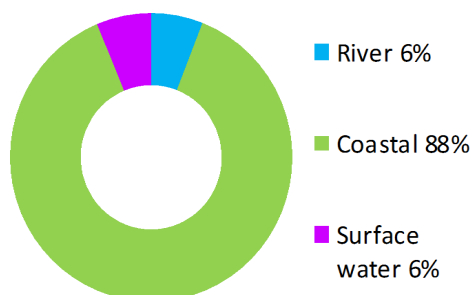


Spynie (Potentially Vulnerable Area 05/02)

Local Plan District	Local authority	Main catchment
Findhorn, Nairn and Speyside	The Moray Council	Moray coastal

Summary of flooding impacts



At risk of flooding

- 80 residential properties
- 10 non-residential properties
- £260,000 Annual Average Damages

(damages by flood source shown left)

Summary of flooding impacts

Summary of objectives to manage flooding

Objectives have been set by SEPA and agreed with flood risk management authorities. These are the aims for managing local flood risk. The objectives have been grouped in three main ways: by reducing risk, avoiding increasing risk or accepting risk by maintaining current levels of management.

Many organisations, such as Scottish Water and energy companies, actively maintain and manage their own assets including their risk from flooding. Where known, these actions are described here. Scottish Natural Heritage and Historic Environment Scotland work with site owners to manage flooding where appropriate at designated environmental and/or cultural heritage sites. These actions are not detailed further in the Flood Risk Management Strategies.

Objectives

Summary of actions to manage flooding

The actions below have been selected to manage flood risk.

<i>Flood protection scheme/works</i>	<i>Natural flood management works</i>	<i>New flood warning</i>	<i>Community flood action groups</i>	<i>Property level protection scheme</i>	<i>Site protection plans</i>
Flood protection study	<i>Natural flood management study</i>	Maintain flood warning	Awareness raising	<i>Surface water plan/study</i>	Emergency plans/response
<i>Maintain flood protection scheme</i>	Strategic mapping and modelling	Flood forecasting	Self help	Maintenance	Planning policies

Actions

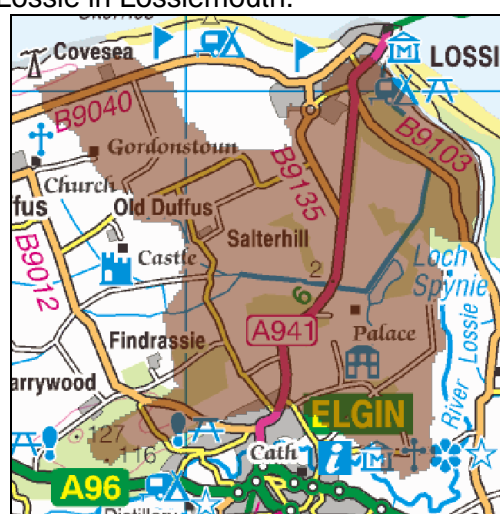
Spynie (Potentially Vulnerable Area 05/02)

Local Planning District	Local authority	Main catchment
Findhorn, Nairn and Speyside	The Moray Council	Moray coastal

Background

This Potentially Vulnerable Area covers the mostly rural area between Lossiemouth and Elgin (shown below). It is approximately 37km².

The main watercourse in the area is the Spynie Canal which joins the River Lossie in Lossiemouth.



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Several roads pass through the area, including the A941, B9040, B9135 and the B9103.

There are approximately 80 residential and 10 non-residential properties at risk of flooding.

The Annual Average Damages are approximately £260,000 with the majority caused by coastal flooding.

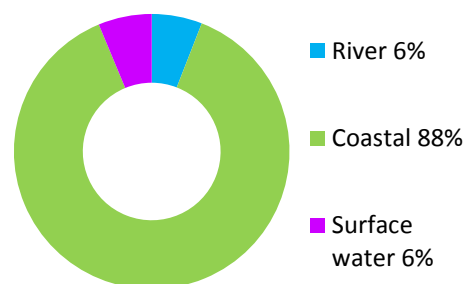


Figure 1: Annual Average Damages by flood source

Summary of flooding impacts

Parts of Lossiemouth including the Seatown area are at risk of coastal flooding. There is extensive flood risk to agricultural land from the River Lossie and the Spynie Canal and their associated drainage systems.

The risk of flooding to people and property, as well as to community facilities, utilities, the transport network, designated sites and agricultural land is summarised in Table 1.

Seven designated cultural heritage sites are potentially at risk of flooding within this area, as are sites of environmental importance, including Loch Spynie Special Protection Area and Site of Special Scientific Interest.

The damages associated with floods of different scale are shown in Figure 2. For this Potentially Vulnerable Area the highest damages are to residential properties.

The location of the impacts is shown in Figure 3.

	1 in 10 High likelihood	1 in 200 Medium likelihood	1 in 1000 Low likelihood
Residential properties (total 3,100)	40	80	120
Non-residential properties (total 110)	<10	10	10
People	90	170	260
Community facilities	0	<10 Educational buildings	<10 Educational buildings
Utilities assets	<10	<10	<10
Transport links (excluding minor roads)	Roads at 30 locations	Roads at 90 locations	Roads at 90 locations
Environmental designated areas (km ²)	<0.1	2.6	3
Designated cultural heritage sites	3	7	7
Agricultural land (km ²)	1.3	11.6	12.9

Table 1: Summary of flooding impacts¹

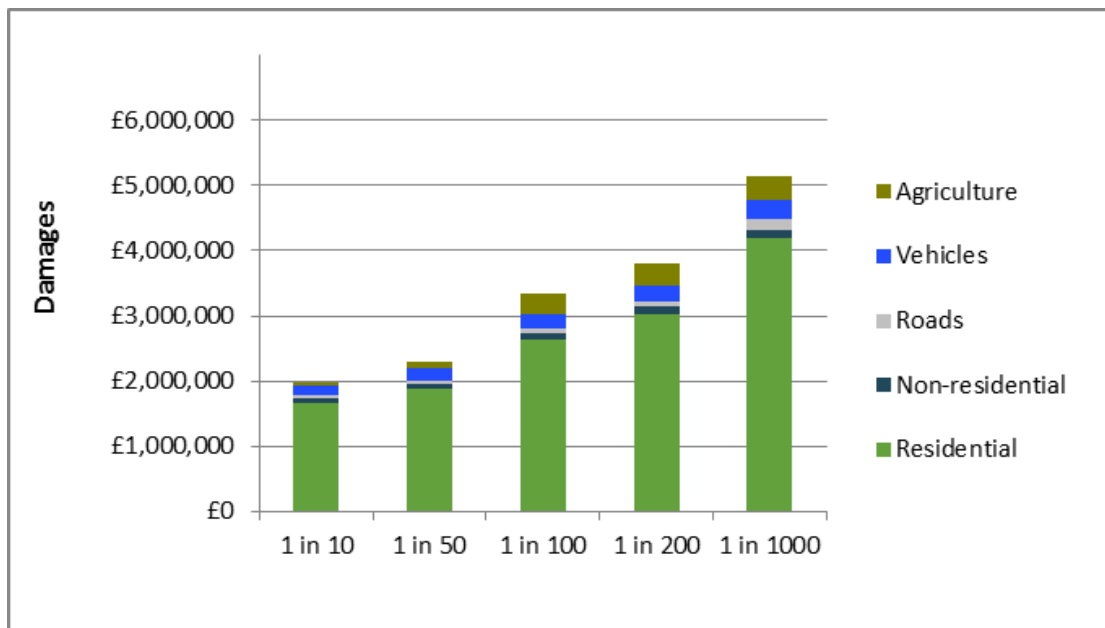


Figure 2: Damages by flood likelihood

History of flooding

The area was affected by flooding in the Great Muckle Spate of 1829. More recently, in 1997 and 2002, breaches of agricultural embankments along the River Lossie caused extensive areas of farmland to flood.

¹ Some receptors are counted more than once if flooded from multiple sources

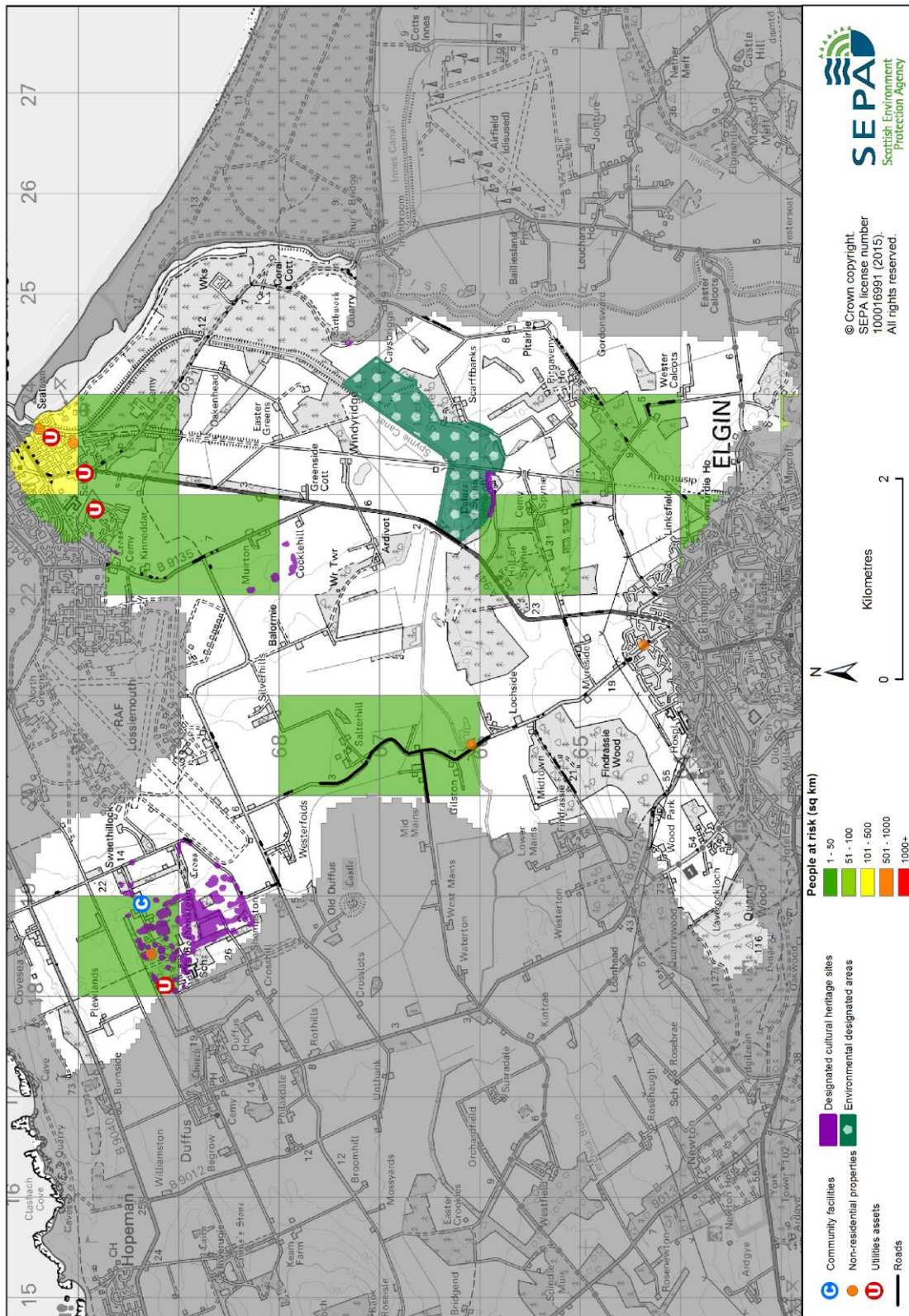


Figure 3: Impacts of flooding

Objectives to manage flooding in Potentially Vulnerable Area 05/02

Objectives provide a common goal and shared ambition for managing floods. These objectives have been set by SEPA and agreed with flood risk management authorities following consultation. They were identified through an assessment of the underlying evidence of the causes and impacts of flooding. Target areas have been set to focus actions; they do not necessarily correspond to areas at risk in SEPA’s flood map. The objectives below have been set for Spynie Potentially Vulnerable Area.

Reduce flood risk to the Seatown area of Lossiemouth from river and coastal flooding	
Indicators:	Target area:
<ul style="list-style-type: none"> 130 people £270,000 Annual Average Damages from residential properties 	
Objective ID: 500201	

Target area	Objective	ID	Indicators within PVA
Applies across Findhorn, Nairn and Speyside Local Plan District	Avoid an overall increase in flood risk	500001	<ul style="list-style-type: none"> 80 residential properties £260,000 Annual Average Damages
Applies across Findhorn, Nairn and Speyside Local Plan District	Reduce overall flood risk	500002	<ul style="list-style-type: none"> 80 residential properties £260,000 Annual Average Damages
Applies across Findhorn, Nairn and Speyside Local Plan District	Organisations such as Scottish Water, energy companies and Historic Environment Scotland actively maintain and manage their own assets, including the risk of flooding. These actions are not detailed further in the Flood Risk Management Strategies.		

Actions to manage flooding in Potentially Vulnerable Area 05/02

Actions describe where and how flood risk will be managed. These actions have been set by SEPA and agreed with flood risk management authorities following consultation. Selection of actions to deliver the agreed objectives was based on a detailed assessment and comparison of economic, social and environmental criteria. The actions shaded and then described below have been selected as the most appropriate for Spynie Potentially Vulnerable Area.

Selected actions					
<i>Flood protection scheme/works</i>	<i>Natural flood management works</i>	<i>New flood warning</i>	<i>Community flood action groups</i>	<i>Property level protection scheme</i>	<i>Site protection plans</i>
Flood protection study	<i>Natural flood management study</i>	Maintain flood warning	Awareness raising	<i>Surface water plan/study</i>	Emergency plans/response
<i>Maintain flood protection scheme</i>	Strategic mapping and modelling	Flood forecasting	Self help	Maintenance	Planning policies

Action (ID):	FLOOD PROTECTION STUDY (5002010005)				
Objective (ID):	Reduce flood risk to the Seatown area of Lossiemouth from river and coastal flooding (500201)				
Delivery lead:	The Moray Council				
Priority:	National:		Within local authority:		
	43 of 168		1 of 2		
Status:	Not started	Indicative delivery:	2016-2021		
Description:	A flood protection study is required to consider a scheme for Seatown in Lossiemouth. The scheme should include investigation of direct defences to reduce the risk of flooding from the river and sea. Other actions may also be considered to develop the most sustainable range of options.				
Potential impacts					
Economic:	The study could benefit 80 residential and two non-residential properties at risk of flooding in this location, with potential damages avoided of up to £8.4 million.				
Social:	The development of flood protection works following the study would potentially reduce flood risk to 176 people. A reduction in flood risk would have a positive benefit to the health and wellbeing of the community and socially vulnerable people. Negative impacts through disturbance to the local community during the construction phase should be considered.				
Environmental:	Flood protection studies should consider the positive and negative impacts of proposed actions on the ecological quality of the environment. Opportunities to mitigate any environmental impacts may include design and timing of works. There is potential for visual impact of the defence. To be in accord with the FRM Strategy, the				

Environmental:	responsible authority should seek to ensure as part of the study that the action will not have an adverse effect on the integrity of the Moray Firth Special Area of Conservation.
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Action (ID):	STRATEGIC MAPPING AND MODELLING (5000010016)		
Objective (ID):	Reduce overall flood risk (500002)		
Delivery lead:	SEPA		
Status:	Not started	Indicative delivery:	2016-2021
Description:	SEPA will be seeking to develop the flood hazard mapping in the Banff to Lossiemouth area to improve understanding of the coastal flood risk. The extent and timing of the completed improvements will be dependent on detailed scoping and data availability.		

Action (ID):	STRATEGIC MAPPING AND MODELLING (5000020019)		
Objective (ID):	Reduce overall flood risk (500002)		
Delivery lead:	Scottish Water		
Status:	Not started	Indicative delivery:	2016-2021
Description:	Scottish Water will review the assessment of flood risk within the highest risk sewer catchments to improve knowledge and understanding of surface water flood risk.		

Action (ID):	MAINTAIN FLOOD WARNING (5000020030)		
Objective (ID):	Reduce overall flood risk (500002)		
Delivery lead:	SEPA		
Status:	Existing	Indicative delivery:	Ongoing
Description:	Continue to maintain the 'Findhorn to Lossiemouth' flood warning area which is part of the Moray Firth coastal flood warning scheme.		

Action (ID):	FLOOD FORECASTING (5000020009)		
Objective (ID):	Reduce overall flood risk (500002)		
Delivery lead:	SEPA		
Status:	Existing	Indicative delivery:	Ongoing
Description:	<p>The Scottish Flood Forecasting Service is a joint initiative between SEPA and the Met Office that produces daily, national flood guidance statements which are issued to Category 1 and 2 Responders. The service also provides information which allows SEPA to issue flood warnings, giving people a better chance of reducing the impact of flooding on their home or business. For more information please visit SEPA's website.</p> <p>The Potentially Vulnerable Area is within the 'Findhorn Nairn Moray and Speyside' flood alert area.</p>		

Action (ID):	SELF HELP (5000020011)		
Objective (ID):	Reduce overall flood risk (500002)		
Delivery lead:	—		
Status:	Existing	Indicative delivery:	Ongoing
Description:	<p>Everyone is responsible for protecting themselves and their property from flooding. Property and business owners can take simple steps to reduce damage and disruption to their homes and businesses should flooding happen. This includes preparing a flood plan and flood kit, installing property level protection, signing up to Floodline and Resilient Communities initiatives, and ensuring that properties and businesses are insured against flood damage.</p>		

Action (ID):	AWARENESS RAISING (5000020013)		
Objective (ID):	Reduce overall flood risk (500002)		
Delivery lead:	Responsible authorities		
Status:	Existing	Indicative delivery:	Ongoing
Description:	<p>SEPA and the responsible authorities have a duty to raise public awareness of flood risk. Improved awareness of flood risk and actions that prepare individuals, homes and businesses for flooding can reduce the overall impact.</p> <p>From 2016 SEPA will engage with the community through local participation in national initiatives, including partnership working with Neighbourhood Watch Scotland. In addition, SEPA will engage with local authorities and community resilience groups where possible. Local authorities will be undertaking additional awareness raising activities. Further details will be set out in the Local FRM Plan.</p>		

Action (ID):	MAINTENANCE (5000020007)		
Objective (ID):	Reduce overall flood risk (500002)		
Delivery lead:	The Moray Council, asset / land managers		
Status:	Existing	Indicative delivery:	Ongoing
Description:	<p>Local authorities have a duty to assess watercourses and carry out clearance and repair works where such works would substantially reduce flood risk. They produce schedules of clearance and repair works and make these available for public inspection. Scottish Water undertake inspection and repair on the public sewer network. Asset owners and riparian landowners are responsible for the maintenance and management of their own assets including those which help to reduce flood risk.</p> <p>This area has a complex system of drainage ditches and canals to drain the farmland to the north of Elgin. There are numerous pumps which lift water from the surrounding land into the Spynie Canal. The Spynie Canal drains under gravity, discharging into the River Lossie at Lossiemouth through flap valves at low tide. The flap valves prevent the tide flowing back up the canal. There are embankments alongside the Spynie Canal along much of its length. The land drainage systems and embankments are maintained by the landowners.</p>		

Action (ID):	EMERGENCY PLANS/RESPONSE (5000020014)		
Objective (ID):	Reduce overall flood risk (500002)		
Delivery lead:	Category 1 and 2 Responders		
Status:	Existing	Indicative delivery:	Ongoing
Description:	<p>Providing an emergency response to flooding is the responsibility of many organisations, including local authorities, the emergency services and SEPA. Effective management of an emergency response relies on emergency plans that are prepared under the Civil Contingencies Act 2004 by Category 1 and 2 Responders. The emergency response by these organisations is co-ordinated through regional and local resilience partnerships. This response may be supported by the work of voluntary organisations.</p>		

Action (ID):	PLANNING POLICIES (5000010001)		
Objective (ID):	Avoid an overall increase in flood risk (500001) Reduce overall flood risk (500002)		
Delivery lead:	Planning authority		
Status:	Existing	Indicative delivery:	Ongoing
Description:	Scottish Planning Policy and accompanying Planning Advice Notes set out Scottish Ministers' priorities for the operation of the planning system and for the development and use of land. In terms of flood risk management, the policy supports a catchment-scale approach to sustainable flood risk management and aims to build the resilience of our cities and towns, encourage sustainable land management in our rural areas, and to address the long-term vulnerability of parts of our coasts and islands. Under this approach, new development in areas with medium to high likelihood of flooding should be avoided. For further information on the application of national planning policies see Annex 2.		