

## Groundwater Flood Risk Map at 5m Resolution (GW5)

**By analysing groundwater flood risk at a property level, you can improve premium calculations and quickly identify the best properties to cede to Flood Re.**

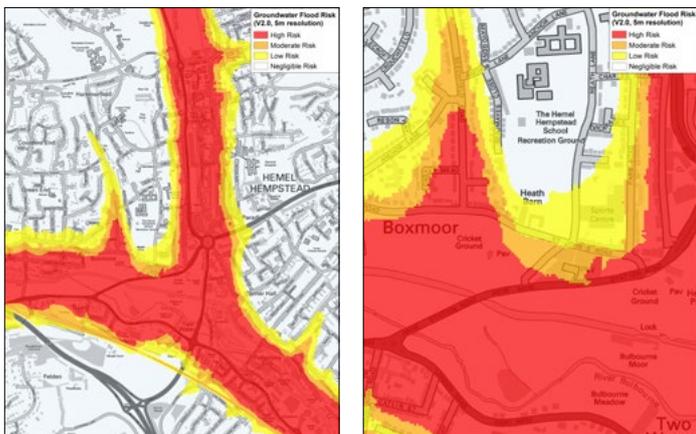
Up to 1.6 million properties in England and Wales are in areas at risk of groundwater flooding, and in 2013/14 alone, groundwater flooding cost the insurance industry £210 million. It may occur far from traditional sources of flooding, such as rivers or the sea, can take up to 30 days to appear after a surface water flooding event, and can often last much longer.

All of these factors can make groundwater flooding claims harder to predict and harder to manage. However, groundwater is often overlooked when it comes to assessing flood risk, even though it causes two to four times more damage to property than surface flooding events.

### **Benefit from the highest resolution groundwater flood risk data available**

GeoSmart has a track record of 20 years in groundwater science, and GW5 is the only available dataset for England and Wales that shows groundwater risk at 5m resolution and considers all aquifer types and permeable superficial deposits.

GeoSmart's GW5 corresponds to Ambiental's flood risk model (UKFloodMap4™) in terms of resolution, precision modelling, quality, and a commitment to continually updating and validating data against actual groundwater flood events. GW5 can be licensed on its own or integrated with UKFloodMap4 and FloodScore™.



Above is an example of a GW5 groundwater flood risk map of Hemel Hempstead. The advanced resolution is achieved using a 5m horizontal grid resolution which clearly identifies the individual properties at risk. The GW5 data provides information on different groundwater flood risk classification zones as seen by the colouration on the map.

### IN PARTNERSHIP WITH:



### KEY BENEFITS

- Increase the precision of your flood risk management
- Be more confident in your portfolio management and ceding decisions
- Optimise pricing and reduce loss ratios

### GEOSMART GW5 AT A GLANCE

- Covers 100% of properties in England and Wales
- 5m resolution allows for risk assessment at property level
- Classifies risk as negligible, low, medium or high (1.5% of properties categorised as high risk)
- Identifies areas within a property that may be at risk
- Considers all aquifer types and permeable superficial deposits from rivers and high tides
- Focuses on risk rather than susceptibility to provide a less conservative overview

# GW5 Technical Details

## Integrate detailed groundwater data into your flood risk management system

To give insurers an even more comprehensive overview of flood risk, Ambiental has partnered with GeoSmart to provide the most precise groundwater flooding dataset available today. By integrating GeoSmart's Groundwater Flood Risk Map at 5m Resolution (GW5) into your flood risk data portfolio you can get a more detailed understanding of flood risk from all sources down to property level.

### Coverage

England and Wales

### Modelled Return Periods

1 in 100 year

### Input data

Environment Agency 2014/15 LiDAR and Ordnance Survey Terrain 50 (5m DTM)

### Update Frequency

Annual/after major events

### Validation

Regularly validated and calibrated against actual flood events in the UK

### Delivery Formats

- GIS layers: Shapefiles or Raster (floating point/classified/average annual loss)
- Integrated with all GIS compatible systems and third party underwriting platforms, including Experian, LexisNexis, Spatial Key and Touchstone
- Appended to Ordnance Survey AddressBase® property level database
- Flat file to integrate within customers' systems
- Physical/PDF maps
- Through FloodScore, Ambiental's online platform

### Licensing

- Flexible licensing depending on requirements
- Regional scale pricing also available, e.g. South of England
- Annual subscription and transactional 'per hit' pricing models available

## ABOUT GEOSMART

GeoSmart delivers insight on environmental risk and land suitability for property asset owners and insurers. As our landscape and climate continually changes, we can offer more insight on the growing risk of groundwater within overall flood risk analysis. GeoSmart's innovative data modelling, built on a rich heritage of environmental science, enables smarter, more informed decisions.

## ABOUT AMBIENTAL

Ambiental is a global specialist in flood modelling and flood risk. We produce flood maps, flood data sets and environmental reports, and conduct both rapid assessments and in-depth research that support better decision-making around flood risk management. Using our flexible flood modelling software we can quickly develop and customise flood models to answer specific questions. This helps our clients be far more agile and responsive.

## CONTACT US

### FOR PRICING & SAMPLE DATA

For a free sample of GeoSmart GW5 data to test against your existing data sources, please contact:

**Mark Nunns**

**0203 857 8545**

**[mark.nunns@ambiental.co.uk](mailto:mark.nunns@ambiental.co.uk)**

**[info@ambiental.co.uk](mailto:info@ambiental.co.uk)**

**UK Head Office**

**Asia/Australasia**

The Sussex Innovation Centre, Science Park Square, Brighton, BN1 9SB, UK

© Ambiental Technical Solutions Ltd 2016

**[www.ambiental.co.uk](http://www.ambiental.co.uk)**

**+44 (0)203 857 8530**

**+61 (0)420 834 080**