

# Water Monitoring System, Cádiz, Spain



Fibrelite Covers Solve RF Transmissions Issues for Automatic Water Monitoring System in Town of Cádiz



Town of Cádiz, Spain (Image credit: Solundir)

## Project Overview

Municipal company Aguas de Cádiz and the University of Cádiz working together, completed a project allowing automatic monitoring of the drinking water network of the town. Electronic instrumentation consisting of a flow meter, pressure sensor and transmitter attached to pipework were installed underneath access covers in a number of locations through the town of Cádiz. These collected and sent data to the Aguas de Cádiz central office via GPRS.

## Problem

The purpose of the automatic monitoring system was not only able to have instant information about the consumption of water from each sector of the town but, to detect any leak of water in real time allowing repairing in a record time. However, the cast iron covers used as standard were obscuring or completely blocking the data transmission leaving the chamber, especially in pedestrian and highly trafficked areas.



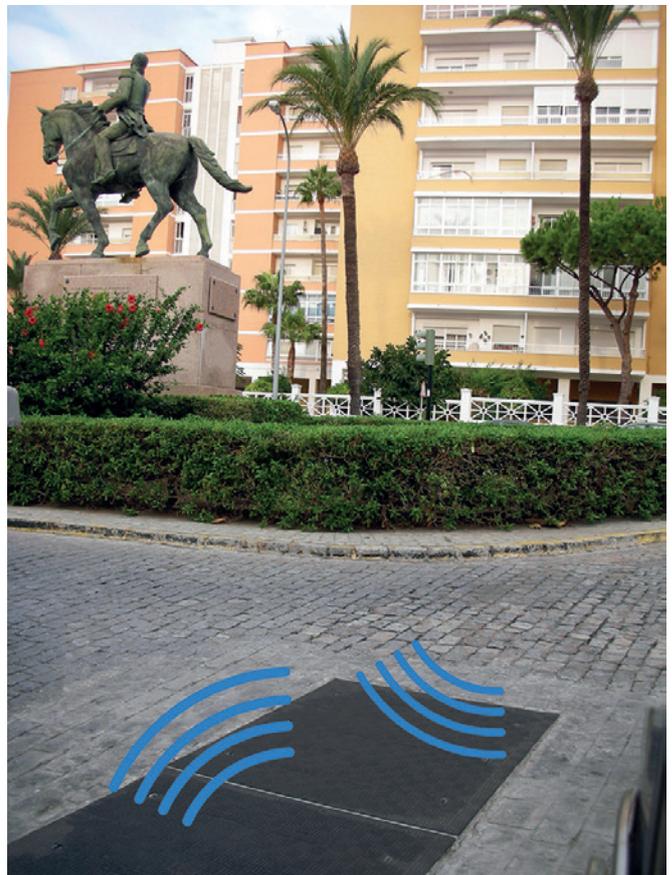
Automatic monitoring system located beneath metal cover which blocked signal (Image credit: Aguas de Cádiz)

## Solution

Fibrelite trench covers were fitted into existing frames over each chamber, preventing expensive breakouts and time for concrete to set. Their composite covers provide no interference to signals, so allow electromagnetic (EMI) and radio frequency (RF) signals to pass directly through them, such as GPRS in this instance.



All Fibrelite trench covers can be safely manually lifted with the FL7 lifting handles (Image credit: Aguas de Cádiz)



Fibrelite FM45 covers installed allowing RF signals to pass freely through (Image credit: Aguas de Cádiz)



Fibrelite trench covers fitted into existing frames, preventing expensive breakouts and time for concrete to set (Image credit: Aguas de Cádiz)



Underground water monitoring system (Image credit: Aguas de Cádiz)

## Results

Once Fibrelite's trench covers had been fitted on the chambers in May of 2014, clear transmissions of the GPRS signals were received at the Aguas de Cádiz central office from all installed locations, allowing for monitoring of water usage and leaks.

**For more information on Fibrelite's product range please contact us:**

**UK Office:**

Tel: + 44 (0) 1756 799 773

Email: [enquiries@fibrelite.com](mailto:enquiries@fibrelite.com)

**US Office:**

Tel: + 1 919 209 2404

Email: [enquiries@fibrelite.com](mailto:enquiries@fibrelite.com)

**Malaysia Office (Asia Pacific):**

Tel: + 44 (0) 1756 799 773

Email: [enquiries@fibrelite.com](mailto:enquiries@fibrelite.com)

## Testimonial

The president of Aguas de Cadiz, Ignacio Romaní, stated that:

*"with these [remote monitoring] systems Cádiz will be a principal pioneer in the remote management of the supply network of the city. This operation complements the continuing work that has been underway for years to renovate and modernize networks and sanitation of the city " And that "from the point of view of saving, this system is very important because it can detect leaks in the network enabling immediate action." [Translated]*

(Source: "Ayuntamiento De Cádiz – Actualidad Y Noticias De Cádiz | Aguas De Cádiz Instala Unos Dispositivos Electrónicos Para Controlar La Red De Abastecimiento ")