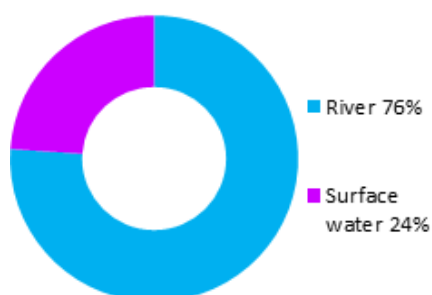


Hawick (Potentially Vulnerable Area 13/12)

Local Plan District	Local authority	Main catchment
Tweed	Scottish Borders Council	River Tweed

Summary of flooding impacts



At risk of flooding

- 600 residential properties
- 440 non-residential properties
- £2.5 million 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.

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

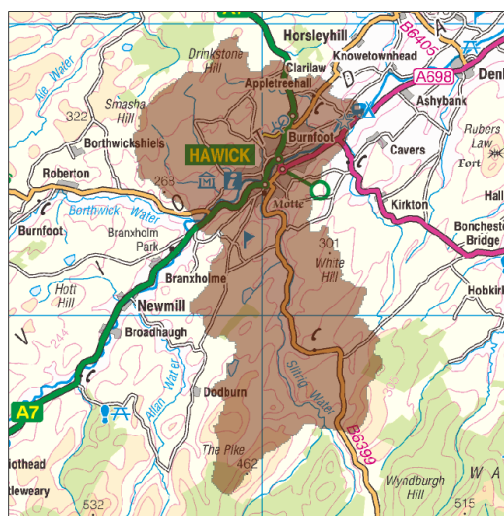
Actions

Hawick (Potentially Vulnerable Area 13/12)

Local plan District	Local authority	Main catchment
Tweed	Scottish Borders Council	River Tweed

Background

This Potentially Vulnerable Area is 71km² and situated in the upper reaches of the River Tweed catchment (shown below). It includes Hawick and the main watercourses are the River Teviot and its tributaries the Slitrig Water, Wilton Burn, Dean Burn and Boonraw Burn.



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The area has a risk of river and surface water flooding. The majority of damages in this Potentially Vulnerable Area are caused by river flooding.

There are approximately 600 residential properties and 440 non-residential properties at risk of flooding.

The Annual Average Damages are approximately £2.5 million.

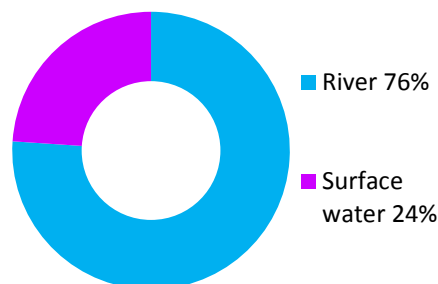


Figure 1: Annual Average Damages by flood source

Summary of flooding impacts

The highest risk of flooding is in Hawick from the River Teviot and surface water.

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

The damages associated with floods of different likelihood are shown in Figure 2. For this Potentially Vulnerable Area the highest damages are to non-residential properties followed by damages to residential properties. The location of the impacts of flooding is shown in Figure 3.

The figures presented for Annual Average Damages include damages to residential properties, non-residential properties, transport and agriculture.

The risk of flooding to utilities in Table 1 does not include Scottish Water data. Scottish Water undertook a national assessment of above ground assets at medium likelihood of flooding (including water treatment works, wastewater treatment works and pumping stations). Within this Potentially Vulnerable Area there is one asset identified as being at risk of flooding.

Please note that in the Hawick area Scottish Borders Council has undertaken more detailed studies for the Hawick Flood Protection Scheme. The information in this report uses SEPA data which may be different from the flooding information held by the local authority due to differences in modelling approach.

	1 in 10 High likelihood	1 in 200 Medium likelihood	1 in 1000 Low likelihood
Residential properties (total 7,000)	150	600	650
Non-residential properties (total 1,600)	180	440	480
People	340	1,300	1,400
Community facilities	<10 Includes: educational buildings and emergency services	<10 Includes: educational buildings and emergency services	<10 Includes: educational buildings and emergency services
Utilities	<10	20	20
Transport links (excluding minor roads)	2 A roads, 3 B roads at 62 locations	2 A roads, 3 B roads at 102 locations	2 A roads, 3 B roads at 119 locations
Environmental designated areas (km ²)	0.8	0.8	0.8
Designated cultural heritage sites	3	3	4
Agricultural land (km ²)	0.8	1.2	1.4

Table 1: Summary of flooding impacts

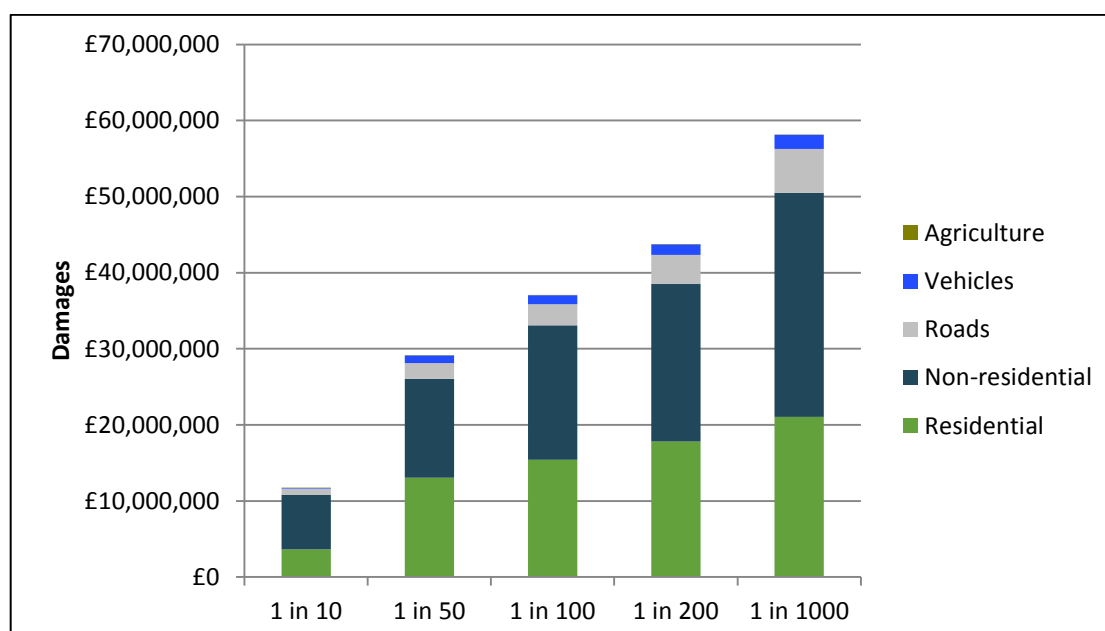


Figure 2: Damages by flood likelihood

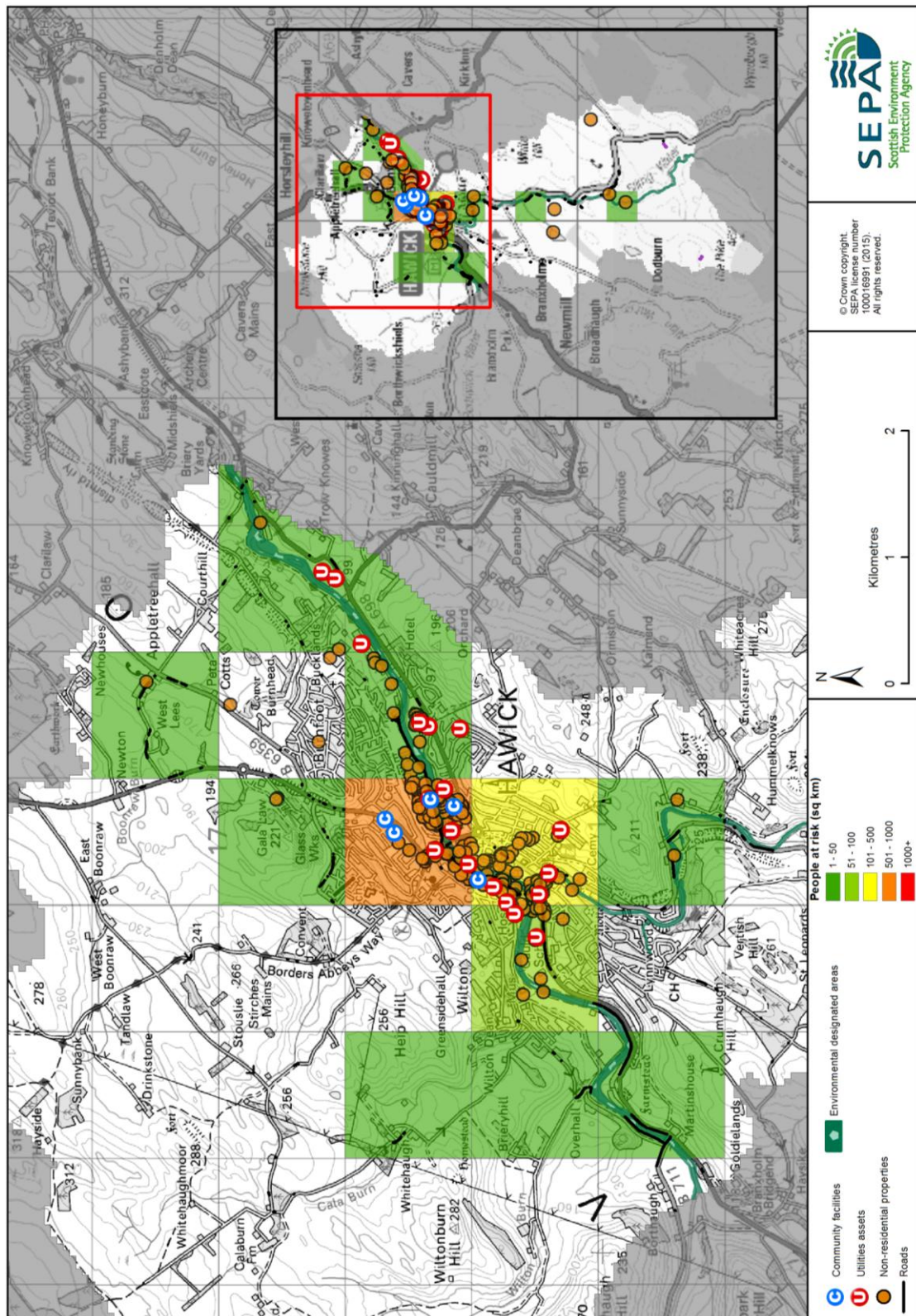


Figure 3: Impacts of flooding

History of flooding

Hawick has a long history of flooding. Floods recorded in this area include:

- 30 December 2013: Mansfield area in Hawick flooded from River Teviot.
- 20 October 2005: River Teviot flooded affecting Hawick. Walls collapsed at Commercial Road and Mansfield Park; both areas fully inundated.
- 20 October 2005: Flooding on the Slitrig Water.
- 8 January 2005: Commonhaugh, Duke Street and Mansfield Park in Hawick flooded.
- October 2002: River Teviot flooded, fully inundating the football and rugby pitches at Mansfield Park as well as the park area. Walls breached at Mansfield Park.
- 31 October 1977: Flood on the River Teviot. This is ranked the second biggest event on the Teviot. The number of residential properties affected was estimated to be fewer than 60.
- 1955: River Teviot flooded. Mansfield Park area inundated by water, the rugby pitch flooded by water to a depth of approximately two feet.
- 21 May 1952: River Teviot flooded. Basements and streets flooded at Bridge Street in Hawick.
- 3 November 1938: River Teviot flooded. Teviot Crescent in Hawick inundated with flood water. Victoria and Mansfield Bridges washed away. Many properties affected.
- 1928: Teviot Crescent in Hawick flooded with waters up to a depth of approximately two feet affecting many properties.

Objectives to manage flooding in Potentially Vulnerable Area 13/12

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 Hawick Potentially Vulnerable Area.

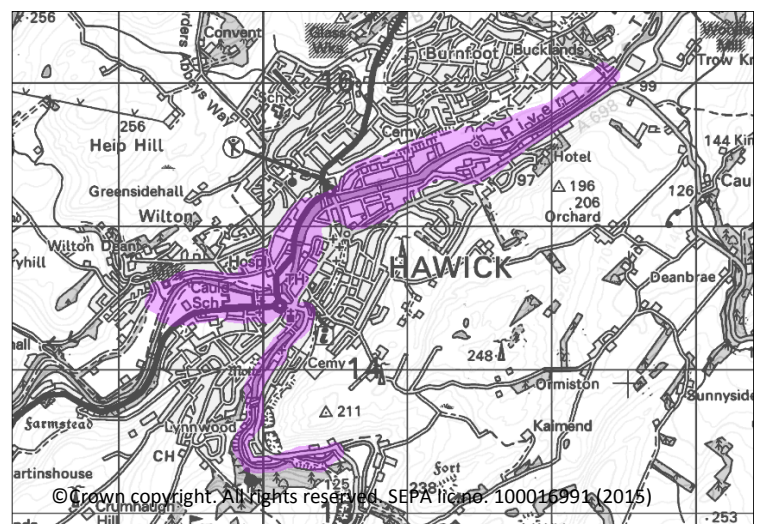
**Reduce economic damages to residential and non-residential properties and flood risk to community facilities caused by flooding from the River Teviot.
Reduce risk to people in Hawick caused by flooding from the River Teviot**

Indicators:

- 1,200 people
- £790,000 Annual Average Damages from residential properties
- £900,000 Annual Average Damages from non-residential properties
- Two educational buildings

Objective ID: 13030, 13031

Target area:



Target area	Objective	ID	Indicators within PVA
Hawick	Reduce economic damages and number of residential properties at risk of surface water flooding in Hawick as far as practical	13028	* See note below
Applies across Tweed Local Plan District	Avoid an overall increase in flood risk	13001	<ul style="list-style-type: none"> • 600 residential properties • £2.5 million Annual Average Damages
Applies across Tweed Local Plan District	Reduce overall flood risk	13033	<ul style="list-style-type: none"> • 600 residential properties • £2.5 million Annual Average Damages
Applies across Tweed 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 13/12 there are 90 residential properties at risk and Annual Average Damages of £590,000.

Actions to manage flooding in Potentially Vulnerable Area 13/12

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 Hawick Potentially Vulnerable Area.

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

Action (ID):	FLOOD PROTECTION SCHEME/WORKS (130300006)				
Objective (ID):	Reduce economic damages to residential and non-residential properties and flood risk to community facilities caused by flooding from the River Teviot. Reduce risk to people in Hawick caused by flooding from the River Teviot (13030, 13031)				
Delivery lead:	Scottish Borders Council				
Priority:	National:		Within local authority:		
	16 of 42		1 of 1		
Status:	Under development	Indicative delivery:	2016-2021		
Description:	A flood protection scheme has been proposed for Hawick. The scheme would consist of flood defence walls and embankments to provide protection to the town from flooding from the River Teviot. Scottish Borders Council is also looking at flood-proofing specific buildings and the provision of storage and pumping of seepage flows. The scheme would provide a 1 in 75 year standard of protection.				
Potential impacts					
Economic:	The proposed scheme may benefit 683 residential properties and 233 non-residential properties which are estimated to be at risk of flooding from a 1 in 75 year flood. Damages avoided are currently estimated to be £84 million. The benefit cost ratio of the scheme is calculated to be 2.88-3.03 depending on local ground conditions.				
Social:	A reduction in flood risk would have a positive benefit to the health and wellbeing of the community and socially vulnerable people located within the flood protection scheme area. In addition there are three educational buildings which have been identified as potentially benefitting from this action. There may be negative impacts through disturbance to the local community during the construction phase.				

Environmental:	Flood protection schemes can have both positive and negative impacts on the ecological quality of the environment depending on how they are designed. The proposed scheme has been designed to be set back from the river to limit direct impact on the water environment. However, the detailed impact will be considered as part of Environmental Impact Assessment. To be in accord with the FRM Strategy, the responsible authority (and where applicable, the licensing authority) will seek to ensure that the works do not have an adverse effect on the integrity of the River Tweed Special Area of Conservation.
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Action (ID):	NATURAL FLOOD MANAGEMENT STUDY (130300003)		
Objective (ID):	Reduce economic damages to residential and non-residential properties and flood risk to community facilities caused by flooding from the River Teviot. Reduce risk to people in Hawick caused by flooding from the River Teviot (13030, 13031)		
Delivery lead:	Scottish Borders Council		
Status:	Not started	Indicative delivery:	2016-2021
Description:	A natural flood management study has been recommended for Hawick to assess whether runoff control and sediment management could help reduce flood risk. The study should take a catchment approach and consider the potential benefits, disbenefits and interaction between actions upstream and downstream. The study should look to supplement the proposed flood protection scheme.		
Potential impacts			
Economic:	The economic impact of natural flood management actions is difficult to define. However, these actions can reduce flood risk for high likelihood events. 255 residential and non-residential properties could potentially benefit from natural flood management actions in this location.		
Social:	Social impacts will depend on the outcome of the study and recommended actions. A reduction in flood risk would have a positive benefit to the health and wellbeing of the community and socially vulnerable people located within the study area. Natural flood management actions can restore and enhance natural environments and create opportunities for recreation and tourism. In addition two educational buildings are located within the study area and could benefit from natural flood management actions.		
Environmental:	Natural flood management actions can have a positive impact on the ecological quality of the environment by restoring and enhancing natural habitats. 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 Whitlaw and Branxholme Special Area of Conservation, Borders Woods Special Area of Conservation or River Tweed Special Area of Conservation. Conservation areas, listed buildings, Sites of Special Scientific Interest and ancient woodlands are also present in the study area and could be positively or negatively impacted.		

Action (ID):	SURFACE WATER PLAN/STUDY (130280018)		
Objective (ID):	Reduce economic damages and number of residential properties at risk of surface water flooding in Hawick as far as practical (13028)		
Delivery lead:	Scottish Borders Council		
Status:	Not started	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 (130330016)		
Objective (ID):	Reduce overall flood risk (13033)		
Delivery lead:	SEPA		
Status:	Not started	Indicative delivery:	2016-2021
Description:	SEPA will seek to develop flood mapping in the River Teviot area to improve understanding of flood risk. The extent and timing of improvements will depend on detailed scoping and data availability. Where this work coincides with local authority studies, SEPA will work collaboratively to ensure consistent modelling approaches are applied.		

Action (ID):	STRATEGIC MAPPING AND MODELLING (130330019)		
Objective (ID):	Reduce overall flood risk (13033)		
Delivery lead:	Scottish Water		
Status:	Not started	Indicative delivery:	2016-2021
Description:	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.		

Action (ID):	MAINTAIN FLOOD WARNING (130330030)		
Objective (ID):	Reduce overall flood risk (13033)		
Delivery lead:	SEPA		
Status:	Existing	Indicative delivery:	Ongoing
Description:	Continue to maintain the Hawick (Slitrig) flood warning area which is part of the Slitrig Water river flood warning scheme. Continue to maintain the Hawick (Teviot) and the Hawick to Monteviot flood warning areas which are part of the River Teviot river flood warning scheme.		

Action (ID):	FLOOD FORECASTING (130330009)		
Objective (ID):	Reduce overall flood risk (13033)		
Delivery lead:	SEPA		
Status:	Existing	Indicative delivery:	Ongoing
Description:	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.		

Action (ID):	COMMUNITY FLOOD ACTION GROUPS (130300012)		
Objective (ID):	Reduce economic damages to residential and non-residential properties and flood risk to community facilities caused by flooding from the River Teviot. Reduce risk to people in Hawick caused by flooding from the River Teviot (13030, 13031)		
Delivery lead:	Community		
Status:	Existing	Indicative delivery:	Ongoing
Description:	Hawick Volunteer Flood Group operates in this area. The group aims to increase community resilience to flooding.		

Action (ID):	SELF HELP (130330011)		
Objective (ID):	Reduce overall flood risk (13033)		
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> <p>Scottish Borders Council offers discounted flood protection products to homes and businesses at risk in the Scottish Borders.</p>		

Action (ID):	AWARENESS RAISING (130330013)		
Objective (ID):	Reduce overall flood risk (13033)		
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>SEPA will engage with communities through the Scottish Borders Council Resilient Communities initiative.</p> <p>Local authorities will be undertaking additional awareness raising activities. Further details will be set out in the Local FRM Plan.</p>		

Action (ID):	MAINTENANCE (130330007)		
Objective (ID):	Reduce overall flood risk (13033)		
Delivery lead:	Scottish Borders 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 (130330014)		
Objective (ID):	Reduce overall flood risk (13033)		
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 (130010001)		
Objective (ID):	Avoid an overall increase in flood risk (13001) Reduce overall flood risk (13033)		
Delivery lead:	Planning authority		
Status:	Existing	Indicative delivery:	Ongoing
Description:	<p>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.</p>		