



Flood Guidance Statement
User Guide
Version 4 January 2017

FLOODFORECASTINGCENTRE

a working partnership between



Environment
Agency



Met Office

FLOOD GUIDANCE STATEMENT USER GUIDE

OVERVIEW

The Flood Guidance Statement (FGS) provides a daily flood risk assessment for Category 1 and 2 emergency responders to assist with strategic, tactical and operational planning decisions.

This assessment of risk is shown by county and unitary authority across England and Wales over five days. It identifies developing situations that could cause flooding, threaten communities and pose a risk to lives and livelihoods. The FGS assesses the risk for all types of natural flooding – coastal/tidal, river, groundwater and surface water.

It presents a collated assessment by the Flood Forecasting Centre (FFC) and the local Environment Agency and Natural Resources Wales flood forecasting teams. The FGS presents the best combined understanding of flood risk based on weather forecasts, flood forecasts, catchment conditions and the operational status of flood defences.

The FGS is issued by the FFC every day at 10:30am. It will also be issued at other times through the day and night as the flood risk assessment changes.

The FGS is supported by National and Local Flood Advisory Services. These advisory services are run as telephone conferences to initiate early discussion of developing flood risk. They help to ensure emergency responders receive consistent and timely information from the Met Office, Flood Forecasting Centre, Environment Agency and Natural Resources Wales.

The FFC operates a 365 day 24/7 service. You can speak to the FFC Team (24 hour telephone 0300 1234501) to discuss the FGS. You can also contact your local Environment Agency or Natural Resources Wales Flood Resilience Team or Met Office Advisor (civil contingencies) for information about the local situation.

If you have any feedback on how we can continue to improve our flood forecasting services please contact us on 0300 12345 01 or ffcenquiries@environment-agency.gov.uk.

FLOOD RISK ASSESSMENT

To assess the level of risk we take into account a large number of weather, catchment and coastal factors. Assessments are made in different ways for coastal/tidal, river, surface water and groundwater. These are then presented on a coloured, 4x4 risk matrix depending on the likelihood and forecast impact.

Our ability to assess flood risk varies across England and Wales. Many factors can affect the quality (i.e. location, timeliness and accuracy) of our forecasts. We use the words confidence and judgement to describe our overall comfort with the reliability of our flood risk assessment.

We review the following for the production of each FGS:

- Recent weather conditions – has there been a recent period of prolonged rain or other high impact weather?
- Rainfall forecasts - is the forecast rain expected to be localised, short duration and high intensity or more widespread with a longer duration and of lesser intensity?
- Knowledge of catchments – how saturated is the ground, how high are the rivers and how quickly do they respond to rainfall?
- Detailed flood forecast models for the coast, showing tide heights, surges and large waves, and flood flows for rivers are evaluated.
- Seasonal factors including snow cover or leaf fall.
- The combined effect of river flow and high tides – if a river flood is being assessed, does this coincide with high tides?
- The likelihood of a flood where likelihood bands are described as:
 - very low <20%
 - low 20-40%
 - medium 40-60%
 - high 60% or greater

These four likelihood levels map into the four rows on the flood risk matrix.

- Impacts are reviewed against the four categories:
 - Minimal
 - Minor
 - Significant
 - Severe

These four impact bands map into the four columns on the flood risk matrix.

For responders familiar with scenario planning terminology as part of their risk management approach, the FGS provides an assessment of the reasonable worst case for flood impacts by source and county over time. We always show the highest overall flood risk, emphasising possible impacts.

FLOOD RISK MATRIX

The flood risk matrix (below) shows the assessment of likelihood against the potential impacts and assigns a risk colour and level. This determines the colouring of the five daily FGS maps for England and Wales. The matrix is included in the FGS when risk levels are yellow or above.

| Flood Risk Matrix (river, tidal/coastal, surface water & groundwater flooding) | | | | | Overall Flood Risk | |
|---|--------|-------------------|-------|-------------|--------------------|----------|
| Likelihood | High | | | | | HIGH |
| | Medium | | | | | MEDIUM |
| Low | | | | | | LOW |
| Very Low | | | | | | VERY LOW |
| | | Minimal | Minor | Significant | Severe | |
| | | Potential Impacts | | | | |

The flood risk assessment is designed to represent a variety of situations based on the combination of likelihood and impacts. It is important for FGS users to understand that the overall flood risk colour may indicate more than one of these combinations, for example:

- A low flood risk (yellow) county could indicate a high likelihood of minor impacts OR a very low likelihood of severe impacts
- A medium flood risk (amber) county could be facing a medium likelihood of significant disruption, OR a low likelihood of severe disruption.

The Local and National Flood Advisory Service telephone conferences have an important role in communicating consistent understanding of the overall risk. This enables responders to prepare for the right level of response to minor, significant or severe floods.

FLOOD IMPACTS TABLE

This table shows typical examples of impacts from flooding and aligns with the four columns in the Flood Risk Matrix.

| Flood Impacts Table | | | |
|---|--|---|---|
| Minimal Impacts | Minor Impacts | Significant Impacts | Severe Impacts |
| <ul style="list-style-type: none"> • Generally no impact, however there may still be • Isolated and minor flooding of low-lying land and roads • Isolated instances of spray/wave overtopping on coastal promenades • Little or no disruption to travel although wet road surfaces could lead to difficult driving conditions | <ul style="list-style-type: none"> • Localised flooding of land and roads – risk of aquaplaning • Localised flooding could affect individual properties • Individual properties in coastal locations affected by spray and/or wave overtopping • Localised disruption to key sites identified in flood plans (e.g. railways, utilities) • Local disruption to travel – longer journey times | <ul style="list-style-type: none"> • Flooding affecting properties and parts of communities • Damage to buildings/structures is possible • Possible danger to life due to fast flowing/deep water/ wave overtopping/ wave inundation • Disruption to key sites identified in flood plans (e.g. railways, utilities, hospitals) • Disruption to travel is expected. A number of roads are likely to be closed | <ul style="list-style-type: none"> • Widespread flooding affecting significant numbers of properties and whole communities • Collapse of buildings/structures is possible • Danger to life due to fast flowing/ deep water/ wave overtopping/ wave inundation • Widespread disruption or loss of infrastructure identified in flood plans (e.g. railways, utilities, hospitals) • Large scale evacuation of properties may be required • Severe disruption to travel. Risk of motorists becoming stranded |

FLOOD GUIDANCE STATEMENT SECTIONS

Trend since last FGS

The Trend since last FGS is a national overview of the forecast trend direction compared to the previous FGS issue. Each forecast day is compared against the same day from the previous issue and the trend highlighted. There are three options - increased, decreased or steady.

Headline

The headline will be included in every issue of the Flood Guidance Statement. It will provide a summary of the flood risk during the forecast period, emphasising but not necessarily limited to, the highest risk.

Amendments in this update

Provides the reason(s) for issuing an updated FGS. This can be to amend a forecast, add extra information, correct an error or omission.

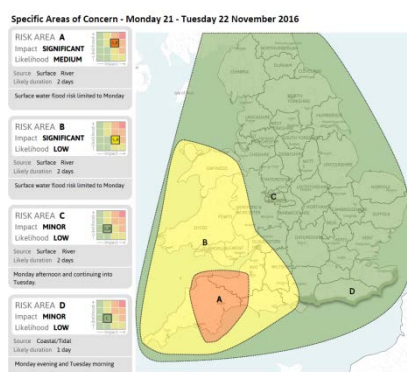
Assessment of flood risk

Our professional judgement and confidence in the flood risk assessment and the factors considered when determining the appropriate risk level. This includes whether the flood risk is improving,

staying the same or deteriorating. The assessment of flood risk should be read in conjunction with the headline and the area of concern map.

Specific area of concern map

One or more detailed specific area of concern maps are included for all low (yellow), medium (amber) and high risk (red) situations and sometimes for very low risk (green) situations when minor impacts are possible. Each flood risk area is labelled with the impact level, likelihood, flood source, position in the mini flood risk matrix and additional information when necessary. In situations when there are multiple sources of flooding with different risk levels, letters indicating the sources are shown in the mini flood risk matrices as in the example below.



6-10 day forecast

In this section the possibility of any elevated flood risk in the 6 to 10 day period will be highlighted. Where no elevated flood risk is expected this section is not included.

Next statement due

This time and date will tell you when the next FGS is due. It will normally be daily at 10:30 although it will be issued more frequently and with different timescales when necessary. We may issue up to four statements a day in severe circumstances.

Contact details

We provide a telephone consultancy service to Environment Agency and Natural Resources Wales flood teams to support our guidance. This consultancy service is also available for all Category 1 and 2 responders for FFC services, queries on the FGS and a national overview of flood risk. For detailed local discussion we advise you to use your local Environment Agency, Natural Resources Wales and Met Office contacts.

Can I share the FGS with the public?

The FGS is specifically produced for Category 1 and 2 emergency responders and should be used together with the Advisory Services, rather than in isolation. A public flood risk forecast is available from the Environment Agency and Natural Resources Wales and this product should be promoted to customers outside the emergency response community.

FURTHER INFORMATION AND FEEDBACK

We welcome your feedback. Please contact us by telephone: 0300 12345 01 or email: ffcenquiries@environment-agency.gov.uk.