

Flood Foresight

The insight you need – when you need it the most

Background

Flood events are the most frequently occurring natural disaster across the globe, affecting millions of people every year. They can have a huge impact on homes, businesses and infrastructure, causing months of disruption, uncertainty and considerable economic losses.

Flood Foresight, developed by JBA Consulting, is a unique flood monitoring and forecasting system. It provides near real-time and forecast rainfall and flood data to users needing a reliable source of information to understand potential flood impacts.

Based on best-available river telemetry and modelling approaches, combined with state-of the-art high resolution flood maps, Flood Foresight provides reliable predictive analytics on flood impacts before, during and after flood events, straight to your desktop.

In a first-of-a-kind approach, Flood Foresight uses the best available high resolution rainfall forecasts to produce asset-level alerts of intense rainfall and surface water flooding.

These can be integrated into a user's asset management software or can be accessed through a web-application

Users benefit from insight and early warning into which assets or populations are in locations most likely to experience surface water flooding in the coming hours.



How can Flood Foresight help you?

Users in a number of sectors including insurance, utilities and civil contingencies are benefiting from this consistent, transnational and automated approach to flood forecasting and flood monitoring. Depending on your sector, this information will have different applications, including:



Emergency management such as deployment of localised flood protection measures



Operational management of road or rail infrastructure such as proactive clearance of drainage infrastructure



Loss forecasting applied to insured portfolios or monitoring of parametric insurance schemes



Anticipatory actions for humanitarian response, such as forecast-based financing

Flood Foresight provides a consistent, cost-effective and globally scalable approach for flood early warning. The system is operational across the UK and Ireland, parts of Asia, Africa and Australia and can be deployed in any country. Being fully informed allows for quicker pre-emptive decision making limiting the impacts of flooding.



River Flooding

Flood Forecasting



Daily updates



Flood extent & depth footprints



Consistent, national scale data



Flood impact forecasting (e.g. economic losses, population or infrastructure affected)



3 hourly updates (UK)

Flood Monitoring



Flood extent, flood depth and impact data



Current and forecast, up to 10 days in advance



Consistent, national scale for any country



Current status of flood, using near real-time river gauge data

Discover how Flood Foresight used forecast rainfall screening, real-time and forecast flood maps, and flood monitoring streamflow data from a network of river gauges, to analyse the impact of Storm Desmond in 2015.

[Analysing Storm Desmond Using Flood Foresight | JBA Consulting](#)

Surface Water Flooding

Flood Forecasting



Data provided up to three days in advance



Driven by best available numeric weather prediction data from national meteorological agencies



Surface water flood information, alerts and warnings



Asset-level early warnings enable pro-active flood management



Probabilistic outputs present the uncertainty inherent in the forecasts



Forecast locations of very intense, short duration rainfall (convective cells)



Discover more about the surface water capabilities of Flood Foresight.
[Surface water flood video](#)

Impact & Integration

Flood Forecasting



Globally scalable



Understand uncertainties in the data through probabilistic forecasts



Fully-automated early warning of flood risk



Data can be integrated into your workflows and asset management systems



Flexible use of best-available models and data



Supports civil contingencies, utilities, transportation, humanitarian and financial early actions.



Estimate losses, population or assets at risk ahead of flood events

Learn how Flood Foresight is used across the globe by a range of clients including parametric insurance, humanitarian early action, real-time flood impacts for national flood risk management and local authority flood early warning systems.

[Flood Foresight – Near Real-time and Forecast Flood Inundation Mapping and Impact Assessment – JBA Consulting](#)

For more information on how Flood Foresight can benefit your organisation, visit our website or email us today to request a demonstration.