

# Flood Risk Management (Scotland) Act 2009:

## Shetland Local Plan District

### Interim Report - Local Flood Risk Management Plan



Publication date: 8th March 2019

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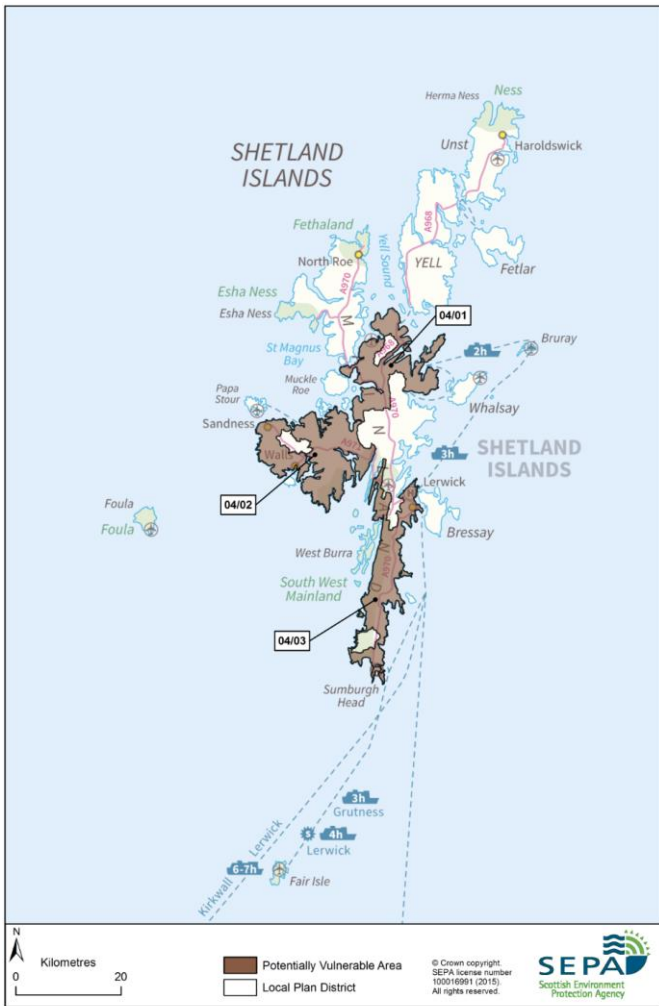
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# Contents

<b>Infographic</b>	<b>4</b>
<b>Foreword</b>	<b>5</b>
<b>Background</b>	<b>6</b>
<b>Review of the plan</b>	<b>7</b>
<b>Assessment of progress</b>	<b>12</b>
<b>Progress with LPD-wide actions</b>	<b>14</b>
<b>Progress with PVA-specific actions</b>	<b>19</b>
Shetland North Mainland (Potentially Vulnerable Area 04/01)	20
Shetland West Mainland (Potentially Vulnerable Area 04/02)	22
Shetland South Mainland (Potentially Vulnerable Area 04/03)	24
<b>Other actions</b>	<b>27</b>
<b>List of Abbreviations and Acronyms</b>	<b>29</b>
<b>Appendix 1: Flood risk management responsibilities in Scotland and the legal requirement for the publication of this Interim Report</b>	<b>30</b>
<b>Appendix 2: Publication details</b>	<b>33</b>

# INFOGRAPHIC: Shetland



Reproduced from Shetland Local Plan District Flood Risk Management Strategy, SEPA (December 2015)

- Flood protection study
- Surface water plan/study
- Strategic mapping and modelling
- Flood forecasting
- Self help
- Awareness raising
- Maintenance
- Emergency plans/response
- Planning policies
- Integrated Catchment Study
- Section 16 assessment



## Local Flood Risk Management Plan

Shetland has an area of 1,500 km<sup>2</sup>, a population of 23,200 and a coastline of approximately 2,700km.

Approximately 30 residential properties and 50 non-residential properties are at risk of flooding within the 3 Potentially Vulnerable Areas, with a total Annual Average Damages from flooding of approximately £178,000.

## Summary

All actions are on schedule





## Foreword

This Interim Report to the Local Flood Risk Management Plan shows the progress made in delivering the actions to avoid and reduce the risk of flooding, and prepare and protect ourselves and our communities across the local plan district.

*“The impacts of flooding experienced by individuals, communities and businesses can be devastating and long lasting. It is vital that we continue to reduce the risk of any such future events and improve Scotland’s ability to manage and recover from any events which do occur.”*

*(Shetland Local Flood Risk Management Plan, June 2016)*

The publication of the Interim Report shows that the coordinated and collaborative efforts of public bodies can be brought together to deliver sustainable outcomes.

The Interim Report has been developed by the Shetland Local Plan District Partnership, which is comprised of the Shetland Islands Council, Scottish Water and SEPA. The partnership is led by the Shetland Islands Council, who have published this Report.

Individuals are the first line of defence against flooding and have responsibilities to protect themselves from flooding. Through self-help and property level protection, awareness raising and signing up to Floodline, individuals, businesses and communities can and have made key contributions to the delivery of the actions in the Plan, which are detailed in this Interim Report.

Since the publication of the Plan in June 2016, public sector finances in Scotland have continued to be under considerable pressure. This places an even greater responsibility on SEPA, local authorities and Scottish Water and other responsible authorities to deliver their flood risk management responsibilities and, in particular the actions in the Plan, to manage flooding in a sustainable way.

SEPA, local authorities and Scottish Water and other responsible authorities will continue to work collaboratively to implement the actions in the Plan to its conclusion in June 2022.

## Background

The Interim Report is a legal requirement of the Flood Risk Management (Scotland) Act 2009 (Section 37). The Interim Report is required to be published between July 2018 and June 2019. The Interim Report includes the conclusions of a review of the Shetland Local Flood Risk Management Plan (the 'Plan'), published in June 2016 and includes information on the progress that has been made towards implementing the actions identified in the Plan.

Further details on flood risk management responsibilities in Scotland and the legal requirement for the publication of this Interim Report can be found in Appendix 1.

A copy of the Shetland Local Flood Risk Management Plan can be found at the following link.

<http://www.shetland.gov.uk/planning/lfrmp.asp>

## Review of the Plan

This section sets out the conclusions of the review of the plan and a summary of progress of actions detailed in Shetland Local Flood Risk Management Plan. It draws upon the assessment of progress of actions presented in the subsequent sections.

### Key progress in reducing the impacts of flooding since publication

Aerial surveys have been carried out, to gather more accurate ground level information, and so give a better indication of the actual coastal flood risk in areas of Vidlin, Walls and Scalloway.

Closer working arrangements have been developed with SIC Emergency Planning regarding flood risk during severe weather.

Work on Scottish Water sewer assessments is on schedule for areas of Lerwick and Scalloway.

### How current is the Plan?

The Plan was published in June 2016 supplementing the Flood Risk Management Strategy published by SEPA in December 2015. The Plan details how the actions identified in the Strategy were to be implemented over the period 2016 to 2022. The Strategy and Plan are based on the National Flood Risk Assessment and the designated Potentially Vulnerable Areas at that time.

Since the identification of the actions in the Plan, there have and continue to be advancements in our knowledge and development of assessment techniques. These include the publication by SEPA of a new National Flood Risk Assessment and revised designation of Potentially Vulnerable Areas in December 2018. These advancements may inform the delivery of the actions in this Plan and will be used in the development of future Strategies and Plans.

It is therefore considered that the Plan on which this is the Interim Report is current, albeit the planned delivery and actual delivery of actions has changed for some actions as detailed in the 'Assessment of the progress of actions'.

### Significant challenges

Based on a review of the assessment of the progress of actions detailed in this Interim Report, the following key challenges and issues have been identified that may have an impact on the delivery of actions to manage flood risk. Arrangements planned to deliver the remaining actions are described below. Where these challenges have had an impact on the delivery of specific actions or actions across an LPD, this is detailed in the 'Assessment of the progress of actions'.

However, the overall delivery of actions in the Plan has not been impacted by funding or resource issues to date.

## Significant weather events

There have been no weather events with significant flood impacts since the publication of the LFRMP. SIC Resources continue to be deployed to deal with localized drainage and flooding issues affecting public infrastructure, but the scale of these actions required have not been outside that covered by normal budgeting.

Significant coastal flood risks are generally only likely when a storm surge, wind and waves are acting together on a vulnerable stretch of coast at high tide and although such a combination of conditions have been predicted on occasion since 2016, they fortunately did not occur.

Significant surface water and river flooding tends to occur from short and intense rainfalls and Shetland catchments are generally small and drain independently. Luck can play a large role in whether the run off occurs in a catchment where damage to buildings and infrastructure is likely downstream and that has not happened in the last 2 years.

## Funding

"The delivery of the actions in the first Flood Risk Management Plan cycle from 2016-2022, as detailed in the Local Flood Risk Management Plan, is therefore subject to revenue and capital funding allocations from Scottish Government to SEPA and Responsible Authorities; and to revenue and capital budget setting by councils and other Responsible Authorities over the period 2016-2022.", (Shetland Local Flood Risk Management Plan, June 2016).

The level of funding from Scottish Government for flood risk activities for the first years of the six year Plan has been at the levels anticipated. As per the principals of financial settlements for local government, the funding is not 'ring fenced' and local authorities may allocate these funds to the delivery of other priorities.

## Allocation of Resources

The delivery of flood risk management actions must be seen in the context of challenging local government finances and increased expectation and demand for public services. This applies to all of the responsible authorities and SEPA.

No additional budgets have been made directly available for delivering the flood risk actions in the LFRMP, but to date the work required has been able to be achieved using existing budgets and staff resources and there have been no delays in the planned delivery of actions.



Arrangements planned to deliver the remaining actions are described below and detailed in the 'Assessment of the progress of actions' section of this Interim Report.

## Prioritisation of actions for next plan cycle

Many actions contained in the plan are to undertake studies that will assess the need for further actions to be implemented in future plans. For example, a flood protection study may recommend that a community flood action group is set up to increase resilience to flooding, or that a flood defences are constructed.

This introduces a deadline date by when such actions need to be detailed and submitted by responsible authorities for consideration as actions in the next plans from 2022-28. The deadline date for submission of these actions to SEPA has been set as December 2019. The actions submitted will then be assessed and prioritised against the flood risk objectives, and consulted upon ahead of the publication of the next cycle of Flood Risk Management Strategies in December 2021 and Local Flood Risk Management Plans in June 2022. Any actions that miss this deadline may therefore be delayed for consideration in the next cycle from 2028-34.

## Arrangements planned to deliver the remaining actions

The actions in the Plan will continue to be delivered over the remainder of the 2016 to 2022 period, as per the published Plan and as things stand all of the actions in the Plan are expected to be delivered by June 2022.

## Next steps

A Final Report on the plan will be published in between July 2021 and June 2022. This will include an updated assessment of the progress made towards implementing the current actions, a summary of any of the current measures which were not implemented, with reasons for their non-implementation; and a description of any other measures implemented since the plan was finalised which the lead authority considers have contributed to the achievement of the flood risk objectives.

In the meantime, there is more information on how flood risk is being managed at the following links:

[Shetland Islands Council, Local Flood Risk Management Plan](http://www.shetland.gov.uk/planning/lfrmp.asp)

Information on the ongoing flood management actions for Shetland for 2016-2022.

<http://www.shetland.gov.uk/planning/lfrmp.asp>

SEPA Floodline

To sign up to flood alerts, report flooding and for more information on duties and responsibilities.

<https://floodline.sepa.org.uk/floodupdates/>

Scottish Water Flooding information

Information for homeowners on reporting flooding, information and responsibilities.

<https://www.scottishwater.co.uk/you-and-your-home/your-home/flooding-information>

## **Conclusions**

*Delivery is progressing well on the agreed actions in the current Shetland LFRMP and they are all on track to be delivered on time and within existing budgets.*

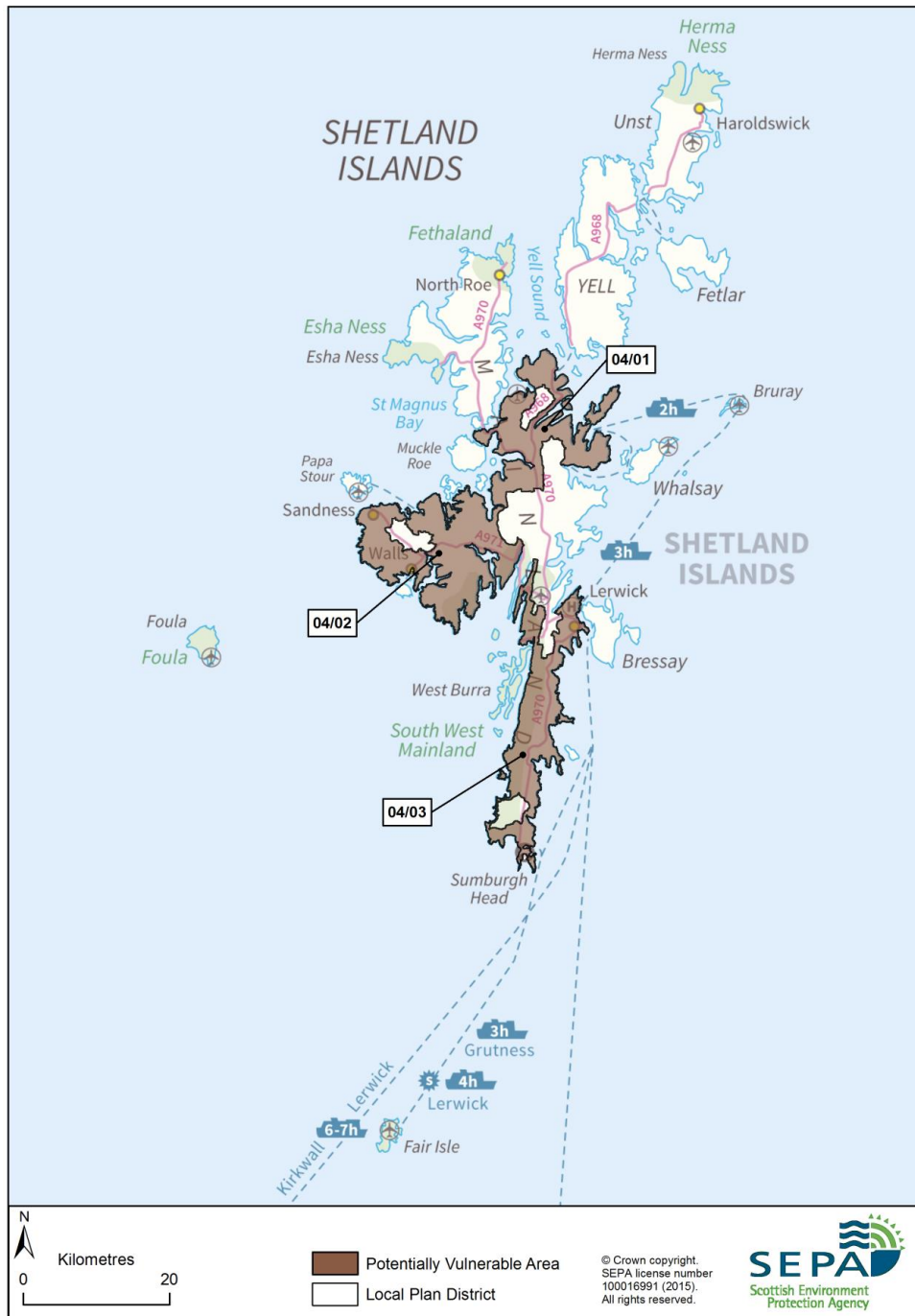
*There have not been any large scale flood events at new locations since the publication of the plan.*

*The location specific actions in the current plan are generally involve getting more and better information on the actual flood risk to property and infrastructure, to give more confidence in assessing possible physical actions to put into the next plan.*

## Assessment of progress

This section sets out an assessment of the progress towards implementing the actions set out in the LFRMP.

There are actions that apply across the whole of the Shetland LPD and actions that are specific to each of the 3 Potentially Vulnerable Areas (as defined under Section 13 of the Act) in the Shetland LPD, which are shown below in Figure 1.



**Figure 1:** The Shetland LPD catchment group  
 Reproduced from Shetland Flood Risk Management Strategy, SEPA (December 2015)

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 group	Self help	Awareness raising	Maintenance	Site protection plans	Emergency plans/response	Planning policies
04/01 Shetland Mainland North				G														
04/02 Shetland Mainland West				G														
04/03 Shetland Mainland South				G		G	G											
PVA-wide Actions										G			G	G	G		G	G

**Figure 2:** Progress of actions to manage flood risk in the Shetland LPD Catchment

The summary of the assessment of progress is shown using the traffic light system, where each item is marked as Red, Amber or Green (RAG) and where:

- **GREEN** – Action has been delivered is on programme and within budget;
- **AMBER** – Action is behind programme and/or over budget, but the key dates are still anticipated to be met.
- **RED** – Action is behind programme and/or over budget, with key dates unlikely to be met and/or the outputs unlikely to achieve what was anticipated by the LFRMP.

## Progress with LPD-wide Actions

This section sets out an assessment of the progress towards implementing actions that apply across the whole of the Shetland LPD over all years of the six-year Plan, which is presented in Figure 3 overleaf.



Action	Status	Description	Delivery Lead	Interim progress	Planned actions to complete
Flood Forecasting (4000020009)	G	The Potentially Vulnerable Area is within the 'Shetland' flood alert area.	SEPA	SEPA has continued to operate the Scottish Flood Forecasting Service (SFFS) Partnership with the Met Office with daily, national Flood Guidance Statements issued to Category 1 and 2 agencies (such as emergency responders, local authorities and other organisations with flooding management duties) and regional Flood Alerts issued to the public. Each daily statement gives an assessment of the risk of flooding for the next five days to enable these organisations to put preparations in place to reduce the impact of flooding. SEPA's Flood Alert service is freely available to everyone and enables communities to be aware and prepared to reduce the impacts of flooding.	SEPA will continue and improve the Scottish Flood Forecasting Service (SFFS) with the Met Office, with daily Flood Guidance Statements and regional Flood Alerts issued as required to enable communities and responders to reduce the impacts of flooding. SEPA is currently exploring options to develop a public version of the daily Flood Guidance Statement to provide better and earlier information to the public.
Self Help (4000020011)	G	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.		Where premises are subject to historical flooding the owners are aware of their responsibilities and that flood damage can be reduced by suitable provision and maintenance of drainage and flood protection infrastructure, including property level protection.  General information is made available as part of existing Shetland Islands Council awareness raising activities.  There are no existing specific Council budgets for funding self help works.	Review of SIC web-based information to ensure clear advice and easy to find advice is available to the public
Awareness Raising (4000020013)	G	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.	Responsible authorities	SEPA has delivered a range of awareness raising activities through campaigning, education activities and partnership delivery. We have run national and local digital and direct engagement campaigns to raise awareness of flood risk and SEPA's flood warning service, Floodline. We publish and publicise an electronic newsletter (Flooding Gateway) four times a year which is distributed to a wide audience. We are working with Education Scotland and Scottish Government Resilience team to embed flooding awareness within the Curriculum for Excellence, and resilience partners in Safer Communities programmes. We have also developed an online tool	SEPA will continue to raise awareness of flood risk through campaigning, developing education and engagement tools, creating new partnerships and improving the flood warning and forecasting service. Many of our awareness raising activities currently underway will continue. Our focus will be on promoting flood warning and

		<p>Shetland Islands Council will seek to improve communication with the public over flood risk, including how risks can be avoided or mitigated, how warnings of potential flooding events are given and how the council can raise public understanding of actions they can take to protect themselves.</p>		<p>that helps everyone share information on current flooding issues (Report-a-Flood). We have worked in partnership with local authorities, emergency services and community organisations (e.g. Neighbourhood Watch Scotland, Citizens Advice Scotland and others) to share our resources and help to promote preparedness and understanding of how we manage flood risk in Scotland. We have actively supported the Scottish Flood Forum and worked closely with UK agencies to develop joint flooding information.</p> <p>Scottish Water will support SEPA and responsible authorities with their awareness raising activities as required and provide targeted communications for Scottish Water sewer flooding programme activities. Scottish Water will raise awareness by producing and supplying targeted information to the public on large capital projects and detailed local studies.</p>	<p>forecasting service, innovation, education and engagement with partners, customers and the public.</p> <p>Review of SIC web-based information to ensure clear advice and easy to find advice is available to the public</p> <p>Scottish Water are continuing to support SEPA and Local Authorities in their awareness raising activities. General awareness raising is carried out through the Scottish Water website and national advertising campaigns to increase public awareness of the implications of their actions on sewer flooding . For site specific capital projects and local studies, targeted public engagement is being carried out at a local level.</p>
<p>Maintenance (4000020007)</p>	<p><b>G</b></p>	<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.</p> <p>Scottish Water undertake risk based inspection and repair on the public sewer network.</p> <p>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>	<p>Responsible authorities</p>	<p>In progress</p>	<p>Shetland Islands Council carry out inspections to watercourses as detailed in Schedule 18, published on the SIC LFRMP page</p> <p>Scottish Water will continue to undertake risk based inspection and repair of the public sewer system.</p>

<p>Emergency Response (4000020014)</p>	<p>G</p>	<p>Providing an emergency response to flooding is the responsibility of many organisations, including local authorities, the emergency services and SEPA.</p> <p>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 Scottish Water and voluntary organisations.</p>	<p>Responsible authorities</p>	<p>The Shetland Islands Council have a Major Emergency Plan which is a generic contingency plan to enable the Council's response to a major emergency.</p>	<p>Continue to develop closer working arrangements between SIC Planning Engineer and SIC Emergency Planning Officer regarding flood risk during severe weather.</p>
<p>Planning policy (4000010001)</p>		<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.</p> <p>For further information on the application of national planning policies see Annex 4 of the LFRMP.</p> <p>Applications for developments have requirements to address flooding and drainage in a suitable way, and a local Supplementary Guidance document gives advice. Applications which fall under the 5m contour (for coastal flood risk) or within the 1 in 200 year flood risk areas on SEPA's flood maps (for surface water and river flood risks) are required to provide more detail to confirm the flood risks have been considered and dealt with.</p> <p>SEPA has a statutory role in relation to the provision of flood risk advice to planning authorities. This role is expressed in Section 72 of the FRM Act, 2009. SEPA also has a duty to co-operate with planning authorities in the preparation of development plans. When consulted in relation to planning applications for development or site allocations in development plans, and where the planning authority considers</p>	<p>Shetland Islands Council</p>	<p>Production of the Shetland Local Development Plan and specifically the "Call for Sites" process included a multi-stage consultation with public and other stakeholders.</p> <p>There are consultations with Council and Non-Council stakeholders as part of consideration of planning applications.</p> <p>SEPA's land use planning activities will be co-ordinated with the activities of other Responsible Authorities as required.</p>	<p>The Call for Sites process for the next Local Development Plan (LDP2) is now open. Submitted sites and other areas proposed for development will be assessed for potential flood risk and drainage impacts as part of the Strategic Flood Risk Assessment for LDP2.</p> <p>Our current planning policies and guidance on flood risk and drainage will be reviewed as part of producing LDP2. Where necessary, policies and guidance will be updated and amended. LDP2 will also take account of the Local Flood Risk Management Plan.</p> <p>Trigger levels and technical requirements will continue to be refined as more accurate information, policy and guidance on risks are produced and published by SIC, SEPA, Scottish Water and the Scottish Government.</p>

		<p>there may be a risk of flooding, SEPA will provide advice. The advice provided by SEPA will be with respect to the risk of flooding and on the basis of the relevant information it holds which is suitable for planning purposes. It will also be in line with the principles and duties set out in the FRM Act.</p> <p>Further information about how SEPA engage in the planning system, including guidance on flood risk and planning is available on SEPA website <a href="http://www.sepa.org.uk/environment/land/planning/">http://www.sepa.org.uk/environment/land/planning/</a></p>			
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**Figure 3:** Progress of LPD-wide actions to manage flood risk in the Shetland LPD Catchment

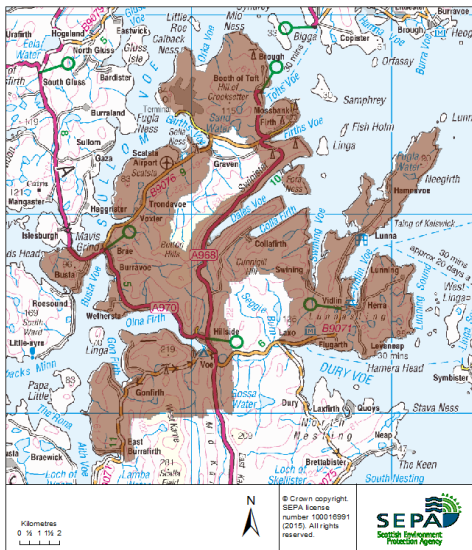
## Progress with PVA-specific Actions

This section sets out an assessment of the progress towards implementing actions that are specific to each of the 3 PVA as shown in Figure 2. Assessments of the progress of actions within each PVA are presented.

There are no specific actions identified for 'property level protection scheme' and 'site protection plans' actions. Current PVA specific actions are intended to form a better understanding of flood risk to buildings in the current LFRMP cycle and that may lead to consideration of property level protection schemes or site protection plans in the future.

## Shetland Mainland North (Potentially Vulnerable Area 04/01)

Local Plan District	Local authority	Main catchment
Shetland	Shetland Islands Council	Shetland Mainland North



### Summary of Progress for Shetland Mainland North

This Potentially Vulnerable Area is located in the north of Mainland Shetland (shown left). It is approximately 150km<sup>2</sup>.

There are several communities including Voe, Mossbank, Brae and Vidlin located in this Potentially Vulnerable Area. The A968 and A970, Scatsta Airport and the Sullom Voe Oil Terminal are also located in this area. There are fewer than 10 residential and non-residential properties at risk of flooding. The Annual Average Damages are £47,000 with the majority caused by coastal flooding.

Further information can be found in the Shetland LFRMP under PVA 04/01 at the following link.

<http://www.shetland.gov.uk/planning/lfrmp.asp>

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An aerial survey has been carried out to find accurate ground levels in the coastal areas of Vidlin, to assess the true level of flood risk to properties there.



## Overview of actions to manage flooding in Shetland Mainland North

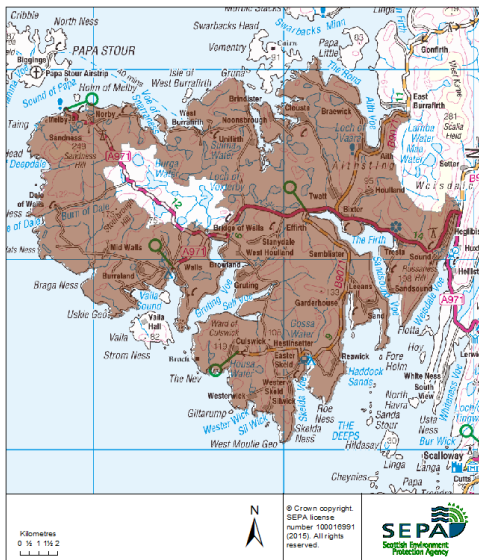
PVA	Flood protection scheme/works	Natural flood management works	New flood warning	Flood protection study	Natural flood management study	Surface water plan/study	Strategic mapping and modelling	Maintain flood protection scheme	Maintain flood warning	Flood forecasting	Property level protection scheme	Community flood action group	Self help	Awareness raising	Maintenance	Site protection plans	Emergency plans/response	Planning policies
04/01 Shetland Mainland North				G						G			G	G	G		G	G

## Summary of progress of PVA specific actions to manage flood risk in Shetland Mainland North (PVA 04/01)

Action	Status	Description	Delivery Lead	Start Date	End Date	Interim progress	Planned actions to complete
<b>Vidlin Flood Protection Study (4001010005)</b>	G	<p>Flood modelling in the Vidlin area suggests that properties and infrastructure may be at risk of coastal flooding, but there is uncertainty about the accuracy of the base level information used in that assessment.</p> <p>As a first step the SIC will carry out surveying of areas where property may be at risk, to better understand the actual level of risk. If an improved understanding does confirm a significant flood risk to property or infrastructure, the study should progress to identify the most sustainable range of actions to address this.</p>	SIC	2017	2018	<p>Survey of coastal areas of Vidlin by aerial drone to find accurate ground levels and then to assess true level of flood risk to coastal properties.</p> <p>Survey has been flown and level data processed. Initial assessment has been carried out to compare building levels to existing and future flood levels.</p>	<p>Work to consider options for further actions ongoing and will be completed on schedule.</p> <p>Results from this will feed into potential actions in the next LFRMP cycle, which may also depend on funding.</p>

## Shetland Mainland West (Potentially Vulnerable Area 04/02)

Local Plan District	Local authority	Main catchment
Shetland	Shetland Islands Council	Shetland Mainland West



### Summary of Progress for Shetland Mainland West

This Potentially Vulnerable Area is located in the west of Mainland Shetland (shown left). It is approximately 220km<sup>2</sup>.

There are several communities including Sandness, Walls, Easter Skeld, and Aith. The A971 road runs through the Potentially Vulnerable Area providing the main access route.

There are approximately 10 residential and fewer than 10 non-residential properties at risk of flooding. The Annual Average Damages are £88,000, with the majority caused by coastal flooding.

Further information can be found in the Shetland LFRMP under PVA 04/02 at the following link.

<http://www.shetland.gov.uk/planning/lfrmp.asp>

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An aerial survey has been carried out find accurate ground levels in the coastal areas of Walls, to assess the true level of flood risk to properties there.

## Overview of actions to manage flooding in Shetland Mainland West

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 group	Self help	Awareness raising	Maintenance	Site protection plans	Emergency plans/response	Planning policies
04/02 Shetland Mainland West				G						G			G	G	G		G	G

## Summary of progress of PVA specific actions to manage flood risk in Shetland Mainland West (PVA 04/02)

Action	Status	Description	Delivery Lead	Start Date	End Date	Interim progress	Planned actions to complete
<b>Walls Flood Protection Study (4002010005)</b>	G	<p>Flood modelling in the Vidlin area suggests that properties and infrastructure may be at risk of coastal flooding, but there is uncertainty about the accuracy of the base level information used in that assessment.</p> <p>As a first step the SIC will carry out surveying of areas where property may be at risk, to better understand the actual level of risk. If an improved understanding does confirm a significant flood risk to property or infrastructure, the study should progress to identify the most sustainable range of actions to address this.</p>	SIC	2018	2019	<p>Survey of coastal areas of Vidlin by aerial drone to find accurate ground levels and then to assess true level of flood risk to coastal properties.</p> <p>Survey has been flown and level data processed. Initial assessment has been carried out to compare building levels to existing and future flood levels.</p>	<p>Work to consider options for further actions ongoing and will be completed on schedule.</p> <p>Results from this will feed into potential actions in the next LFRMP cycle, which may also depend on funding.</p>

## Shetland Mainland South (Potentially Vulnerable Area 04/03)

Local Plan District	Local authority	Main catchment
Shetland	Shetland Islands Council	Shetland Mainland South



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### Summary of Progress for Shetland Mainland South

This Potentially Vulnerable Area is located in central and south Mainland Shetland. It is approximately 150km<sup>2</sup> (shown left).

There are several towns and villages in this Potentially Vulnerable Area, including Lerwick and settlements at Sumburgh, Scalloway and Sandwick. Sumburgh Airport and the main A970 road that links Lerwick to the airport are also within the area.

There are fewer than 10 residential and approximately 10 non-residential properties at risk of flooding. The Annual Average Damages are £43,000 with the majority caused by river and surface water flooding.

Further information can be found in the Shetland LFRMP under PVA 04/03 at the following link.

<http://www.shetland.gov.uk/planning/lfrmp.asp>

Initial discussions and information gathering has started on the Surface Water management Plan for Lerwick and Scalloway, with the main body of work scheduled for next year.

Work on the Scottish Water sewer assessments for Lerwick and Scalloway is on schedule.

## Overview of actions to manage flooding in Shetland Mainland South

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 group	Self help	Awareness raising	Maintenance	Site protection plans	Emergency plans/response	Planning policies
04/03 Shetland Mainland South				G		G	G			G			G	G	G		G	G

### Summary of progress of PVA specific actions to manage flood risk in Shetland Mainland South (PVA 04/03)

Action	Status	Description	Delivery Lead	Start Date	End Date	Interim progress	Planned actions to complete
<b>Cunningsburgh Flood Protection Study (4003010005)</b>	G	<p>Flood modelling in the Walls area suggests that properties and infrastructure may be at risk of coastal flooding, but there is uncertainty about the accuracy of the base level information used in that assessment.</p> <p>As a first step the SIC will carry out surveying of areas where property may be at risk, to better understand the actual level of risk. If an improved understanding does confirm a significant flood risk to property or infrastructure, the study should progress to identify the most sustainable range of actions to address this.</p>	SIC	2019	2020	Existing information, land surveys and outline design options held by SIC Roads.	<p>Information review and outline design options to start in 2019 and expected to be completed within agreed LFRMP timescales.</p> <p>Results from this will feed into potential actions in the next LFRMP cycle, which may also depend on funding.</p>

<p><b>Surface Water Plan/Study covering Lerwick and Scalloway (4003050018)</b></p>	<p><b>G</b></p>	<p>Existing flood risks are known from historical incidents, particularly on the South Burn of Gremista in Lerwick and at the Burn Beach outfall in Scalloway.</p> <p>The study will consider interactions with surface water, the drainage systems and the sea. Additional data and information will be procured or surveys commissioned to generate data to inform the study, establish the levels of risk and, if appropriate, progress to identify the most sustainable range of actions to address or mitigate the flood risks at specific locations.</p>	<p>SIC</p>	<p>2017</p>	<p>2020</p>	<p>Initial discussions with Scottish Water on assessing sewer network discharges to the South Burn of Gremista catchment.</p> <p>A survey of coastal areas of Scalloway has been done by aerial drone to find accurate ground levels and then to assess true level of flood risk to coastal properties. Survey has been flown data has not yet been delivered.</p>	<p>Initial assessment of survey will be carried out to compare building levels to existing and future flood levels.</p> <p>Work to consider options for further actions will follow and feed into the next LFRMP cycle actions.</p> <p>Level information also to feed into Scalloway Place Plan and to potential land use in the Local Development Plan 2 (LDP2)</p>
<p><b>Strategic mapping and modelling Lerwick DOA/Maa Ness DOA (4000020019)</b></p>	<p><b>G</b></p>	<p>Scottish Water will undertake modelling of the Lerwick sewer catchment.</p>	<p>SW</p>	<p>2017</p>	<p>2018</p>	<p>Started</p>	<p>On track to deliver within agreed LFRMP timescales</p>
<p><b>Strategic mapping and modelling Lerwick DOA/Maa Ness DOA (4000020019)</b></p>	<p><b>G</b></p>	<p>Scottish Water will undertake modelling of the Maa Ness sewer catchment.</p>	<p>SW</p>	<p>2018</p>	<p>2019</p>	<p>Started</p>	<p>On track to deliver within agreed LFRMP timescales</p>



## Other actions

This section sets out details of additional significant actions undertaken in the LPD by the Shetland Islands Council to contribute to the implementation of the current actions in the plan and the achievement of the objectives in the plan.

The Plan presents the actions to manage flood risk in Shetland Local Plan District. These actions are at a LPD-wide scale or are targeted at a specific PVA. In addition to the actions in this Plan, the Shetland Islands Council is undertaking other activities to manage flood risk with the main examples being:

### Section 18 & 59: Works of Clearance and Repair

Based on an assessment of the condition of a body of water, local authorities must prepare a schedule of clearance and repair works that would substantially reduce the risk of flooding of land. This is commonly referred to as a Schedule 18, which is made available for public inspection. Under s.59 of the Act, the Shetland Islands Council must carry out the works in the Schedule 18 if it considers that this will contribute to the implementation of actions in the Plan, but that these works will not affect the implementation of actions in this Plan. Details of how to access Schedule 18s for the Shetland Local Plan District are included in Annex 4 of the Plan.

Actions include maintenance and repairs to bridges, culverts and drains and there is an ongoing programme of works which all contribute towards helping manage flood risk. Past works which have been carried out include works on structures on the Twart Burn, North Burn, Trondavoe Burn, and Burns of Brigadale amongst others.

The Shetland Islands Council's schedule of clearance and repair under Section 18 of the Flood Risk Management (Scotland) Act 2009 is available [here](#).

### Section 56: General Power to manage flood risk

Without affecting the implementation of actions in this Plan, Shetland Islands Council may do anything which it considers will contribute to the implementation of actions in the Plan or is necessary to reduce the risk of a flood which is likely to occur imminently and have serious adverse consequences for human health, the environment, cultural heritage or economic activity in its area.

## River Basin management Planning (RBMP)

[SEPA RBMP portal](#)

[RBMP for the Scotland river basin district – summary document](#)

[Shetland and Orkney supplementary document](#)

## Shetland Local Development Plan

The current Shetland Local Development Plan (2014) and associated supplementary guidance documents are available [here](#).

Work is continuing towards producing the next LDP (LDP2).

A “Call for Sites” consultation process commenced in October 2018, which invites developers and landowners to submit housing, business and industry sites for inclusion in LDP2. All submitted sites will be assessed for coastal, river and surface water flood risk, and for any site specific drainage issues prior to being included in LDP2. The Council intends to undertake a Strategic Flood Risk Assessment to support this assessment process.

## List of Acronyms and Abbreviations

FRM	Flood Risk Management
ICS	Integrated Catchment Study
LFRMP	Local Flood Risk Management Plan
LDP	local Development Plan
LPD	Local Plan District
NFM	Natural Flood Management
PVA	Potentially Vulnerable Area
Q&S	Quality & Standards (Scottish Water)
SEPA	Scottish Environment Protection Agency
SR10/15	Spending Review periods for 2010-2015 and 2016-2021 for Scottish Water capital maintenance expenditure
SIC	Shetland Islands Council
SWMP	Surface Water Management Planning

## Appendix 1: Flood risk management responsibilities in Scotland and the legal requirement for the publication of this Interim Report

### Flood risk management in Scotland

The Scottish Ministers, SEPA and responsible authorities must exercise their flood risk related functions with a view to reducing overall flood risk (reference Section 1(1) of the Flood Risk Management (Scotland) Act 2009).

Through the preparation of a national flood risk assessment and setting of objectives to reduce the level of flood risk by SEPA, which is published in Flood Risk Management Strategy, and the publication of Local Flood Risk Management Plan's by 'lead' local authorities, which detail how and when the actions agreed to meet these objectives are to be done, SEPA and all responsible authorities must act to manage flood risk in a sustainable way.

[Flood Risk Management Strategy for Shetland](#)  
[Local Flood Risk Management Plan for Shetland](#)

### Legal requirement

This document sets out the conclusions of the review of the Local Flood Risk Management Plan (LFRMP) for the Shetland Local Plan District (LPD) as required by Section 37 of the Flood Risk Management (Scotland) Act 2009 (the "Act").

#### **37 Local flood risk management plans: interim report**

(1) Not earlier than 2 years and not later than 3 years after a local flood risk management plan is finalised, the lead authority must —

- (a) review the plan, and
- (b) publish a report on the conclusions of the review including information on the progress that has been made towards implementing the measures identified in the implementation part of the plan.

(2) The lead authority must make copies of the report available for public inspection.

The Shetland LFRMP, which includes the 'implementation part of the plan', was published in June 2016. The Interim Report is therefore to be published between July 2018 and June 2019. The Interim Report will provide a summary of the LFRMP actions ('measures') and the proposed delivery timescales.

The information on progress will include:

- an assessment of the progress towards implementing each of the actions;
- reasons for any actions where delivery is not as planned; and
- a description of arrangements planned to deliver the remaining actions and to address delayed actions.

The Interim Report is published by the 'lead authority' as defined by Section 34(9) of the Act in partnership with SEPA and the 'responsible authorities', as defined by Section 5 of the Act, will be in the LPD. The approval of the Interim Report will be in accordance with the agreed governance arrangements in the LPD.

The responsible authorities for the Shetland LPD are:

- Shetland Islands Council (lead authority)
- Scottish Water.

The lead authority must also publish a Final Report on the LFRMP under Section 38 of the Act between July 2021 and June 2022 (not earlier than 5 years and not later than 6 years from the publication of the plan). The Final Report will provide an assessment of current actions and a summary of current actions not implemented, with reasons for their non-implementation. The Final Report will also include a description of any other measures implemented, which the lead authority considers have contributed to the achievement of the objectives summarised in the LFRMP.

## Publication

The published Interim Report for the Shetland LFRMP will be made available for public inspection, as per Section 37(2) of the Act, via the LFRMP page on the Shetland Islands Council website at <http://www.shetland.gov.uk/planning/lfrmp.asp>

Links to the published Interim Report for the Shetland LFRMP will also be provided from Scottish Government, SEPA and other responsible authority websites.

A hard (paper) copy of the published Interim Report for the Shetland LFRMP is also available for public inspection on weekdays between 9am and 5pm at the following location:

**Shetland Islands Council,**

**Planning Service**

**8 North Ness Business Park**

**Lerwick**

**Shetland**

**ZE1 0LZ**

Detailed arrangements for publication of the Interim Report for Shetland LFRMP are in Appendix 2.

## Appendix 2: Publication details

### **Flood Risk Management (Scotland) Act 2009 Publication of Interim Report for the Shetland Local Flood Risk Management Plan – Summary of Proposed Communications Activities**

The following communications activities will be used to publicise and make the interim report available:

- Upon finalising the Interim Report for the Shetland LFRMP, Sections 37(2), 53 and 54 of the Flood Act also specifically require Shetland Islands Council, as the lead authority, to
  - Publish an Interim Report on the Shetland LFRMP;
  - Make copies of the Interim Report available for public inspection free of charge and at all reasonable times;
- The Interim Report for the Shetland LFRMP will be published in a hard copy format and a pdf version will also be made available on the Council's website at <http://www.shetland.gov.uk/planning/lfrmp.asp>
- Hard copies of the Interim Report for the Shetland LFRMP will be held and made available upon request within the Council's Lerwick office, where the Flood Risk Management Team can explain aspects of progress if needed
- A letter (with a pdf version on digital media) will be sent to SEPA and the Scottish Ministers.
- Community councils will be emailed advising them on the publication of the Interim Report.
- On or before the publication date public notices will be placed in the *Edinburgh Gazette* and *Shetland Times* fulfilling our duties to publicise the Interim Report in accordance with Sections 37, 53 and 54 of the 2009 Act.
- Announcements will be posted on social media (the Shetland Islands Council Twitter account). SEPA, and Scottish Water are also invited to advertise the publication of the Interim Report on their websites and via social media.