# **Briefing: Flood maps for Scotland v2.0**



The modelling and mapping of flooding is a dynamic process. As we develop and improve our data, methodologies and techniques the maps are reviewed and updated. This is the fourth release of new flood maps since their publication in 2014. SEPA will continue to work with responsible authorities and partner organisations to improve our knowledge, understanding and the representation of flooding across Scotland.

## **Background**

The flood maps were first published in January 2014, meeting a key deliverable of the Flood Risk Management (Scotland) Act 2009 (FRM Act). The maps are a tool for the public and have helped us to create Scotland's National Flood Risk Assessment and Flood Risk Management Strategies.

# New information published on the flood maps

A new version of the flood maps has been published on the SEPA website. Consistent with our dynamic approach to mapping flooding and its impacts and to take account of new information and improvements in our methods and data analysis, we have updated the:

- Flood extent map for river and coastal flooding
- Flood depth map
- Flood velocity map

Information published in this release has been used to inform the content of our new *beta* Flood Map service:

www.sepa.org.uk/environment/water/
flooding/flood-maps/

### **Future Flood Maps**

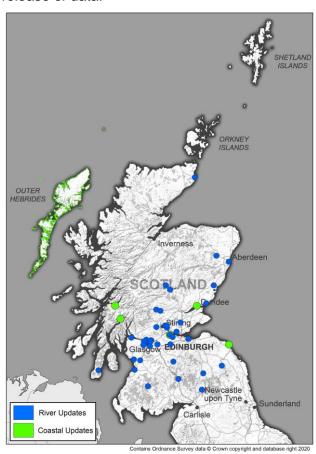
Future Flood Maps are new for this release of the flood maps. They show the potential effects of climate change on river and coastal flooding for a single future climate scenario. They are based on:

- projected increases in peak river flows, and
- projected increases in mean sea levels

The maps have been developed using projections from a high emissions climate scenario that assumes little or no action is taken to avoid dangerous levels of climate change.

### Updates to the river and coastal flooding

The areas that have been updated on the flood extent map are shown in the map below. Further detail on this work is available in the Release Notes supplied to organisations with the new release of data.



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## What else do the flood maps show?

The flood maps are the most comprehensive national source of data on flood hazard and risk for Scotland and include information on different types and likelihoods of flooding.

Maps are available for all sources of flooding (river, coastal and surface water) and for four likelihoods (high, medium, low and medium plus climate change) showing, where available:

- Flood extent
- Depth
- Velocity

Other maps show:

- Groundwater areas where groundwater may contribute to flooding
- Impacts of flooding flood risk to people, property, community services and specific environmental sites
- Flood defences draws information from the Scottish Flood Defence Asset Database (SFDAD)
- Natural flood management areas where there is an opportunity to apply natural flood management techniques
- Natural susceptibility to coastal erosion relative susceptibility of areas to coastal erosion

#### Users of the flood maps

The flood maps are a public tool and used by a wide variety of people for a range of uses.

**Members of the public** – To increase awareness and understanding of flooding. They are a tool to promote an individual's responsibility for their own flood protection and preparation.

**Responsible authorities** – As a key tool for flood risk management planning.

**Emergency responders** – To help the resilience community be better prepared for

flood events and provide an expectation about the potential impacts of flooding on our communities.

**Land use planning** – Some information has been embedded into the land use planning system to support decision making.

#### What is not shown on the maps?

The flood maps:

- Do not provide a property level assessment of flooding
- Are not licensed for commercial purposes
- Should not be used for insurance purposes
- Do not show the interaction between the sources of flooding
- Do not include information on reservoirs
- Use a simplified representation of flood defence structures appropriate to the strategic nature of the maps

#### New releases of information

The most up to date techniques have been used to create the maps but there remain limitations of modelling flooding, particularly at a national scale. Uncertainty is higher in areas where there are modified watercourses, especially urban areas and for high likelihood flood events. This must be taken into account when using the flood maps.

#### Contact us

More flooding information is available on the SEPA website

(<u>www.sepa.org.uk/environment/water/flooding/flood-maps/</u>).

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