

# Implementing the Flood Risk Management (Scotland) Act 2009: briefing note

## 1. Overview

### 1.1 Forestry Commission Scotland responsibilities

- Scottish Ministers designated The Forestry Commissioners as a '**responsible authority**', with associated duties to reduce overall flood risk under the Flood Risk Management (Scotland) Act 2009.
- Forestry Commission Scotland (FCS) exercises flood risk-related functions on behalf of the Commissioners through policy, regulation and grant support, while action on the National Forest Estate is directed by Forest Enterprise Scotland.
- The Act requires that flood plans take account of natural flood management measures, where the landscape and natural features are used to slow down and store flood water. Information is available at <http://map.sepa.org.uk/floodmap/map.htm>. Targeted woodland creation is part of these measures.
- By focusing on 'reducing overall flood risk', authorities will focus on managing the likelihood and impact of flooding. It is not always possible to reduce the likelihood, or even the impact of some floods, and the Act **makes it clear** that all bodies involved in managing flooding should, wherever possible, aim to reduce flood risk by focusing their efforts on those **areas and communities at greatest risk**.
- On the National Forest Estate, Forest Enterprise Scotland is responsible for compliance with the UK Forestry Standard and associated guidelines to contribute to sustainable flood risk management. FES will ensure that proposals are in line with local flood risk management plans.

### 1.2 Co-ordinating flood risk management

- Flood risk management is co-ordinated through a national flood management plan that identifies Districts, served by Flood Planning Groups. Local authorities and SEPA co-ordinate dialogue and partnership work in these groups.
- Scottish Government and SEPA published Flood Risk Management Strategies in January 2016. Planning authorities are now developing the local plans to support implementation. These plans will be published in June 2016 and will identify flood risk management action in potentially vulnerable areas.
- FCS contributed to the development of the strategies and has a role to play in the implementation of the action plans. The strategies and the plans:
  - identify where and how forestry interacts with other land uses in regard to a shared watercourse or water body- at a catchment level;

- identify where Natural Flood Management opportunities can be explored – targeted woodland creation and management can be part of these; and
- can help FCS to target incentives and advice.

### **1.3 Raising awareness of the role of forestry in mitigating flood risk**

- We should raise awareness amongst landowners, consultees and interested stakeholders of the role that woodland creation and sustainable forest management have in mitigating flood risk (Annex 1), focusing on potentially vulnerable areas. This will include exploring opportunities for woodland creation and management, as part of Natural Flood Management, and contributing to the delivery of priority projects and studies identified in the local action plans.

### **1.4 Sustainable forest management**

- To continue to deliver the Land Use Strategy, we need to continue to promote forestry that is integrated with other land uses. Opportunities for flood mitigations will be explored alongside the delivery of other ecosystem services, for example the improvement to water quality, through River Basin Management Plans and carbon sequestration.
- We need to secure the effective implementation of felling and restructuring plans so not to increase the risk of flooding in particular catchments - especially near potentially vulnerable areas.

### **1.5 Support under Scotland's Rural Development Programme**

- In 2015 we launched the Opportunity Mapping project that identifies areas in priority catchments in Scotland where woodland creation has the greatest potential to reduce flooding and diffuse pollution. Grant support is available under 'Woodlands for Water' FGS measures.
- Following the publication of the Flood Risk Management Strategies, we are currently considering a review of the digital information that supports the Woodlands for Water incentives to focus woodland creation where it would best contribute to flood risk mitigation near vulnerable areas.

### **1.6 Advice and research**

- We can provide advice on the locations where woodland creation and forest management may provide the greatest benefits for water management. We fund Forest Research on their work modelling and assessing the effects of woodland creation and management on flood risk.
- Guidance for land managers is currently being developed by FR:
  - FC Practice Guide 'Managing riparian woodland' to be published later in 2016; and
  - FC Practice Guides 'Managing forest operations for soil and water protection' due for publication in 2017.

- South Scotland Conservancy continues to work with others to support the Land User Strategy's Eddleston Water pilot in the Scottish Borders. This will to explore where land use changes and restoration of natural habitats can help improve river ecology and reduce the risk of flooding in Eddleston and Peebles.

## 2. Summary of key roles: Conservancies and FCS National Office

FCS as a responsible authority has the duty to engage on flood risk management activities. A partnership approach between National Office and Conservancies will be adopted to secure an effective implementation of the Act, however it is recognised that some activities will be led by National Office, while others will be taken forward regionally. The table below intends to clarify the relevant roles:

Activity	Conservancy	National office
Raising awareness of role of forestry in mitigating flood risk.	✓	✓
Contributing to the development of priority projects and studies, where natural flood management measures have been identified	✓	
SFM – promote forestry schemes that are integrated with other land uses	✓	✓
Ensure felling operations and forest restructuring plans do not increase the risk of flooding – especially near vulnerable areas	✓	
Administer Woodlands for Water FGS measures	✓	
Provide advice on the location of priority areas		✓
Publish guidance for land managers		✓
Support partnership projects and promote guidance	✓	✓

**Role of forestry in flood risk management: key points:**

- Water yields from forested upland catchments are less than yields from moorland or grassland catchments. This is due to higher interception losses from the canopy. Water yields from newly planted, young or felled forests are unlikely to differ significantly from moorland catchments until canopy closure is achieved.
- Forestry can have a range of effects on peak flows depending on the type and scale of forest operation. Overall, research suggests that the contrasting effects of the different stages of the forest cycle (cultivation, drainage, road construction, forest growth and harvesting) will even out at the catchment scale, especially as forest areas become more diverse in age. As a result, upland forests are unlikely to adversely affect downstream flood risk. Forest Research will lead on the promotion of research.
- The restoration of floodplain forests and the creation of riparian woodland could play an important role in attenuating flood peaks, as well as providing many other environmental benefits.