

## Flood maps: Q&A

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### 1. Publication

#### When will the flood maps be launched?

- The maps will be available on the SEPA website ([www.sepa.org.uk/flooding](http://www.sepa.org.uk/flooding)) from 15 January 2014.

### 2. Benefits of the flood maps

#### Why has SEPA produced new maps?

The development of the flood maps has been driven by the Flood Risk Management (Scotland) Act 2009 (The Act). This legislation introduced a co-ordinated and partnership approach to how Scotland tackles flood risk in Scotland in a sustainable manner. The information in the maps is needed to help us target our resources and effort for Flood Risk Management Planning.

#### How are the maps better than previous ones?

- They make more information available to the public than ever before
- Improved usability and access to information
- Provide a nationally consistent approach
- They include outputs showing surface water and groundwater flooding and an additional two likelihoods of flooding (low and high)
- Include depth and velocity for Potentially Vulnerable Areas (PVAs)
- They provide more comprehensive information on the sources and impacts of flooding than we have had before and will help to make Flood Risk Management Planning decisions

#### How are the maps going to benefit people right now?

- Flooding can affect us all and the flood maps make more information available to members of the public than ever before.
- This can help people understand flooding and how it can impact them so that they can take action and prepare their properties.
- The information is helping public bodies tackle flooding in a more targeted way, making better use of public money.

#### When will work actually start on the ground?

- SEPA, local authorities and Scottish Water already have a responsibility to manage flood risk and to help reduce the impact of flooding.

- This approach is helping us to be informed and make more sustainable and co-ordinated decisions to improve how we tackle flooding in Scotland.
- The first Local Flood Risk Management Plans, which will describe local activity to manage flood risk, will be published in June 2016.

**Why will it take so long, from the publication of the flood maps, for this to happen?**

- SEPA has already started to use the information from the flood maps to develop Flood Risk Management Strategies.
- Using the information from these Flood Risk Management Strategies, local authorities will be able to produce a local delivery plan, called a Local Flood Risk Management Plan.
- Both these flood risk planning and management processes will be subject to public consultation.

**Is SEPA unnecessarily panicking people by publishing the flood maps if you're not going to take action on the ground until 2015/16 date?**

- Flooding and its impacts hasn't changed due to the publication of the flood maps
- But having and understanding this information can help people prepare for flooding by taking action to protect themselves, their families and their homes and to make plans to reduce the impact of flooding on their lives.
- SEPA's Floodline service provides free advanced warnings for flooding in some areas of Scotland as well as advice and guidance. If any members of the public feel they need support and are worried about the information on the maps and what this means for them please contact Floodline (0845 988 1188).

**Does my local authority know about these maps?**

- Yes, Clackmannanshire Council staff have been involved in the development process and have provided a local review of the information.
- Clackmannanshire Council are a responsible authority under the Flood Risk Management (Scotland) Act and are responsible for producing plans to tackle flood risk.

**Why does the coastal flood extent go further out to sea than the depth grid?**

The coastal flood extent has been developed to extend 0.5km off-shore around the entire coastline. This is similar to the approach taken for the Indicative River and Coastal Flood Map Scotland (IRCFMS) and provides a uniform edge to the flood extent.

In order to determine water depths ground level is subtracted from sea level. The ground level dataset used for the flood hazard maps stops at the coastline and therefore water depths can only be derived up until this point.

### **3. Indicative River and Coastal Flood Map (Scotland)**

**Should people now stop using the indicative flood maps?**

Yes. The indicative map no longer appears on the SEPA website as the flood maps supersede the information this contained.

## 4. Contents of the map

### **How were the maps created?**

SEPA used nationally recognised modelling techniques to create the flood maps and also worked closely with local authorities to review the data. Local knowledge and data was incorporated when available and possible to do so.

### **How can SEPA be sure that the new maps are accurate?**

- The maps are intended to support community level (not property level) decision making and are sufficiently accurate when used at this level
- With any such national scale flood modelling there are assumptions and inherent uncertainties which impact on the results. SEPA have worked with local authorities to review the maps and incorporate local knowledge and data where available.
- Every effort has been made to create flood maps that reflect the local knowledge and information available. Where there is better or more detailed information for a particular area, this has been taken into consideration. As we develop and improve our data and modelling techniques the maps will be reviewed and updated.
- Areas where we don't have sufficient information, or where we have less confidence in the data, have been greyed out on the maps and are identified as areas for mapping development. A detailed list of areas where we are aware of mapping development being required will be available from the SEPA website.

### **Why are there differences between the areas that will flood from rivers and the sea from the information in the Indicative River and Coastal Flood Map?**

- The flood maps provide a more realistic view of flooding than the Indicative River and Coastal Flood Map
- This is due to the modelling methods used and the application of data

### **My property is shown at risk of flooding on the map but it's never flooded. Can you update the map?**

The map is designed to show "communities" at risk of flooding. It cannot identify individual properties at risk. Within Potentially Vulnerable Areas (see the Glossary of Terms) we recognise that not every property is at risk, similarly there are properties outside of these areas at flood risk.

### **What does low/medium/high likelihood of flooding mean?**

This refers to the chance of a flood occurring.

- High: A flood event is likely in the defined area on average once in every ten years. Or a 10% chance of happening in any one year. (1 in 10 year return period)
- Medium: A flood event is likely in the defined on average once in every two hundred years. Or a 0.5% chance of happening in any one year. (200 year return period)
- Low: A flood event is likely in the defined area on average once in every thousand years (1:1000). Or a 0.1% chance of happening in any one year. (1 in 1000 year return period)

### **Does my local authority know about these maps?**

- Clackmannanshire Council have been involved in the development process and have provided a local review of the information.

- Local authorities are a responsible authority under the Flood Risk Management (Scotland) Act and are responsible for producing some of the required plans to tackle flood risk.

#### **Are the maps more accurate in some areas than others?**

- We have adopted a national approach to produce the flood maps but have reflected local knowledge and information where this has been available.
- In some areas, where this data is not available or where the national approach is not suitable to produce information, we have greyed out the map and will be working to develop these areas as more data and information becomes available.

#### **Why is "water velocity" information not available everywhere?**

- We have focussed on developing information for the areas which contain the greatest risk to the impacts of flooding (Potentially Vulnerable Areas).
- Velocity information is currently only available for these areas.
- We have mapped velocity information only as the speed of flood water as direction information is not available at this time.

#### **Why are there areas of grey when I look at certain areas of "water velocity" information?**

Velocity is shown where we have the appropriate information to do so. That is when there is an available LiDAR DTM (ground level model) and where the model grid resolution is better than 10m.

#### **Who will use the flood maps?**

- 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 in the Flood Risk Management Planning process and to support the development of Scotland's first co-ordinated national plans to tackle flooding.
- 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.
- Planning authorities – To support land use planning decisions after a phased implementation of the information into the planning system. SEPA is working closely with Planning Authorities to provide guidance on the use of the new data.

#### **When will the maps be updated?**

The mapping of flooding is a dynamic process. As we develop and improve our data, methodologies and techniques the maps will be reviewed and updated. SEPA will continue to work with responsible authorities and partner organisations to improve our knowledge, understanding and the representation of flooding across Scotland.

#### **How can I influence an update/change to the maps?**

- The maps are intended to support community level decision making and cannot accurately reflect flood risk to individual properties.
- If you think the maps need to be changed we need to have data which is compatible with the national methodology and approach to be able to support the change. This is likely to come from local authority investigations and we

- You will have a chance to have your say about how flooding is being tackled in our local area by responding to the consultation on Local Flood Risk Management Plans. This will be available in 2015.

**Why are all bridges shown as flooding?**

The hazard maps show flow in the channel underneath bridges and do not show whether a particular bridge is likely to be overtopped.

**5. Property and insurance**

**The maps may mean that homeowners in areas identified as "at risk" may not be able to sell their properties – or may need to reduce the sale price. Does SEPA accept this may happen? How can SEPA justify this?**

The maps do not identify individual properties at risk of flooding. They are a tool to help identify communities which would benefit from flood risk management actions. Potentially Vulnerable Areas are areas previously identified to contain the greatest risk of flooding impacts and where we have focused our efforts to provide more information. However, not all properties within these areas are at flood risk and similarly, some properties outside of these areas are at flood risk.

The maps do not change where flooding happens or its impacts. They help us to plan ahead and tackle these issues to reduce the impact on our communities.

**Does SEPA think people identified as living in a flood area may be refused flood insurance cover as a result of the maps? If so, how can SEPA justify this?**

The maps cannot be used by the insurance industry to interpret flood risk of individual properties and locations. This is included in the terms and conditions that all users agree to before being able to view the map.

**Does SEPA think insurance premiums may go up for people identified as living in a flood risk area by the maps? If so, how can SEPA justify this?**

No. The maps cannot be used for this purpose and all users agree to this before being able to view the map. The flood maps do not identify individual properties at risk and the map scale "zoom" feature is set to support community level flood risk management decision making. We do not have a commercial licence for the map and do not supply the underlying data to the insurance industry.

**Given that you have now provided a more in-depth map of flood risk – will you now be providing flood risk reports for properties? If not, why not?**

The map does not provide additional flood mapping detail for individual properties. It only provides an indication of the sources and impacts of flooding at the community level. The greater scope of information at this scale will support flood risk management decisions and is also valuable for other organisations involved in community resilience.

## **6. Flood Risk Management Planning**

### **What are the Flood Risk Management Strategies and how will they benefit the public?**

FRM Strategies will be published by SEPA and will set out the most sustainable combination of actions to address flooding in the areas at greatest risk and where the benefits of intervention can have the greatest impact. A FRM Strategy will be produced for each of the 14 Local Plan Districts in Scotland.

### **How will SEPA use the new flood hazard and flood risk maps to develop the Flood Risk Management Strategies?**

The new flood maps build on information in the National Flood Risk Assessment. The maps provide more detail on the location, character and impacts of flooding. This information will support flood risk management decisions and will be a key factor in the development of SEPA's FRM Strategies.

### **When will the Flood Risk Management Strategies be completed?**

FRM Strategies will be published by SEPA by the end of 2015.

### **Will each Local Plan District receive a completed Flood Risk Management Strategy from SEPA at the same time? If not, why not?**

SEPA's FRM Strategies will be translated into a local delivery plan for each of the 14 Local Plan Districts. One local authority in each of the local plan districts, called the Lead Local Authority, has responsibility for producing these local delivery plans in partnership with the other member local authorities.

### **Why has it taken until now for Scotland to develop its first Flood Risk Management Strategies?**

The FRM Act introduced a co-ordinated and partnership approach to how we tackle flood risk in Scotland. This legislation came into force in 2009 and was the first time FRM Strategies were required by law. It asked for SEPA, local authorities and Scottish Water to take more sustainable action to tackle flood risk and as such we had to improve our knowledge of the sources and impacts of flooding as well as establish management structures so each authority could work more effectively together. From 2009 until now we have carried out a substantial amount of work and published more information than ever before for the public to see.

### **What are the Local Flood Risk Management (FRM) Plans and how will they benefit the public?**

Local FRM Plans are local delivery plans. They will detail delivery dates, consider funding and identify how actions will be co-ordinated at a local level for the next six years. These plans will directly benefit members of the public by tackling flood risk in the areas where the impacts are greatest and where we can achieve the greatest benefit from intervention. The plans will be based on current information and will represent a nationally co-ordinated approach to flood risk management. As such they will set out a more cost effective means to manage flood risk and use of the public resources needed to implement them.

### **How will the information in the new maps and Flood Risk Management Strategies be used to develop the Local Flood Risk Management (FRM) Plans?**

FRM Strategies will recommend the most sustainable combination of actions to tackle flooding. Local FRM Plans will turn these action into a local delivery plan. Information from the flood hazard and flood risk maps is being used to inform characterisation reports and for further appraisal work. This will then be used to

develop more information at the local level which will help to support Local FRM Plans.

**Why is SEPA leaving it to the lead local authority in each of the Local Plan Districts to produce the Local Flood Risk Management Plans?**

Lead local authorities were identified in legislation as the responsible authority to deliver Local FRM Plans.

**When will the Local Flood Risk Management Plans be completed?**

Local FRM Plans will be published by the Lead Local Authorities for each of the 14 Local Plan Districts in June 2016.

**How long will it take for any action on the ground to take place after the publication of the Flood Risk Management Strategies and Local Flood Risk Management Plans? Why is this?**

Local FRM Plans will detail actions that will be taken in the six years after the plan's publication. It will also capture ongoing maintenance works and other flood risk management actions given all organisations involved in the plan's production have existing responsibilities for FRM.

**Are the maps, strategies and plans just an example of paper-pushing?**

No. For the first time we are adopting an approach which tries to understand and tackle flooding at it's source, not just wait for flooding to happen and respond. We need to have co-ordinated national plans to help reduce overall flood risk and do this in a sustainable and cost effective way which will stand the test of time.

**How can you be sure that the new Flood Hazard and Risk maps will still be accurate by the time the Flood Risk Management Strategies or Local Flood Risk Management Plans are published?**

The mapping of flooding is a changing process and the flood maps will be subject to review and alteration as we develop our mapping techniques. The FRM Planning process is carried out on the basis of planning cycles and new developments in how risks are assessed and modelled can influence the next planning cycle.

## **7. Land use planning**

**Will these maps allow SEPA to give flood risk advice to Planning Authorities?**

There will be a transition process between the use of the data from the "Indicative River and Coastal Flood Map" and the new Flood Hazard and Flood Risk maps. We anticipate ongoing use of the Local Authority held datasets of the Indicative map for a number of months through this transition phase.

**What will SEPA do to manage this process?**

We will hold regional workshops with Planning Authorities in 2014 and provide further advice and guidance to Planning Authorities about the new data and its use.

## **8. Natural flood management**

**What is natural flood management (NFM)?**

- Techniques that aim to work with natural processes, features and characteristics to manage the sources and pathways of flood waters.

- This can include the restoration, enhancement and alteration of natural catchment features and characteristics, but excludes traditional flood defence engineering as this works against or can disrupt these natural processes.

### **Why are we using natural flood management?**

- Scotland is adopting a new and more sustainable approach to managing the risk of flooding, initiated by the introduction of the FRM Act.
- A key element of this involves finding ways to manage the source of flood waters rather than just protecting people and property from the impacts.
- NFM measures aim to store or slow down flood waters and so reduce the impacts of flooding downstream, or provide more warning time for people to take action for themselves.
- NFM measures can also provide additional benefits for communities and societies by restoring and enhancing rivers or coasts, and at the same time increasing biodiversity or improving water quality.

### **Is natural flood management a cheap substitute for flood protection schemes?**

No. In many cases NFM measures will be implemented alongside more traditional engineered solutions as part of a package of "catchment-wide" flood management options. In some cases it may be more cost effective to implement and it could provide other environmental and social benefits, such as improved water quality and habitats.

### **Does natural flood management work - what evidence is there?**

The concept of NFM has been around for many years but it is true that scientific evidence, particularly of the flood risk reduction effects of these measures at a large scale, is limited. While such measures alone will not protect communities during a major flood event, evidence from projects in the UK and internationally show that NFM measures, such as wetlands, floodplain reconnection and coastal realignment, can work at a local scale and reduce the flood risk to communities during smaller, more frequent, flood events.

NFM measures can also be used alongside more traditional hard engineering methods to complement them and to extend their life. This is particularly important in the face of climate changes. Therefore, NFM can be seen as one of the tools available to combat flooding. The Scottish Government is working with a wide range of partners to develop a robust scientific evidence base to improve our understanding of how much these measures can contribute to reducing flood risk.

### **Can NFM give sufficient protection from flooding to homes and communities?**

It is unlikely that NFM measures alone will protect communities during a major flood event. However, they can help reduce the flood risk to communities during smaller more frequent flood events. NFM measures will often be implemented along with other flood alleviation measures such as flood warning, flood awareness raising or traditional engineering.

### **Is NFM ever likely to make flooding worse?**

It is unlikely but it could occur. Considerable work is being undertaken to review and evaluate NFM techniques to increase our knowledge about which NFM measures will work and where. Sharing knowledge and further investment into NFM research will prevent measures being used where they could increase flood risk.



**How long do NFM measures take to provide benefits?**

This depends on the measure. Measures that can be implemented in their final form such as building a large woody debris dams or re-meandering a straightened river will have an immediate effect on local flows. Conversely, measures that take time to develop into their final form, such as planting trees, will have a significant lag time between inception and realisation of the benefits of slower run-off rates and increased infiltration in these areas.

**Who will plan and implement NFM measures?**

Under the FRM Act, local authorities are required to work together with Scottish Water and SEPA to manage flood risk for a whole catchment and produce local FRM plans. Between them they will agree the most sustainable options for that catchment and how the measures will be implemented and paid for. The public and all stakeholders will be consulted as part of the process. Local authorities will then work with landowners to implement works on the ground.