

Affinity Water

Demand Weather Intelligence Model

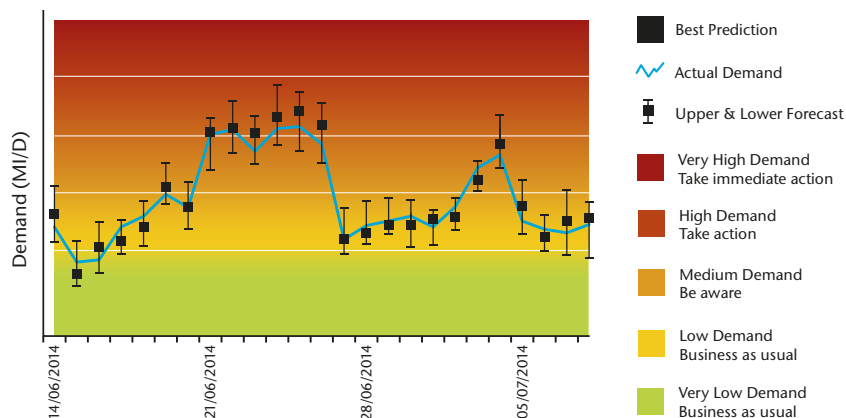


Background

Affinity Water provides 900 million litres of water each day to a population of more than 3.5 million people in the South East of England. In addition to maintaining a water supply to millions of customers, Affinity Water is legally required to meet a minimum standard of service, including supplying drinking water for essential household use, such as cooking and washing. Interruptions to supply incur costs for Affinity Water as well as disruption to customers.

Adverse weather can have an impact on operations to maintain and improve the company's network. At the same time, customer demand for water is influenced by the weather.

In order to further enhance the service they provide, Affinity Water undertook a three month trial of the Met Office Demand Weather Intelligence Model, which was developed in conjunction with Thames Water. Each morning, Affinity Water received a file including the demand/usage forecast with upper and lower estimates for the next 15 days, as well as the latest best estimate of weather for each area. Throughout this time we worked very closely with Affinity Water to make adjustments in order to refine the model output and increase accuracy.



Example graph output

"The water industry has used tools of increasing sophistication over the years to forecast demand. A reliable 15 day weather forecast coupled with a well calibrated tool converting this information into forecast demand, could be the prize that enables the more accurate advance warning of weather derived demand variation."


Steve Ross

Operations Controller - Affinity Water

Benefits

Affinity Water found the improved weather forecasting offered by the Demand Weather Intelligence Model extremely useful in identifying changing weather patterns at an earlier stage than before. This work continues, with the aim of even more accurate forecasting indicating likely demand peaks further ahead. This will help Affinity Water plan operations in the communities they serve and improve data on future fluctuations in the demand for water. A reliable weather-related demand forecast allows set actions to be documented according to various demand bands, across production and distribution departments.

To find out more:

 +44 (0)370 900 0100

 water@metoffice.gov.uk

 www.metoffice.gov.uk/water

 Find us on LinkedIn