

»» Ambiental Risk Analytics Predicting – Preventing – Protecting

We combine advanced flood modelling, predictive analytics, machine learning and razor-sharp intellectual skills to give organisations the critical insight they need into flooding and flood risk. We enable governments and corporations around the world to make accurate and measurable assessments for flood risk management. Using advanced techniques and our high performance flood modelling software, we can predict the likelihood, extent and impact of flooding with an unprecedented level of accuracy, helping organisations to prepare for all eventualities and plan more effectively.

FloodMap™

Our flood maps are used by insurers, government agencies, property developers and emergency response services to visualise, assess and understand potential flood risk. Using our proprietary software Flowroute-i™, high-quality topographical data and ground surface information, we generate flood maps or flood risk datasets for countries around the world.

- Detailed visualisations of potential flood risks
- Multiple flood sources available
- Varying levels of detail
- Can be integrated into your existing system
- We have flood maps for most countries and can create bespoke maps on request.



Ambiental's Australia FloodMap 100 year return period (shown in blue) with flood footprint from a recent flood event (shown in red). This demonstrates a strong correlation between predicted hazard and actual event.

FloodScore™

FloodScore provides property-level flood risk scores and information. It is available through an online server, via API, as a full or partial database or as spatial GIS layers. FloodScore is designed to provide quick, accurate and cost effective screening of the flood risks to individual properties or to entire property portfolios.

- Enables integration with the very latest property information (e.g. Ordnance Survey (OS) AddressBase, G-NAF)
- Incorporates our high resolution FloodMap™ data
- Provides a risk index, which reflects the average annual loss (AAL) for a property
- Takes into account the likelihood of an individual property being flooded due to rainfall, overflowing rivers or tidal surges, as well as the damageability for different property classes
- Provides improved stability and accuracy of flood risk scores by using a range of return periods (1 in 30, 75, 100, 250, 500 and 1000 year scenarios), along with complex risk-scoring algorithms.

FloodCat™

Our flexible flood catastrophe models are designed to give (re)insurers and risk managers precise data about their overall exposure in the event of catastrophic floods. Our models enable decision makers to rapidly assess portfolio-wide risk and to make better decisions around capital allocation.

- Uses the best topographic data with precise, historic river, rain and tide gauge data
- Predicts hazard and calculates vulnerability down to building level
- High precision prediction of Probable Maximum Loss (PML) and other metrics
- Validation against previous flood losses, combining historic data with reliable event-based predictions
- Integrates easily with multiple cat modelling platforms (e.g. Oasis, Elements)
- Flexible licensing for selecting the perils, regions, and level of aggregation you need.



A visualisation showing how FloodScore works

FloodFutures™

Our predictive flood model considers nine possible future climate change scenarios across the UK between 2020 and 2080. It helps a range of end users such as: utility companies, insurers, local authorities, infrastructure managers and commercial developers understand and plan for long-term flood risk.

FloodWatch™

Our innovative full-catchment flood forecasting system provides location-specific flood predictions and alert dissemination for up to seven days ahead. Developed in partnership with the UK Space Agency to tackle environmental problems, the system is currently providing benefits to clients in Asia. This is expected to enable a 10% reduction in the annual cost of flooding.

FloodSat™

This flood hazard monitoring service uses new forms of satellite remote sensing and drone imagery to monitor floods as they happen and provide flood extent layers in near real-time. These technologies provide invaluable insight to support your proactive flood response and damage estimations.

» To find out more please contact us at info@ambientalrisk.com or call +44 (0)203 857 8545