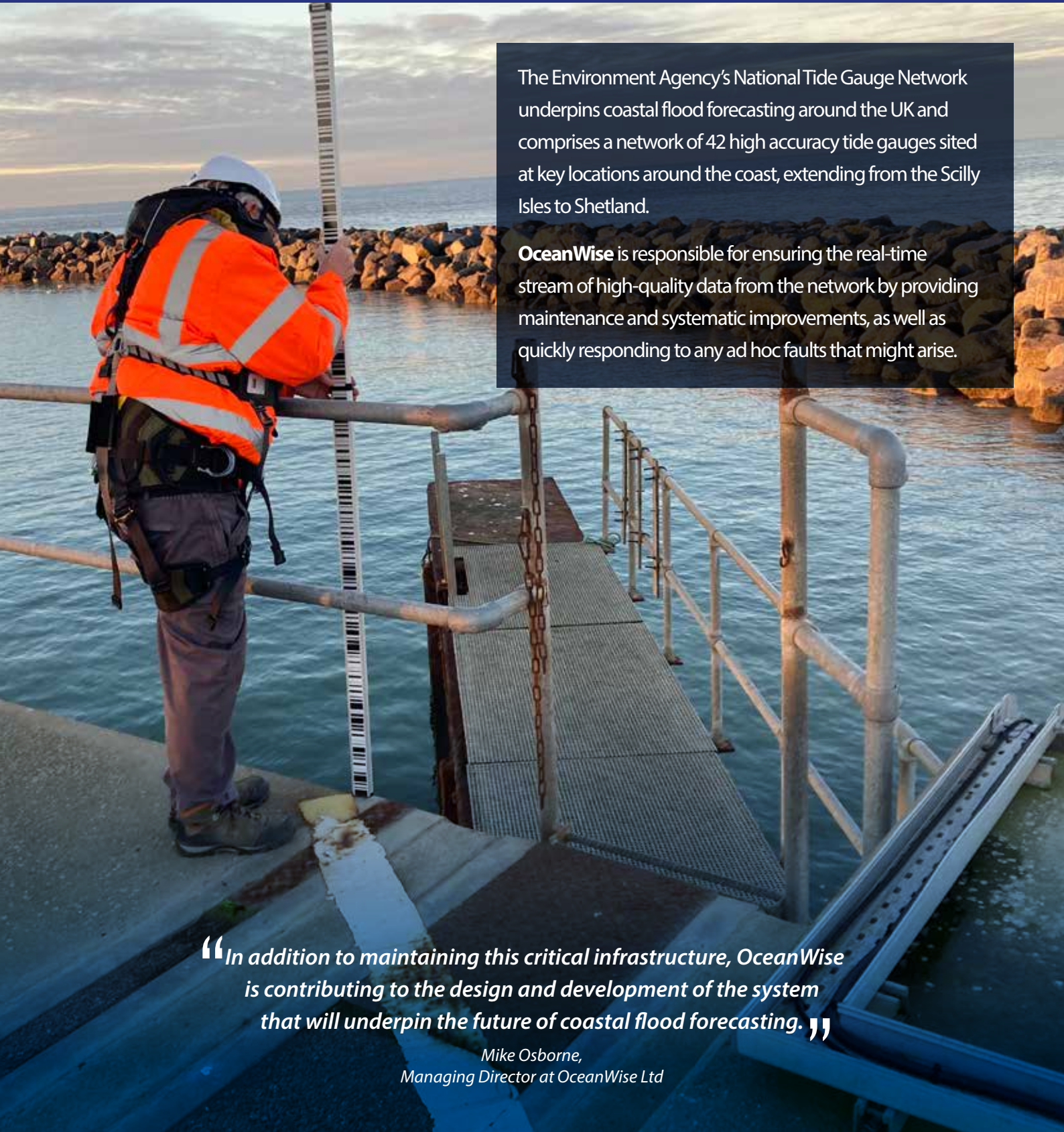


Customer
Case Study

Maintaining and Updating the UK's National Tide Gauge Network



The Environment Agency's National Tide Gauge Network underpins coastal flood forecasting around the UK and comprises a network of 42 high accuracy tide gauges sited at key locations around the coast, extending from the Scilly Isles to Shetland.

OceanWise is responsible for ensuring the real-time stream of high-quality data from the network by providing maintenance and systematic improvements, as well as quickly responding to any ad hoc faults that might arise.

“In addition to maintaining this critical infrastructure, OceanWise is contributing to the design and development of the system that will underpin the future of coastal flood forecasting.”

*Mike Osborne,
Managing Director at OceanWise Ltd*

The project file

The network, which the Environment Agency operate on behalf of UKCFF, comprises 42 tide gauges located at key locations around the UK's coastline, from the Isles of Scilly to Shetland.

The Need

The Environment Agency needs a robust, reliable service and maintenance provider with knowledge of the sensors and the telemetry system. Importantly, the provider must be able to cover a wide geographical area and a team that can respond in a timely manner to faults that might arise unexpectedly.

3 Key Requirements

- 1 Technical knowledge of the sensors and telemetry system
- 2 Rapid and responsive identification and resolution of faults
- 3 Detailed understanding of the data collected

Our Solution

Dedicated, experienced site engineers who can undertake systemised and ad hoc maintenance across the whole network. The **OceanWise** engineers use their unique knowledge and experience to carefully install and repair outstations and sensors, as well as working with the Environment Agency on future planning of the network's management and maintenance.

“OceanWise is delighted to have taken over responsibility for the operation and maintenance of this critical national infrastructure. Our field engineering team have risen to the challenge it poses with a planned programme of maintenance and upgrades which will see us travelling to all corners of the UK in the next 12 months.”

*Mike Osborne,
Managing Director at OceanWise Ltd*

OceanWise in partnership with the Environment Agency



The project file

Technical Overview

The National Tide Gauge network comprises a combination of pneumatic (bubbler) and radar tide gauges, with only the Newlyn site still utilising the older Munro Float Tide Gauge (the system is being retained due to its historic significance).

Each outstation is linked to the Environment Agency's SWANTEL data telemetry network via a Seprol S500 data logger which is equipped with GSM communications.

The network, which was developed by the UK's National Oceanography Centre, has been operating in its present form for almost 30 years. Some of the stations go back as far as 1915 when the tidal data collected was used to define the first fundamental 'sea level' benchmark. This benchmark forms the reference for all modern day UK geodetic survey observations.

In addition to maintaining this critical infrastructure, to ensure its continuous operation, **OceanWise** is contributing to the design and development of the system that will underpin the future of coastal flood forecasting, set against a backdrop of rising sea levels.

Next Steps

The intention is to improve data quality and the level of uptime at all stations by replacing any worn out components, making some system improvements and carefully planning a systematic maintenance programme.

OceanWise is also supporting a variety of other improvements which include updating the data telemetry by implementing the use of a smart modem technology, more frequent data delivery and quality monitoring through the use of **OceanWise's** data platform, 'Port-Log', and fault and planned maintenance tracking through the use of **OceanWise's** Asset Management software.



About OceanWise

OceanWise Ltd is an independent company providing applications, services and tools that enable safer and smarter management of marine operations. We specialise in marine environmental monitoring; are the leading provider of marine mapping data worldwide; and are the experts in marine data management. For more information please contact **OceanWise** on:

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