

# CASE STUDY

Seawater Desalination Plant



Veolia Water Industrial  
Outsourcing Limited  
Blackwell House  
Three Valleys Way  
Bushey, Herts  
WD23 2LG  
Tel: +44 (0)1923 248831  
Fax: +44 (0)1923 814398

E-mail: [enquiry@vwio.com](mailto:enquiry@vwio.com)  
Visit our website  
[www.vwio.com](http://www.vwio.com)

UK Ministry of Defence



## ➤ CLIENT OVERVIEW

The UK Ministry of Defence (MoD) in Gibraltar has traditionally been responsible for the provision of potable (drinking) water and seawater for fire fighting and sanitary services.

This utility provision is separate from the civil system and includes production facilities and distribution network. The dual supply is used by the naval dockyard including personnel and visiting ships and the associated MoD estate.

The military distribution network also covers some of the civil population who have housing in previous MoD areas.

## ➤ CLIENT'S REQUIREMENTS

The MoD in Gibraltar has operated a number of desalination plants since the early part of the last century. These have been owned and operated using their own resources. The replacement of the Seawater Reverse Osmosis plant was recognised as a priority in January 2003 and an outsourced specification was competitively tendered.

The requirement was the provision of 1200 m<sup>3</sup>/day of drinking water to EU specification and 850 m<sup>3</sup>/day of filtered seawater. The original plant was sited within a set of caverns which were structurally distressed and therefore a new position for the plant was required if a bespoke production plant was to be constructed as part of the outsourced solution.

## ➤ OUR SOLUTION

The MoD chose VWIO as their supplier of choice, as VWIO was able to demonstrate an understanding of the facility, its geography and the technology required to deliver a sustainable water supply.

VWIO's mission was to refurbish the existing seawater intake by removing the need to maintain feed culverts passing through rock tunnels. The production plant was replaced with a state of the art facility on land adjacent to the existing facility and therefore easy to integrate with the existing infrastructure. The Design, Build, Own and Operate contract was awarded for a 10 year period and allowed for a complex integration of the new plant with a capacity of 2 x 700 m<sup>3</sup>/day, whilst the existing plant (7 x 240 m<sup>3</sup>/day) was progressively decommissioned.

Since energy is very expensive in Gibraltar, a primary driver for the design of the new plant was energy efficiency. The installation is equipped with the latest energy recovery system, using a pressure exchanger, increasing the recovered energy by 30% from the previous plant and affording a significant saving to the MoD.

“The key to a successful outsourcing contract is ‘buy in’ by both the customer and the contractor. The MoD and VWIO have worked together in a partnership to deliver this innovative and cost effective solution in Gibraltar.”

Iain Fraser Project Manager for MoD  
Stephen Cairns Command Commercial Manager



Industrial Outsourcing