

## ABOUT THE G-CREWS PROJECT

The Climate-Resilient Water Sector in Grenada (G-CREWS) project is jointly financed by the Green Climate Fund (GCF) and the German Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV) under its International Climate Initiative (IKI) and the Government of Grenada.

Over 7 years, the Government of Grenada, the Grenada Development Bank and the National Water and Sewerage Authority (NAWASA) in partnership with the German Development Corporation (GIZ) implements the project's five components.

# G-CREWS

Climate-Resilient  
Water Sector in Grenada



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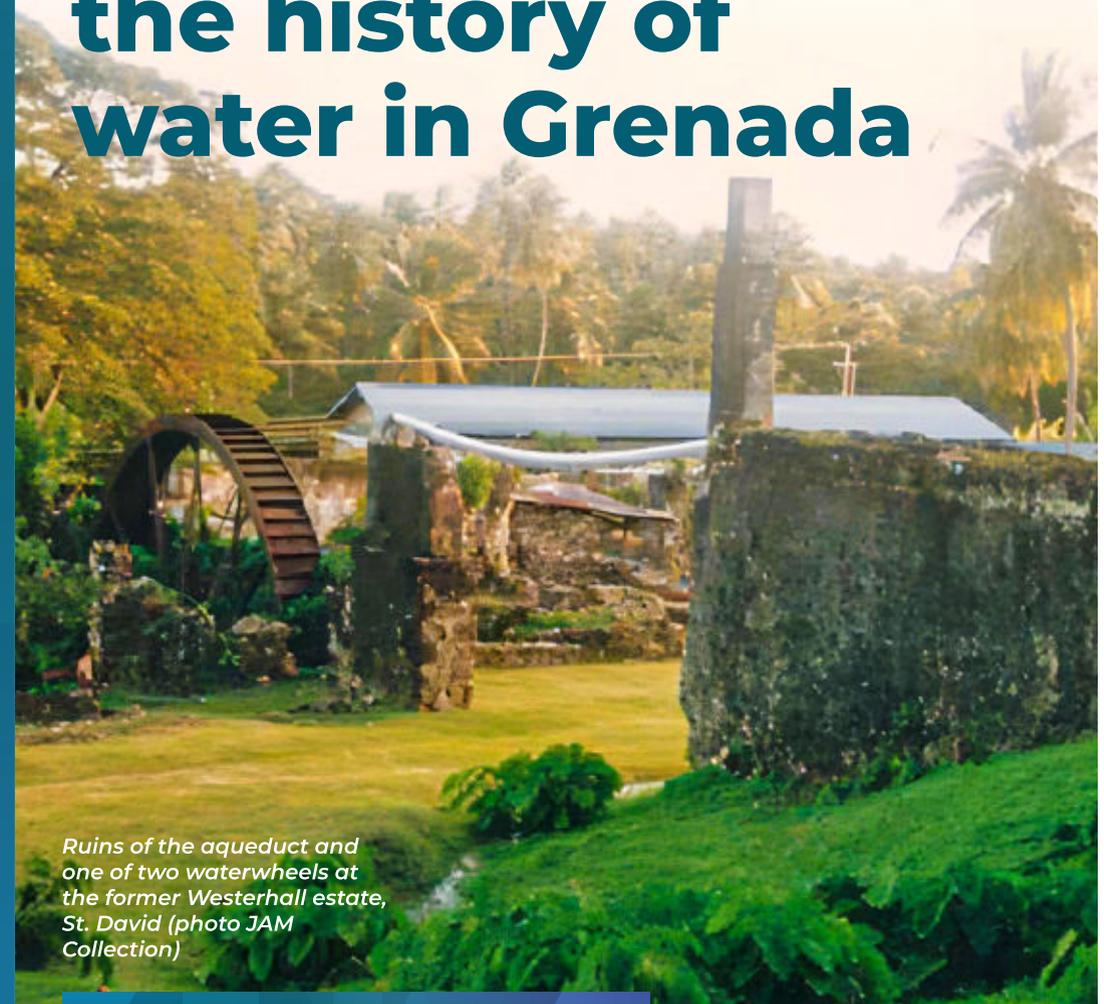
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GIZ  
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# A glimpse into the history of water in Grenada



*Ruins of the aqueduct and  
one of two waterwheels at  
the former Westerhall estate,  
St. David (photo JAM  
Collection)*

Researched and conceptualized by Historian  
Dr. John Angus Martin for the Climate-Resilient  
Water Sector in Grenada (G-CREWS) project.

G-CREWS  
Climate-Resilient  
Water Sector in Grenada



## Background:

This booklet provides a short summary of the history of the water supply network in the State of Grenada. It is a snapshot of an abstract paper done by Historian Dr. John Angus Martin for the G-CREWS project. It looks at the role of water from pre-colonial times to present. Topics covered include: *“Understanding water in the culture of Grenada’s indigenous inhabitants; Water used in the era of sugar and slavery; Water supplied by village standpipes; Introduction of indoor water supply and Managing water in the 21st century”*.

By imparting this valuable historical knowledge of our water sector, the G-CREWS project has provided an additional reference source for the youth and citizens in general to gather information from.

Understanding our water history helps us shape our water future in light of climate change impacts and other challenges.



*“Bottomless stacked pots” at the Carriacou Museum (photo: Carriacou Historical Society)*

## Chronology of Water Supply in Grenada, Carriacou and Petite Martinique

**1450-1600:** Kalinago and Kalina peoples inhabited Grenada and the Grenadines and created innovative ways to access surface and underground water resources.

**1649:** The French settled in an area between the current Lagoon and the Carenage, collecting their freshwater supply from a spring found in an area the French called “Les Sources,” known today as Springs.

**1755:** The French had built a total of 76 water-powered mills to power most of their sugar-mills in Grenada.

**1772:** There was an increase to 95 water-powered mills running sugar processing in Grenada, showing greater utilization of rivers and streams. In Carriacou the British built windmills, in the absence of permanent rivers/streams, that processed corn and cotton, and later sugar cane.

**1836:** An act for introducing a supply of water into the Town of St. George and for facilitating the watering of the shipping at the Port of St. George became law.

**1885:** Les Avocats waterworks in St. David was opened.

**1886:** Fire plugs, the precursor to fire hydrants were installed in the town of St. George’s for the first time. The town had seen several devastating fires in the late 1700s that destroyed large sections at a time.

**1895:** The Grenville waterworks which commenced in 1894 was completed during the year.

**1909:** The town of Sauteurs in St. Patrick receives water supply, with the establishment of waterworks.

**1913:** Construction of waterworks for the town of Victoria, St. Mark begins. The residents within the town began receiving their supply of water one year later.

**1922:** The water supply for the island of Carriacou was obtained from wells and rainwater stored in cisterns.

**1923:** All the parishes in the island have a pipe-borne supply of water with the exception of St. David, which has numerous protected springs and streams.

**1928:** The Central Water Authority was established and took over control of the water supplies of the Colony from the end of 1928.

**1961:** Six boreholes, 200 feet deep, were completed in 1961. Two of them—one in the Woodlands Valley and the other in the St. John’s Valley were fitted with pumps. A 500,000-gallon reservoir and 100,000-gallon high-level boosted reservoir was constructed.

**1969:** The Central Water Commission was created following the passage of the Water Supply Act, No. 23 of 1969 to manage Grenada’s water supply. Before this, it was referred to as waterworks.

**1975:** Annandale dam and water treatment plant was constructed. It became the largest treatment facility serving around 57,000 customers from Annandale to the Point Salines area.

**1990:** The Central Water Commission was changed to the National Water and Sewerage Authority (NAWASA), by an act of Parliament in 1990.

**1995:** NAWASA constructed a dam at the Grand Etang Lake outlet.

**2016:** Opening of the Clozier Water System that serves Clozier and Florida in St. John.

## Water That's for You Will Never Pass You From Village Standpipe to Indoor Plumbing



One of the few remaining standpipes that provided communities with potable water for over fifty years until the availability of indoor plumbing (photo: Ian Blackie)

The last half of the 19th century had created a new dwelling landscape, laying the foundation for a new society as Grenada navigated changes to almost every aspect of its society following the end of slavery. Its' population doubled between 1850 and 1900, creating greater demand for services like education and health care, accessible water supply, and forcing the expansion and modernization of the island's agricultural economy in the 20th century.

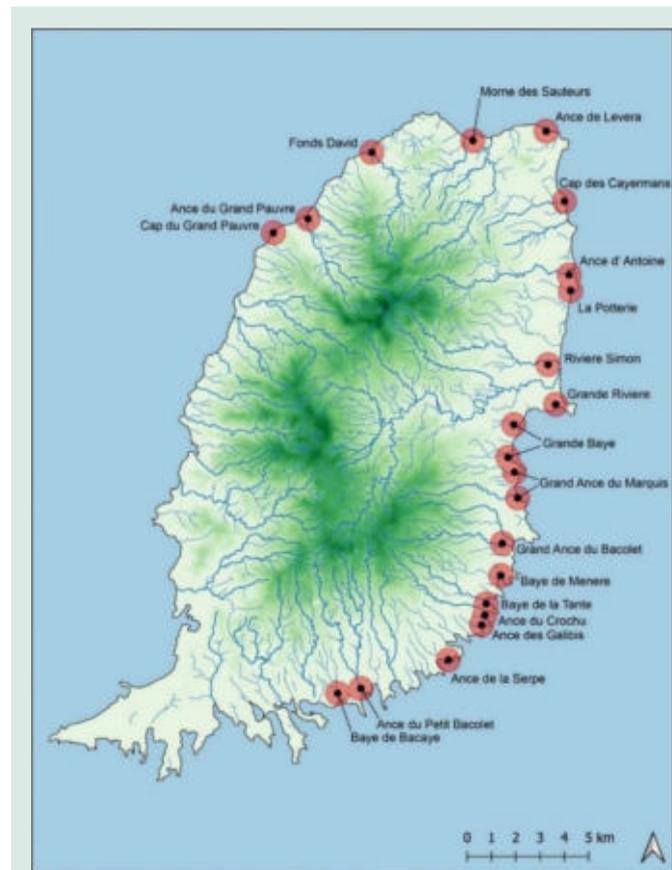
The government began the improvement and expansion of the water supply system in the latter part of the 1800s by building waterworks in the towns and making piped water available to residents. Piped water was first introduced to

some residents of St. George's in 1836, mainly through street pipes from natural springs at the Springs Estate.

In 1836, four standpipes were made available for public access from the natural spring at Paddock, St. George that was the source of water to the shipping boats decades earlier.

In 1841, a reservoir was built, and in 1879, the waterworks was expanded with a supply from a new source at the Soulier and Morne Repos rivers five miles away. The expanded water supply and reservoir led to the establishment of pipe-borne water to many of the homes and the installation of fire plugs later referred to as fire hydrants in the streets, capable of projecting ample water over the roofs of the tallest buildings when needed.

## Water in the Culture of Grenada's Indigenous Inhabitants



Map locating Indigenous settlements/sites at the mouths of rivers/streams or the "Boucherie" in Grenada, 1649-67 (see also Martin 2023) (image: Martin and Sandiford, 2020)

The indigenous habitants on the island established settlements primarily along the coasts, near seashore on headlands. These locations had several advantages like protection and security through greater lines of visibility on incoming vessels to the shores, and extensive freshwater wetlands for food.

Another aspect of the importance of rivers, streams and springs among the indigenous peoples is the possible creation of folklore meant to protect them and involving rituals and folkspirits as alluded to with the presence of petroglyphs.

Among the Amerindians is the Watramama and other indigenous water spirits like lara (derived from the Tupi) that inhabited and ruled over water sources like rivers, streams and lakes. These folk spirits may have been worshipped or propitiated to bring good luck or remove evil spirits or protect and safeguard important water sources.

## Les Sources

### The Dire Need for Freshwater by the Early European Settlers to Grenada



*Drawing of the French settlement at Port Louis, c1667 by François Blondel, showing the initial settlement on a sandbar between the Lagoon and Carenage and the plan of the new fort across the bay (BnF)*

Just off to the northwest (in the diagram to the left) of the French settlement was a natural spring where the settlers procured their freshwater. They would name the area “Les Sources,” or “The Source” known today as “Springs,” a natural spring, probably one had identified almost two decades earlier.

Most of the water supply for personal use came from rivers and streams and rainwater harvesting stored in “boilers and jugs.”

## Water Lay Down, Water Stand Up?

### Water Used in the Era of Sugar and Slavery in Grenada and Carriacou



*Idealized representation of Paraclete sugar plantation, St. Andrew, showing part of its canal or aqueduct system running across the plantation, 1789 by Adam Callender (image: Paxton House, Scotland)*

Many sugar plantations invested in the construction of water powered mills to grind the sugar cane as well as transport water to irrigate the various cane fields via massive stone canal systems. This utilization of water powered mills altered the landscape as rivers and streams were dammed to manage the flow of water long distances and shared across several sugar plantations. It was a massive undertaking that transformed the Grenadian landscape by the mid 1700s.

By 1755, the French had built 76 water-powered mills to power the majority of their sugar-mills on Grenada.

## Water More Than Flour

### Water Used in Free Villages Across Grenada, Carriacou and Petite Martinique



*Local “drip stone” (made of limestone) and ceramic barrel for purifying and storing drinking water in the home, early 20th century on display at the Grenada National Museum (photo: Bevon McLean)*

purify drinking water was met locally by the use of porous limestone/coral fashioned to filter out many impurities.

Stored in a cool corner of the home, cold drinking freshwater was available in most homes.

Many of the improvements to Grenada’s water supply took place in the towns, as the colonial government began to provide urban residents with access to piped water and to build the necessary waterworks to ensure the sustainability of these systems.

As such, the last two decades of the 1800s saw the beginning of construction of the infrastructure needed for a modern water supply system.

The end of slavery in Grenada brought about a drastic change in the social and political landscape.

Before potable water in many homes, especially in the rural areas, the need to