

"HONORING E. GEORGE MOSS - A LEGACY OF LEADERSHIP"

Water is an essential element for life. All throughout human history water has been looked on as something intertwined with humankind. Human beings live alongside water and are nourished by water. It is a source of beauty, wonder, relaxation and refreshment. Our very contact with nature has a deep restorative power. It is no accident that people chose places associated with water, like The Bahamas, for the holidays, in order to renew and regenerate themselves.

Since July 14, 1976, the Water and Sewerage Corporation has functioned to provide

adequate supplies of good quality potable water to consumers, as well as a satisfactory and efficient sewer service system. Over the years, the Corporation has vigorously invested millions of dollars in rehabilitative and new water supply and sewerage works, formulated in consultation with the Government and lending partners such as the World Bank/Inter-American Development Bank, European Investment Bank, Caribbean Development Bank, as well as local banking institutions.

The organization, a separate

corporate entity for some forty years now, once functioned as the Water and Sewerage Department of the Ministry of Works and Utilities. Since its inception, the major problem facing the Corporation has been increasing the water supply to New Providence. Now forty years later that problem has been alleviated with the Corporation having increased production from 4.9 million gallons per day in 1976, to the present level of 10 million gallons per day on New Providence. The use of desalination technology is being used on both New Providence and many of the family Islands, replacing saline groundwater sources. We are pleased that the vast majority of Family Island communities have a wholesome and reliable water supply. We look forward to the future in expanding the sewerage system and wastewater treatment system throughout New Providence as well as the large population centers in the Family Island.



We sincerely thank our customers for their commitment and support of the Corporation over the years. We salute and honor our current and past Ministers, Board of Directors, and Corporation employees for their many years of service and dedication to providing potable drinking water to the residents of The Bahamas in the most courteous, efficient, effective and timely manner at a modest cost.

As we commemorate our 40th Anniversary, we pause to honor and recognize our first Bahamian General Manager, Mr. E. George Moss, who served the Corporation with distinction from 1977-1999. As a lasting tribute and salute, the Water and Sewerage Headquarters Building on Thompson Blvd, Nassau, Bahamas, will be renamed to "E. George Moss Building", during a special ceremony on Friday, July 22, 2016.



PROCLAMATION

WHEREAS the provision of safe drinking water in adequate supplies is basic and essential for the good health of all human kind;

AND WHEREAS, a reliable supply of wholesome water together with the optimum protection of the environment has the highest priority for the Government of The Bahamas;

AND WHEREAS, the Government is committed to rapid but cost effective development and expansion of our water supply systems;

AND WHEREAS, the Water And Sewerage Corporation was established on July 14, 1976, in direct response to an increasing demand to optimize water resource development for a reliable and safe water supply;

AND WHEREAS, the dedicated personnel of the said Corporation has made significant contributions over the past forty years, to the development of water resources, and the operation and maintenance of water and sewerage works;

AND WHEREAS, the said Corporation has remained true to its principles and values of trust, innovation and collaboration, while evolving to meet customer needs;

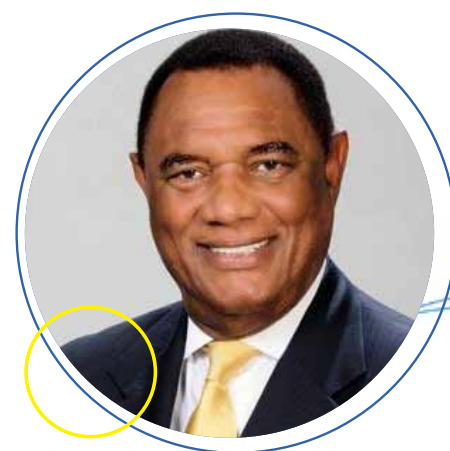
AND WHEREAS, E. George Moss served the said Corporation with honor and distinction from 1977-1999, as the first Bahamian General Manager;

AND WHEREAS, during the tenure of E. George Moss and beyond, innovation and award-winning accomplishments, while providing a legacy of reliable service and partnerships for economic and community vitality, are milestones throughout the said Corporation's forty-year history;

AND WHEREAS, the said Corporation has organized a day of celebration on Friday, July 22, 2016, to commemorate the important contributions of E. George Moss to the provision of safe drinking water;

Now, therefore I, Perry G. Christie, Prime Minister of the Commonwealth of The Bahamas, do hereby recognize the important role and the essential services given by the Water and Sewerage Corporation since 1976, and proclaim July 14, 2016, as the beginning of a year-long celebration of the Corporation's 40th Anniversary. Furthermore, we encourage all citizens to join in the celebration of a great Bahamian icon, E. George Moss on July 22, 2016.

IN WITNESS WHEREAS OF I, Perry G. Christie have hereunto set my Hands and Seal this 28th day of June, 2016.



PERRY G. CHRISTIE
PRIME MINISTER



40th ANNIVERSARY

1976

2016



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WSC HISTORY

1976 *Through the Years* 2016



1976 - The Water & Sewerage Department was incorporated on July 14th, following an Act of Parliament. Richard C. Whitehead, a native of Great Britain, was appointed General Manager of the Water & Sewerage Corporation, with a mandate to provide the island of New Providence with an adequate supply of potable water.

- The Corporation received funding of \$32M from the World Bank, Caribbean Development Bank, commercial banks, and government sources, for vessels and infrastructure associated with importation of water from North Andros.

1977 - In February, a Bahamian engineer, E. George Moss, was appointed General Manager by the Minister of Works, The Honourable Loftus A. Roker. A private entrepreneur sold water in bulk supply produced from a reverse osmosis plant located near Windsor field. Lake Killarney was used as the source of a saline water supply for the plant.

- The importation of groundwater from North Andros via barging commenced to combat the crisis of water supply shortages in New Providence; involved expansion of North Andros wellfields, purchase of Mastic Point barge and charter of two Pontoons.

1978 - The Blue Hills Multi-Stage Flash evaporator desalination plant was abandoned due to high operational costs. UN Technical Assistance Project set up a water laboratory to support a study of the extent of groundwater pollution and to assist in quality control of source, product and distribution supplies.

1979 - New w Black Point was commissioned. Group Medical and Life Insurance Plan was introduced, as well as general increases in wages and salaries for non-management employees.

1980 - Recognition Agreement and an Industrial Agreement were signed with the Bahamas Utilities, Services and Allied Workers Union with commensurate increases in wage and benefit costs spread over three years.

1981 - Dock and Harbour Improvements at North Andros and the newly constructed 23,000-foot, 24-inch Cross Island Transmission Main in New Providence were completed. Construction of the sewerage system for Yellow Elder Gardens and was completed and the rehabilitation of the Bay Street Sewerage System progressed to the construction stage.

1982 - Substantial increases in water production in New Providence and water importation from North Andros eliminated regular water rationing by pressure reduction. The dock at Morgan's Bluff, Andros, was officially opened.

- The cottage at Prospect Park was converted into a Laboratory. The rehabilitated Bay Street Sewerage Scheme was commissioned.

1983 - Strengthening of the Leakage Control Section via increased manpower, vehicles, and equipment to address high "unaccounted-for-water". Record water production recorded due to improvements in operations and maintenance procedures in both New Providence and North Andros wellfields.

1984 - Training and development of employees took on a more progressive stance. Quality control and monitoring of water quality took on a more focused approach through increased sampling and analyses of source and distributed supplies.

1985 - A new five-year \$38 million Development Plan was formulated in consultation with the World Bank, European Investment Bank and the Caribbean Development Bank, for improvement in water and sewerage operations, as well as water resources.

1986 - The early usage of personal computer and appropriate software as a management tool in the workplace. Expansion of sewerage systems to Elizabeth Estates and Pinewood Gardens was continued as well as the commencement of construction relative to the Yellow Elder Gardens-Big Pond sewerage project.

1987 - A new wastewater treatment plant producing high effluent quality, was commissioned at Elizabeth Estates.

1988 - Substantial progress made in achieving a fully integrated and computerized accounting system, as well as purchase of a Maintenance Management System for all equipment maintenance work. Overhaul of the chlorination facilities at the major pumping stations on New Providence to effect delivery of safe water supply throughout the distribution network.

1989 - Expansion of North Andros wellfield (Phase I) and construction of a new seawall at Morgan's Bluff completed. 15,000 ton tanker, Rio Titan, entered service tanker on a long-term lease/purchase option.

- The first schedule of the Water and Sewerage Corporation Act was changed to include "All islands of the Bahamas". A Steering Committee was established to coordinate takeover of staff and water systems of Family Island Water Supply Section of the Ministry of Works and Lands.

1990 - The Customer Information System was installed and implemented. Most employees were exposed to Quality Customer Service training programmes. A new Meter Management Unit was established for enhancing greater revenue protection.

- Yellow Elder Gardens-Big Pond Sewerage Collection system was completed. First Annual National Water Week held, the Exhibition at the Mall at Marathon, being one of the key features.

1991 - Installation of a deep disposal well in Yellow Elder Gardens and trunk sewer main on Yamacraw Road were significant sewerage works. The Internal Audit Section was established for more effective accountability and compliance throughout the organization.

1992 - Technical assistance to The Bahamas from the United Nations Development Program (UNDP) in the Water Sector came to a close. The Pan American Health Organization (PAHO) provided technical assistance for the Groundwater Pollution Assessment Study. Hurricane Andrew devastated water systems on Eleuthera and severe bush fires destroyed large portions of the Marsh Harbor, Abaco wellfield. Numerous water supply projects were completed on Spanish Wells, Acklins, South Andros, San Salvador, Grand Bahama and Long Island.

- Yellow Elder Gardens Sewerage Treatment Facility and the Yamacraw Trunk Sewer Scheme were officially commissioned. The Water Tower was declared a National Water Landmark during the 3rd Annual National Water Week.

- Plant replacement and refurbishment works in New Providence as well as water supply extension and expansion in the Family Islands were primary focus. The Corporation achieved second placed in the 100-Day Challenge Competition.

- A new \$7.5 million government-guaranteed loan was approved for the Eleuthera Water Supply Improvement Project. Blue Hills Pumping Station was declared a National Water Landmark during the 4th Annual National Water Week.

- New electronic meter readers were purchased for enhanced revenue accuracy. A new 625,000 gallon glass-coated tank was commissioned at Winton Waterworks facility. Twenty miles of new water mains at a cost of \$2.3 million were commissioned in Exuma, connecting Rolle Town to Farmer's Hill.

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1995 - A number of Capital Water Projects in the Family Islands were implemented. The Eleuthera Water Supply project was significantly completed and a number of improvement works were carried out on Abaco. Matthew Town, Inagua, received a new distribution system and on Grand Bahama, all water systems in the East End were transferred to the Grand Bahama Port Authority, Inagua.

1996 - A contract was signed with Bacardi/DeSalco for the provision of a new 2-million gallons per day Reverse Osmosis Plant for New Providence. A new Septage and Sludge Handling facility of Harold Road was installed and commissioned.

- The Corporation hosted the Fifth Annual Caribbean Water & Wastewater Conference in New Providence with 238 delegates from 26 different countries. General Manager, E. George Moss, was awarded a distinguished gold pin for his long and outstanding contributions in the development of the water sector.

1997 - A new Administrative Building for the Corporation, located at 87 Thompson Blvd., was realized. The All Eleuthera Water Supply Project was commissioned by Prime Minister, the Rt. Hon. Hubert Ingraham.

1998 - A new 2-million gallons per day reverse osmosis plant was commissioned at Windsor Waterworks, under a Build-Own-Operate agreement executed between the Corporation and Waterfields Company Limited. Bids and negotiations to provide desalinated water in the Family Islands under the Build-Own-Operate arrangement were solicited from potential contractors.

1999 - Mr. E. George Moss, who had served as General Manager for 22 years, was seconded to the newly created Public Utilities Commission. Mr. Richard W. Greene succeeded him as General Manager. To meet changing organizational needs, a restructuring exercise was undertaken, resulting in a new Customer Service Department, and three new Assistant General Managers joining the executive management team.

- New tariff increases were improved and implemented. The New Providence Mains project was completed and approximately 40 miles of new and refurbished mains commissioned.

- Hurricane Floyd struck The Bahamas causing significant damage to many of the Family Islands water infrastructure. Work began on the \$20 Million Family Island Improvement Water Supply Project, of which \$13Mn was funded by IDB.

2000 - Implementation of a \$1.9 million dollar Y2K Compliant Fully Integrated Customer Information System and Financial Information System. Works completed on the Family Islands comprising the installation of some 83 miles of pipe, 500 wells, 700 service connections, 7 distribution pumping stations, and 1.0 million gallons of storage on the islands of Abaco, Exuma, and South Eleuthera.

2001 - Thames Water Overseas Consultancy Limited (THAMES) in collaboration with a Mission from the Inter-American Development Bank (IDB) presented a Corporate Business Plan 2002-2012 to provide an action plan and financial model to chart the Corporation's future path.

2002 - A water supply strategy was developed for the island of New Providence inclusive of a transition to desalination as the predominant water production method, and the reduction of Non Revenue Water (NRW) through a combination of in-house activities and a pilot performance based reduction contract with the private sector. The water supply strategy also included digital mapping of all infrastructure under a new Geographic Information System (GIS).

2003 - Mr. Abraham Butler was appointed as General Manager. The first phase of the water supply strategy commenced through the procurement of a new desalination plant with a capacity of 6 million gallon per day.

2004 - A bid to design, build, and operate a new seawater desalination plant at the Blue Hills Waterworks from Consolidated Water Company, was accepted by the Corporation. The contract spans twenty (20) years, or until thirty-five (35) billion US gallons of water have been supplied. A component to provide engineering services and equipment to reduce the amount of Non-Revenue Water (NRW) has been included as well.

2005 - The Blue Hills desalination plant was completed and commissioned with full capacity of 6.0 million imperial gallons per day. Desalination plants installed and commissioned in Saina Point, Acklins, Cherokee, Abaco, Central Eleuthera, and several other small and remote Family Island communities.

2006 - A new customer call center was created in the Commercial Operations Division. Mr. Godfrey Sherman was appointed as General Manager.

2007 - New commercial offices were opened at Bailey Town, Bimini, Cooper's Town, Abaco, Georgetown, Exuma, and Snug Corner, Acklins. A water and sanitation sector strategy, funded by the Inter-American Development Bank (IDB), was prepared in consultation with Castalia Strategic Advisors.

2008 - Mr. Glen Laville was appointed as General Manager. The 35-year era of barging water from Andros came to an end, and was replaced by desalination.

2009 - A new \$81 million, five-year loan agreement was signed with the Inter-American Development Bank (IDB) to address key challenges of water loss, institutional strengthening, wastewater infrastructure needs, and regulatory reform. The Corporation signed preliminary agreements with Baha Mar to supply its water and wastewater needs inclusive of providing treated wastewater for irrigation purposes.

2010 - A Ten-year, US\$83Mn, NRW Reduction Contract was signed with MIYA (Bahamas) Ltd. to reduce water losses in New Providence by over 10 billion gallons during the contract period. Both the New Providence Road Improvement and the Airport Gateway Project water mains components were substantially completed resulting in marked improvements in water transmission system reliability.

2011 - The Fincastle Pumping Station was decommissioned after 84 years of service. Wind study initiated at the Tarpum Bay desalination plant to review the feasibility of using wind energy in the production of water.

2012 - Under the IDB loan, contracts were awarded for the development of a Wastewater Master Plan for New Providence and a Public Relations plan to rebrand the Corporation and to win-back customers as water service levels improve. The Corporation saved over 1 billion gallons of water through the reduction of water losses in New Providence.

2013 - A contract was awarded to draft new legislation to reform the water and sewerage sector. This legislation will establish independent economic and environmental regulators and re-establish the Corporation as a service provider. All regulatory functions will be stripped from the Corporation and the economic regulator will ensure that the Corporation operates efficiently, and provides adequate service at a reasonable tariff.

2014 - The Corporation saved an additional 1.5 billion gallons of water through the reduction of water losses in New Providence bringing total savings under the project to over 2.5 billion gallons in three years of implementation. The Caribbean Development Bank approved a \$29Mn loan as part of a \$41Mn program to address water needs in Family Islands: (South) Andros, Cat Island, Crooked Island, Eleuthera, Long Island, San Salvador, and; New Providence: Pinewood Gardens, Coral Lakes/Boatswain.

2015 - The Corporation celebrates 40 years of growth, service and commitment to the Bahamian community.

2016 - The Corporation celebrates 40 years of growth, service and commitment to the Bahamian community.



1980

2000



1990

