

Real-time flood forecasting and warning solutions

Enabling efficient, targeted emergency responses and flood warnings



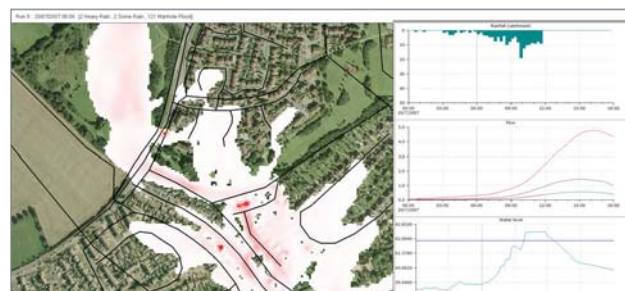
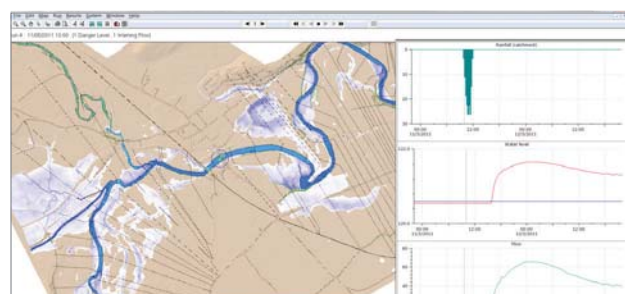
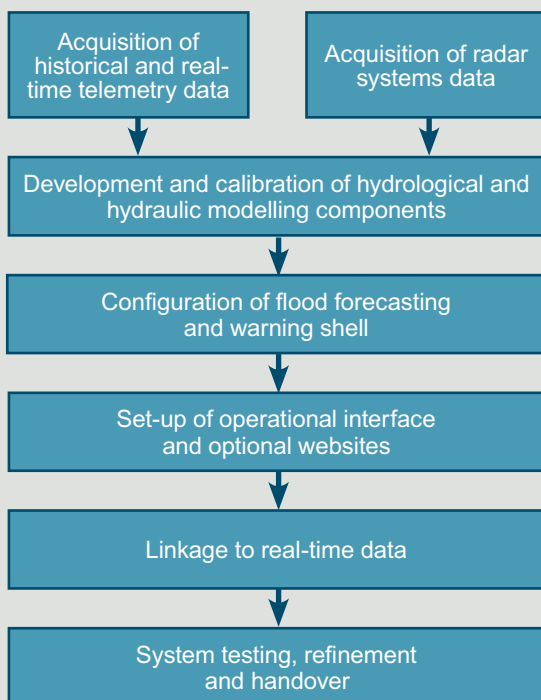
Flexible flood forecasting and warning solutions

Flood forecasting and early warning are crucial to enable efficient, targeted emergency responses, and the provision of public flood warnings.

Together, HR Wallingford and Innovyze deliver complete flood forecasting and warning systems designed to be quick, accurate and reliable under extreme hydrological and hydraulic conditions.



System development steps



Applying our modelling expertise, we work closely with our clients to deliver optimised solutions. We can provide advice on any aspect of the flood forecasting and warning system, including telemetry system installation and enhancement, to support the development of the complete system.

The strength of our approach is the ability to use world-renowned, cost-effective, off-the-shelf software tools to provide flexible, bespoke solutions. These software tools have been widely used for many years world-wide, and are at the forefront of the industry.

State of the art

We deliver fully configured flood forecasting and warning systems based upon industry standard tools and technologies.

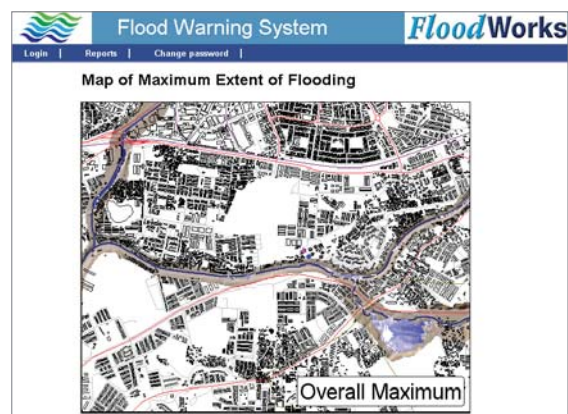
Applied expertise

Working in collaboration, HR Wallingford and Innozyze provide global solutions for flood forecasting and warning. Our team of experts has a wealth of experience in flood forecasting and warning system design, installation, and operation, working closely with clients to ensure successful results.

HR Wallingford and Innozyze have a long tradition of collaborating, developing first class water technology. This collaboration brings together world-leading analysis, advice and support in hydrology and hydraulics with the foremost software company in the water management industry.

Industry standard software

Our flood forecasting and warning systems are powered by InfoWorks and FloodWorks software tools, which have been successfully developed and applied over many years. Their international track record is testament to the flexibility of these tools, and their wide applicability.



Enhanced support

A key component of any forecasting and warning system development is the ability to provide continued high quality support and enhancement, thereby protecting the initial system investment. HR Wallingford and Innozyze are perfectly positioned to provide clients with a full range of system enhancements, software upgrades and operational systems support.

Comprehensive training

We can provide training in all aspects of a system, not only at the point of system handover, but also throughout the whole system development, thereby encouraging ownership of the system by the client, and the best foundation for handing over the system to its new operators.



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Selected solutions

Sungai Kelang, Malaysia

Real-time flood forecasting system for the Kelang Basin, Kuala Lumpur. Includes nine complex hydrodynamic models to forecast flows and water levels throughout the basin.

Salado Creek, Texas, USA

Flood forecasting system for Salado Creek, to the east of the city of San Antonio. Driven by NEXRAD radar rainfall forecasts and real-time telemetry from a range of sources.

Fano Town, Italy

System driven by rainfall telemetry data to predict water quality problems at coastal locations. Provides warnings of potential pollution incidents and enables public bathing beaches to be closed before the pollution occurs.

Dijle Basin, Belgium

Real-time flood forecasting system driven by weather radar and local meteorological forecasts. System includes snowmelt models within its hydrological components.

Demer Basin, Belgium

Real-time flood forecasting system driven by weather radar and local meteorological forecasts. Used to optimise the operation of flood storage reservoirs.

Banas and Luni Basins, India

Flood forecasting and warning systems for two basins in Rajasthan: one arid, one semi-arid. Includes detailed specification of required instrumentation and telemetry systems.

Chao Phraya Basin, Thailand

Large system covering a large catchment whose flooding affects Bangkok. Driven by telemetry, the system runs in a central national forecasting unit and six regional forecasting centres.

Citanduy Basin, Indonesia

Flood forecasting and warning system for the Citanduy Basin in South Java, including the specification of required instrumentation and telemetry systems.

Munster Blackwater Catchment, Ireland

Real-time telemetry drives this system based simply on rainfall-runoff and flow routing models, for fast results. Supports deployment of demountable flood defences.

Solva Catchment, UK

Flood warning system for Solva town at the mouth of the Solva River. System based on rainfall-runoff, flow routing and hydrodynamic models.

Edogawa Ward, Tokyo, Japan

Urban drainage flood warning system for area below mean sea level. Suffers storm surges, intense typhoon rainfall and high river flows overtopping flood levees. Driven by weather radar and real-time telemetry. Uses a 2D model to represent overland flooding.

Shanghai City, China

Solution to predict urban drainage flooding and provide a decision support system for operators based at Shanghai Municipal Sewerage Company.