

Flood Risk Management Strategy

Orkney 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.

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2.1 Summary of flooding in the Orkney Local Plan District

The Orkney Local Plan District comprises all of the Orkney Islands. It has an area of approximately 1,000km² and a coastline with a length of approximately 860km. There are eight Potentially Vulnerable Areas in the Orkney Local Plan District. Two of these are candidate Potentially Vulnerable Areas identified following a review of flood risk in Orkney. These have been included for further analysis (Figure 2).

Flood risk in Orkney

There are approximately 680 residential properties and 460 non-residential properties at risk of flooding within the Local Plan District. This equates to less than 1% of all properties nationally. Within the Local Plan District, approximately 7% of all residential properties and 17% of all non-residential properties are at risk and it is estimated that 82% of these are located within Potentially Vulnerable Areas and candidate Potentially Vulnerable Areas. The Annual Average Damages from flooding (see glossary) are approximately £4.2 million, with an estimated 92% 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 accounts for approximately 94% of the Annual Average Damages (Figure 1). Annual Average Damages caused by coastal floods are £3.9 million, with those caused by river and surface water floods being approximately £150,000 and £170,000 respectively.

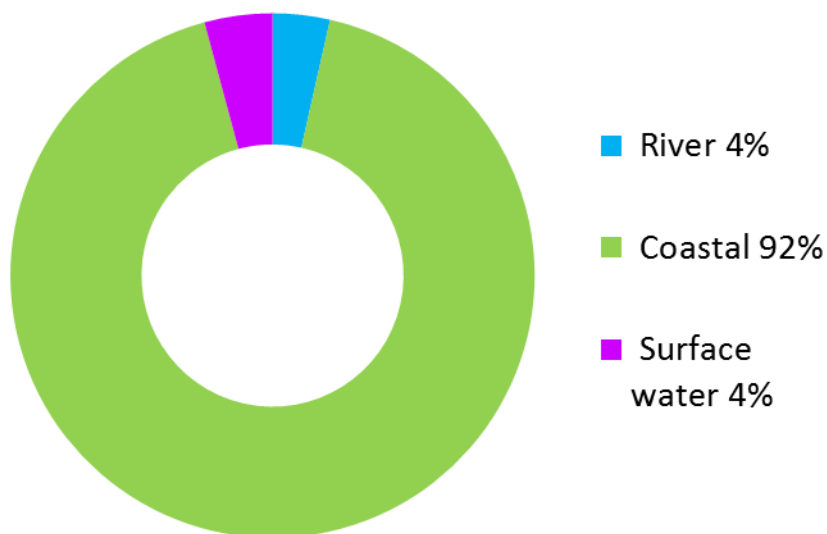


Figure 1: Annual Average Damages by flood source

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
Kirkwall	750	£2.1 million
Sanday	80	£740,000
Stromness	70	£140,000
Stronsay	50	£250,000
Westray	60	£90,000
South Ronaldsay	50	£85,000

Table 1: Main areas at risk of flooding

Background information on the Orkney Local Plan District

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

The population of the Orkney Islands is approximately 21,500. There are around 70 islands, of which 20 are inhabited. The largest settlement with a population of around 8,500 is Kirkwall.

Approximately 3% of the area of the Orkney Local Plan District is classified as urban. The main land cover across the Local Plan District is improved grassland covering 36% of the area and rough grassland covering 28% of the area. Heather grassland is also fairly common covering 14% of the area.



Figure 2: The Orkney Island Local Plan District with Potentially Vulnerable Areas identified

Objectives and actions in the Orkney 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 Orkney Local Plan District	Avoid an overall increase in flood risk	300001	<ul style="list-style-type: none"> • 680 residential properties • 460 non-residential properties • 1,500 people
Applies across the Orkney Local Plan District	Reduce overall flood risk	300002	<ul style="list-style-type: none"> • 680 residential properties • 460 non-residential properties • 1,500 people

Action (ID):	FLOOD FORECASTING (3000020009)		
Objective (ID):	Reduce overall flood risk. (300002)		
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):	SELF HELP (3000020011)		
Objective (ID):	Reduce overall flood risk. (300002)		
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 the Resilient Communities Initiative, and ensuring that properties and businesses are insured against flood damage.		

Action (ID):	AWARENESS RAISING (3000020013)		
Objective (ID):	Reduce overall flood risk. (300002)		
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>Local authorities will be undertaking additional awareness raising activities, further details will be set out in the Local FRM Plans.</p>		

Action (ID):	MAINTENANCE (3000020007)		
Objective (ID):	Reduce overall flood risk. (300002)		
Delivery lead:	Local authority, 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. 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.</p>		

Action (ID):	EMERGENCY PLANS / RESPONSE (3000020014)		
Objective (ID):	Reduce overall flood risk. (300002)		
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 (3000010001)		
Objective (ID):	Avoid an overall increase in flood risk. (300001) Reduce overall flood risk. (300002)		
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.		

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
03/01			✓				✓	N/A	N/A	✓			✓	✓	✓		✓	✓
03/02			✓	✓				N/A	N/A	✓			✓	✓	✓		✓	✓
03/03			✓				✓	N/A	N/A	✓			✓	✓	✓		✓	✓
03/04			✓				✓	N/A	N/A	✓			✓	✓	✓		✓	✓
03/05	✓		✓	✓		✓	✓	N/A	N/A	✓			✓	✓	✓		✓	✓
03/06			✓	✓				N/A	N/A	✓			✓	✓	✓		✓	✓
03/07c			✓	✓				N/A	N/A	✓			✓	✓	✓		✓	✓
03/08c			✓	✓				N/A	N/A	✓			✓	✓	✓		✓	✓

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