

Case Study

Sint Maarten

BOOT Contract



SEVEN SEAS WATER GROUP
Water-as-a-Service®



Project Details

Location: Sint Maarten

Customer: Country Sint Maarten

Technology: Seawater & Brackish Water Reverse Osmosis (SWRO & BWRO)

Capacity: Total - 6.4 MGD (23,900 m³/d)

- New - 3.0 MGD (11,100 m³/d)
- Overhaul - 3.4 MGD (12,800 m³/d)

Market: Municipal

Overview

In 2007, several factors were contributing to prolonged water shortages on Sint Maarten, including increased tourism and population growth, as well as operational inefficiencies at an existing water facility.

In response to this critical water shortage, Air-Fin Holding N.V. (a wholly owned subsidiary of Seven Seas Water Group) won a tender to provide a new 1,000,000 GPD (3,700 m³/d) Seawater Reverse Osmosis (SWRO) plant and update and operate the existing Cay Bay SWRO plant for the Sint Maarten government.

In 1996, the Cay Bay plant was built to produce 3,400,000 GPD (12,800 m³/d) but by 2007, the outdated and inefficient plant was only producing an average of 2,800,000 GPD (10,600 m³/d), requiring a thorough overhaul to restore its capacity and improve efficiency.

Over the following decade, demand continued to grow on the island and Seven Seas proactively worked with the government to increase the water capacity. In April 2014, Phase I of the Pointe Blanche SWRO facility was commissioned at 1,000,000 GPD (3,700 m³/d) and in February 2016, Phase 2 of the facility was commissioned for a combined capacity of 2,000,000 GPD (7,400 m³/d).

Flexible Solutions

For the past fifteen years, Seven Seas has worked with the Sint Maarten government using the build-own-operate-transfer (BOOT) model to grow capacity and meet increasing demand. Seven Seas provided a solution that required no up-front capital investment from the government to rehabilitate the Cay Bay facility and to construct the Cupecoy and Pointe Blanche facilities. Seven Seas designed, constructed, and currently maintains all three of these facilities. In a true team approach, the Sint Maarten water authority (GEBE) provides operators for the plant while Seven Seas provides technical expertise and management.



Results that Save Money

Within five months of the 2007 contract execution, Seven Seas was able to deliver the state of the art 1,000,000 GPD (3,700 m³/d) Cupecoy facility. Furthermore, Seven Seas rehabilitated the Cay Bay facility to produce over 3,400,00 GPD (12,800 m³/d) and greatly improved the efficiency with a system redesign which cut power costs by more than 30%. This reduction in power consumption has substantially lowered carbon and other emissions, conserving valuable resources and making the process significantly more eco-friendly.

By supplying Sint Maarten with a reliable 6,400,000 GPD (23,900 m³/d) and vastly increasing energy efficiencies, Seven Seas significantly lowered the cost of water for the island.

"We were able to help GEBE by rehabilitating the aging facility and increasing capacity, and we did so in a short period of time. Even with the construction of a new facility and major overhaul of the existing facility, we were able to reduce overall power consumption and significantly reduce the cost of water, making this a much more affordable option for our customer."

Brian Heron, SVP of Global Engineering

