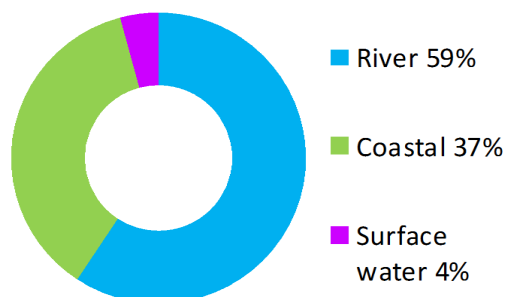


## Banff (Potentially Vulnerable Area 06/03)

Local Plan District	Local authority	Main catchment
North East	Aberdeenshire Council	Banff coastal

### Summary of flooding impacts



#### At risk of flooding

- 40 residential properties
- 30 non-residential properties
- £50,000 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

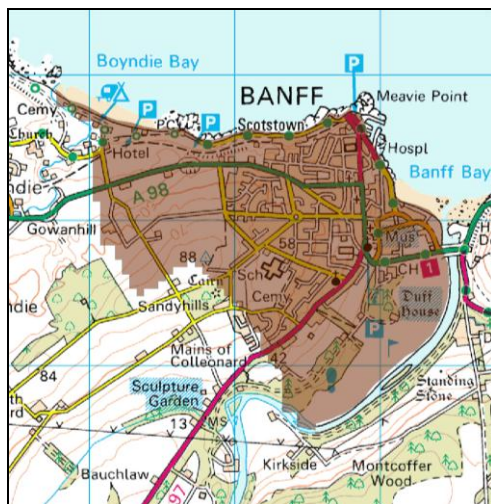
Actions

## Banff (Potentially Vulnerable Area 06/03)

Local Plan District	Local authority	Main catchment
North East	Aberdeenshire Council	Banff coastal

### Background

This Potentially Vulnerable Area covers the town of Banff. The area is on the west bank of the River Deveron and extends to the Burn of Boyndie. It is approximately 3km<sup>2</sup>.

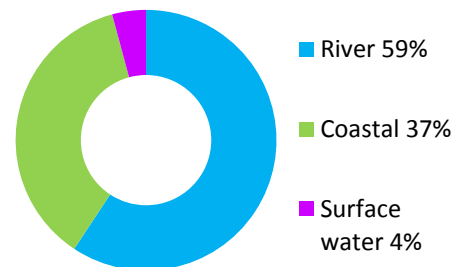


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The A97 and A98 pass through the area and the River Deveron is the main river.

There are approximately 40 residential and 30 non-residential properties at risk of flooding.

The Annual Average Damages are approximately £50,000 with the majority due to river flooding.



**Figure 1: Annual Average Damages by flood source**

### Summary of flooding impacts

Coastal flood risk is mainly limited to properties immediately adjacent to the seafront in Scotstown and Banff Bay. Flooding from wave action is not fully represented in the assessment of flood risk in this Potentially Vulnerable Area and the number of properties at risk and the damages from coastal flooding are thought to currently be underestimated.

The risk of river flooding is associated with the River Deveron and mainly affects the Duff House Royal Golf Course. River flooding is also shown to extend north and east from the A98. However, there is some uncertainty as to whether this would actually occur due to the damming effect of the A98 embankment.

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.

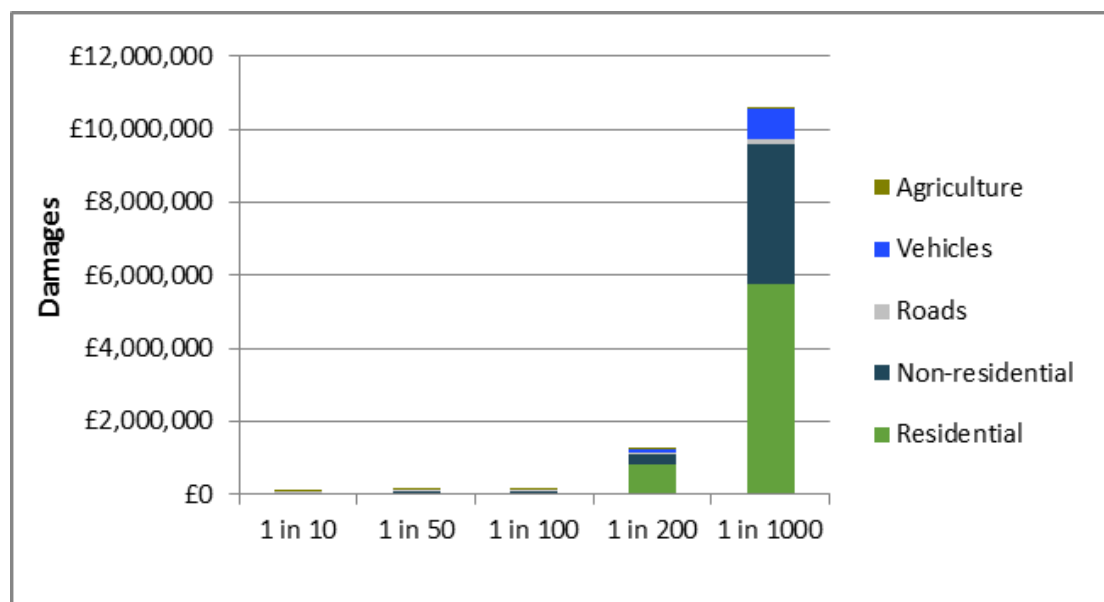
Five designated cultural heritage sites and a small area of designated environmental sites are at risk of flooding within this area. This includes the Whitehills to Melrose Coast Site of Special Scientific Interest.

The damages associated with floods of different likelihood are shown in Figure 2. For this Potentially Vulnerable Area the highest damages are to residential properties followed by damages to non-residential properties.

The location of the impacts of flooding is shown in Figure 3.

	1 in 10 High likelihood	1 in 200 Medium likelihood	1 in 1000 Low likelihood
Residential properties (total 2,000)	<10	40	210
Non-residential properties (total 420)	<10	30	70
People	<10	90	470
Community facilities	0	0	0
Utilities assets	0	0	<10
Transport links (excluding minor roads)	Roads at 10 locations	Roads at 20 locations	Roads at 30 locations
Environmental designated areas (km <sup>2</sup> )	<0.1	<0.1	<0.1
Designated cultural heritage sites	4	5	5
Agricultural land (km <sup>2</sup> )	0.1	0.4	0.5

**Table 1:** Summary of flooding impacts<sup>1</sup>



**Figure 2:** Damages by flood likelihood

<sup>1</sup> Some receptors are counted more than once if flooded from multiple sources



**Figure 3: Impacts of flooding**

## History of flooding

There is a long history of flooding in Banff from the River Deveron. The earliest recorded flood was in 1768 when the Deveron flooded and destroyed an important bridge. The Deveron has also flooded at Banff in 1835, 1855, 1859, 1873, 1875 and 1882 affecting property, farmland and the railway line. The golf course was badly flooded in 2009 however the flooding did not extend to Duff House or the town.

The most damaging flood on record is the 1953 North Sea flood. A gasworks was washed into the sea, buildings and their protective wall were destroyed and many properties inundated with floodwater. In December 2013 there was localised coastal flooding of five properties and significant wave damage in the inner part of Banff Bay. Coastal flooding from overtopping waves is also known to impact on some local access roads including the road to the community centre.

Surface water flooding affected Low Street, Banff in August 2006.

## Objectives to manage flooding in Potentially Vulnerable Area 06/03

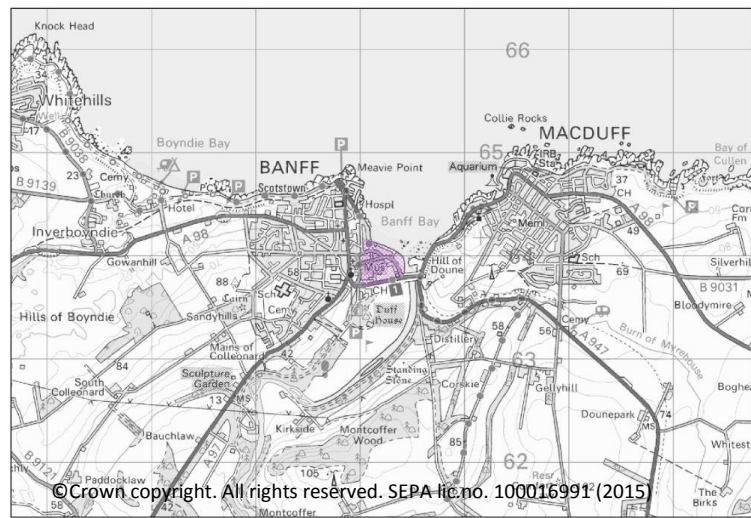
Objectives provide a common goal and shared ambition for managing floods. These objectives have been set by SEPA and agreed with flood risk management authorities following consultation. They were identified through an assessment of the underlying evidence of the causes and impacts of flooding. Target 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 Banff Potentially Vulnerable Area.

### Reduce risk in Banff from the River Deveron and coastal flooding

Indicators:

Target area:

- 100 people
- £18,000 Annual Average Damages from residential properties



Objective ID: 600301

Target area	Objective	ID	Indicators within PVA
Applies across North East Local Plan District	Avoid an overall increase in flood risk	600001	<ul style="list-style-type: none"> <li>• 40 residential properties</li> <li>• £50,000 Annual Average Damages</li> </ul>
Applies across North East Local Plan District	Reduce overall flood risk	600002	<ul style="list-style-type: none"> <li>• 40 residential properties</li> <li>• £50,000 Annual Average Damages</li> </ul>
Applies across North East 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 06/03

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 Banff 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

<b>Action (ID):</b>	<b>FLOOD PROTECTION STUDY (6003010005)</b>		
<b>Objective (ID):</b>	Reduce risk in Banff from the River Deveron and coastal flooding (600301)		
<b>Delivery lead:</b>	Aberdeenshire Council		
<b>Priority:</b>	National:		Within local authority:
	<b>164 of 168</b>		<b>11 of 12</b>
<b>Status:</b>	<b>Not started</b>	Indicative delivery:	<b>2022-2027</b>
<b>Description:</b>	A flood protection study is required to consider flood protection works to reduce the risk of coastal flooding to Banff. The study should primarily focus on coastal management actions, direct defences, relocation and property level protection, but other actions may also be considered in order to develop the most sustainable range of options. The study should assess the impact from wave overtopping to confirm the existing risk and define the height and extent of flood protection works required.		
<b>Potential impacts</b>			
<b>Economic:</b>	The flood protection study should confirm the economic impacts and number of properties at risk. Currently it is estimated that seven residential and three non-residential properties are at risk. This estimate is based on local knowledge as the properties are at risk from wave overtopping which could not be assessed in SEPA flood maps. Potential damages avoided of up to £150,000 could be achieved. With further information on the impact of wave overtopping and flood depths, these values could change.		
<b>Social:</b>	The development of flood protection works following the study would potentially reduce risk to 15 people. A reduction in flood risk would have a positive benefit to the health and wellbeing of the community		

<b>Social:</b>	and socially vulnerable people. Negative impacts through disturbance to the local community during the construction phase should be considered.
<b>Environmental:</b>	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. The flood protection study should ensure the actions avoid or minimise the potential loss of natural habitat and do not interfere with coastal processes. It should also ensure the actions have no negative effects to the Whitehills to Melrose Coast Site of Special Scientific Interest to the north of the area at risk or on Banff conservation area.

<b>Action (ID):</b>	<b>STRATEGIC MAPPING AND MODELLING (6003010016)</b>		
<b>Objective (ID):</b>	Reduce risk in Banff from the River Deveron and coastal flooding (600301)		
<b>Delivery lead:</b>	SEPA		
<b>Status:</b>	<b>Not started</b>	Indicative delivery:	<b>2016-2021</b>
<b>Description:</b>	SEPA will be seeking to develop the flood hazard mapping in the Banff 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.		

<b>Action (ID):</b>	<b>STRATEGIC MAPPING AND MODELLING (6003020016)</b>		
<b>Objective (ID):</b>	Reduce overall flood risk (600002)		
<b>Delivery lead:</b>	SEPA		
<b>Status:</b>	<b>Not started</b>	Indicative delivery:	<b>2016-2021</b>
<b>Description:</b>	The road embankment potentially provides some protection to the properties at risk. This needs to be investigated to confirm the standard of protection provided by the embankment and any residual risk. SEPA will review existing modelling for this area in partnership with Aberdeenshire Council to determine if any improvements can be made to the flood maps. SEPA will support the local authority if further work beyond a strategic scale is required.		

<b>Action (ID):</b>	<b>STRATEGIC MAPPING AND MODELLING (6000020019)</b>		
<b>Objective (ID):</b>	Reduce overall flood risk (600002)		
<b>Delivery lead:</b>	Scottish Water		
<b>Status:</b>	<b>Not started</b>	Indicative delivery:	<b>2016-2021</b>
<b>Description:</b>	Scottish Water will carry out an assessment of flood risk within the highest risk sewer catchments to improve knowledge and understanding of surface water flood risk.		



<b>Action (ID):</b>	<b>MAINTAIN FLOOD WARNING (6000020030)</b>		
<b>Objective (ID):</b>	Reduce overall flood risk (600002)		
<b>Delivery lead:</b>	SEPA		
<b>Status:</b>	<b>Existing</b>	Indicative delivery:	<b>Ongoing</b>
<b>Description:</b>	Continue to maintain the 'Banff' flood warning area which is part of the Deveron river flood warning scheme. Continue to maintain the 'Portsoy to Macduff' flood warning area which is part of the Moray Firth coastal flood warning scheme.		

<b>Action (ID):</b>	<b>FLOOD FORECASTING (6000020009)</b>		
<b>Objective (ID):</b>	Reduce overall flood risk (600002)		
<b>Delivery lead:</b>	SEPA		
<b>Status:</b>	<b>Existing</b>	Indicative delivery:	<b>Ongoing</b>
<b>Description:</b>	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. The Potentially Vulnerable Area is within the 'Aberdeenshire and Aberdeen City' flood alert area.		

<b>Action (ID):</b>	<b>SELF HELP (6000020011)</b>		
<b>Objective (ID):</b>	Reduce overall flood risk (600002)		
<b>Delivery lead:</b>	—		
<b>Status:</b>	<b>Existing</b>	Indicative delivery:	<b>Ongoing</b>
<b>Description:</b>	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. Aberdeenshire Council provide a small range of flood protection products for individual property protection, which are available for all types of flooding, at cost price with free delivery across Aberdeenshire.		

<b>Action (ID):</b>	<b>AWARENESS RAISING (6000020013)</b>		
<b>Objective (ID):</b>	Reduce overall flood risk (600002)		
<b>Delivery lead:</b>	Responsible authorities		
<b>Status:</b>	<b>Existing</b>	Indicative delivery:	<b>Ongoing</b>
<b>Description:</b>	<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>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.</p> <p>Local authorities will be undertaking additional awareness raising activities. Further details will be set out in the Local FRM Plan.</p>		

<b>Action (ID):</b>	<b>MAINTENANCE (6000020007)</b>		
<b>Objective (ID):</b>	Reduce overall flood risk (600002)		
<b>Delivery lead:</b>	Aberdeenshire Council, asset / land managers		
<b>Status:</b>	<b>Existing</b>	Indicative delivery:	<b>Ongoing</b>
<b>Description:</b>	<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>		

<b>Action (ID):</b>	<b>EMERGENCY PLANS/RESPONSE (6000020014)</b>		
<b>Objective (ID):</b>	Reduce overall flood risk (600002)		
<b>Delivery lead:</b>	Category 1 and 2 Responders		
<b>Status:</b>	<b>Existing</b>	Indicative delivery:	<b>Ongoing</b>
<b>Description:</b>	<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>		

<b>Action (ID):</b>	<b>PLANNING POLICIES (6000010001)</b>		
<b>Objective (ID):</b>	Avoid an overall increase in flood risk (600001) Reduce overall flood risk (600002)		
<b>Delivery lead:</b>	Planning authority		
<b>Status:</b>	<b>Existing</b>	Indicative delivery:	<b>Ongoing</b>
<b>Description:</b>	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.		