Social Inclusion and Equality, by promoting projects incorporating structural and/or non-structural measures to reduce NRW (including the reduction of physical losses and commercial losses, and the promotion of efficient water use and water conservation), thereby contributing to quality service provision to users and enhancing disaster and climate change resilience in the water and sanitation sector; and (ii) Productivity and Innovation, by financing studies that support the implementation of the WSC's business plan identifying areas where innovative technology (including AMI) and processes can be applied. It also aligns to the cross-cutting issues of: (i) Climate Change and Environmental Sustainability since the TC will finance preparatory studies for investments to reduce NRW in the Family Islands. (ii) Gender Equality, since the gender approach will be taken into account when designing the studies to be carried out. This will enhance the resilience of The Bahamas to Climate Change since water losses will be reduced, less groundwater abstraction, less saline intrusion, and reduced reliance on RO. The studies will make recommendations for the use of resilient infrastructure to adapt to climate change and natural disasters; and (iii) Institutional Capacity and Rule of Law, through the technical assistance to be provided to WSC to prepare tender documents for contracting a specialized firm to reduce NRW in the Family Islands as set out in the business plan and capital investment program. The TC is aligned with the Corporate Results Framework 2020-2023 (GN-2727-12) through "Households with access to new or improved water services".
- 2.6 The TC is in alignment with the Sustainable Infrastructure Strategy for Competitiveness and Inclusive Development (GN-2710-5), particularly with the priority area of "Supporting the construction and maintenance of social and environmentally sustainable infrastructure to contribute to increasing the quality of life". It also aligns with (i) the Water and Sanitation Sector Framework Document (GN2781-8), especially with its Lines of Action 4: Improve management to ensure efficient, sustainable service delivery and promote private sector participation; and (ii) the Climate Change Sector Framework Document (GN-2835-13), with its Lines of Action 1: Adapt and build climate resilience.
- 2.7 This TC is also consistent with the IDB Group Country Strategy with The Commonwealth of The Bahamas 2018-22 (GN-2920-1), in the priority area of supporting resilient infrastructure for growth, and the CS strategic objective to expand water and wastewater services by providing support to the WSC in the planning to improve its performance. The TC aligns with the objectives and activities pursued by the Strategic Program for the Development of Infrastructure financed by Ordinary Capital "OC SDP Window 2 - Infrastructure(W2B)" (GN-2819-14) through the financing of preparatory studies which promote investments to reduce NRW in the Family Islands, and thus, enhancing the performance, quality, and sustainability of infrastructure services.

### III. Description of activities and outputs

- 3.1 **Component I: Preparatory Studies to Reduce NRW in the Family Islands.** This component will finance a specialized consultant to: (i) Conduct an independent baseline assessment of the values and composition of NRW for all the Family Islands and an assessment on the use of AMI; (ii) Identify specific and urgent actions WSC can take to reduce NRW in the Family Islands on its own. These actions will include behavior change campaigns, especially aimed at women, that address (1) domestic

water savings; (2) the importance of paying fees related to legal connectivity to have a stable drinking water service; (iii) Document the systems, processes, and staffing in place in New Providence for reducing NRW; (iv) Assess the reasons for the rise in NRW in New Providence from 2019 to 2022; (v) Support the development of the tender document package to contract a specialized firm to reduce NRW in the Family Islands<sup>3</sup> with due consideration for the use of innovative solutions. When appropriate, the studies carried out will include the gender approach in their analysis processes. This must be taken into account when designing them and defining the type of data to be collected.

- 3.2 The cost of this TC is US\$150,000, which will be financed with resources from the OC SDP Window 2 – Sustainability (W2B). The following table presents the indicative budget:

#### Indicative Budget

Activity/Component	IDB/Fund Funding	Counterpart Funding	Total Funding
Component I: Preparatory Studies to Reduce NRW in the Family Islands	US\$140,000.00	US\$0.00	US\$140,000.00
Audit of the Project	US\$10,000.00		US\$10,000.00
<b>Total</b>	<b>US\$150,000.00</b>	<b>US\$0.00</b>	<b>US\$150,000.00</b>

#### IV. Executing agency and execution structure

- 4.1 The Executing Agency will be the WSC. The public water utility in the Bahamas, the WSC, is the main water and sewerage service provider as well as the body responsible for water resource management in New Providence and the Family Islands.
- 4.2 WSC executed several IDB funded projects in the past, including, most recently, the WSC Support Program – New Providence Water Supply and Sanitation Systems Upgrade (2624/OC-BH).
- 4.3 The disbursement period is 24 months. The activities to be financed with this TC operation are included in the Procurement Plan in Annex IV. Procurement activities will be carried out in accordance with the Policies for the Procurement of Goods and Works financed by the Inter-American Development Bank (GN-2349-15) and the Policies for the Selection and Contracting of Consultants Financed by the Inter-American Development Bank (GN-2350-15).
- 4.4 The Executing Agency undertakes to prepare a Procurement Plan, semi-annual progress reports and a final TC report. These reports will focus on program activities and finances, as well as results achieved. The format of these reports will be agreed between the Executing Agency and the Bank.

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- 4.5 The Audit will be carried out in accordance with the Financial Management Policy for Projects financed by the Bank (OP-273-2). The Executing Agency will hire an independent auditor acceptable to the Bank to audit the financial statements to be submitted within 90 days of the date of the last disbursement.
- 4.6 The monitoring and supervision of the TC will be carried out by the Bank, specifically by the Team Leader from the Bank's Water and Sanitation Division (WSA) in collaboration with the focal point (Operations Analyst) designated by the Country Office in The Bahamas. The team will report progress using the project report monitoring system at the end of each year.

## **V. Project Risks and Issues**

- 5.1 The Bahamas Water and Sewerage Corporation (WSC) is under the jurisdiction of the Minister of Works & Urban Development. The Corporation is a wholly owned Government organization, entrusted with managing, maintaining, distributing and developing the water resources of The Bahamas. There is a risk that, owing to insufficient involvement of stakeholders such as households, hotels, and commercial establishments and relevant ministries, consultancy outputs suffer major changes at their closing phases. This risk will be mitigated by defining and implementing an appropriate stakeholder involvement mechanism for key consultancies.

## **VI. Exceptions to Bank policy**

- 6.1 This TC does not include any exceptions to Bank policies.

## **VII. Environmental and Social Aspects**

- 7.1 This TC will not finance feasibility or pre-feasibility studies of investment projects with associated environmental and social studies; therefore, it falls outside the scope of the Bank's Environmental and Social Policy Framework (ESPF).

### **Required Annexes:**

[Request from the Client\\_45561.pdf](#)

[Results Matrix\\_98701.pdf](#)

[Terms of Reference\\_5824.pdf](#)

[Procurement Plan\\_42932.pdf](#)