Flood Risk Management Strategy

Findhorn, Nairn and Speyside Local Plan District

This section is the most relevant for individuals, communities and businesses seeking to understand their local flood risk and its management. There is an overview of the Local Plan District, as well as further detail for every Potentially Vulnerable Area. For each Potentially Vulnerable Area, there is a short description of the causes and consequences of flooding. The agreed objectives are clearly set out and, most importantly, the actions that will deliver these objectives are prioritised and described.

Section 2: Understanding and managing flooding

2.1	Summary of flooding in the Findhorn, Nairn and Speyside Local Plan	
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	 Burghead to Lossiemouth (05/01) Spynie (05/02) Lhanbryde (05/03) 	21 31 41
	 Spey Bay (05/04) Elgin (05/05) Forres (05/06) 	51 62 74
	 River Findhorn (05/07) Nairn East and Auldearn (05/08) 	85 96
	Rothes and Aberlour (05/09)Carrbridge (05/10)	108 119
	 Aviemore and Boat of Garten (05/11) Kingussie (05/12) Newtonmore (05/13) Dalwhinnie (05/14) 	127 139 150 160

2.1 Summary of flooding in the Findhorn, Nairn and Speyside Local Plan District

The Findhorn, Nairn and Speyside Local Plan District extends from the Moray Firth in the north to the Grampian mountains in the south. It has an area of approximately 4,800km² and a coastline with a length of approximately 70km. There are 14 Potentially Vulnerable Areas in the Findhorn, Nairn and Speyside Local Plan District.

Flood risk in the Findhorn, Nairn and Speyside

There are approximately 1,800 residential properties and 580 non-residential properties at risk of flooding within the Local Plan District. This equates to approximately 2% of all properties at risk of flooding nationally. Within the Local Plan District, approximately 4% of all residential properties and 10% of all non-residential properties are at risk and it is estimated that 63% of these are located within Potentially Vulnerable Areas. The Annual Average Damages (see glossary) from flooding are approximately £5.9 million, with an estimated 53% of the damages for the entire Local Plan District accounted for in the Potentially Vulnerable Areas.

The main source of flooding is from rivers which accounts for approximately 72% of the Annual Average Damages (Figure 1). The Annual Average Damages caused by river floods are £4.2 million with those caused by surface water and coastal floods being approximately £1.2 million and £430,000 respectively.

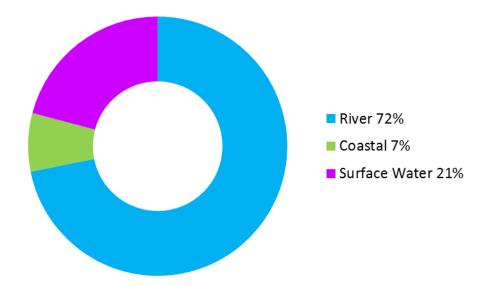


Figure 1: Annual Average Damages by flood source

Table 1 and Figure 3 show the number of properties at risk and the Annual Average Damages caused by flooding in the main towns and cities within the Local Plan District. This includes damages to residential properties, non-residential properties, transport and agriculture.

Please note that economic damages to airports and rail infrastructure are not included as information on damages at this scale is not available.

	Residential and non- residential properties at risk of flooding ¹	Annual Average Damages
Rothes	350	£330,000
Nairn ²	340	£550,000
Forres	250	£390,000
Elgin	200	£490,000
Kinloss	110	£350,000
Lossiemouth	100	£240,000
Aviemore	80	£93,000
Nethy Bridge	70	£230,000
Cawdor	60	£260,000
Kingussie	60	£92,000

Table 1: Main areas at risk of flooding

Background information on the Findhorn, Nairn and Speyside Local Plan District

The extent of the Findhorn, Nairn and Speyside Local Plan District and the location of the Potentially Vulnerable Areas are shown in Figure 2.

The population of the Findhorn, Nairn and Speyside Local Plan District is approximately 100,000 with Elgin being the largest settlement. The Local Plan District contains two local authorities (Moray Council and The Highland Council) and areas of the Cairngorms National Park.

Approximately 1% of the area of the Findhorn, Nairn and Speyside Local Plan District is classified as urban. The predominant types of land cover are montane habitats, coniferous woodland, heather grassland, and heather, which each cover between 11% and 18% of the area.

¹ Flood protection schemes in Rothes, Forres (Burn of Mosset) and Lhanbryde are designed for a 1 in 100 year flood plus an allowance for climate change. The numbers of properties listed in Table 1 as "at risk" are in relation to a 1 in 200 year event and therefore do not take account of the protection provided by these schemes. Flood protection schemes in Elgin and Forres (River Findhorn) are designed for a 1 in 200 year flood and properties protected by these schemes are not include in the numbers of properties listed in Table 1 as "at risk". ² Nairn is split between two Local Plan Districts; Highland and Argyll and Findhorn, Nairn and

² Nairn is split between two Local Plan Districts; Highland and Argyll and Findhorn, Nairn and Speyside. The numbers of properties listed in Table 1 as "at risk" in Nairn include the total number located in both Local Plan Districts.

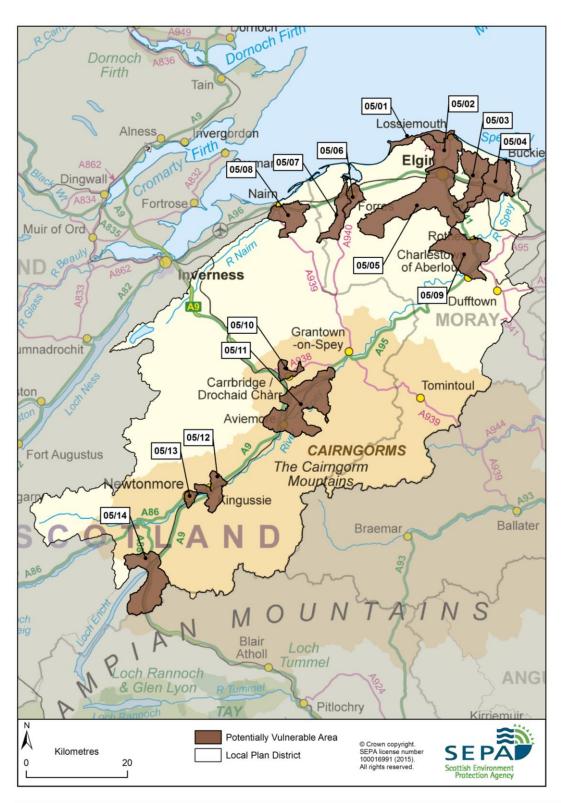


Figure 2: Findhorn, Nairn, Speyside Local Plan District with Potentially Vulnerable Areas identified

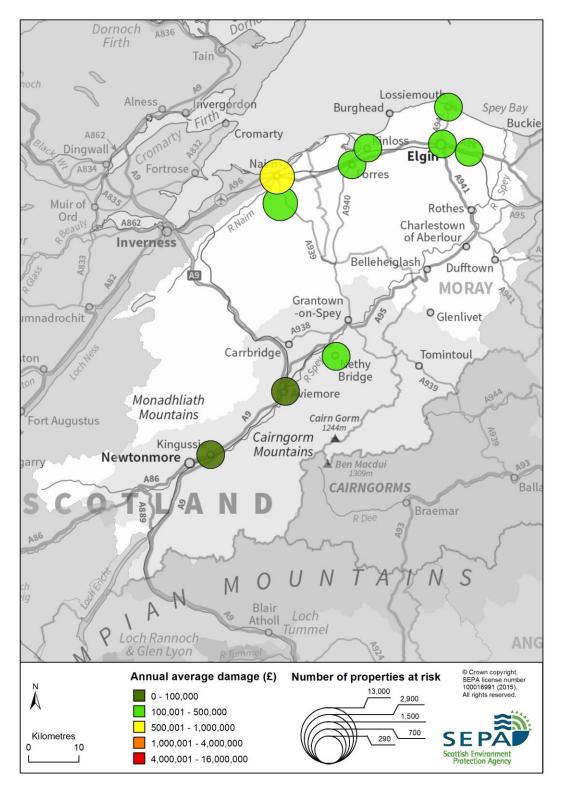


Figure 3: Findhorn, Nairn, Speyside Local Plan District areas with most properties at risk of flooding and associated damages

Objectives and actions in the Findhorn, Nairn and Speyside Local Plan District

The objectives are the shared aims for managing flooding. Actions describe where and how flood risk will be managed. Objectives and actions have been set by SEPA and agreed by flood risk management responsible authorities following consultation.

Some flood risk management objectives and actions apply to all areas, whether designated as a Potentially Vulnerable Area or not. For example, flood risk can be managed through national planning policy or as part of ongoing statutory duties for local authorities. The focus of this Flood Risk Management Strategy is to manage flood risk in Potentially Vulnerable Areas where specific actions apply in addition to the generic actions listed below. Further detail on specific actions can be found in the relevant Potentially Vulnerable Area chapter. Local authorities may have further information on how they manage flooding across their area.

Target area	Objective(s)	ID	Indicators
Applies across the Findhorn, Nairn and Speyside Local Plan District	Avoid an overall increase in flood risk	500001	 1,800 residential properties 580 non-residential properties 3,900 people
Applies across the Findhorn, Nairn and Speyside Local Plan District	Reduce overall flood risk	500002	 1,800 residential properties 580 non-residential properties 3,900 people

Action (ID):	FLOOD FORECASTING (5000020009)											
Objective (ID):	Reduce overall flood risk. (500002)											
Delivery lead:	SEPA											
Status:	Existing	Existing Indicative delivery: Ongoing										
Description:	between SEPA and the flood guidance statem responders. The server SEPA to issue flood we reducing the impact of	precasting Service is a ne Met Office that produ- nents which are issued ice also provides inform varnings, giving people f flooding on their hom- ase visit SEPA's websit	uces daily, national to Category 1 and 2 nation which allows a better chance of e or business. For									

Action (ID):	SELF HELP (5000020011)											
Objective (ID):	Reduce overall floor	Reduce overall flood risk. (500002)										
Delivery lead:	-											
Status:	Existing	Existing Indicative delivery: Ongoing										
Description:	property from flooding simple steps to reduce businesses should flo flood plan and flood k up to Floodline and th	ble for protecting thems g. Property and busines e damage and disruption oding happen. This inco it, installing property lev e Resilient Communities es and businesses are	ss owners can take on to their homes and cludes preparing a vel protection, signing es Initiative, and									

Action (ID):	AWARENESS RAISING (5000020013)										
Objective (ID):	Reduce overall flood risk. (500002)										
Delivery lead:	Responsible authorities										
Status:	Existing Indicative delivery: Ongoing										
Description:	awareness of flood ris actions that prepare in flooding can reduce th Local authorities will b	sible authorities have a sk. Improved awarenes ndividuals, homes and ne overall impact. be undertaking addition ils will be set out in the	s of flood risk and businesses for al awareness raising								

Action (ID):	MAINTENANCE (5000020007)											
Objective (ID):	Reduce overall flood risk. (500002)											
Delivery lead:	Local authority, asset	Local authority, asset / land managers										
Status:	Existing	Existing Indicative delivery: Ongoing										
Description:	out clearance and rep substantially reduce f schedules of clearance available for public ins inspection and repair and riparian landowne	e a duty to assess wate bair works where such v lood risk. The local autilize and repair works and spection. Scottish Wate on the public sewer ne ers are responsible for own assets including th	works would horities produce d make these er undertake twork. Asset owners the maintenance and									

Action (ID):	EMERGENCY PLAN	EMERGENCY PLANS / RESPONSE (5000020014)											
Objective (ID):	Reduce overall flood risk. (500002)												
Delivery lead:	Category 1 and 2 Responders												
Status:	Existing Indicative delivery: Ongoing												
Description:	of many organisations services and SEPA. E response relies on en Civil Contingencies A The emergency respo through regional and	ncy response to flooding s, including local author Effective management of hergency plans that are ct 2004 by Category 1 onse by these organisat local resilience partners the work of voluntary of	ities, the emergency of an emergency prepared under the and 2 Responders. tions is co-ordinated ships. This response										

Action (ID):	PLANNING POLICIE	PLANNING POLICIES (5000010001)										
Objective (ID):	Avoid an overall increase in flood risk. (500001) Reduce overall flood risk. (500002)											
Delivery lead:	Planning authority											
Status:	Existing	Existing Indicative delivery: Ongoing										
Description:	Notes set out Scottish planning system and terms of flood risk ma scale approach to sus build the resilience of land management in term vulnerability of p approach, new develo likelihood of flooding s	icy and accompanying Ministers' priorities for for the development ar nagement, the policy s stainable flood risk mar our cities and towns, e our rural areas, and to arts of our coasts and i opment in areas with m should be avoided. For national planning policie	the operation of the ad use of land. In upports a catchment- nagement and aims to encourage sustainable address the long- slands. Under this edium to high further information									

2.2 Potentially Vulnerable Areas

The table below summarises the actions to manage flood risk in the Potentially Vulnerable Areas of this Local Plan District. Further detail is provided in each Potentially Vulnerable Area.

PVA	Flood protection scheme/ works	Natural flood management works	New flood warning	Flood protection study	Natural flood management study	Surface water plan/study	Strategic mapping and modelling	Maintain flood protection scheme*	Maintain flood warning*	Flood forecasting	Property level protection scheme	Community flood action groups	Self help	Awareness raising	Maintenance	Site protection plans	Emergency plans/ response	Planning policies
05/01							\checkmark	N/A	\checkmark	\checkmark			\checkmark	\checkmark	\checkmark		\checkmark	\checkmark
05/02				\checkmark			>	N/A	\checkmark	\checkmark			\checkmark	>	\checkmark		\checkmark	\checkmark
05/03	\checkmark						\checkmark	\checkmark	N/A	\checkmark			<	\checkmark	\checkmark		\checkmark	\checkmark
05/04	\checkmark						\checkmark	N/A	\checkmark	\checkmark		\checkmark	\checkmark	\checkmark	\checkmark		\checkmark	\checkmark
05/05	\checkmark					\checkmark	\checkmark	\checkmark	\checkmark	\checkmark			\checkmark	\checkmark	\checkmark		\checkmark	\checkmark
05/06	\checkmark					\checkmark	\checkmark	\checkmark	\checkmark	\checkmark			\checkmark	\checkmark	\checkmark		\checkmark	\checkmark
05/07	\checkmark					\checkmark	\checkmark	\checkmark	\checkmark	\checkmark			\checkmark	\checkmark	\checkmark		\checkmark	\checkmark
05/08	\checkmark			\checkmark			\checkmark	N/A	\checkmark	\checkmark			\checkmark	\checkmark	\checkmark		\checkmark	\checkmark
05/09	\checkmark					\checkmark	\checkmark	\checkmark	\checkmark	\checkmark			\checkmark	\checkmark	\checkmark		\checkmark	\checkmark
05/10	\checkmark							N/A	\checkmark	\checkmark			\checkmark	\checkmark	\checkmark		\checkmark	\checkmark
05/11	\checkmark			~			\checkmark	N/A	\checkmark	\checkmark			\checkmark	\checkmark	\checkmark		\checkmark	\checkmark
05/12	\checkmark			~			\checkmark	N/A	\checkmark	\checkmark			\checkmark	\checkmark	\checkmark		\checkmark	\checkmark
05/13	\checkmark					\checkmark	\checkmark	N/A	\checkmark	\checkmark		\checkmark	\checkmark	\checkmark	\checkmark		\checkmark	\checkmark
05/14	\checkmark		المراجع				✓	N/A	N/A	\checkmark		Caba	\checkmark	√ √	✓		\checkmark	\checkmark

*Note: N/A is used where there is no formal Flood Protection Scheme or flood warning scheme present.