

# Flood Risk Management Strategy

## Shetland 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 Areas. 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.

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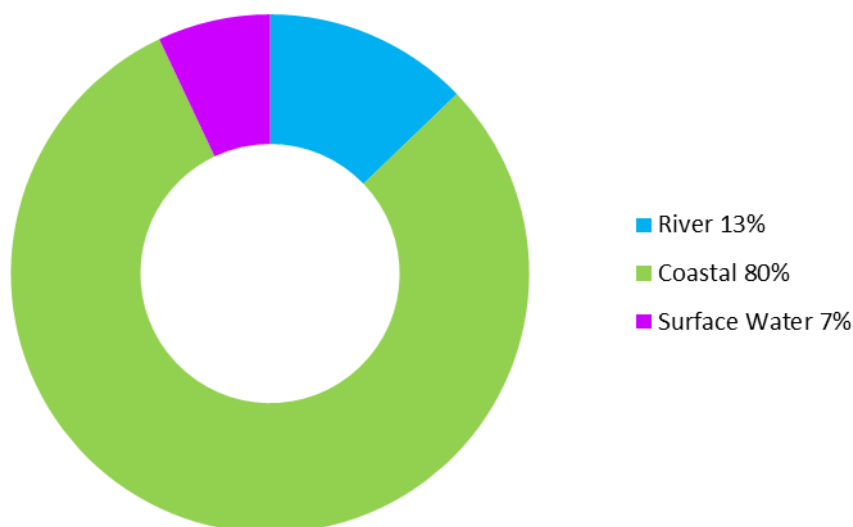
## 2.1 Summary of flooding in the Shetland Local Plan District

This Local Plan District comprises all the islands which are part of the Shetland Islands. It has an area of approximately 1,500 km<sup>2</sup> and a coastline with a length of approximately 2,700km. There are three Potentially Vulnerable Areas in the Shetland Local Plan District.

### Flood risk in Shetland

There are approximately 30 residential properties and 50 non-residential properties at risk of flooding within the Local Plan District. This equates to less than 1% of all properties at risk of flooding nationally. Within the Local Plan District, less than 1% of all properties are at risk and it is estimated that 60% of residential and 35% of non-residential properties of these are located within Potentially Vulnerable Areas. The Annual Average Damages from flooding (see glossary) are approximately £440,000, with an estimated 42% of the damages for the entire Local Plan District accounted for in the Potentially Vulnerable Areas.

The main source of flooding is from coastal flooding which contributes around 80% of the estimated Annual Average Damages (Figure 1). The Annual Average Damages caused by coastal floods are approximately £350,000 with those caused by river and surface water floods being approximately £55,000 and £30,000 respectively.



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

Table 1 shows the number of properties at risk and the Annual Average Damages caused by flooding in the main areas within the Local Plan District. This includes damages to residential properties, non-residential properties, transport and agriculture. Please note that economic damages to airports are not included as information on damages at this scale is not available.

	Residential and non-residential properties at risk of flooding	Annual Average Damages
Shetland Mainland West	20	£88,000
Shetland Mainland Central and South	20	£43,000
Shetland Mainland North	<10	£47,000

**Table 1:** Potentially Vulnerable Areas at risk of flooding

### Background information on the Shetland Local Plan District

The extent of the Shetland Local Plan District and the location of the Potentially Vulnerable Areas are shown in Figure 2.

The population of the Shetland Islands is around 23,200 with 16 of the approximately 100 islands which make up the area being inhabited. The capital and largest settlement is Lerwick, which has a population of around 7,500. Around half of the total population of Shetland lives within 16km of the town.

The predominant land cover in the Shetland Islands is bog, covering around 30% of the Local Plan District. Rough grassland and heather grassland are also prevalent, covering around 23% and 20% of the land area respectively. Less than 1% of the area is classified as urban.



**Figure 2:** Shetland Local Plan District with Potentially Vulnerable Areas identified

## Objectives and actions in the Shetland 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 Shetland Local Plan District	Avoid an overall increase in flood risk	400001	<ul style="list-style-type: none"> <li>• 30 residential properties</li> <li>• 50 non-residential properties</li> <li>• 70 people</li> </ul>
Applies across the Shetland Local Plan District	Reduce overall flood risk	400002	<ul style="list-style-type: none"> <li>• 30 residential properties</li> <li>• 50 non-residential properties</li> <li>• 70 people</li> </ul>

<b>Action (ID):</b>	<b>FLOOD FORECASTING (4000020009)</b>		
<b>Objective (ID):</b>	<b>Reduce overall flood risk. (400002)</b>		
<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.		

<b>Action (ID):</b>	<b>SELF HELP (4000020011)</b>		
<b>Objective (ID):</b>	<b>Reduce overall flood risk. (400002)</b>		
<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 the Resilient Communities Initiative, and ensuring that properties and businesses are insured against flood damage.		

<b>Action (ID):</b>	<b>AWARENESS RAISING (4000020013)</b>		
<b>Objective (ID):</b>	<b>Reduce overall flood risk. (400002)</b>		
<b>Delivery lead:</b>	Responsible authorities		
<b>Status:</b>	<b>Existing</b>	Indicative delivery:	<b>Ongoing</b>
<b>Description:</b>	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. Local authorities will be undertaking additional awareness raising activities, further details will be set out in the Local FRM Plans.		

<b>Action (ID):</b>	<b>MAINTENANCE (4000020007)</b>		
<b>Objective (ID):</b>	<b>Reduce overall flood risk. (400002)</b>		
<b>Delivery lead:</b>	Local authority, asset / land managers		
<b>Status:</b>	<b>Existing</b>	Indicative delivery:	<b>Ongoing</b>
<b>Description:</b>	Local authorities have a duty to assess watercourses and carry out clearance and repair works where such works would substantially reduce flood risk. The local authorities 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.		

<b>Action (ID):</b>	<b>EMERGENCY RESPONSE (4000020014)</b>		
<b>Objective (ID):</b>	<b>Reduce overall flood risk. (400002)</b>		
<b>Delivery lead:</b>	Category 1 and 2 Responders		
<b>Status:</b>	<b>Existing</b>	Indicative delivery:	<b>Ongoing</b>
<b>Description:</b>	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.		

<b>Action (ID):</b>	<b>PLANNING POLICIES (4000010001)</b>		
<b>Objective (ID):</b>	<b>Avoid an overall increase in flood risk. (400001)</b> <b>Reduce overall flood risk. (400002)</b>		
<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.		

## 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
04/01				✓				N/A	N/A	✓			✓	✓	✓		✓	✓
04/02				✓				N/A	N/A	✓			✓	✓	✓		✓	✓
04/03				✓		✓	✓	N/A	N/A	✓			✓	✓	✓		✓	✓

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