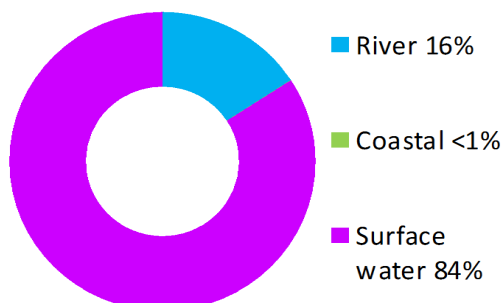


Portgordon (Potentially Vulnerable Area 06/01)

Local Plan District	Local authority	Main catchment
North East	The Moray Council	Banff coastal

Summary of flooding impacts



At risk of flooding

- <10 residential properties
- <10 non-residential properties
- £8,500 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	Surface water plan/study	Emergency plans/response
<i>Maintain flood protection scheme</i>	Strategic mapping and modelling	Flood forecasting	Self help	Maintenance	Planning policies

Actions

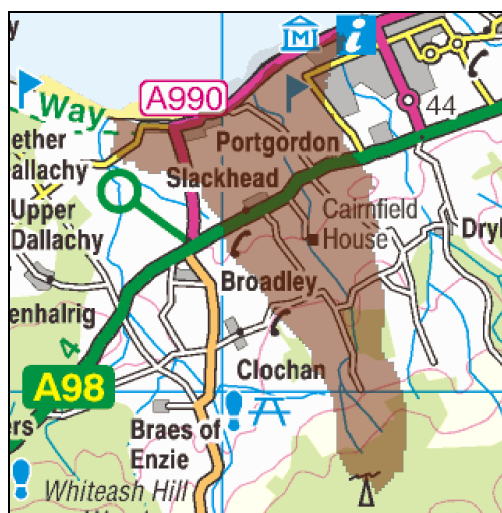
Portgordon (Potentially Vulnerable Area 06/01)

Local Plan District	Local authority	Main catchment
North East	The Moray Council	Banff coastal

Background

This Potentially Vulnerable Area is located on the Moray Firth, covering approximately 13km².

The area covers the coastline from Seatown, Buckie to the outfall of the Burn of Tynet in the west, together with the mainly rural areas to the south.



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The A98 and A990 pass through this Potentially Vulnerable Area.

There are fewer than 10 residential and non-residential properties at risk of flooding.

The Annual Average Damages are approximately £8,500. The majority of these are attributed to surface water flooding, however it is recognised that wave overtopping causes flooding to a number of properties in Portgordon and Buckie.

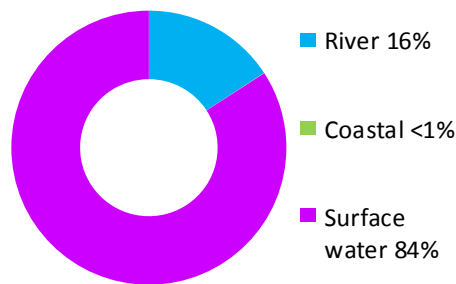


Figure 1: Annual Average Damages by flood source

Summary of flooding impacts

Flooding from wave action is not fully represented in the assessment of flood risk in this Potentially Vulnerable Area and it is known that the number of properties at risk and the damages from coastal flooding are currently underestimated. Coastal flooding from overtopping waves is known to occur at Portgordon and Buckie and this has been taken into account in the setting of objectives and evaluating of actions.

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. The A98 and A990 are at risk of flooding in addition to small areas of agricultural land and a designated environmental site.

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 roads.

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 1,200)	<10	<10	10
Non-residential properties (total 60)	<10	<10	<10
People	<10	10	20
Community facilities	0	0	0
Utilities assets	0	<10	<10
Transport links (excluding minor roads)	Roads at 20 locations	Roads at 30 locations	Roads at 30 locations
Environmental designated areas (km ²)	<0.1	<0.1	<0.1
Designated cultural heritage sites	0	0	0
Agricultural land (km ²)	0.2	0.2	0.2

Table 1: Summary of flooding impacts¹

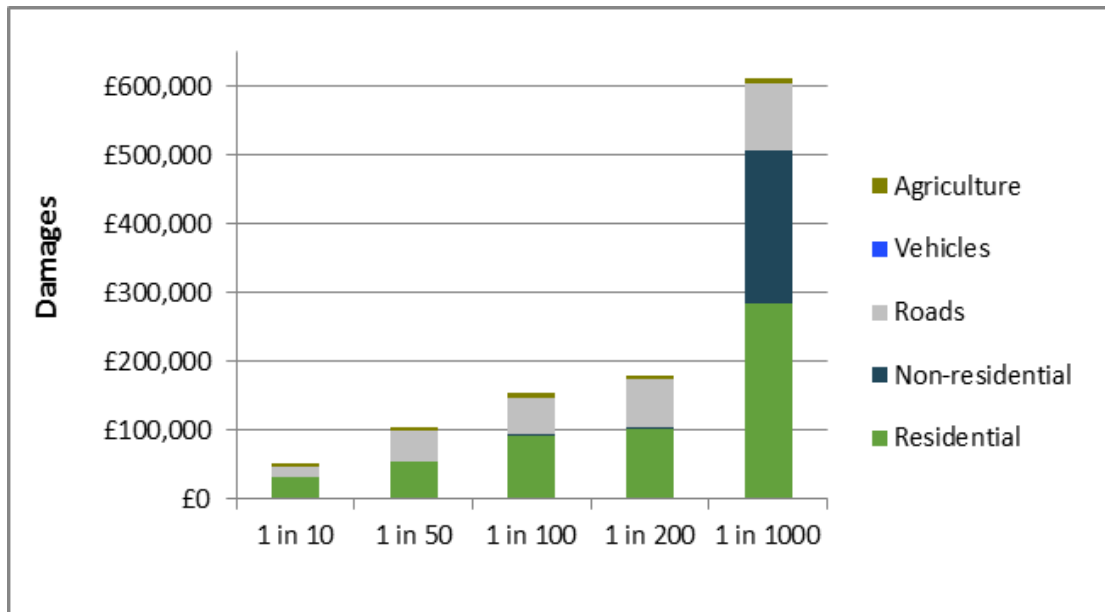


Figure 2: Damages by flood likelihood

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

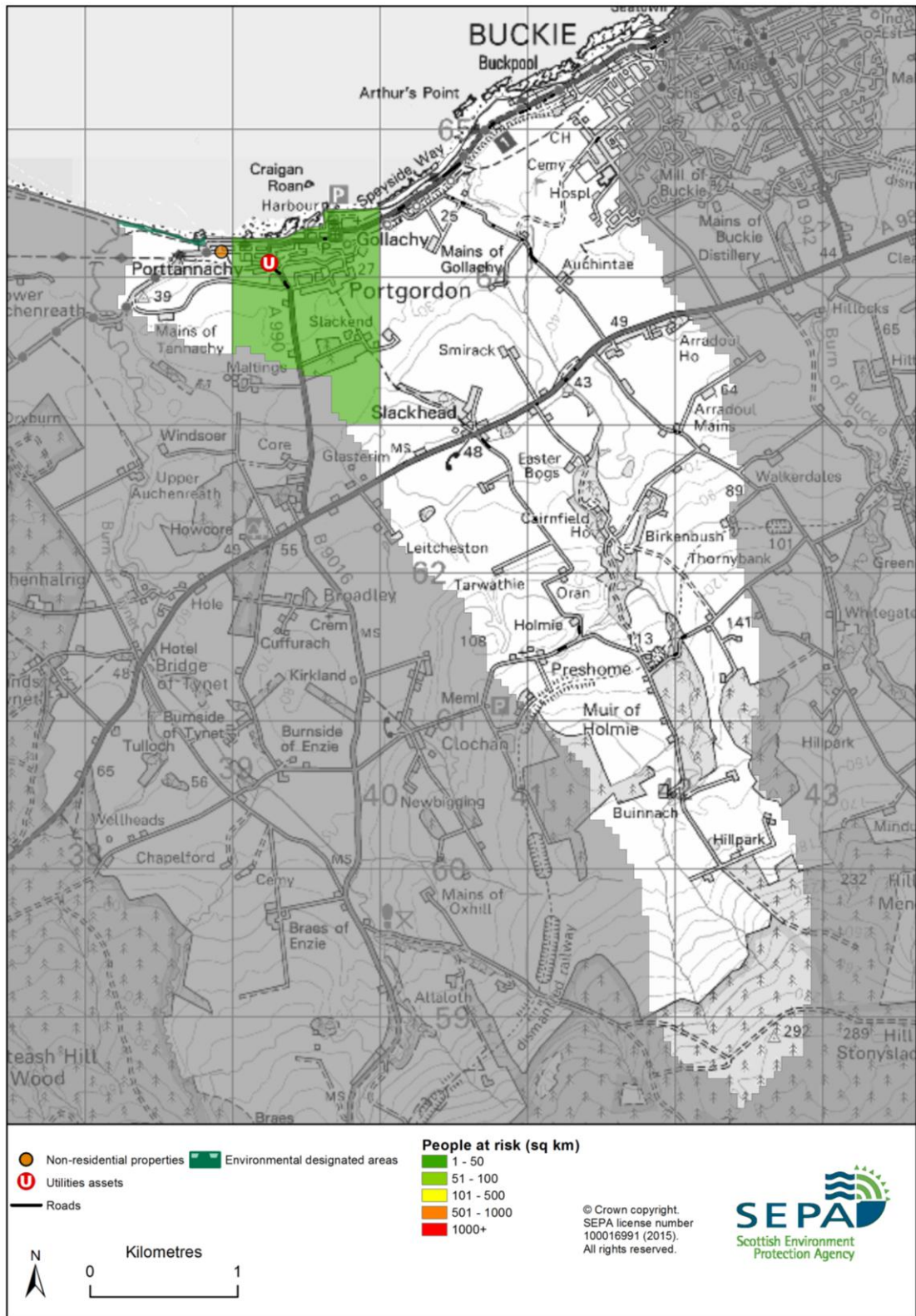


Figure 3: Impacts of flooding

History of flooding

The highest impact flood on record is the January 1953 North Sea flood which resulted in evacuation of residents, flooding to properties and collapse of the harbour wall. The majority of properties in Lennox Place and Stewart Street were flooded. When flood waters retreated many properties were disinfected to eradicate colonies of sea lice, which had accompanied the flooding.

In January 1978, storms caused wave overtopping which flooded Stewart Street and Lennox Place in Portgordon. Coastal flooding of properties in the Portgordon area also occurred in 1983 and 1985. In September 1999 a heavy downpour overwhelmed gullies and water flowed onto the A990 and into Portgordon. In 2002 and 2004 there were various instances of flooding to gardens and garages in Richmond Place, Portgordon due to a piped watercourse becoming blocked.

Some properties in Buckie are also subject to coastal flooding from wave action.

Objectives to manage flooding in Potentially Vulnerable Area 06/01

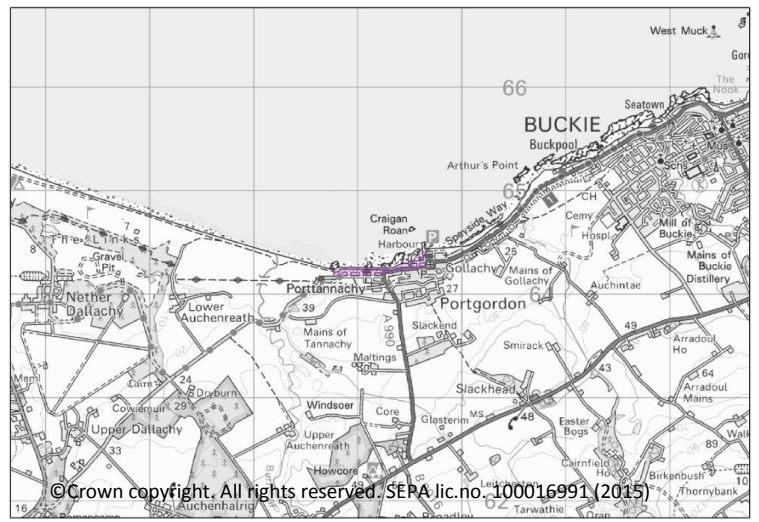
Objectives provide a common goal and shared ambition for managing floods. These objectives have been set by SEPA and agreed with flood risk management authorities following consultation. They were identified through an assessment of the underlying evidence of the causes and impacts of flooding. Target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

Reduce risk in Portgordon from coastal flooding

Indicators:

- 80 people
- £25,000 Annual Average Damages from residential properties

Target area:



Objective ID: 600101

Target area	Objective	ID	Indicators within PVA
Portgordon	Reduce risk from surface water flooding in Portgordon and Buckie	600102	* See note below
Applies across North East Local Plan District	Avoid an overall increase in flood risk	600001	<ul style="list-style-type: none"> • <10 residential properties • £8,500 Annual Average Damages
Applies across North East Local Plan District	Reduce overall flood risk	600002	<ul style="list-style-type: none"> • <10 residential properties • £8,500 Annual Average Damages
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.		

* This objective will be monitored using surface water flood risk across the Potentially Vulnerable Area. For 06/01 there are <10 residential properties at risk and Annual Average Damages of £7,000.

Actions to manage flooding in Potentially Vulnerable Area 06/01

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 Portgordon 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	Surface water plan/study	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 (6001010005)		
Objective (ID):	Reduce risk in Portgordon from coastal flooding (600101)		
Delivery lead:	The Moray Council		
Priority:	National:		Within local authority:
	150 of 168		2 of 2
Status:	Not started	Indicative delivery:	2016-2021
Description:	A flood protection study is required to consider flood protection works to reduce the risk of coastal flooding to Portgordon. The flood protection study should include the investigation of coastal management actions and direct defences. Other actions may also be considered to develop the most sustainable range of options.		
Potential impacts			
Economic:	The study could benefit 37 residential and three non-residential properties at risk of flooding in this location, with potential damages avoided of up to £790,000. It is thought that risk to properties is underestimated. With further information on the impact of wave overtopping and flood depths the number of properties at risk and damages avoided could change.		
Social:	The development of flood protection works following the study would potentially reduce flood risk to 81 people. Stewart Street would also benefit from reduced risk, improving access to the properties along the frontage. 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. The flood protection study should ensure the actions avoid or minimise the potential loss of natural habitat, do not interfere with coastal processes and ensure no negative effects to the Spey Bay Site of Special Scientific Interest. To be in accord with the FRM Strategy, the 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 Spey Bay Special Area of Conservation.
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Action (ID):	SURFACE WATER PLAN/STUDY (6001020018)		
Objective (ID):	Reduce risk from surface water flooding in Portgordon and Buckie (600102)		
Delivery lead:	The Moray Council		
Status:	Ongoing	Indicative delivery:	2016-2021
Description:	The area must be covered by a surface water management plan or plans that set objectives for the management of surface water flood risk and identify the most sustainable actions to achieve the objectives.		

Action (ID):	STRATEGIC MAPPING AND MODELLING (6001010016)		
Objective (ID):	Reduce risk in Portgordon from coastal flooding (600101)		
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 (6000020019)		
Objective (ID):	Reduce overall flood risk (600002)		
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 (6000020030)		
Objective (ID):	Reduce overall flood risk (600002)		
Delivery lead:	SEPA		
Status:	Existing	Indicative delivery:	Ongoing
Description:	Continue to maintain the 'Portgordon to Cullen' flood warning area which is part of the Moray Firth coastal flood warning scheme.		

Action (ID):	FLOOD FORECASTING (6000020009)		
Objective (ID):	Reduce overall flood risk (600002)		
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 'Aberdeenshire and Aberdeen City' flood alert area.</p>		

Action (ID):	SELF HELP (6000020011)		
Objective (ID):	Reduce overall flood risk (600002)		
Delivery lead:	—		
Status:	Existing	Indicative delivery:	Ongoing
Description:	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.		

Action (ID):	AWARENESS RAISING (6000020013)		
Objective (ID):	Reduce overall flood risk (600002)		
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 (6000020007)		
Objective (ID):	Reduce overall flood risk (600002)		
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>		

Action (ID):	EMERGENCY PLANS/RESPONSE (6000020014)		
Objective (ID):	Reduce overall flood risk (600002)		
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 (6000010001)		
Objective (ID):	Avoid an overall increase in flood risk (600001) Reduce overall flood risk (600002)		
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.		