

Flood Risk Management – a New Approach

David Faichney

SEPA - Flood Unit Manager

Sustainable Flood Risk Management in Scotland

Our Dynamic Earth

16 June 2009

Content

- Managing flood risk in Scotland
- Drivers for change
- How the Bill aims to improve flood risk management in Scotland
- SEPA's Role
- Challenges
- Recent developments
- Route to success



Managing flood risk in Scotland

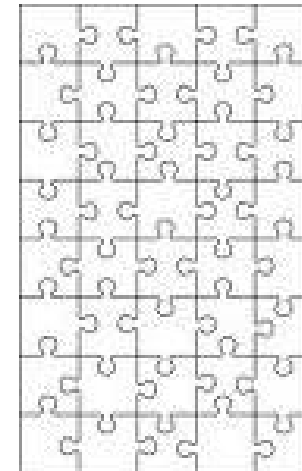
- Area 78 000km²
 < 6% in floodplain
- 5.1 million population
- 2.4 million properties
 < 5% in floodplain

 (~100 000 properties)
 Fluvial and coastal
- 51 000km rivers
- 13 000km coastline



Managing flood risk in Scotland - divided responsibilities

- Scottish Government
- Local authorities
- SEPA
- Scottish Water
- Emergency services
- Insurance industry



...landowners, businesses and
householders have responsibility too.

Drivers for change

- Floods
- Climate change
- EU Floods Directive
- Out-dated legislation
- Planning reform
- Emergency planning and response
- Need for a sustainable approach
- Cultural change in approach to flood risk management



Flood Risk Management (Scotland) Bill

...in summary a framework to deliver sustainable approaches to managing all forms and consequences of flooding.



Improving flood risk management in Scotland – the Bill

- Modernises out-dated legislation
- Transposes EU Directive
- Framework for collaborative working
- Allows for a range of measures
- Sustainable, catchment approach
- Raises public awareness of flood risk
- Strategic approach



SEPA's role

- National coordinator and facilitator
- With Scot Gov set the national policy framework and agree national priorities
- Work very closely with responsible authorities and stakeholders in exercising our functions
- Responsible for fulfilling the requirements of the EU Directive



SEPA's role

New duties:

- (Preliminary) flood risk assessment 2011
- Flood risk and hazard mapping 2013
- Assessment of contribution of natural features 2013
- Flood risk management plans 2015
- Enforcement authority – Reservoirs



SEPA's role

Changes to existing duties:

- Advice to planning authorities and others on flood risk
- Flood warning
- Flood protection engineering works



Business change

- Our response to new duties
- Priority for SEPA
- Moving from where we are now to where we need to be
- Doing this within available resources



Business change

- Business change programme
- Implementation plan
- Reviewing our structure
- Resource requirements – now and future



Change programme - Vision

For SEPA to improve flood resilience for communities in Scotland, and to be structured and resourced in such a way that ensures our flood risk management activities are delivered efficiently and effectively, and are appropriately integrated with other relevant activities.



Challenges

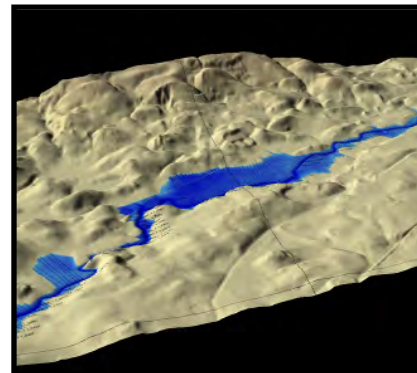


- New territory and associated uncertainty
- Complexity
- What we know about and what we must learn about
- Balancing our knowledge of flood risk with society's wider needs

...making the transition to the new approach

Recent developments

- Improvements to flood forecasting and warning
- Flood map improvements
- Improved interaction with flood risk customers
- Flood awareness raising
- Flood Risk Science Trainee Programme
- ABI Statement of Principles



Improvements to forecasting and warning North East Flood Warning Scheme

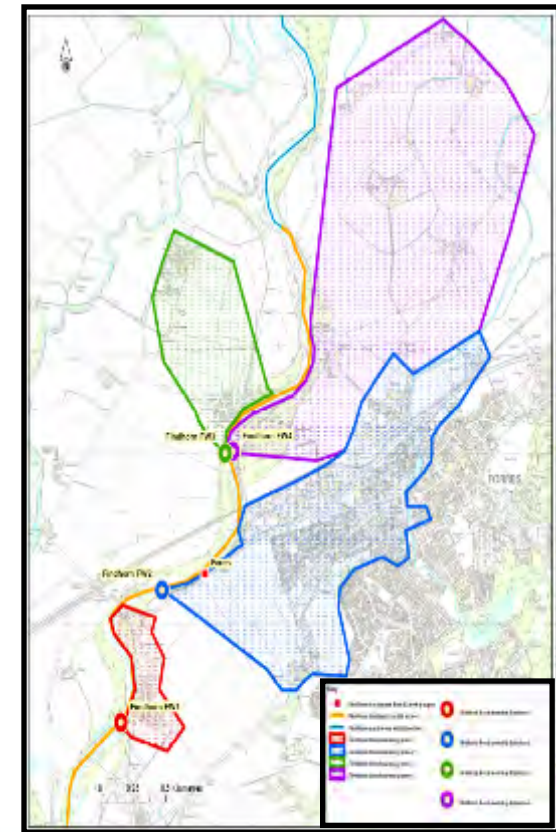
- To be launched Spring 2010
- Providing flood warning for key communities such as Aberdeen and Huntly
- Based on improved hydrological information and strategic flood forecasting developments

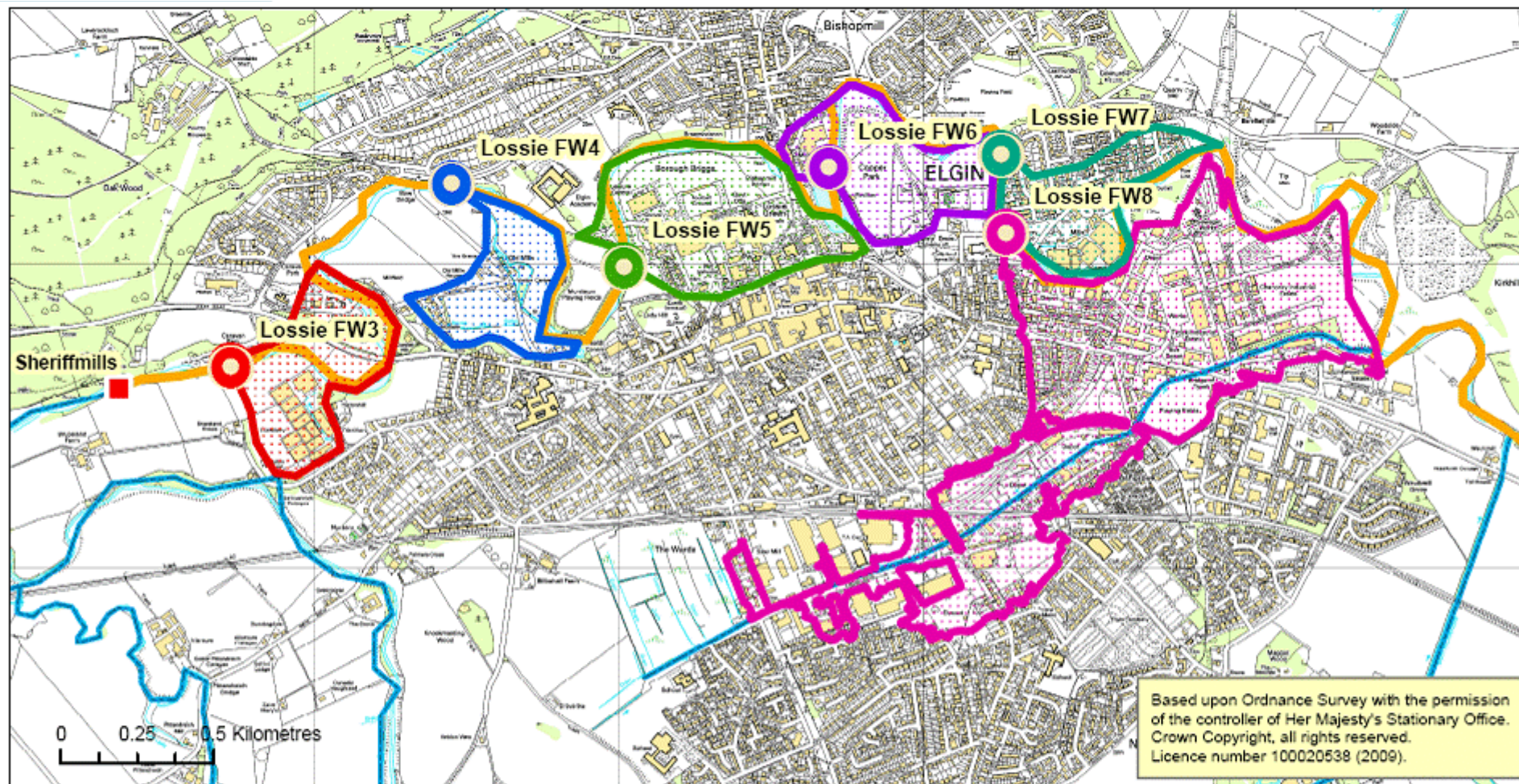


Improvements to forecasting and warning

A new dissemination service for Scotland

- New active dissemination service will be launched in Spring 2011
- Targeted at the community level
- Alerts to encourage effective response to flood risk
- Improved professional partner flood warning communication





Key:

- | | | | |
|---|---------------------------------------|---|------------------|
|  | Lossie catchment flow & level gauges |  | Lossie FW area 3 |
|  | Lossie flood forecasting model extent |  | Lossie FW area 4 |
|  | Lossie catchment watercourses |  | Lossie FW area 5 |
|  | Lossie flood warning location |  | Lossie FW area 6 |
| | |  | Lossie FW area 7 |
| | |  | Lossie FW area 8 |

Title:

Lossie - flood warning location points and associated warning zones

Project:

SEPA flood forecasting: River Lossie, Burn of Mosset & River Findhorn

Client:

SEPA

Date:

April 2009

Scale:

1:200,000 (upper)
1:25,000 (lower)

Figure:

Figure 18



ROYAL HASKONING

Flood Risk Science Trainee Programme

- Building relevant skills for the future
- Dundee and Stirling Universities
- 10 trainees per year
- Combined work and study (MSc)
- Commences September 2009



UNIVERSITY OF
STIRLING

Route to success...

- Collaborative working
- Agreeing common aims
- Access to expertise and data
- Filling knowledge gaps and building for the future
- Progressing *now* based on current knowledge
- Recognising we are in this for the long term



Next steps

- Aligning Flood Risk Management (Scotland) Bill implementation programmes across Scotland
- With Scottish Government, develop a framework for collaborative working
- Instigating our organisational change programmes to meet our new duties.





Thank you