

**Development Committee****11 April 2016****Local Development Plan Update Report****DV-27-16-F****Report Presented by Team Leader
Development Plans and Heritage****Planning Service
Development Services Department****1.0 Summary**

- 1.1 This report provides an update on the next Shetland Local Development Plan (LDP2) and Supplementary Guidance (SG).

2.0 Decision Required

- 2.1 That the Development Committee NOTES the programme and priorities in respect of LDP2 and SG set out in this report.

3.0 Detail

- 3.1 This report sets out the progress on the next Shetland Local Development Plan (LDP2) and the Supplementary Guidance (SG) associated with the existing LDP, as requested by the Development Committee on 25 March 2015.
- 3.2 The Council adopted the Shetland Local Development Plan (SLDP) in September 2014 and work on associated SG is ongoing. Work on LDP2 commenced in January 2015 and the timetable for progressing this and the opportunities and means of community and stakeholder engagement, form the Development Plan Scheme, approved by the Development Committee on 15 March 2016 [Min Ref: 11/16].
- 3.3 The main statutory stages in the preparation and delivery of the Shetland Local Development Plan are:
- Publication of the Development Plan Scheme
 - **Pre Main Issues Report (MIR) Evidence Base Gathering**
 - Main Issues Report and draft Environmental Report consultation.

- Prepare and Publish the Proposed Plan, alongside the Strategic Environmental Assessment and other impact assessments
- Consider and respond to representations to the Plan
- Submission of the Plan to Scottish Ministers
- Examination
- Adoption of the Local Development Plan, Environmental Report and Action Programme
- Implementation, Monitoring and Review

3.4 **Development Plan Scheme (DPS)**

Development Committee approved the updated DPS at its meeting on 15 March 2016 and this provides the timetable for the key milestones (MIR consultation, publication of Proposed Plan and Submission to Ministers).

3.5 The focus of work for the Development Plans team over the next period will be as follows:

Housing – research, policy development and delivery.

- Continued involvement in the Housing Needs and Demands Assessment (HNDA) evidence gathering process - HNDA expected soon.
- Annual Housing Land Audit 2014-15 published, this is an important element of the evidence base for the LDP, HNDA and other work. Work commences on the 2015-16 Audit in April 2016.
- Production of the Knab Development Brief, engagement with consultants working on Staney Hill Development Brief and promoting the development of other key sites included in the Action Programme.

Employment – research, policy development and delivery.

- Annual Employment Land Audit 2014-15 published, this is an important element of the evidence base for the LDP. Work commences on the 2015-16 Audit in April 2016.
- We have commenced evidence gathering and held discussions with the Council's Economic Development Service and Highlands & Islands Enterprise (Shetland).

Engagement

- Newsletter – we are currently working on the next issue of the Newsletter that will provide an update on LDP2 to stakeholders and the general public; it will be published on the LDP2 section of the Council's website - www.shetland.gov.uk/ldp2

Call for Sites – We are commencing initial publicity and will draw attention to this in the forthcoming newsletter, on the LDP2 section of the Council's website and by direct mail to individuals and organisations on the development plans database. The initial publicity and subsequent awareness raising phase will be from April 2016 and over the summer; the formal submission phase will be during autumn, with assessment continuing during quarter 1 2017.

Knab Development Brief – Our work is progressing and we are now aware of the majority of the planning constraints except for the listed buildings where we will be having a meeting with Historic Scotland later

in April 2016 to review these. We will then have a fairly complete understanding of what buildings should or could remain on the site and which could go.

Supplementary Guidance

- **Placemaking** – the consultation period has now ended and we are considering the responses with a view to reporting the final version for approval to a forthcoming meeting of this committee.
- **Local Landscape Areas** - LLAs Review is paused until staff resources are available.
- **Onshore Wind** - work ongoing on the Strategic Environmental Assessment (SEA) and related work prior to submitting for adoption.
- **Developer Contributions** - evidence gathering stage.

4.0 Implications

Strategic

- 4.1 Delivery on Corporate Priorities - The Shetland LDP will become the strategic tool for the Council's spatial development priorities. In conjunction with other Council policies it will contribute to meeting the spatial aims of the Community Plan and the Corporate Plan.
- 4.2 Community/Stakeholder Issues – The Consultation process required as part of the LDP process has been set out in the DPS. Community and Stakeholder engagement commences at the earliest stages of plan preparation and continues throughout the development of the plan.

Pre-engagement with key agencies:

SNH, SEPA, Scottish Water, HIE, ZetTrans, Crofting Commission, Shetland Health Board and Historic Environment Scotland

Pre-engagement with non-key agencies, that must be afforded the same level of involvement in the development plan process:

Transport Scotland, Forestry Commission Scotland and Marine Scotland

- 4.3 Policy and/or Delegated Authority – In accordance with Section 2.3.1 of the Council's Scheme of Administration and Delegations, the Development Committee has delegated authority to implement decisions within its remit.

Once approved, the LDP forms part of the Council's strategic policy framework as referred to in Section 3(2) of the Governance procedures.

- 4.4 Risk Management – An up to date LDP will ensure the Council can support developments that are in line with its priorities, and avoid challenges to Council decisions. The LDP has been formulated to reflect the Council's priorities.
- 4.5 Equalities, Health and Human Rights - The process to deliver the LDP includes addressing the Council's obligation to comply with equalities legislation and policies. As part of the plan making process the LDP content will be subject to an Equalities Impact Assessment.

- 4.6 Environmental – As part of the plan making process the LDP content will be subject to a SEA. The Planning Authority is also subject to the overarching requirement to exercise the function (of preparing development plans) with the objective of contributing to sustainable development imposed by The Planning etc. (Scotland) Act 2006.

Resources

- 4.7 Financial – All costs relating to the LDP process are met within existing budgets.
- 4.8 Legal – None.
- 4.9 Human Resources – Work undertaken as part of the LDP process will be undertaken by established staff.
- 4.10 Assets and Property – None.

5.0 Conclusions

- 5.1 The report highlights the work to produce the next up to date and fit for purpose LDP that meets statutory requirements, national policy and local priorities and aspirations.

Name: Austin Taylor
Position: Team Leader Development Plans and Heritage
Telephone: 01595 744833
Email: Austin.taylor@shetland.gov.uk
Date cleared: 31 March 2016

END

**Development Committee****11 April 2016****Shetland Local Flood Risk Management Plan****Report Number: DV-24-16-F****Report Presented by: Planning Engineer****Development Services Department
Planning Service****1.0 Summary**

- 1.1 The purpose of this report is to present the draft Shetland Local Flood Risk Management Plan (LFRMP), produced by the Shetland Flooding Local Plan District Partnership (LPDP), to the Committee and to seek approval for its publication.
- 1.2 The LFRMP is concerned with the delivery of the local actions which follow from the Council's submission to Scottish Environment Protection Agency's (SEPA), national Flood Risk Management Strategy (FRMS) as set out in the report presented to the Development Committee in June 2015 (Min Ref: 29/15).

2.0 Decision Required

- 2.1 That the Development Committee RESOLVE to adopt and publish the Plan attached as Appendix 1 as the Shetland Local Flood Risk Management Plan, in accordance with the requirements of the Flood Risk Management (Scotland) Act 2009.

3.0 Detail

- 3.1 This report relates to the work undertaken by the Shetland Flooding LPDP as part of the Council's obligations in preparing a LFRMP for Shetland.
- 3.2 The Flood Risk Management (Scotland) Act 2009 sets out the responsibilities of Local Authorities to implement flood risk management within their area with a view to reducing overall flood risk.

- 3.3 The national FRMS was published in June 2015 by SEPA, after being produced in partnership with local authority staff and specialist consultants, and considers flood risks from coastal, river and surface water sources.
- 3.4 The LPDP has overseen the development of the LFRMP for Shetland based on the actions required to implement the national FRMS. A list of recommended actions has been produced and covers on-going Shetland wide policies and processes as well as targeting investigation and design works in some specific areas.
- 3.5 The recommended actions in the LFRMP have been produced by following the national assessment system, in order to ensure that local issues would be considered during the revisions to the system of national funding of LFRMP works, which has been recently agreed by COSLA. While under the new arrangements 80% of the funding will remain targeted on larger schemes, ranked nationally according to their cost/benefit scores, the remaining 20% will be distributed across all Councils, pro rata to the estimated flood damaged within that Council area. I understand that this will result in an additional annual payment of £7,000 to Shetland Islands Council.
- 3.6 Adoption of the LFRMP will be recognition of the particular local flooding related issues to be addressed and the actions recommended to be taken forward. While some actions will be funded from existing revenue budgets, there are identified investigation and design works which would require additional funding to complete. Any physical works potentially resulting from these investigations would be subject to future individual consideration and prioritization by the Council through its own CMT Gateway process.
- 3.7 The proposed actions in the LFRMP are shown in detail in the table in Appendix 2, and in summary are:

Shetland Wide Actions

- Flood Forecasting
- Self-Help
- Awareness Raising
- Maintenance
- Emergency Response
- Planning Policy

These actions continue and develop existing work being done by SEPA and by Council services under revenue budgets and seeks to improve coordination and communication between relevant parties and between different actions.

Flood Risk Studies

- Cunningsburgh, Burn of Voxter and Burn of Mail, particularly the road culvert crossings of the A970.

The action involves carrying out survey and initial design work at

the two burn crossings in Cunningsburgh, to better understand the levels of flood risk and the potential for damage and to evaluate and design any suitable works to address the issues through to the stage where funding can be sought.

- Vidlin
- Walls

The action requires ground and building level surveys to be carried out in each of the above two locations to establish actual risks to property or infrastructure from coastal flooding.

Surface Water Management Plan – Priority Areas

- Lerwick: North and South Burns of Gremista
- Scalloway
- Cunningsburgh (in combination with Flood Risk Study)

The action requires survey and initial design work to be carried out to more accurately determine the levels of flood risk, to evaluate possible works in each of the above three locations, and to develop any suitable options to the stage where funding could be sought.

4.0 Implications

Strategic

- 4.1 Delivery on Corporate Priorities - Flood risk management supports policies within the Local Development Plan and will provide additional certainty to the assessment of planning applications. It also supports a number of local outcomes in the Single Outcome Agreement, in particular the delivery of sustainable services and making sustainable decisions which reduce harmful impacts on the environment.
- 4.2 Community/Stakeholder Issues - The proposed actions in the Shetland LFRMP were included in the national consultation exercise run by SEPA which was publicised locally through digital media. The development of the LFRMP was carried out by the LPDP group, in liaison with the local Flood Risk Management Local Advisory Group (FRM LAG)).
- 4.3 Policy and/or Delegated Authority - In accordance with Section 2.3.1 of the Council's Scheme of Administration and Delegations, the Development Committee has delegated authority to implement decisions within its remit. Section 3(2) of the Council's Constitution – Governance states that the Development Committee is the managing body for all Plans and Strategies which together comprise the Local Development Plan.
- 4.4 Risk Management - The proposals are intended to address new statutory duties regarding flood risk management. The Council has afforded flood risk management a high priority. The Council would

therefore be at risk of reputational damage should it not meet statutory duties, aside from any legal or financial risks attendant. The governance arrangements are intended to engage Members and senior personnel in partner organisations early in the process so that the risk of the draft and final plans being rejected later is substantially reduced without removing local accountability.

4.5 Equalities, Health and Human Rights – None.

4.6 Environmental - SEPA oversaw a Strategic Environmental Assessment (SEA) and a Habitat Regulations Assessment (HRA) for the national FRMS. The actions which the LFRMP is proposed to deliver do not differ from those previously assessed as part of the National Strategy and recent consultation through the government's SEA Gateway (regarding the SEA) and with Scottish Natural Heritage (regarding the HRA) has confirmed the position that no further assessment is required at this stage. If further development of the LFRMP actions result in physical works being planned in the future then it is possible additional assessments may be required to cover location specific issues.

Resources

4.7 Financial - There are no direct financial implications arising from this report to publish the LFRMP. There are however financial implications arising from the detailed actions within the plan. Management of these actions, where they relate to the Council, will be met from within existing resources provided by Scottish Government to allow the Council to fulfil its statutory duty under the Flood Risk Management (Scotland) Act 2009. The additional costs relating to these actions are estimated at £60,000 over the next 4 years.

4.8 Legal – None.

4.9 Human Resources – None.

4.10 Assets and Property - Responsibility for protection of Council assets from flooding lies with the service holding the asset. Information gathered as part of the FRMP may better inform services of the existing flood risks and potential actions.

5.0 Conclusions

5.1 This report seeks approval from the Development Committee to adopt and publish the Plan attached as Appendix 1 as the Shetland Local Flood Risk Management Plan, in accordance with the requirements of the Flood Risk Management (Scotland) Act 2009.

For further information please contact:

Colin Smith, Planning Engineer

Tel: 01595 744881, Email: colin.smith@shetland.gov.uk

01 April 2016

List of Appendices

1. Draft Shetland Local Flood Risk Management Plan (LFRMP)
2. Summary of proposed actions in the Shetland Local Flood Risk Management Plan.

Flood Risk Management (Scotland) Act 2009:

Shetland

Local Plan District

Local Flood Risk Management Plan



Published by: Shetland Islands Council

Delivering sustainable flood risk management is important for Scotland's continued economic success and well-being. It is essential that we avoid and reduce the risk of flooding, and prepare and protect ourselves and our communities.



This is the first local flood risk management plan for the Shetland Local Plan District, describing the actions which will make a real difference to managing the risk of flooding and recovering from any future flood events.

The task now for us – Shetland Islands Council, Scottish Water, the Scottish Environment Protection Agency (SEPA), the Scottish Government and all other Responsible Authorities and public bodies – is to turn our plan into action.



Foreword

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.

The publication of this Plan is an important milestone in implementing the Flood Risk Management (Scotland) Act 2009 and improving how we cope with and manage floods in the Shetland Local Plan District. The Plan translates this legislation into actions to reduce the damage and distress caused by flooding over the first planning cycle from 2016 to 2022.

The Plan 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 Plan.

In summary, three Potentially Vulnerable Areas have been identified across the Shetland Local Plan District. These include 18 residential and 18 non-residential properties at risk of flooding. The estimated Annual Average Damage from this flood risk is £181,000.

This Plan presents actions to avoid and reduce the risk of flooding, and prepare and protect ourselves and our communities within these Potentially Vulnerable Areas and across the Local Plan District. These actions include 3 flood protection studies, to gather more information in areas of potential flood risk, as well as a Surface Water Management Plan and awareness raising. The delivery of many of these actions may be dependent on the availability of funding, however, we can all play our part in managing flood risk as we are able.

Individuals are the first line of defence against flooding and have responsibilities to protect themselves from flooding. The publication of this Plan shows that the coordinated and collaborative efforts of public bodies can be brought together to deliver sustainable outcomes. However, the actions in this Plan can only be delivered with the support of all the public bodies, The Scottish Government, and most importantly you and your communities.

This Plan therefore provides the blueprint upon which the Council, SEPA and Scottish Water will deliver their flood risk management responsibilities and, in particular, ensures that all steps should be taken to manage flooding in a sustainable manner.

I would like to thank all those who contributed to the development of this Plan which will help shape the way in which floods and their impacts are managed across the Shetland Local Plan District.

Cllr Billy Fox
Shetland LPDP Elected member representative

Contents

List of Acronyms and Abbreviations	5
1: Flood Risk Management in the Shetland Local Plan District.....	7
1.1 The Shetland Local Flood Risk Management Plan	7
1.2 How to read this plan	8
1.3 How we have developed the Plan?	9
1.4 Links with other plans, policies, strategies and legislative requirements	13
1.5 Next steps and monitoring progress	15
1.6 Licensing acknowledgements	15
2: Managing Flood Risk in the Shetland Local Plan District.....	16
2.1 Understanding of flooding within the Shetland Local Plan District	16
2.2 Local Plan District Summary	17
2.3 Local Plan District Overview	21
2.4 Potentially Vulnerable Areas	30
2.5 Flood risk, objectives, actions and prioritisation for Shetland North Mainland (PVA 04/01).....	31
2.6 Flood risk, objectives, actions and prioritisation for Shetland West Mainland (PVA 04/02).....	45
2.7 Flood risk, objectives, actions and prioritisation for Shetland Central and South Mainland (PVA 04/03).....	59
Annex 1: Shetland LFRMP Actions.....	81
Annex 2: LPD roles & responsibilities.....	83
Annex 3: Consultation and engagement	86
Annex 4: Links to other plans, policies, strategies and legislative requirements	88
Annex 5: Land Use Planning.....	89
Annex 6: Supporting information	91
Annex 7: Licensing information.....	95
Glossary	96

List of Acronyms and Abbreviations

AAD - Annual Average Damages

BCR - Benefit Cost Ratio

CoSLA - Convention of Scottish Local Authorities

EIA - Environmental Impact Assessment

FPS - Flood Prevention Scheme / Flood Protection Scheme

FRA - Flood Risk Assessment

FRM Act - Flood Risk Management (Scotland) Act 2009

FRMP - Flood Risk Management Plans

FRM LAG - Flood Risk Management Local Advisory Group

FRMS - Flood Risk Management Strategy

HRA – Habitat Regulations Appraisal

LUP - Land Use Planning

LLA - Lead Local Authority

LFRMP - Local Flood Risk Management Plans

LNR - Local Nature Reserve

LPD - Local Plan District

LPDP - Local Plan District Partnerships

NFMAG - National Flood Management Advisory Group

NFRA - National Flood Risk Assessment

NFM - Natural Flood Management

PVA - Potentially Vulnerable Areas

PLP - Property Level Protection

Q&S - Quality and Standards (Q&S) is the process, governing costs and outputs, through which the planning and delivery of improvements to the public drinking water and sewerage services in Scotland is carried out.

RBMP - River Basin Management Planning

SAIFF - Scottish Advisory and Implementation Forum for Flooding

SMP - Shoreline Management Plan

SSSI - Site of Special Scientific Interest

SAC - Special Area of Conservation

SPA - Special Protection Areas

SoP - Standard of Protection

SEA - Strategic Environmental Assessment

SEPA – Scottish Environment Protection Agency

SEPF - Shetland Emergency Planning Forum

SFRA - Strategic Flood Risk Assessment

SIC – Shetland Islands Council

SNH – Scottish Natural Heritage

SWMP - Surface Water Management Plan

SuDS - Sustainable Drainage Systems

UKCP09 - UK Climate Change Projections

1: Flood Risk Management in the Shetland Local Plan District

1.1 The Shetland Local Flood Risk Management Plan

The Shetland Local Flood Risk Management Plan (the 'Plan') has been developed to detail the actions adopted to reduce the devastating and costly impact of flooding in the Shetland Local Plan District. The Plan supplements the Shetland Flood Risk Management Strategy (the 'Strategy'), which coordinates the efforts of all organisations that tackle flooding, whether it is in our towns, villages or rural areas and whether it is from rivers, the sea or from surface water. The Strategy identifies where the risk of flooding and benefits of investment are greatest: the Plan also details the prioritised actions that will be delivered with this investment.

By publishing the Plan, individuals and communities have the information to better manage their own responsibilities. Everyone can take action with the confidence of what others are doing and with the clear knowledge when they are doing it.

The Plan details how and when the actions to deliver the goals set in the Strategy are to be delivered in the first six-year planning cycle, from 2016 to 2022. The Plan therefore describes the short-term direction of flood risk management in the Shetland Local Plan District, adding local detail to the information in the Strategy. The actions in this Plan are based on agreed objectives for tackling floods in highest risk areas. They rely on the best evidence available on the causes and consequences of flooding and make clear the practical ambition of Responsible Authorities, including the Shetland Islands Council, SEPA and Scottish Water.

It is through this risk-based and plan-led approach that flood management will improve for the individuals, communities and businesses at risk in the Shetland Local Plan District.

The Plan is published by Shetland Islands Council, lead authority for the Shetland Local Plan District. The Plan has been prepared in collaboration with SEPA and Scottish Water. The Plan is a requirement under the Flood Risk Management (Scotland) Act 2009 and fulfils requirements within the European Union's Floods Directive.

1.2 How to read this plan

The Shetland Local Flood Risk Management Plan has three sections:

Part 1 contains background information on the approach taken in Scotland to manage flooding. It explains the duties and aims of relevant organisations, including how they work together and how flood risk management planning is linked to other government policies and initiatives. Most importantly it details how flood risk management planning is delivered to each Local Plan District through a Local Flood Risk Management Plan.

Part 2 is the most important section for those individuals and communities seeking to understand their flood risk and its management. For priority communities (called Potentially Vulnerable Areas) there is a short description of the causes and consequences of flooding. The agreed goals or objectives are clearly set out, and, most importantly, the actions that will deliver progress against these goals over the first six-year planning cycle from 2016 to 2022 are described, including when they will be implemented, which organisation is responsible, and how they are to be funded.

Annexes to the Plan provide supporting documents and references, and present more detailed information in various formats. A glossary of terms is also available.

The Plan should be read alongside the Strategy for the Shetland Local Plan District. The Strategy has been developed in parallel and provides additional background information and national context. The publication date of the Strategy was December 2015. Both the Plan and the Strategy will be updated every six years – see chapter 1.5 of the Plan.

1.3 How we have developed the Plan?

Coordination, collaboration and partnership working

Many organisations and individuals are involved in helping to improve flood management in Scotland. A piecemeal approach to tackle flooding does not work. Flooding is too complex, and the causes and impacts too complicated for any single organisation to address alone. Flooding cuts across the responsibilities of organisations such as the Shetland Islands Council, SEPA, Scottish Water and emergency responders and flood management requires the coordination set out in this Plan (and parallel Strategy) to be successful. A willingness to collaborate by those responsible for flood management is essential.

The Plan has been developed in partnership. Those organisations responsible are working more closely together than ever before. In local partnerships, here and throughout Scotland, SEPA has provided the technical analysis and ensured a consistent national approach is taken. It has provided the evidence upon which to make sensible, informed decisions. The Shetland Islands Council and Scottish Water have made sure that local knowledge and expertise has informed the decision-making.

The Plan has been developed by:

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

Roles and responsibilities for Flood Risk Management Planning

Individuals are the first line of defence against flooding and have responsibilities to protect themselves from flooding. Being prepared by knowing what to do and who to contact if flooding happens can help you reduce the damage and disruption flooding can have on your life.

However, the responsibility for planning flood risk management in the Shetland LPD falls in the main to the Shetland Islands Council, SEPA and Scottish Water.

Shetland Islands Council has the responsibility to produce a Local Flood Risk Management Plan. It is the responsibility of Shetland Islands Council to implement the range of different flood protection actions agreed within the Plan. During severe flooding, Shetland Islands Council will work with the emergency services and coordinate shelter for people evacuated from their homes.

SEPA is Scotland's national flood forecasting, flood warning and strategic flood risk management authority. SEPA has a statutory duty to produce Scotland's Flood Risk Management Strategies. They work closely with other organisations responsible for managing flood risk through a network of partnerships and stakeholder groups to

ensure that a nationally consistent approach to flood risk management is adopted. SEPA also has a responsibility to identify where in Scotland there is the potential for natural flood management techniques to be introduced.

Scottish Water is a Responsible Authority for flood risk management and is working closely with SEPA, local authorities and others to coordinate plans to manage flood risk. Scottish Water has the public drainage duty and is responsible for foul drainage and the drainage of rainwater run-off from roofs and any paved ground surface from the boundary of properties. Additionally, Scottish Water helps to protect homes from flooding caused by sewers either overflowing or becoming blocked. Scottish Water is not responsible for private pipework or guttering within the property boundary.

Further detailed on some of the key roles are outlined in Annex 2.

Consultation, engagement and advice

Shetland Islands Council and SEPA have been keen to hear from the people and communities that live under the threat of flooding, to ensure that our technical analysis of the risks is accurate and that efforts to manage flooding are targeted to where most can be achieved. Two statutory public consultations were held during the development of the Strategies and Plans. The first, by SEPA, was on the general approach to flood risk management planning and the identification of priority areas (2011); the second, held jointly with SEPA and the Council, was on the understanding of flooding in these priority areas and on the objectives and actions to manage flooding (2015). The views and representations of the respondents to the second consultation were taken account of in developing and finalising the Plan.

Further advice has been sought from relevant organisations at key stages. The Strategies (and Plans) have benefitted from input from the Shetland Local Advisory Group, providing important area-based knowledge on both the causes and consequences of flooding and on the appropriate actions for future management. Advice was also taken from a National Flood Management Advisory Group consisting of over 50 member organisations, reflecting the national importance and impact of flooding on our communities, economy, environment and cultural heritage.

Some of the work carried out has been complex and technical in nature for which professional advice was sought from across Scotland and beyond. Working together, SEPA, The Scottish Government, Shetland Islands Council, Scottish Water and other key interested organisations have assisted each other and developed industry best practice guidance for flood risk management planning.

Identification of objectives, appraisal and prioritisation of actions

Nationally the identification of objectives and appraisal of actions to reduce flood risk has been led by SEPA with significant local input from local authorities and Scottish Water. The setting of objectives and selecting the most sustainable actions to reduce flood risk in each Local Plan District will provide the long-term vision for Flood Risk Management in Scotland. Objectives set focus on the main sources and impacts of flooding identified for each Potentially Vulnerable Area in every Local Plan District. A wide range of actions were appraised, including flood protection works and schemes, flood protection studies, flood warning schemes, surface water management plans, and natural flood management studies and works.

To prioritise future actions across Scotland as required in flood risk management planning, SEPA separated the technical, risk-based assessment of priorities from aspects of local, practical deliverability. In this way the data on the costs and impacts of actions is used alongside information from delivery and funding bodies to jointly agree priorities and identify indicative delivery dates for actions. A National Prioritisation Advisory Group was established to provide guidance to SEPA on the priority of flood risk management actions, having considered both the technical ranking prepared by SEPA and issues of local priority. This group was made up of representatives from SEPA, local authorities, CoSLA and Scottish Water.

The Strategy provides the list of prioritised actions for the first six-year flood risk management planning cycle, 2016 to 2022. The Plan identifies who will be responsible for each of the actions, a timetable of when they will be undertaken and the funding arrangements – see part 2.

The Act requires Scottish Government to have regard to the Strategy and Local Flood Risk Management Plan when allocating funding to SEPA and Responsible Authorities. 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.

Strategic Environmental Assessment and Habitats Regulations Appraisal

A Strategic Environmental Assessment has been undertaken for the Flood Risk Management Strategy which has informed the Plan. A SEA screening of the LFRMP was submitted to ascertain whether further assessment was required. The consultation responses agreed with the Council's view that the actions detailed in the Plan did not exceed the scope of proposals already considered in the SEA of the Strategy. Project level impact assessments will be undertaken if this is required for works resulting from the Plan to comply with planning and environmental regulations.

Shetland Islands Council also undertook a Habitats Regulations Appraisal to ensure that the Plan will not have a likely significant effect on the integrity of Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). Scottish Natural Heritage was consulted on the Appraisal and their views have been taken into account. Mitigation has been applied where required to ensure that the Plan will not adversely affect the integrity or conservation objectives of any SPA or SAC.

Post-consultation communication and engagement

Feedback was received in early 2015 during public consultation on draft versions of the Flood Risk Management Strategy documents. The issues raised then were in regard to areas being covered under this Shetland Flood Risk Management Plan, with some of the specific concerns highlighted being particular issues which are to be addressed in the Surface Water Management Plan (SWMP).

Both the Flood Risk Management Strategy and the Local Flood Risk Management Plan documents were developed through the Shetland Local Plan District Partnership working group, with close coordination with the local Shetland Flood Risk Management Local Advisory Group.

1.4 Links with other plans, policies, strategies and legislative requirements

The Plan does not stand in isolation. As far as is practicable, an integrated approach to land and water management has been pursued. When developing the Strategy and the Plan, early links were made with other relevant aspects of water and land management including Local Development Plans, River Basin Management Plans and Emergency plans. In turn, the Responsible Authorities will work proactively to ensure the findings from these Flood Risk Management Plans and Strategies will influence other planning initiatives in an interactive and iterative cycle. Making these links has helped identify opportunities to deliver multiple benefits from flood risk management goals, objectives and actions.

River basin management planning

Reducing flood risk in Scotland through the development of Flood Risk Management Strategies has provided an opportunity to connect with plans to improve the quality of Scotland's water environment at the same time. For example, coordination between river basin management and flood risk management can reduce flood risk, whilst improving water quality and biodiversity.

SEPA is leading the delivery of River Basin Management Plans and Flood Risk Management Strategies, and local authorities for Local Flood Risk Management Plans, and they have worked to ensure that there is integration and coordination between them. This coordination, particularly in regard to consultation and engagement, will be important for stakeholders many of whom have an interest in the objectives of both Plans and Strategies.

Scottish Water Business Plan 2015-2021

Scottish Water's investment programme is set out in their business plan 2015-2021, which can be found on their website [<https://www.scottishwater.co.uk/about-us/publications/strategic-projections>].

Scottish Water's customers have told them that reducing internal property flooding from sewers is a high priority and this is reflected in Scottish Water's Business Plan commitments for the period 2015-21. Addressing sewer flooding is of the highest importance to Scottish Water, as highlighted by our customers who have helped shape the investment plans for 2015-21.

In recognition of this high priority, within the period 2015-2021, Scottish Water will invest c£115m to improve the hydraulic capability of the sewer network so that they can remove all customers from the high risk internal sewer flooding register (greater than 10% chance per annum) as quickly as possible, typically within four years of their problem being confirmed. Scottish Water has made a commitment to those customers on the register on 31 March 2015 that they will no longer be on the register by 31 March 2021.

Scottish Water Customers have also highlighted external flooding is an important issue. As a result, within the period 2015-2021, they are investing c£40m to develop and to begin to implement solutions to reduce the flood risk for 400 high priority external sewer flooding areas suffering from frequent repeat flooding events.

As a Responsible Authority under the Flood Risk Management (Scotland) Act 2009, Scottish Water is also working collaboratively with third parties such as SEPA and Local Authorities through the Flood Risk Management Planning process which will assess the risk of flooding into the future.

As part of that work, Scottish Water has allocated investment to undertake further modelling and assessment in sewer catchments within PVA's to improve knowledge and understanding of flood risk from the sewers in these areas, as required under Section 16 of the Flood Risk Management (Scotland) Act 2009. Work carried out under these Flood Risk Management (Scotland) Act 2009 duties will continue to inform future investment requirements for Scottish Water.

Surface Water Management Planning

Surface water flooding is experienced in all Plan areas and is a key component of the flood risk assessment that has led to the development of this Plan. Many of the actions in the Plan seek to reduce general surface water flood risks but specific Surface Water Plans will be produced to look in more detail at locally specific problems in Lerwick and Scalloway.

Shetland Islands Council proposes to undertake a Surface Water Management Plan over the period of the first FRM cycle. This is in PVA 04/03, the Shetland South Mainland area, and has two priority areas, Lerwick and Scalloway, which are described in more detail in section 2.7, which covers the proposed actions for that PVA.

1.5 Next steps and monitoring progress

The Plan runs for six years from June 2016. Over this period the Shetland LPD partnership will continue to meet periodically to monitor progress towards implementing the actions detailed in Chapter 2 and Annex 1 of the Plan.

Between years 2 and 3 of the FRM cycle (i.e. before June 2019), Shetland Islands Council, as lead authority will publish a report on the conclusions of a review of the Plan, including information on the progress that has been made towards implementing the measures identified in the implementation part of the Plan.

Between years 5 and 6 of the FRM cycle (i.e. before June 2022), Shetland Islands Council, as lead authority will publish a report on the Plan containing an assessment of the progress made towards implementing the current measures, a summary 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 Council considers have contributed to the achievement of the objectives summarised in the Plan.

The Shetland Islands Council will make these reports available for public inspection.

1.6 Licensing acknowledgements

Full licensing acknowledgements can be found in Annex 7 of this Plan.

2: Managing Flood Risk in the Shetland Local Plan District

2.1 Understanding of flooding within the Shetland Local Plan District

This part of the plan presents the summaries of flooding for the Shetland Local Plan District and for the 3 Potentially Vulnerable Areas (PVAs). Planned actions to gather more information on how to manage flooding that have been prioritised for delivery between 2016 and 2022 across the whole of the LPD area and in each PVA are detailed. It identifies who will be responsible for the delivery and implementation of the actions, along with a timetable of when the actions will be undertaken and the funding arrangements.

This part of the plan summarises the characteristics and impacts of flooding from river, coastal and surface water sources on the Shetland Local Plan District and how flooding from these mechanisms are to be managed, which are described in more detail in the Strategy.

Sections 2.2 and 2.3 present a LPD summary and overview respectively. Sections 2.4 to 2.7 present actions by PVA while section 2.8 describes other flood risk activities undertaken the Shetland Islands Council in this Local Plan District. Together these provide as full a picture as possible of how flood risk is managed in the Shetland LPD.

2.2 Local Plan District Summary

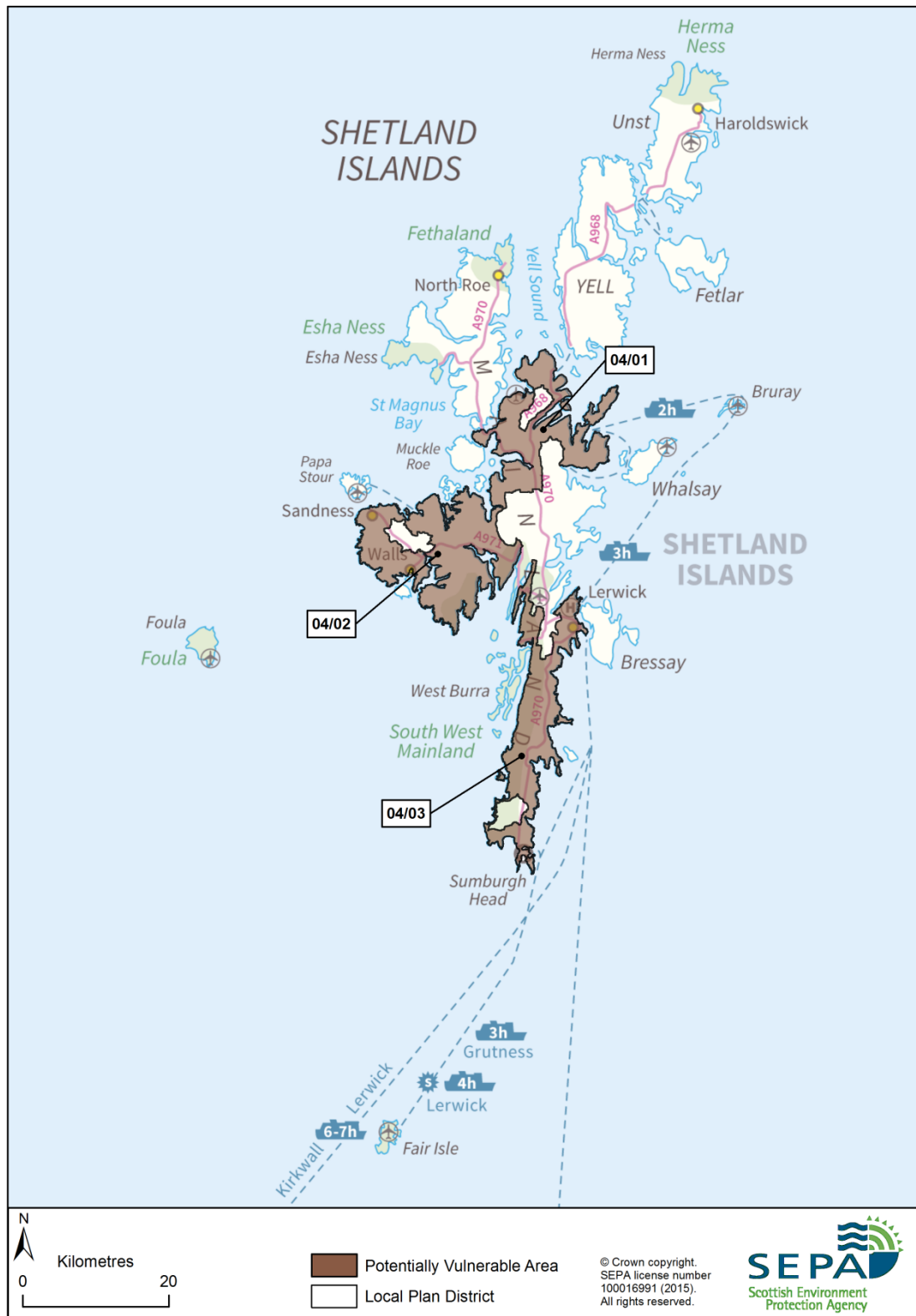


Figure 2.1: The Shetland catchment group

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

In the Shetland Local Plan District, reports for river, coastal and surface water cover the whole Local Plan District.

A summary of the number of properties and Annual Average Damages from river, coastal and surface water flooding is outlined in Table 2.1.

Table 2.1: Summary of flood risk from various sources within the Shetland Local Plan District

	Total number of properties at risk ¹	Annual Average Damages
Shetland Islands, river catchments	10	£55,000
Shetland Islands, coastal areas	50	£350,000
Shetland Islands, surface water flooding	20	£30,000

¹ Total number of residential and non-residential properties at risk of flooding

There are approximately 30 residential properties and 50 non-residential properties at risk of flooding within the Local Plan District. This is less than 1% of all properties in Shetland.

The 3 PVAs within the Shetland LPD contain approximately 20 of the 30 residential properties at flood risk, and approximately 20 of the 50 non-residential properties at flood risk. The PVAs cover approximately £180,000 of the approximately £430,000 Annual Average Damages for the entire Shetland Local Plan District.

The main source of flooding is from coastal flooding which contributes around 80% of the estimated Annual Average Damages (Figure 2.2). 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.

Table 2.2 summarises the headline actions to manage flood risk over the six year plan period. A full list of actions to manage flood risk over the six year plan period including details of the standard of protection, costs and benefits, and coordination and funding arrangements are included in Annex 1 of the Plan. These details are also provided for the LPD and each PVA in sections 2.3 and 2.4 to 2.6 respectively.

Table 2.2: Summary of actions in the LFRMP

LPD-wide / PVA	Selected Action	Location	Objective	Description	Proposed delivery period
PVA 04/01	Vidlin Flood Protection Study (4001010005)	Vidlin coastal area	Reduce risk of coastal flooding in Vidlin (400101)	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. 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.	Survey and analysis in 2017-2018, with any resulting further work then subject to prioritisation and funding
PVA 04/02	Walls Flood Protection Study (4002010005)	Walls coastal area	Reduce risk of coastal flooding in Shetland Mainland West (400201)	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. 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.	Survey and analysis in 2018-2019, with any resulting further work then subject to prioritisation and funding
PVA 04/03	Cunningsburgh Flood Protection Study (4003010005)	Cunningsburgh - Burn of Mail and Burn of Vaxter	Reduce risk in the Cunningsburgh area from river and surface water flooding (400301)	The A970 is the key road linking the southern end of the mainland, including the airport at Sumburgh, to the rest of Shetland. Flooding in the Cunningsburgh area causes significant disruption to residents, commuters, and visitors. A study should be undertaken to assess direct defences upstream of the A970 on the Burn of Laxdale and Burn of Mail and improvements to the conveyance through the culverts underneath the road. Other actions may also be considered to develop the most sustainable range of options.	Survey and analysis in 2019-2020, with any resulting further work then subject to prioritisation and funding
PVA 04/03	Surface Water Plan/Study covering Lerwick and Scalloway (4003050018)	Lerwick South Burn of Gremista, Scalloway Burn Beach	Reduce risk from surface water flooding in Lerwick and Scalloway (400305)	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. 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. There are existing land use planning restrictions on upstream development in both catchments and the study will generate improved public engagement and understanding of those issues and the resulting implications for future developments. Scottish Water will provide local knowledge and understanding of the sewer network. This includes Scottish Water corporate data (as applicable) and, where available, outputs of Section 16 studies, to assist with the surface water management planning process.	Survey and outline design work in 2017-2020 for specific works in the priority areas with any resulting construction works then subject to prioritisation and possible third party agreement / contribution
PVA 04/03	Strategic mapping and modelling (4000020019)	Lerwick DOA/Maa Ness DOA	Reduce overall flood risk (400002)	Scottish Water will undertake further investigation and modelling in the Lerwick and Maa Ness sewer catchments to improve knowledge and understanding of flood risk in these areas as required under Section 16 of the Flood Risk Management (Scotland) Act 2009.	2016-2019
LPD Wide	Flood Forecasting (4000020009)	LPD Wide	Reduce overall flood risk. (400002)	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 flood guidance statements provide an assessment of the risk of flooding for a five day period allowing responders time to put preparations in place to reduce the impact of flooding. 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. The Potentially Vulnerable Areas are within the 'Shetland' flood alert area.	On-going
LPD Wide	Self Help (4000020011)	LPD Wide	Reduce overall flood risk. (400002)	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.	On-going

LPD-wide / PVA	Selected Action	Location	Objective	Description	Proposed delivery period
PVA 04/01	Awareness Raising (4000020013)	PVA 04/01	Reduce overall flood risk. (400002)	<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>Across Scotland, SEPA will create and share communication and education resources with other Responsible Authorities. These resources will include digital materials, awareness campaigns and promotion of our flood forecasting and warning services (Floodline). Where they exist, SEPA will engage with community resilience groups and community safety partnerships.</p> <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>A Scottish Government initiative on awareness raising in Schools is planned, with input from SIC services.</p> <p>Scottish Water will support SEPA and Responsible Authorities with their awareness raising activities as required and provide targeted flooding communications for Scottish Water specific 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>More general information and flooding guidance will be available on the website at: https://www.scottishwater.co.uk/you-and-your-home/your-home/flooding-information</p>	On-going
LPD Wide	Maintenance (4000020007)	LPD Wide	Reduce overall flood risk. (400002)	<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 Shetland Islands Council Roads Service carry out inspections of Roads bridges and culverts and associated sections of watercourses and produce a schedule of clearance and repair works for priority locations, which is made available for public inspection.</p> <p>Scottish Water undertake risk based inspection, maintenance and repair on the public sewer network.</p> <p>Other 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>	On-going
LPD Wide	Emergency Response (4000020014)	LPD Wide	Reduce overall flood risk. (400002)	<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>	On-going
LPD Wide	Planning policy (4000010001)	LPD Wide	Avoid an overall increase in flood risk. (400001)	<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>Areas in Shetland identified for development in the Local Development Plan have had initial flood risk assessments carried out as part of their consideration.</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 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>	On-going

2.3 Local Plan District Overview

This Local Plan District comprises all the islands which are part of the Shetland Islands. It has an area of approximately 1,500 km² and a coastline with a length of approximately 2,700km.

There are three Potentially Vulnerable Areas in the Shetland Local Plan District.

Flood Risks in Shetland

There are approximately 30 residential properties and 50 non-residential properties at risk of flooding within the Local Plan District.

Figure 2.2 and Table 2.3 show 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.

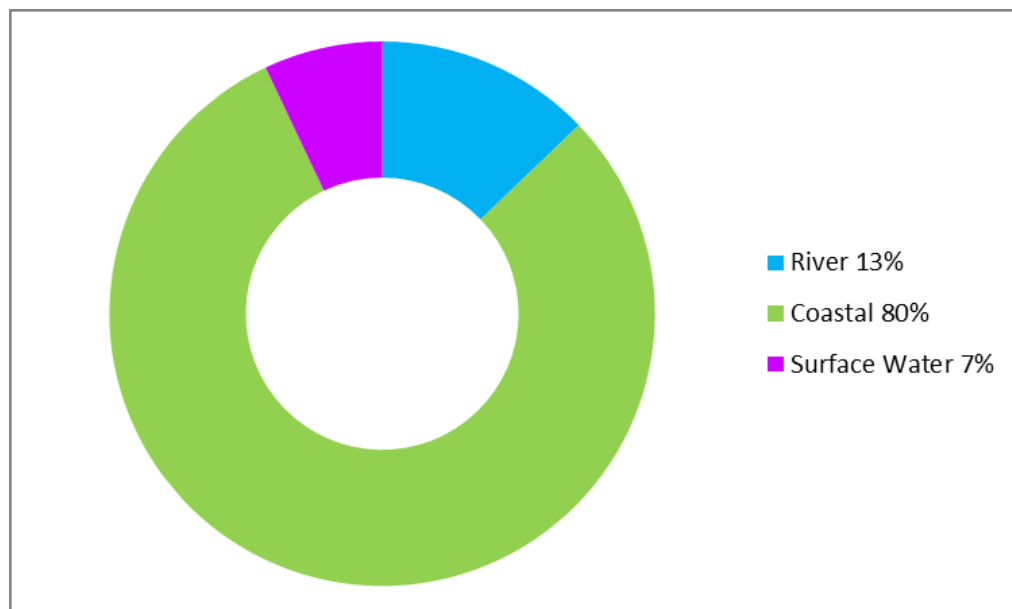


Figure 2.2: Annual Average Damages by flood source

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

Table 2.3: Potentially Vulnerable Areas at risk of flooding

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

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.

These objectives and actions apply to all areas of the Local Plan District, including the Potentially Vulnerable Areas. There are more specific actions that apply within Potentially Vulnerable Areas, in addition to those listed in the boxes below. Further detail can be found in the relevant Potentially Vulnerable Area chapter.

Table 2.4: Objectives for the whole Shetland LPD

Target area	Objective(s)	ID	Indicators (numbers affected)
Applies across the Shetland Local Plan District	Avoid an overall increase in flood risk	400001	<ul style="list-style-type: none"> • 30 residential properties • 50 non-residential properties • 70 people
Applies across the Shetland Local Plan District	Reduce overall flood risk	400002	<ul style="list-style-type: none"> • 30 residential properties • 50 non-residential properties • 70 people

Action (ID):	FLOOD FORECASTING (4000020009)		
Objective (ID):	Reduce overall flood risk (400002)		
Delivery lead:	SEPA		
Status:	Existing	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.</p> <p>The flood guidance statements provide an assessment of the risk of flooding for a five day period allowing responders time to put preparations in place to reduce the impact of flooding.</p> <p>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. The Potentially Vulnerable Areas are within the 'Shetland' flood alert area.</p>		
Coordination:	<p>SEPA / Met Office joint initiative. Hydrological information is provided by SEPA and meteorological information is provided by the Met Office. SEPA uses the information to predict the likelihood and timing of river, coastal and surface water flooding.</p> <p>Warnings received are circulated to the Council's Severe Weather email list as it the possibility of flooding is usually linked to high winds in a particular direction together with high tides / storm surge.</p>		
Funding:	<p>SEPA's flood forecasting service is funded through Scottish Government's grant in aid allocation. The Met Office receives funding from the UK Government.</p> <p>Council involvement is funded from existing SIC revenue budgets</p>		

Action (ID):	SELF HELP (4000020011)		
Objective (ID):	Reduce overall flood risk (400002)		
Delivery lead:			
Status:	Existing	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.		
Coordination:	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.		
Funding:	<p>General information is made available as part of existing Shetland Islands Council awareness raising activities.</p> <p>There are no existing specific Council budgets for funding self help works.</p> <p>Funding of physical works will fall to owners/occupiers.</p>		

Action (ID):	AWARENESS RAISING (4000020013)		
Objective (ID):	Reduce overall flood risk. (400002)		
Delivery lead:	Responsible Authorities		
Status:	Ongoing	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>Across Scotland, SEPA will create and share communication and education resources with other Responsible Authorities. These resources will include digital materials, awareness campaigns and promotion of our flood forecasting and warning services (Floodline). Where they exist, SEPA will engage with community resilience groups and community safety partnerships.</p> <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>A Scottish Government initiative on awareness raising in Schools is planned, with input from SIC services.</p> <p>Scottish Water will support SEPA and Responsible Authorities with their awareness raising activities as required and provide targeted flooding communications for Scottish Water specific 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>More general information and flooding guidance will be available on the website at: https://www.scottishwater.co.uk/you-and-your-home/your-home/flooding-information</p>		
Coordination	<p>The Shetland Islands Council, SEPA and Scottish Water will co-ordinate awareness raising activities with other Responsible Authorities, through the regular Local Plan District Partnerships and Flood Risk Management Local Area Group meetings.</p> <p>More information on the roles of these groups is given in Annex 3</p>		
Funding:	<p>Council involvement is funded from existing SIC revenue budgets</p> <p>SEPA's awareness raising activities are funded by Scottish Government through SEPA's grant in aid settlement.</p>		

Action (ID):	MAINTENANCE (4000020007)		
Objective (ID):	Reduce overall flood risk (400002)		
Delivery lead:	Shetland Islands Council, asset / land managers		
Status:	Existing	Delivery:	On-going
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 Shetland Islands Council Roads Service carry out inspections of Roads bridges and culverts and associated sections of watercourses and produce a schedule of clearance and repair works for priority locations, which is made available for public inspection.</p> <p>Scottish Water undertake risk based inspection, maintenance and repair on the public sewer network.</p> <p>Other 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>		
Coordination:	<p>Shetland Islands Council will publish a schedule of planned watercourse inspection, clearance and repair works.</p> <p>Awareness of third party works impacts on watercourses or flood protection infrastructure will be raised with authorities through the required planning permission and/or other required licensing processes and discussions at LPDP and FRM LAG group meetings.</p> <p>Scottish Water will keep Responsible Authorities informed of large scale capital maintenance work to identify opportunities for co-ordination.</p>		
Funding:	Roads Service inspections are funded from existing SIC revenue budgets.		

Action (ID):	EMERGENCY PLANS/RESPONSE (4000020014)		
Objective (ID):	Reduce overall flood risk (400002)		
Delivery lead:	Category 1 and 2 Responders		
Status:	Existing	Delivery:	On-going
Description:	<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 the Shetland Emergency Planning Forum (SEPF) and regional and local resilience partnerships. This response may be supported by the work of Scottish Water and voluntary organisations.</p>		
Coordination:	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, including flooding.		
Funding:	Emergency Planning and other Council service actions are funded from existing SIC revenue budgets.		

Action (ID):	PLANNING POLICIES (4000010001)		
Objective (ID):	Avoid an overall increase in flood risk. (400001)		
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.</p> <p>For further information on the application of national planning policies see Annex 5 of the LFRMP.</p> <p>Areas in Shetland identified for development in the Local Development Plan have had initial flood risk assessments carried out as part of their consideration.</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 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</p>		

	<p>website http://www.sepa.org.uk/environment/land/planning/</p> <p>Scottish Water is a statutory consultee within the planning legislation and is required to comment on all outline or full planning applications which are referred by Shetland Islands Council.</p>
Coordination:	<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>
Funding:	<p>Development Planning and other Council service input funded from existing revenue budgets</p> <p>SEPA's land use planning activities are funded by Scottish Government through SEPA's grant in aid settlement.</p>

2.4 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 sections 2.6 to 2.8 for each Potentially Vulnerable Area.

Table 2.5: Proposed flood actions for each PVA

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

2.5 Flood risk, objectives, actions and prioritisation for Shetland North Mainland (PVA 04/01)

Background

This Potentially Vulnerable Area is located in the north of Mainland Shetland (shown below). It is approximately 150km².

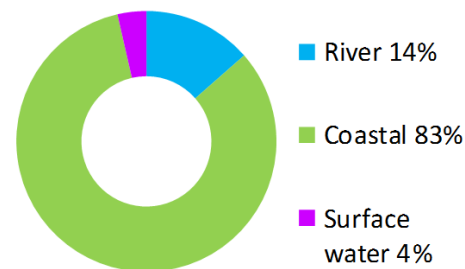
The area is predominately rural with many small burns and lochs. The coastline is characterised by bays, inlets and voes.



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.



Annual Average Damages by flood source

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

Summary of flooding impacts

Coastal flood risk in the area is focused at the head of the voe in Vidlin. Flooding from wave action is not fully represented in the assessment of flood risk and both the number of properties at risk and the stated damages from coastal flooding may be underestimated as a result.

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 2.6.

Significant lengths of road are at risk of flooding, including the access road to Sullom Voe Oil Terminal. This may lead to disruption in linking the terminal, towns and

villages to services and may reduce access to the airport and ports. Lunnasting Primary School in Vidlin is also identified as at risk of flooding.

There are 10 designated cultural heritage sites and small areas of designated environmental sites at risk within this area. These include Special Areas of Conservation at “Yell Sound Coast”, “The Vadills” and “Mousa”, and Sites of Special Scientific Interest at “Sullom Voe”, “Dales Voe”, “Laxo Burn”, “Voxter Voe” and “Valayre Quarry”.

The damages associated with floods of different likelihood are shown in Figure 2.3. For this Potentially Vulnerable Area the highest damages are to non-residential properties followed by damages to roads. The locations of the impacts of flooding are shown in Figure 2.4.

Table 2.6: Summary of flooding impacts

	1 in 10	1 in 200	1 in 1000
	High likelihood	Medium likelihood	Low likelihood
Residential properties (total of 1,200)	<10	<10	<10
Non-residential properties (total of 220)	<10	<10	<10
People	<10	<10	<10
Community facilities	0	<10 Educational buildings	<10 Educational buildings
Utilities assets	<10	<10	<10
Transport links (excluding minor roads)	Roads at 30 locations	Roads at 30 locations	Roads at 30 locations
Environmental designated areas (km²)	0.6	0.7	0.7
Designated cultural heritage sites	1	10	10
Agricultural land (km²)	0.6	0.7	0.8

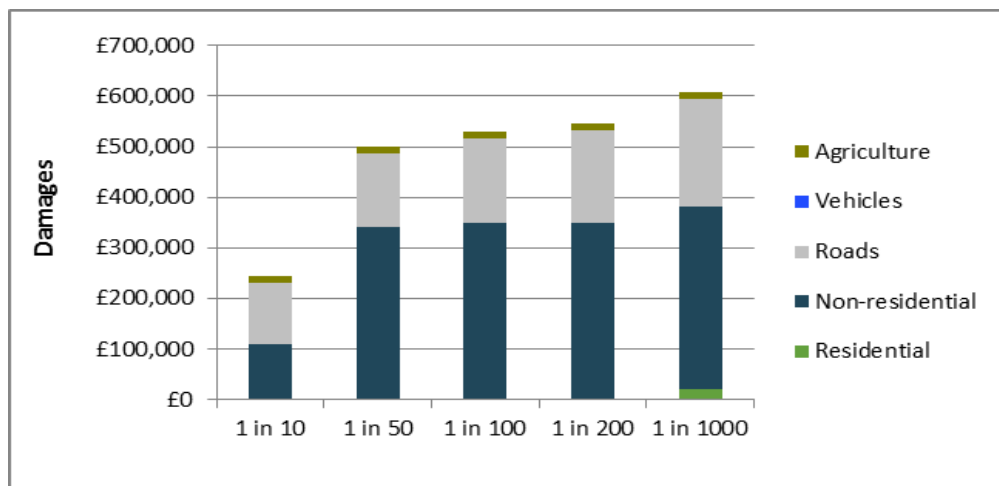


Figure 2.3: Damages by flood likelihood
Reproduced from Shetland Flood Risk Management Strategy, SEPA (December 2015)

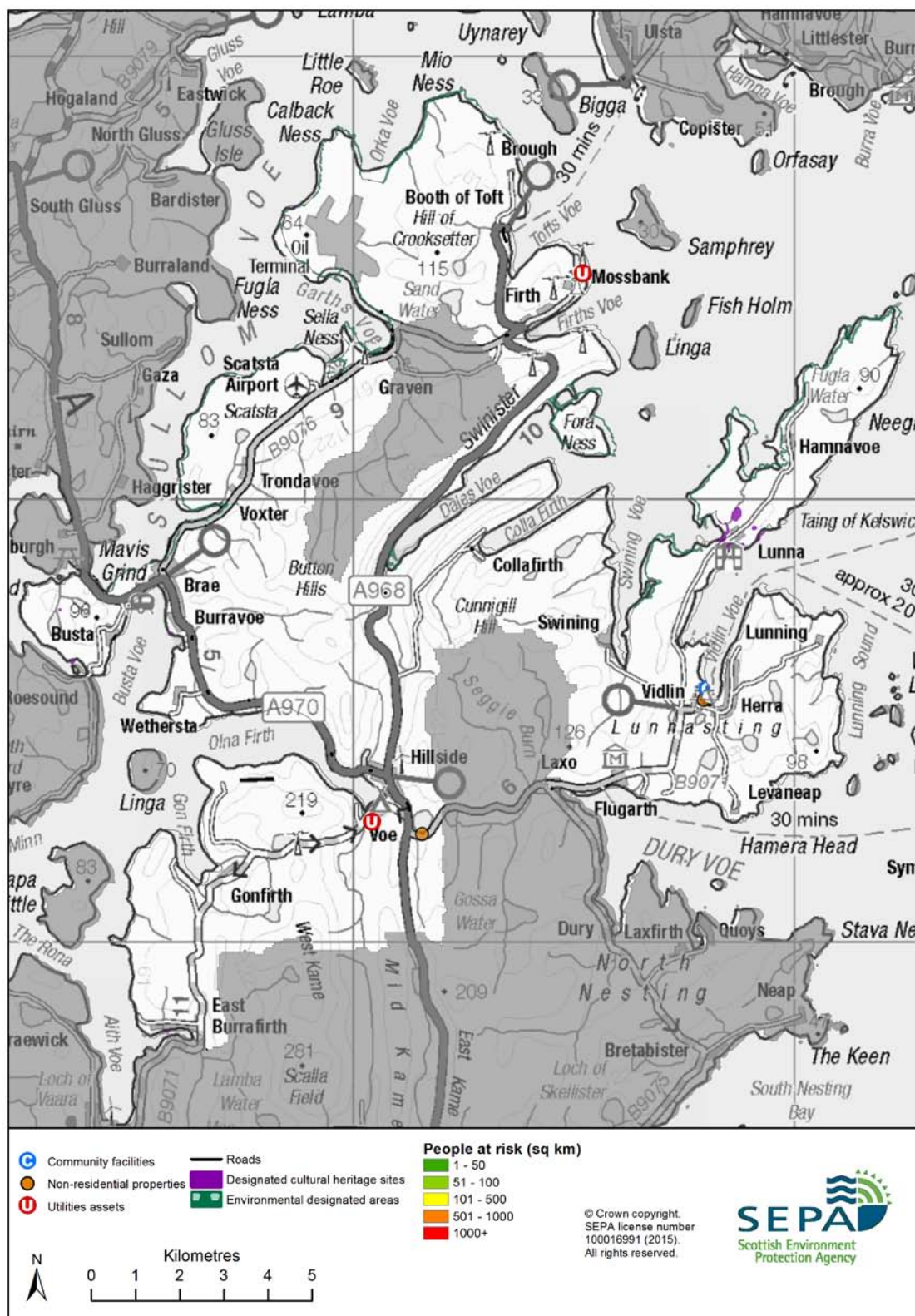


Figure 2.4: Impacts of flooding

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

History of flooding

The earliest recorded flood was in 1882 caused by a severe thunderstorm, which affected roads and crops at a regional level. There have been six floods since 2003 coming from different sources which have caused localised flooding. There was one coastal flood in 2003, which affected the boat club car park. In 2003, 2005 and 2008 floods affected roads and car parks due to runoff from hills, blocked ditches and gullies. Property was flooded in 2006 caused by hill runoff, this reoccurred in 2007 resulting in flooding in the vicinity of a housing estate.

Objectives to manage flooding in Potentially Vulnerable Area 04/01

Objectives provide a common goal and shared ambition for managing floods. These objectives have been set by SEPA and agreed with Shetland Islands Council and Scottish Water following consultation. They were identified through an assessment of historical events, flood modelling and local knowledge regarding the causes and impacts of flooding in the area.

The objectives below have been set for the Shetland North Mainland Potentially Vulnerable Area, where there is potential coastal flood risk to the area of Vidlin near the school, marina and ferry terminal. The target area defines the objective focus, where actions may be located, rather than implying a specific area at flood risk.

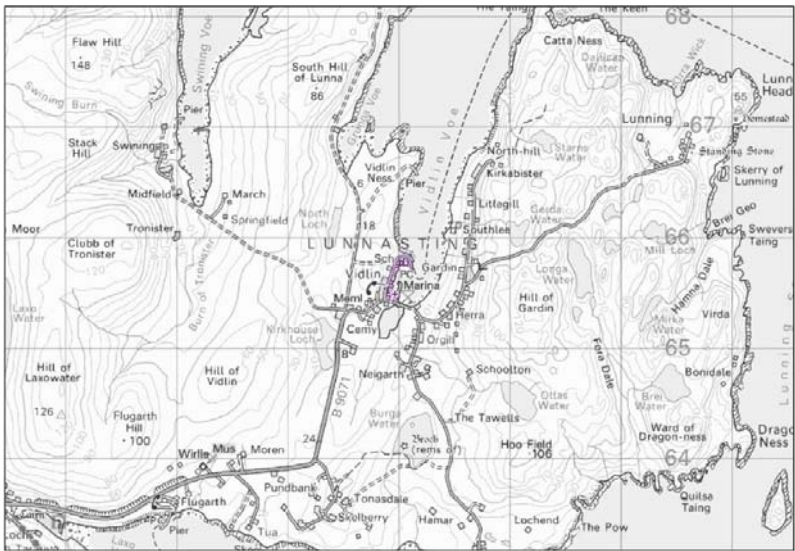
Reduce risk of coastal flooding in Vidlin	
Indicators:	 <p>© Crown Copyright and database right 2016. All rights reserved. Ordnance Survey licence number 100024344.</p>
<ul style="list-style-type: none"> • £11,000 Annual Average Damages from non-residential properties • 1 community facility 	
Objective ID: 400101	

Table 2.7: Summary of flooding impacts in PVA 04/01

Target area	Objective(s)	ID	Indicators within PVA
Applies across Shetland Local Plan District	Avoid an overall increase in flood risk	400001	<ul style="list-style-type: none"> • <10 residential Properties • £47,000 Annual Average Damages
Applies across Shetland Local Plan District	Reduce overall flood risk	400002	<ul style="list-style-type: none"> • <10 residential Properties • £47,000 Annual Average Damages

Actions to manage flooding in PVA 04/01

Actions describe where and how flood risk will be managed. These actions have been set by SEPA and agreed with Shetland Islands Council and Scottish Water following consultation. Selection of actions to deliver the agreed objectives was based on a detailed assessment and comparison of economic, social and environmental criteria regarding the causes and impacts of flooding in the area. The actions shaded in Table 2.8 and then described below have been selected as the most appropriate for Shetland Mainland North Potentially Vulnerable Area.

Table 2.8: Summary of selected actions in PVA 04/01

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	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 STUDY (4001010005)		
Objective (ID):	Reduce risk of coastal flooding in Vidlin (400101)		
Delivery lead:	Shetland Islands Council		
Rank:	National:	By local authority area:	
	154 of 168	2 of 3	
Status:	Not started	Delivery:	2017 – 2018
Description:	<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> <p>Wave action would be considered as part of the study</p>		
Potential impacts			
Economic:	<p>The study should develop the economic case for flood protection works, including risk from wave overtopping. Damages avoided of £350,000 could be achieved. This value could increase once wave overtopping is considered.</p>		
Social:	<p>The school and church in Vidlin are at risk of flooding. In addition the road leading to the ferry terminal (which provides a key link to Mainland from Whalsay and Out Skerries) is at risk of flooding. The number of people, community facilities, and roads which may benefit from future flood protection works should be confirmed through the study. 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.</p>		
Environmental:	<p>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. There is a scheduled monument cultural heritage site which may benefit from future flood protection works.</p>		
Coordination arrangement:	<p>The survey and study will be carried out after discussion with SEPA hydrologists to ensure the information is as useful and relevant as possible.</p>		

	Results may help to inform future revisions of SEPA's flood maps
Funding arrangement:	Council delivery of this action will be covered under existing revenue budgets, including survey and design work of approximately £15k.

Action (ID):	FLOOD FORECASTING (4000020009)		
Objective (ID):	Reduce overall flood risk (400002)		
Delivery lead:	SEPA		
Status:	Existing	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.</p> <p>The flood guidance statements provide an assessment of the risk of flooding for a five day period allowing responders time to put preparations in place to reduce the impact of flooding.</p> <p>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. The Potentially Vulnerable Areas are within the 'Shetland' flood alert area.</p>		
Coordination:	<p>SEPA / Met Office joint initiative. Hydrological information is provided by SEPA and meteorological information is provided by the Met Office. SEPA uses the information to predict the likelihood and timing of river, coastal and surface water flooding.</p> <p>Warnings received are circulated to the Council's Severe Weather email list as it the possibility of flooding is usually linked to high winds in a particular direction together with high tides / storm surge.</p>		
Funding:	<p>SEPA's flood forecasting service is funded through Scottish Government's grant in aid allocation. The Met Office receives funding from the UK Government.</p> <p>Council involvement is funded from existing SIC revenue budgets</p>		

Action (ID):	SELF HELP (4000020011)		
Objective (ID):	Reduce overall flood risk (400002)		
Delivery lead:			
Status:	Existing	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.		
Coordination:	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.		
Funding:	<p>General information is made available as part of existing Shetland Islands Council awareness raising activities.</p> <p>There are no existing specific Council budgets for funding self help works.</p>		

Action (ID):	AWARENESS RAISING (4000020013)		
Objective (ID):	Reduce overall flood risk. (400002)		
Delivery lead:	Responsible Authorities		
Status:	Ongoing	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>Across Scotland, SEPA will create and share communication and education resources with other Responsible Authorities. These resources will include digital materials, awareness campaigns and promotion of our flood forecasting and warning services (Floodline). Where they exist, SEPA will engage with community resilience groups and community safety partnerships.</p> <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>A Scottish Government initiative on awareness raising in Schools is planned, with input from SIC services.</p> <p>Scottish Water will support SEPA and Responsible Authorities with their awareness raising activities as required and provide targeted flooding communications for Scottish Water specific 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>More general information and flooding guidance will be available on the website at: https://www.scottishwater.co.uk/you-and-your-home/your-home/flooding-information</p>		
Coordination	<p>The Shetland Islands Council, SEPA and Scottish Water will co-ordinate awareness raising activities with other Responsible Authorities, through the regular Local Plan District Partnerships and Flood Risk Management Local Area Group meetings.</p> <p>More information on the roles of these groups is given in Annex 3</p>		
Funding:	<p>Council involvement is funded from existing SIC revenue budgets</p> <p>SEPA's awareness raising activities are funded by Scottish Government through SEPA's grant in aid settlement.</p>		

Action (ID):	MAINTENANCE (4000020007)		
Objective (ID):	Reduce overall flood risk (400002)		
Delivery lead:	Shetland Islands Council, asset / land managers		
Status:	Existing	Delivery:	On-going
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 Shetland Islands Council Roads Service carry out inspections of Roads bridges and culverts and associated sections of watercourses and produce a schedule of clearance and repair works for priority locations, which is made available for public inspection.</p> <p>Scottish Water undertake risk based inspection, maintenance and repair on the public sewer network.</p> <p>Other 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>		
Coordination:	<p>Shetland Islands Council will publish a schedule of planned watercourse inspection, clearance and repair works.</p> <p>Awareness of third party works impacts on watercourses or flood protection infrastructure will be raised with authorities through the required planning permission and/or other required licensing processes and discussions at LPDP and FRM LAG group meetings.</p> <p>Scottish Water will keep Responsible Authorities informed of large scale capital maintenance work to identify opportunities for co-ordination.</p>		
Funding:	Roads Service inspections are funded from existing SIC revenue budgets.		

Action (ID):	EMERGENCY PLANS/RESPONSE (4000020014)		
Objective (ID):	Reduce overall flood risk (400002)		
Delivery lead:	Category 1 and 2 Responders		
Status:	Existing	Delivery:	On-going
Description:	<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 the Shetland Emergency Planning Forum (SEPF) and regional and local resilience partnerships. This response may be supported by the work of Scottish Water and voluntary organisations.</p>		
Coordination:	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, including flooding.		
Funding:	Emergency Planning and other Council service actions are funded from existing SIC revenue budgets.		

Action (ID):	PLANNING POLICIES (4000010001)		
Objective (ID):	Avoid an overall increase in flood risk. (400001)		
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.</p> <p>For further information on the application of national planning policies see Annex 5 of the LFRMP.</p> <p>Areas in Shetland identified for development in the Local Development Plan have had initial flood risk assessments carried out as part of their consideration.</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 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</p>		

	<p>website http://www.sepa.org.uk/environment/land/planning/</p> <p>Scottish Water is a statutory consultee within the planning legislation and is required to comment on all outline or full planning applications which are referred by Shetland Islands Council.</p>
Coordination:	<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>
Funding:	<p>Development Planning and other Council service input funded from existing revenue budgets</p> <p>SEPA's land use planning activities are funded by Scottish Government through SEPA's grant in aid settlement.</p>

2.6 Flood risk, objectives, actions and prioritisation for Shetland West Mainland (PVA 04/02)

Background

This Potentially Vulnerable Area is located in the west of Mainland Shetland (shown below). It is approximately 220km².

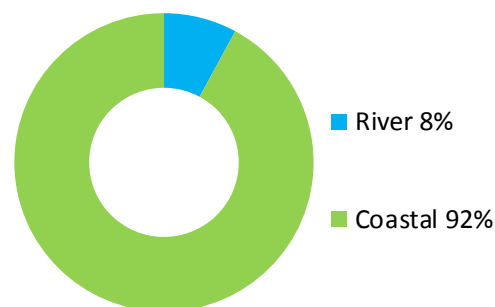
The area is predominantly rural with many small burns and lochs. The coastline is characterised by bays, inlets and voes.



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.



Annual Average Damages by flood source

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

Summary of flooding impacts

Coastal flood risk in the area is limited to individual properties or small clusters of properties on the coastline and at the head of voes. Flooding from wave action is not fully represented in the assessment of flood risk and both the number of properties at risk and the damages from coastal flooding may be underestimated as a result.

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 2.9.

Significant lengths of road are at risk, leading to disruption to transport routes linking smaller towns and villages to services. There are 16 designated cultural heritage sites, small areas of environmental importance and agricultural land at risk of flooding.

The damages associated with floods of different likelihood are shown in Figure 2.5.

For this Potentially Vulnerable Area the highest damages are to residential properties followed by damages to roads.

The location of the impacts of flooding is shown in Figure 2.6.

Table 2.9: Summary of flooding impacts

	1 in 10	1 in 200	1 in 1000
	High likelihood	Medium likelihood	Low likelihood
Residential properties (total of 630)	10	10	10
Non-residential properties (total of 290)	<10	<10	<10
People	30	30	30
Community facilities	0	0	0
Utilities assets	<10	<10	<10
Transport links (excluding minor roads)	Roads at 40 locations	Roads at 50 locations	Roads at 50 locations
Environmental designated areas (km²)	0.6	0.7	0.7
Designated cultural heritage sites	15	16	18
Agricultural land (km²)	2	3	3

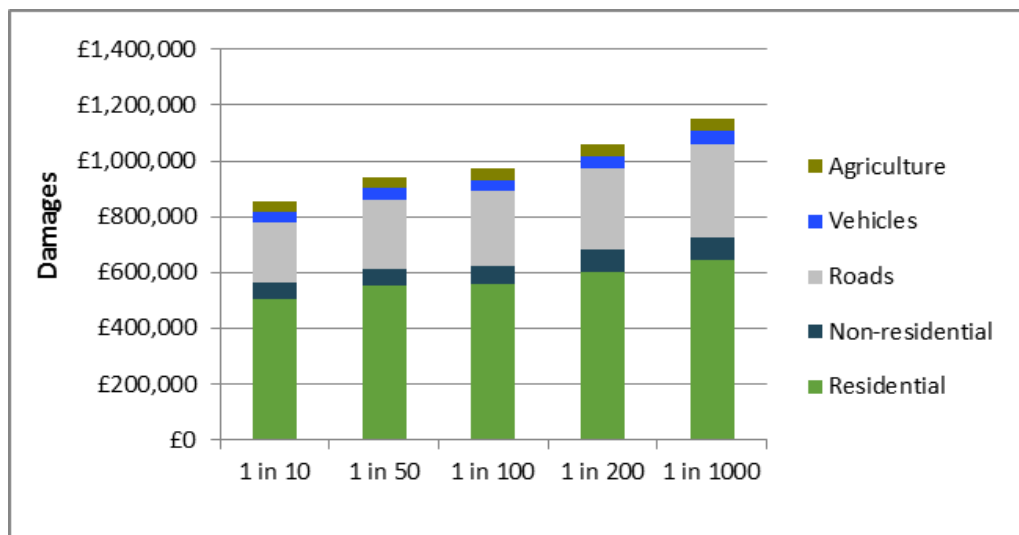


Figure 2.5: Damages by flood likelihood

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

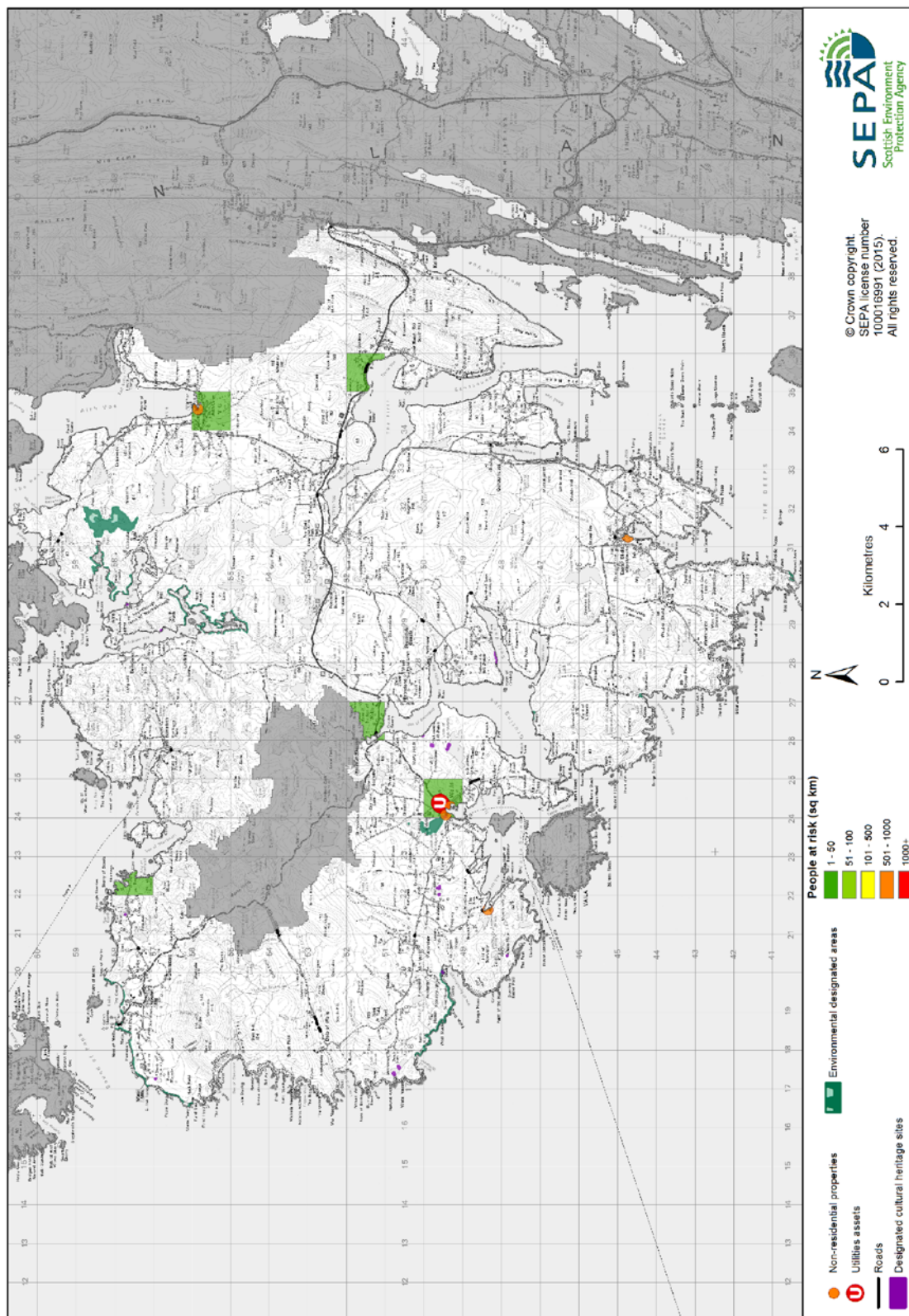


Figure 2.6: Impacts of flooding
Reproduced from Shetland Flood Risk Management Strategy, SEPA (December 2015)

History of flooding

There have been a number of floods in this Potentially Vulnerable Area in recent years. In 2006, hill runoff caused flooding to a garden and rear of a property. Other floods were caused by blockages of drainage infrastructure including ditches and gullies.

Objectives to manage flooding in Potentially Vulnerable Area 04/02

Objectives provide a common goal and shared ambition for managing floods. These objectives have been set by SEPA and agreed with Shetland Islands Council and Scottish Water following consultation. They were identified through an assessment of historical events, flood modelling and local knowledge regarding the causes and impacts of flooding in the area.

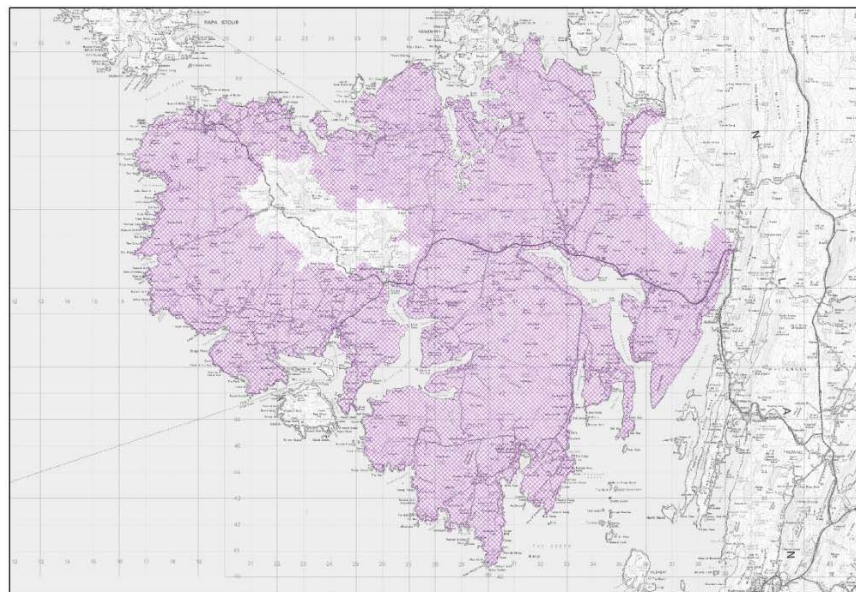
The objectives below have been set for the Shetland West Mainland Potentially Vulnerable Area, where there is potential coastal flood risk to the coastal areas of Walls near the shop. The target area defines the objective focus, where actions may be located, rather than implying a specific area at flood risk.

Reduce risk of coastal flooding in Shetland West Mainland

Indicators:

- £51,000 Annual Average Damages from residential properties
- £6,300 Annual Average Damages from non-residential properties

Objective ID:
400101



© Crown Copyright and database right 2016. All rights reserved. Ordnance Survey licence number 100024344.

Table 2.10: Summary of flooding impacts in PVA 04/02

Target area	Objective(s)	ID	Indicators within PVA
Applies across Shetland Local Plan District	Avoid an overall increase in flood risk	400001	<ul style="list-style-type: none"> • 10 residential properties • £88,000 Annual Average Damages
Applies across Shetland Local Plan District	Reduce overall flood risk	400002	<ul style="list-style-type: none"> • 10 residential properties • £88,000 Annual Average Damages

Actions to manage flooding in PVA 04/02

Actions describe where and how flood risk will be managed. These actions have been set by SEPA and agreed SEPA and agreed with Shetland Islands Council and Scottish Water following consultation. Selection of actions to deliver the agreed objectives was based on a detailed assessment and comparison of economic, social and environmental criteria regarding the causes and impacts of flooding in the area. The actions shaded in Table 2.11 and then described below have been selected as the most appropriate for Shetland West Mainland Potentially Vulnerable Area.

Table 2.11: Summary of selected actions in PVA 04/02

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	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 STUDY (4002010005)		
Objective (ID):	Reduce risk of coastal flooding in Shetland Mainland West (400201)		
Delivery lead:	Shetland Islands Council		
Rank:	National:	By local authority area:	
	138 of 168	1 of 3	
Status:	Not started	Delivery:	2018 – 2019
Description:	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. 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. Wave action would be considered as part of the study.		
Potential impacts			
Economic:	The study could benefit 11 residential and seven non-residential properties at risk of flooding in this location, with estimated damages avoided of £1.9 million. The study should consider the impact of wave overtopping, which may increase the benefits.		
Social:	There are currently an estimated 24 people at risk from coastal floods. In addition there are sections of road, including the A971, which are at risk of flooding. The number of people, community facilities, and roads which may benefit from future flood protection works should be confirmed through the study. 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. There is potential to impact on the Lochs of Kirkigarth and Bardister Site of Special Scientific Interest at Walls. There is also potential to impact on a scheduled monument cultural heritage site at Walls.		
Coordination:	The survey and study will be carried out after discussion with SEPA hydrologists to ensure the information is as useful and relevant as		

	possible. Results may help to inform future revisions of SEPA's flood maps
Funding arrangement:	Council delivery of this action will be covered under existing revenue budgets, including survey and design work of approximately £15k.

Action (ID):	FLOOD FORECASTING (4000020009)		
Objective (ID):	Reduce overall flood risk (400002)		
Delivery lead:	SEPA		
Status:	Existing	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.</p> <p>The flood guidance statements provide an assessment of the risk of flooding for a five day period allowing responders time to put preparations in place to reduce the impact of flooding.</p> <p>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. The Potentially Vulnerable Areas are within the 'Shetland' flood alert area.</p>		
Coordination:	<p>SEPA / Met Office joint initiative. Hydrological information is provided by SEPA and meteorological information is provided by the Met Office. SEPA uses the information to predict the likelihood and timing of river, coastal and surface water flooding.</p> <p>Warnings received are circulated to the Council's Severe Weather email list as it the possibility of flooding is usually linked to high winds in a particular direction together with high tides / storm surge.</p>		
Funding:	<p>SEPA's flood forecasting service is funded through Scottish Government's grant in aid allocation. The Met Office receives funding from the UK Government.</p> <p>Council involvement is funded from existing SIC revenue budgets</p>		

Action (ID):	SELF HELP (4000020011)		
Objective (ID):	Reduce overall flood risk (400002)		
Delivery lead:			
Status:	Existing	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.		
Coordination:	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.		
Funding:	<p>General information is made available as part of existing Shetland Islands Council awareness raising activities.</p> <p>There are no existing specific Council budgets for funding self help works.</p>		

Action (ID):	AWARENESS RAISING (4000020013)		
Objective (ID):	Reduce overall flood risk. (400002)		
Delivery lead:	Responsible Authorities		
Status:	Ongoing	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>Across Scotland, SEPA will create and share communication and education resources with other Responsible Authorities. These resources will include digital materials, awareness campaigns and promotion of our flood forecasting and warning services (Floodline). Where they exist, SEPA will engage with community resilience groups and community safety partnerships.</p> <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>A Scottish Government initiative on awareness raising in Schools is planned, with input from SIC services.</p> <p>Scottish Water will support SEPA and Responsible Authorities with their awareness raising activities as required and provide targeted flooding communications for Scottish Water specific 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>More general information and flooding guidance will be available on the website at: https://www.scottishwater.co.uk/you-and-your-home/your-home/flooding-information</p>		
Coordination	<p>The Shetland Islands Council, SEPA and Scottish Water will co-ordinate awareness raising activities with other Responsible Authorities, through the regular Local Plan District Partnerships and Flood Risk Management Local Area Group meetings.</p> <p>More information on the roles of these groups is given in Annex 3</p>		
Funding:	<p>Council involvement is funded from existing SIC revenue budgets</p> <p>SEPA's awareness raising activities are funded by Scottish Government through SEPA's grant in aid settlement.</p>		

Action (ID):	MAINTENANCE (4000020007)		
Objective (ID):	Reduce overall flood risk (400002)		
Delivery lead:	Shetland Islands Council, asset / land managers		
Status:	Existing	Delivery:	On-going
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 Shetland Islands Council Roads Service carry out inspections of Roads bridges and culverts and associated sections of watercourses and produce a schedule of clearance and repair works for priority locations, which is made available for public inspection.</p> <p>Scottish Water undertake risk based inspection, maintenance and repair on the public sewer network.</p> <p>Other 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>		
Coordination:	<p>Shetland Islands Council will publish a schedule of planned watercourse inspection, clearance and repair works.</p> <p>Awareness of third party works impacts on watercourses or flood protection infrastructure will be raised with authorities through the required planning permission and/or other required licensing processes and discussions at LPDP and FRM LAG group meetings.</p> <p>Scottish Water will keep Responsible Authorities informed of large scale capital maintenance work to identify opportunities for co-ordination.</p>		
Funding:	Roads Service inspections are funded from existing SIC revenue budgets.		

Action (ID):	EMERGENCY PLANS/RESPONSE (4000020014)		
Objective (ID):	Reduce overall flood risk (400002)		
Delivery lead:	Category 1 and 2 Responders		
Status:	Existing	Delivery:	On-going
Description:	<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 the Shetland Emergency Planning Forum (SEPF) and regional and local resilience partnerships. This response may be supported by the work of Scottish Water and voluntary organisations.</p>		
Coordination:	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, including flooding.		
Funding:	Emergency Planning and other Council service actions are funded from existing SIC revenue budgets.		

Action (ID):	PLANNING POLICIES (4000010001)		
Objective (ID):	Avoid an overall increase in flood risk. (400001)		
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.</p> <p>For further information on the application of national planning policies see Annex 5 of the LFRMP.</p> <p>Areas in Shetland identified for development in the Local Development Plan have had initial flood risk assessments carried out as part of their consideration.</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 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</p>		

	<p>website http://www.sepa.org.uk/environment/land/planning/</p> <p>Scottish Water is a statutory consultee within the planning legislation and is required to comment on all outline or full planning applications which are referred by Shetland Islands Council.</p>
Coordination:	<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>
Funding:	<p>Development Planning and other Council service input funded from existing revenue budgets</p> <p>SEPA's land use planning activities are funded by Scottish Government through SEPA's grant in aid settlement.</p>

2.7 Flood risk, objectives, actions and prioritisation for Shetland Central and South Mainland (PVA 04/03)

Background

This Potentially Vulnerable Area is located in central and south Mainland Shetland. It is approximately 150km² (shown below).

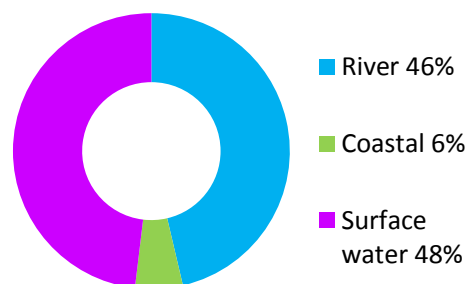
The area is predominantly rural with many small burns and lochs. The coastline is characterised by bays, inlets and voes.



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.



Annual Average Damages by flood source

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

Summary of flooding impacts

River flood risk occurs on the Burn of Mail and Burn of Laxdale in Cunningsburgh. There are localised areas of surface water flood risk associated with smaller burns and lochs.

Coastal flood risk is predominantly limited to a narrow coastal strip in areas such as Hays Dock, Lerwick. Flooding from wave action is not fully represented in the assessment of flood risk and the number of properties at risk and the damages from coastal flooding may be underestimated as a result.

There are known surface water flood risks from historical incidents, particularly

notably on the South Burn of Gremista in Lerwick and at the Burn Beach outfall in Scalloway. A Surface Water Management Plan will be carried out covering those areas of Lerwick and Scalloway which will gather more survey and other information and use those to better inform an assessment of the risks resulting from interactions of surface water, the drainage systems and sea tide and wave effects on the catchments. Scottish Water will also provide local knowledge and understanding of the sewer network, including outputs of Section 16 studies.

There are existing land use planning restrictions on upstream development in both catchments and the studies will generate improved public engagement and understanding of those issues and the resulting implications for future developments.

If appropriate, these studies may also progress further and identify and carry out outline design work on the most sustainable range of actions to address or mitigate the flood risks at specific locations.

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 2.12.

Roads, including the A970, are at risk from flooding leading to disruption in access between towns and to Sumburgh Airport and Lerwick Port. Surface water flooding affects a small area of the airport runway potentially causing disruption to flights. There are 18 designated cultural heritage sites and small areas of environmental importance at risk. These include the Lochs of Spiggie and Brow Special Protection Area, Aith Meadows and the Burn of Aith Site of Special Scientific Interest.

The damages associated with floods of different likelihood are shown in Figure 2.7. For this Potentially Vulnerable Area the highest damages are to residential properties followed by damages to roads.

The location of the impacts of flooding is shown in Figure 2.8.

Table 2.12: Summary of flooding impacts

	1 in 10	1 in 200	1 in 1000
	High likelihood	Medium likelihood	Low likelihood
Residential properties (total of 5,400)	<10	<10	<10
Non-residential Properties (total of 1,200)	<10	10	10

	1 in 10	1 in 200	1 in 1000
	High likelihood	Medium likelihood	Low likelihood
People	<10	10	20
Community facilities	0	0	0
Utilities assets	<10	<10	<10
Transport links (excluding minor roads)	Roads at 60 locations Sumburgh Airport	Roads at 70 locations Sumburgh Airport	Roads at 70 locations Sumburgh Airport
Environmental designated areas (km ²)	0.4	0.5	0.5
Designated cultural heritage sites	12	18	19
Agricultural land (km ²)	0.9	1	1

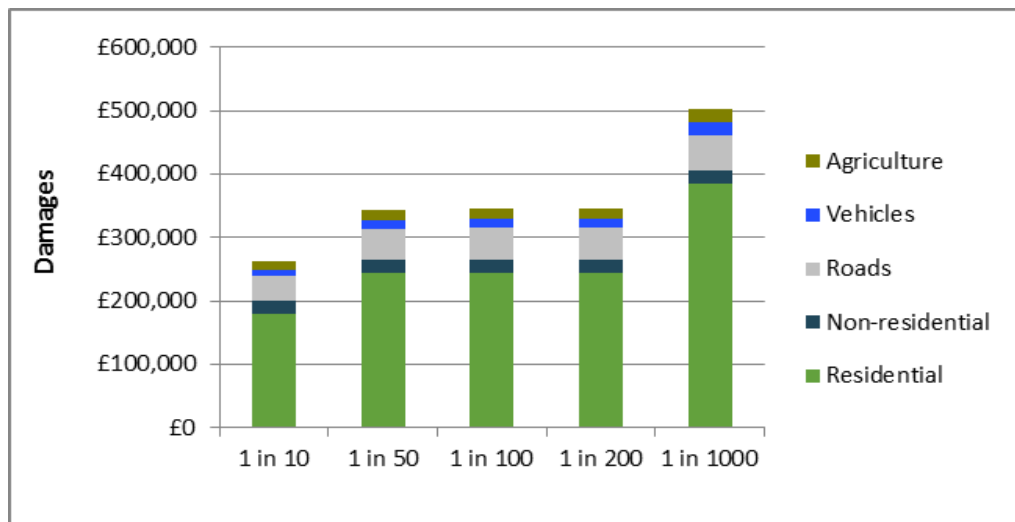


Figure 2.7: Damages by flood likelihood
Reproduced from *Shetland Flood Risk Management Strategy*, SEPA (December 2015)

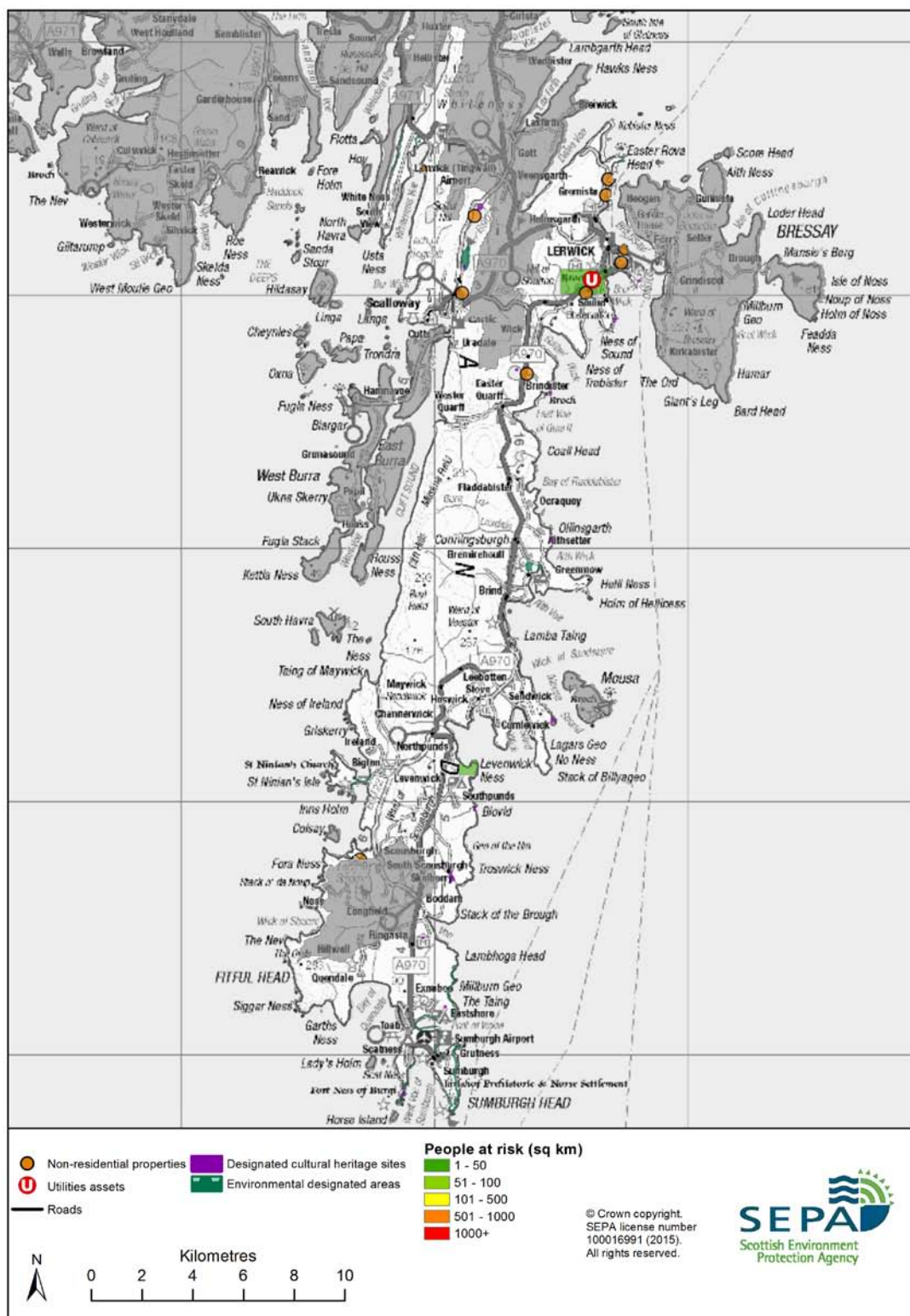


Figure 2.8: Impacts of flooding
Reproduced from Shetland Flood Risk Management Strategy, SEPA (December 2015)

History of flooding

The earliest recorded flood in this Potentially Vulnerable Area was from the sea in 1900, which flooded the harbour and Clickimin areas of Lerwick. Multiple coastal floods have since been recorded, resulting in damage to existing coastal defences and a number of properties being affected.

There have been 16 river and surface water floods since 2003, the majority of which have affected properties. Many of the floods were caused by hill runoff and blockages of drainage infrastructure, such as ditches and gullies. Groundwater flooding occurred in 2004 and 2006 in addition to hill runoff.

The road between Lerwick and the airport at Sumburgh has been affected in the past by landslips (bog and peat slides) during periods of very intense rainfall. There have been flooding problems from the Burns of Laxdale and Mail in Cunningsburgh.

Objectives to manage flooding in Potentially Vulnerable Area 04/03

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.

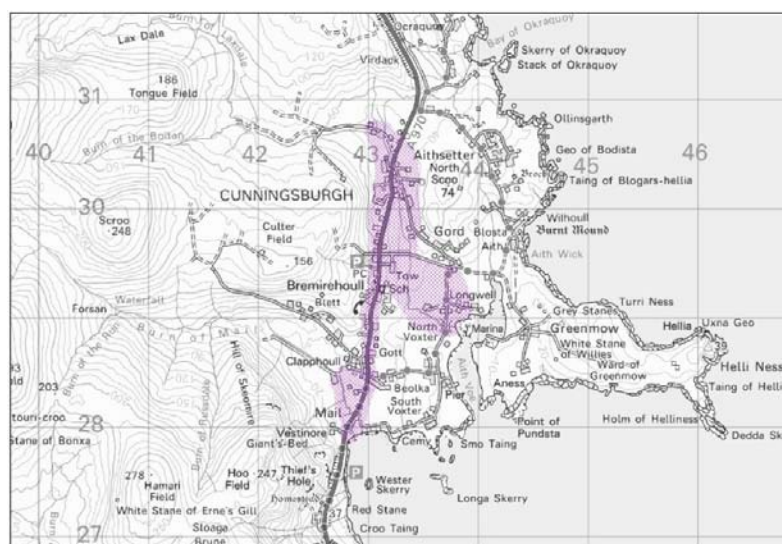
The target areas define the objective focus rather than the area at flood risk. The objectives below have been set for the Shetland Mainland Central and South Potentially Vulnerable Area.

Reduce risk of coastal flooding in Shetland Mainland Central and South

Indicators:

- A970 road at Cunningsburgh

Objective ID:
400301



© Crown Copyright and database right 2016. All rights reserved.
Ordnance Survey licence number 100024344.

Table 2.13: Summary of flooding impacts in PVA 04/03

Target area	Objective(s)	ID	Indicators within PVA
Lerwick and Scalloway	Reduce risk from surface water flooding in Lerwick and Scalloway	400305	* See note below
Applies across Shetland LPD	Avoid an overall increase in flood risk	400001	<ul style="list-style-type: none"> • <10 residential properties • £43,000 Annual Average Damages
Applies across Shetland LPD	Reduce overall flood risk	400002	<ul style="list-style-type: none"> • <10 residential properties • £43,000 Annual Average Damages

* This objective will be monitored using surface water flood risk in the Potentially Vulnerable Area. For PVA 04/03 there are <10 residential properties at risk and Annual Average Damages of £20,000.

Actions to manage flooding in PVA 04/03

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 in Table 2.14 and then described below have been selected as the most appropriate for the Shetland Mainland Central and South Potentially Vulnerable Area.

Table 2.14: Summary of selected actions in PVA 04/03

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	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 STUDY (4003010005)		
Objective (ID):	Reduce risk in the Cunningsburgh area from river and surface water flooding (400301)		
Delivery lead:	Shetland Islands Council		
Rank:	National:	By local authority area:	
	156 of 168	3 of 3	
Status:	Not started	Delivery:	2019 – 2020
Description:	<p>The A970 is the key road linking the southern end of the mainland, including the airport at Sumburgh, to the rest of Shetland. Flooding in the Cunningsburgh area causes significant disruption to residents, commuters, and visitors.</p> <p>A study should be undertaken to assess direct defences upstream of the A970 on the Burn of Laxdale and Burn of Mail and improvements to the conveyance through the culverts underneath the road. Other actions may also be considered to develop the most sustainable range of options.</p>		
Potential impacts			
Economic:	<p>The study should confirm the economic impacts and number of properties at risk. Currently it is estimated that one residential and one non-residential property, along with the A970 (key road linking the southern end of Mainland, including the airport at Sumburgh to the rest of Shetland) are at risk. The history of flooding however suggests that the potential benefits are likely to be higher.</p>		
Social:	<p>The A970 is the key road linking the southern end of Mainland, including the airport at Sumburgh, to the rest of Shetland. Flooding in the Cunningsburgh area causes significant disruption to residents, commuters and visitors. 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.</p>		
Environmental:	<p>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. There is potential for improving the culverts beneath the A970 for habitats and fish passage. The proposed works and the burns which they affect are located outside of the Aith Meadows and Burn of Aith Site of Special Scientific Interest.</p>		

Coordination arrangement:	<p>Discussion will take place with SEPA hydrologists to determine if there is a crossover of useful information.</p> <p>Results may help to inform future revisions of SEPA's flood maps</p>
Funding:	<p>Council delivery of this action will be covered under existing revenue budgets, including survey and design work of approximately £15k.</p>

Action (ID):	SURFACE WATER PLAN/STUDY (4003050018)		
Objective (ID):	Reduce risk from surface water flooding in Lerwick and Scalloway (400305)		
Delivery lead:	Shetland Islands Council		
Status:	Not started	Delivery:	2017-2020
Description:	<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. 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>There are existing land use planning restrictions on upstream development in both catchments and the study will generate improved public engagement and understanding of those issues and the resulting implications for future developments.</p> <p>Scottish Water will provide local knowledge and understanding of the sewer network. This includes Scottish Water corporate data (as applicable) and, where available, outputs of Section 16 studies, to assist with the surface water management planning process.</p>		
Coordination:	<p>There are identified flood risks at locations involving Council, Scottish Water and third party properties and drainage infrastructure.</p> <p>SIC will lead the investigation of the catchments, but consideration of options and future work leading on from that will involve a wide range of groups.</p> <p>Scottish Water will work with Shetland Isles Council and support surface water management planning through ensuring that best available knowledge and data is used to input into the Surface Water Management Plans.</p>		
Funding:	Council delivery of this action will be covered under existing revenue budgets, including survey and design work of approximately £15k.		

Action (ID):	STRATEGIC MAPPING AND MODELLING (4000020019)		
Objective (ID):	Reduce overall flood risk (400002)		
Delivery lead:	Scottish Water		
Status:	Not started	Delivery:	2016-2019
Description:	Scottish Water will undertake further investigation and modelling in the Lerwick and Maa Ness sewer catchments to improve knowledge and understanding of flood risk in these areas as required under Section 16 of the Flood Risk Management (Scotland) Act 2009.		
Coordination:	Scottish Water will work with Responsible Authorities to incorporate relevant information into these studies by regularly keeping the Responsible Authorities informed of their progress. Scottish Water will provide Responsible Authorities with the outputs of the Section 16 assessment which, where relevant, may be used to inform Surface Water Management Plans and SEPA flood hazard and risk maps.		
Funding:	Scottish Water funding is committed in its capital programme through Q&S 4a (2015-2021) which is approved by its regulators and customers.		

Action (ID):	FLOOD FORECASTING (4000020009)		
Objective (ID):	Reduce overall flood risk (400002)		
Delivery lead:	SEPA		
Status:	Existing	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.</p> <p>The flood guidance statements provide an assessment of the risk of flooding for a five day period allowing responders time to put preparations in place to reduce the impact of flooding.</p> <p>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. The Potentially Vulnerable Areas are within the 'Shetland' flood alert area.</p>		
Coordination:	<p>SEPA / Met Office joint initiative. Hydrological information is provided by SEPA and meteorological information is provided by the Met Office. SEPA uses the information to predict the likelihood and timing of river, coastal and surface water flooding.</p> <p>Warnings received are circulated to the Council's Severe Weather email list as it the possibility of flooding is usually linked to high winds in a particular direction together with high tides / storm surge.</p>		
Funding:	<p>SEPA's flood forecasting service is funded through Scottish Government's grant in aid allocation. The Met Office receives funding from the UK Government.</p> <p>Council involvement is funded from existing SIC revenue budgets</p>		

Action (ID):	SELF HELP (4000020011)		
Objective (ID):	Reduce overall flood risk (400002)		
Delivery lead:			
Status:	Existing	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.		
Coordination:	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.		
Funding:	<p>General information is made available as part of existing Shetland Islands Council awareness raising activities.</p> <p>There are no existing specific Council budgets for funding self help works.</p>		

Action (ID):	AWARENESS RAISING (4000020013)		
Objective (ID):	Reduce overall flood risk. (400002)		
Delivery lead:	Responsible Authorities		
Status:	Ongoing	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>Across Scotland, SEPA will create and share communication and education resources with other Responsible Authorities. These resources will include digital materials, awareness campaigns and promotion of our flood forecasting and warning services (Floodline). Where they exist, SEPA will engage with community resilience groups and community safety partnerships.</p> <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>A Scottish Government initiative on awareness raising in Schools is planned, with input from SIC services.</p> <p>Scottish Water will support SEPA and Responsible Authorities with their awareness raising activities as required and provide targeted flooding communications for Scottish Water specific activities. Scottish Water will raise awareness by producing and supplying targeted information to the public on large capital projects and detailed local studies. More general information and flooding guidance will be available on the website at: https://www.scottishwater.co.uk/you-and-your-home/your-home/flooding-information</p>		
Coordination	<p>The Shetland Islands Council, SEPA and Scottish Water will co-ordinate awareness raising activities with other Responsible Authorities, through the regular Local Plan District Partnerships and Flood Risk Management Local Area Group meetings.</p> <p>More information on the roles of these groups is given in Annex 3</p>		
Funding:	<p>Council involvement is funded from existing SIC revenue budgets</p> <p>SEPA's awareness raising activities are funded by Scottish Government through SEPA's grant in aid settlement.</p>		

Action (ID):	MAINTENANCE (4000020007)		
Objective (ID):	Reduce overall flood risk (400002)		
Delivery lead:	Shetland Islands Council, asset / land managers		
Status:	Existing	Delivery:	On-going
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 Shetland Islands Council Roads Service carry out inspections of Roads bridges and culverts and associated sections of watercourses and produce a schedule of clearance and repair works for priority locations, which is made available for public inspection.</p> <p>Scottish Water undertake risk based inspection, maintenance and repair on the public sewer network.</p> <p>Other 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>		
Coordination:	<p>Shetland Islands Council will publish a schedule of planned watercourse inspection, clearance and repair works.</p> <p>Awareness of third party works impacts on watercourses or flood protection infrastructure will be raised with authorities through the required planning permission and/or other required licensing processes and discussions at LPDP and FRM LAG group meetings.</p> <p>Scottish Water will keep Responsible Authorities informed of large scale capital maintenance work to identify opportunities for co-ordination.</p>		
Funding:	Roads Service inspections are funded from existing SIC revenue budgets.		

Action (ID):	EMERGENCY PLANS/RESPONSE (4000020014)		
Objective (ID):	Reduce overall flood risk (400002)		
Delivery lead:	Category 1 and 2 Responders		
Status:	Existing	Delivery:	On-going
Description:	<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 the Shetland Emergency Planning Forum (SEPF) and regional and local resilience partnerships. This response may be supported by the work of Scottish Water and voluntary organisations.</p>		
Coordination:	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, including flooding.		
Funding:	Emergency Planning and other Council service actions are funded from existing SIC revenue budgets.		

Action (ID):	PLANNING POLICIES (4000010001)		
Objective (ID):	Avoid an overall increase in flood risk. (400001)		
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.</p> <p>For further information on the application of national planning policies see Annex 5 of the LFRMP.</p> <p>Areas in Shetland identified for development in the Local Development Plan have had initial flood risk assessments carried out as part of their consideration.</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 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,</p>		

	<p>including guidance on flood risk and planning is available on SEPA website http://www.sepa.org.uk/environment/land/planning/</p> <p>Scottish Water is a statutory consultee within the planning legislation and is required to comment on all outline or full planning applications which are referred by Shetland Islands Council.</p>
Coordination:	<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>
Funding:	<p>Development Planning and other Council service input funded from existing revenue budgets</p> <p>SEPA's land use planning activities are funded by Scottish Government through SEPA's grant in aid settlement.</p>

2.8 Other flood risk activities in the Shetland Local Plan District

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. Since 2008 repairs which help manage flood risk have been carried out to structures on the Twart Burn, North Burn, Trondavoe Burn, and Burns of Brigadale amongst others.

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.

There are also several existing historical coastal protection structures at various locations throughout Shetland which provide erosion and/or flood protection benefits, including protection to private structures. These are listed below for each PVA.

PVA 04/01 - Summary of existing local actions to manage risk	
Location of Structure	Purpose of Structure
Vidlin Causeway	Erosion
Vidlin School (Lunnasting Primary School)	Flood protection
Lunna House	Erosion
Welcome Inn, Mossbank	Erosion
Sullom Voe Terminal access road	Flood protection
Mavis Grind	Flood protection & erosion
Ollaberry Cemetery	Erosion
Urafirth	Flood protection
Hillswick	Flood protection
Busta, Brae	Flood protection & erosion
Road west of Mulla	Erosion

PVA 04/02 - Summary of existing local actions to manage risk	
Location of Structure	Purpose of Structure
Grunnavoe	Erosion
Reawick Beach access road	Erosion
Tresta	Flood protection & erosion

Weisdale Voe	Erosion
Loch of Hellister	Erosion
Whiteness Brig causeway	Erosion

PVA 04/03 - Summary of existing local actions to manage risk	
Location of Structure	Purpose of Structure
Ireland graveyard access road	Erosion
Sumburgh runway (east and west)	Erosion
Scatness broch car park	Flood protection & erosion
Jarlshof	Flood protection & erosion
Grutness	Flood protection
Noness roadside defence	Erosion
Sandlodge	Flood protection
Cliffs of Cunningsburgh road	Erosion
Lerwick (Sea Road, Widows Homes)	Flood protection & erosion
Clickimin Roundabout	Flood protection
Sletts	Flood protection
Breiwick (west, north, & east)	Flood protection
Scottish Water pumping station, Twageos	Protection of infrastructure
South Commercial Street (Dukes Neb, Sea Scouts, Quendale House, & Queens Beach)	Flood protection & erosion
North Ness	Flood protection & erosion
Outside Skippidock harbour	Flood protection & erosion

Lerwick power station	Erosion
Arlanda, Shetland Catch	Port structures
Lerwick Harbour Trust laydown area (Greenhead)	Port structures
Scalloway (Mill Brae, Youth Centre, Main Street car park, Fisheries College)	Erosion & flood protection
Burn Beach	Flood protection
Kiln Cottage	Flood protection
Shetland Bus Memorial	Flood protection
Port Arthur	Flood protection
Dales Voe Pier	Port structures

Annex 1: Shetland LFRMP Actions

The Act requires Scottish Government to have regard to the Strategy and Local Flood Risk Management Plan when allocating funding to SEPA and Responsible Authorities. The delivery of the above 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.

LPD-wide / PVA	Selected Action	Location	Objective	Description	Coordination	Funding	Prioritisation			Proposed lead responsible authority	Proposed delivery period
							National	LPD	LA		
PVA 04/01	Vidlin Flood Protection Study (4001010005)	Vidlin coastal area	Reduce risk of coastal flooding in Vidlin (400101)	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. 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.	The survey and study will be carried out after discussion with SEPA hydrologists to ensure the information is as useful and relevant as possible. Results may help to inform future revisions of SEPA's flood maps	Council delivery of this action will be covered under existing revenue budgets, including survey and design work of approximately £15k.	154	2	2	Shetland Islands Council	Survey and analysis in 2017-2018, with any resulting further work then subject to prioritisation and funding
PVA 04/02	Walls Flood Protection Study (4002010005)	Walls coastal area	Reduce risk of coastal flooding in Shetland Mainland West (400201)	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. 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.	The survey and study will be carried out after discussion with SEPA hydrologists to ensure the information is as useful and relevant as possible. Results may help to inform future revisions of SEPA's flood maps	Council delivery of this action will be covered under existing revenue budgets, including survey and design work of approximately £15k.	138	1	1	Shetland Islands Council	Survey and analysis in 2018-2019, with any resulting further work then subject to prioritisation and funding
PVA 04/03	Cunningsburgh Flood Protection Study (4003010005)	Cunningsburgh - Burn of Mail and Burn of Votter	Reduce risk in the Cunningsburgh area from river and surface water flooding (400301)	The A970 is the key road linking the southern end of the mainland, including the airport at Sumburgh, to the rest of Shetland. Flooding in the Cunningsburgh area causes significant disruption to residents, commuters, and visitors. A study should be undertaken to assess direct defences upstream of the A970 on the Burn of Laxdale and Burn of Mail and improvements to the conveyance through the culverts underneath the road. Other actions may also be considered to develop the most sustainable range of options.	Discussion will take place with SEPA hydrologists to determine if there is a crossover of useful information. Results may help to inform future revisions of SEPA's flood maps	Council delivery of this action will be covered under existing revenue budgets, including survey and design work of approximately £15k.	156	3	3	Shetland Islands Council	Survey and analysis in 2019-2020, with any resulting further work then subject to prioritisation and funding
PVA 04/03	Surface Water Plan/Study covering Lerwick and Scalloway (4003050018)	Lerwick South Burn of Gremista, Scalloway Burn Beach	Reduce risk from surface water flooding in Lerwick and Scalloway (400305)	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. 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. There are existing land use planning restrictions on upstream development in both catchments and the study will generate improved public engagement and understanding of those issues and the resulting implications for future developments. Scottish Water will provide local knowledge and understanding of the sewer network. This includes Scottish Water corporate data (as applicable) and, where available, outputs of Section 16 studies, to assist with the surface water management planning process.	There are identified flood risks at locations involving Council, Scottish Water and third party properties and drainage infrastructure. SIC will lead the investigation of the catchments, but consideration of options and future work leading on from that will involve a wide range of groups. Scottish Water will work with Shetland Islands Council and support surface water management planning through ensuring that best available knowledge and data is used to input into the Surface Water Management Plans.	Council delivery of this action will be covered under existing revenue budgets, including survey and design work of approximately £15k.	-	4	4	Shetland Islands Council	Survey and outline design work in 2017-2020 for specific works in the priority areas with any resulting construction works then subject to prioritisation and possible third party agreement / contribution
PVA 04/03	Strategic mapping and modelling (4000020019)	Lerwick DOA/Maa Ness DOA	Reduce overall flood risk (400002)	Scottish Water will undertake further investigation and modelling in the Lerwick and Maa Ness sewer catchments to improve knowledge and understanding of flood risk in these areas as required under Section 16 of the Flood Risk Management (Scotland) Act 2009.	Scottish Water will work with Responsible Authorities to incorporate relevant information into these studies by regularly keeping the responsible authorities informed of their progress. Scottish Water will provide responsible authorities with the outputs of the Section 16 assessment which, where relevant, may be used to inform Surface Water Management Plans and SEPA flood hazard and risk maps.	Scottish Water funding is committed in its capital programme through Q&S 4a (2015-2021) which is approved by its regulators and customers.				Scottish Water	2016-2019
LPD Wide	Flood Forecasting (4000020009)	LPD Wide	Reduce overall flood risk (400002)	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 flood guidance statements provide an assessment of the risk of flooding for a five day period allowing responders time to put preparations in place to reduce the impact of flooding. 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. The Potentially Vulnerable Areas are within the 'Shetland' flood alert area.	SEPA / Met Office joint initiative. Hydrological information is provided by SEPA and meteorological information is provided by the Met Office. SEPA uses the information to predict the likelihood and timing of river, coastal and surface water flooding. Warnings received are circulated to the Council's Severe Weather email list as it the possibility of flooding is usually linked to high winds in a particular direction together with high tides / storm surge.	SEPA's flood forecasting service is funded through Scottish Government's grant in aid allocation. The Met Office receives funding from the UK Government. Existing SIC revenue budgets	-	-	-	SEPA	On-going
LPD Wide	Self Help (4000020011)	LPD Wide	Reduce overall flood risk (400002)	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.	-	-	-		On-going

LPD-wide / PVA	Selected Action	Location	Objective	Description	Coordination	Funding	Prioritisation			Proposed lead responsible authority	Proposed delivery period
							National	LPD	LA		
PVA 04/01	Awareness Raising (4000020013)	PVA 04/01	Reduce overall flood risk. (400002)	<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>Across Scotland, SEPA will create and share communication and education resources with other Responsible Authorities. These resources will include digital materials, awareness campaigns and promotion of our flood forecasting and warning services (Floodline). Where they exist, SEPA will engage with community resilience groups and community safety partnerships.</p> <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>A Scottish Government initiative on awareness raising in Schools is planned, with input from SIC services.</p> <p>Scottish Water will support SEPA and Responsible Authorities with their awareness raising activities as required and provide targeted flooding communications for Scottish Water specific 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>More general information and flooding guidance will be available on the website at: https://www.scottishwater.co.uk/you-and-your-home/your-home/flooding-information</p>	<p>The Shetland Islands Council, SEPA and Scottish Water will co-ordinate awareness raising activities with other Responsible Authorities, through the regular Local Plan District Partnerships and Flood Risk Management Local Area Group meetings.</p> <p>More information on the roles of these groups is given in Annex 3</p>	<p>Council involvement is funded from existing SIC revenue budgets</p> <p>SEPA's awareness raising activities are funded by Scottish Government through SEPA's grant in aid settlement.</p>	-	-	-	Shetland Islands Council and SEPA	On-going
LPD Wide	Maintenance (4000020007)	LPD Wide	Reduce overall flood risk. (400002)	<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 Shetland Islands Council Roads Service carry out inspections of Roads bridges and culverts and associated sections of watercourses and produce a schedule of clearance and repair works for priority locations, which is made available for public inspection.</p> <p>Scottish Water undertake risk based inspection, maintenance and repair on the public sewer network.</p> <p>Other 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>Shetland Islands Council will publish a schedule of planned watercourse inspection, clearance and repair works.</p> <p>Awareness of third party works impacts on watercourses or flood protection infrastructure will be raised with authorities through the required planning permission and/or other required licensing processes and discussions at LPDP and FLAG group meetings.</p> <p>Scottish Water will keep Responsible Authorities informed of large scale capital maintenance work to identify opportunities for co ordination.</p>	<p>Roads Service inspections are funded from existing SIC revenue budgets</p>	-	-	-	Shetland Islands Council	On-going
LPD Wide	Emergency Response (4000020014)	LPD Wide	Reduce overall flood risk. (400002)	<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>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>Emergency Planning and other Council service actions are funded from existing SIC revenue budgets</p>	-	-	-	Category 1 and 2 Responders	On-going
LPD Wide	Planning policy (4000010001)	LPD Wide	Avoid an overall increase in flood risk. (400001)	<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>Areas in Shetland identified for development in the Local Development Plan have had initial flood risk assessments carried out as part of their consideration.</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 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>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>Development Planning and other Council service input funded from existing revenue budgets</p> <p>SEPA's land use planning activities are funded by Scottish Government through SEPA's grant in aid settlement.</p>	-	-	-	Shetland Islands Council and SEPA	On-going

Annex 2: LPD roles & responsibilities

1. Roles and responsibilities for Flood Risk Management Planning

Individuals are the first line of defence against flooding. However, public bodies have responsibilities too and are working together to reduce the impacts of flooding in Scotland. Responsibility for Flood Risk Management Planning falls in the main to SEPA, local authorities and Scottish Water. However, individuals have a personal responsibility to protect themselves and their property.

Some of the key roles are outlined below and more information is available from the SEPA website.

Your responsibilities

Organisations and individuals have responsibilities to protect themselves from flooding. Being prepared by knowing what to do and who to contact if flooding happens can help you reduce the damage and disruption flooding can have on your life.

The first step to being prepared is [signing up to Floodline](#) so you can receive messages to let you know where and when flooding is likely to happen. Other useful tools and advice on how to be prepared are available on the [Floodline](#) website including a quick guide to who to contact in the event of a flood. You can also check how your area could be affected by flooding by looking at SEPA's [flood maps](#).

SEPA

SEPA is Scotland's national flood forecasting, flood warning and strategic flood risk management authority and has a statutory duty to produce Scotland's Flood Risk Management Strategies. As described above, SEPA work closely with other organisations responsible for managing flood risk through a network of partnerships and stakeholder groups to ensure that a nationally consistent approach to flood risk management is adopted.

SEPA also has a responsibility to identify where in Scotland there is the potential for natural flood management techniques to be introduced. Natural flood management is the use of the natural features of the land to store and slow down the flow of water.

In running Floodline, SEPA provide live flooding information and advice on how to prepare for or cope with the impacts of flooding 24 hours a day, seven days a week. To help forecast for flooding SEPA work closely with the [Met Office](#).

To raise awareness of flooding at a national level SEPA runs education initiatives, community engagement programmes and an annual campaign to promote the useful advice and information available through Floodline. SEPA work in partnership with

local authorities, Neighbourhood Watch Scotland, Ready Scotland and others to share resources and help to promote preparedness and understanding of how flood risk is managed.

Local authorities

Local authorities work together for Flood Risk Management Planning purposes through a single lead authority which has the responsibility to produce a Local Flood Risk Management Plan. Local authorities have been working collaboratively in the manner described above to develop these.

It is the responsibility of Shetland Islands Council to implement its flood protection actions agreed within the Flood Risk Management Strategy, including new schemes or works and the requirement to clear and repair watercourses. You can help the Council to manage flooding by letting them know if debris is blocking watercourses or if flood defences are tampered with.

During severe flooding, the Council will work with the emergency services and coordinate shelter for people evacuated from their homes.

Shetland Islands Council is the lead authority for the Shetland Local Plan District and there are no other local authorities in this LPD.

Scottish Water

Scottish Water is a Responsible Authority for flood risk management and is working closely with SEPA, local authorities and others to coordinate plans to manage flood risk.

Scottish Water has the public drainage duty and is responsible for foul drainage and the drainage of rainwater run-off from roofs and any paved ground surface from the boundary of properties. Additionally, Scottish Water helps to protect homes from flooding caused by sewers either overflowing or becoming blocked. Scottish Water is not responsible for private pipework or guttering within the property boundary. To find out more about waste water flooding visit the [Scottish Water website](#).

Other organisations

- **The Scottish Government** oversees the implementation of the Flood Risk Management (Scotland) Act 2009 which requires the production of Flood Risk Management Strategies and Local Flood Risk Management Plans. Scottish Ministers are responsible for setting the policy framework for how organisations collectively manage flooding in Scotland. Scottish Government has also approved this Flood Risk Management Strategy.
- **Scottish Natural Heritage** has provided general and local advice in the development of this Flood Risk Management Strategies. Flooding is seen as natural process that can maintain the features of interest at many designated

sites, so Scottish Natural Heritage helps to ensure that any changes to patterns of flooding do not adversely affect the environment. Scottish Natural Heritage also provides advice on the impact of Flood Protection Schemes and other land use development on designated sites and species.

- **Utility companies** have undertaken site specific flood risk studies for their primary assets and have management plans in place to mitigate the effects of flooding to their assets and also minimise the impacts on customers.
- **The Met Office** provides a wide range of forecasts and weather warnings. SEPA and the Met Office work together through the Scottish Flood Forecasting Service.
- **The emergency services** provide emergency relief when flooding occurs and can coordinate evacuations. You should call the emergency services on 999 if you are concerned about your safety or the safety of others and act immediately on any advice provided.
- **Historic Environment Scotland** considers flooding as part of their regular site assessments. As such, flooding is considered as one of the many factors which inform the development and delivery of its management and maintenance programmes.

Although not directly relevant to the Shetland Local Plan District, national consultation has also been undertaken with Forestry Commission Scotland, Network Rail and Transport Scotland

Annex 3: Consultation and engagement

The Flood Risk Management Strategy (FRMS) and the Local Flood Risk Management Plan (LFRMP) have been drawn up as part of a long term process of collaborative working involving many different groups, as outlined below:

Local Plan District Partnership (LPDP)

This is a working group of SIC, SEPA and Scottish Water officers, whose primary function to this date has been preparing input and reviewing local aspects of firstly the FRMS documents and then this resulting LFRMP.

Membership:

SIC	Elected member Planning, Roads and Emergency Planning officers
SEPA	Local and Area officers
Scottish Water	Local and Area officers

Flood Risk Management Local Advisory Group (FRM LAG)

This is a wider working group of interested parties overseeing flooding actions and monitoring. The FRM LAG group has had regular progress reports on the work of the LPDP groups work on the FRMS and LFRMP and there is a significant crossover in membership of the two groups.

Membership:

SEPA	Local and Area officers
SIC	Elected member Planning, Roads and Emergency Planning officers
Scottish Water	Local and Area officers

Lerwick Port Authority
Hjaltland Housing Association
Shetland Amenity Trust
RSPB
SNH

Flood Risk Management Strategy (FRMS)

As part of producing the Strategy there was different overlapping streams of national and local, public and authority reporting and consultation.

SEPA produced a national publicity campaign leading up to their public consultation process on the draft FRMS.

Shetland Councillors and Community Councils also received a briefing note on the

consultation and printed copies of the draft Strategy were made available to the public.

Following the consultation, a report was presented to the SIC Development committee updating members of the progress towards the draft FRMS and the results of the public consultation. Members approved the draft strategy for submission for inclusion in the strategy.

Local Flood Risk Management Plan (LFRMP)

This LFRMP looks at how to deliver the recommended actions from the national FRMS, adding local detail and more information on scheduling, coordination and funding.

A report was presented to the SIC Development committee in April 2016 updating members of the progress towards producing the draft LFRMP after publication of the FRMS. Members approved the draft Plan for publication as the Shetland LFRMP.

Future Engagement

There will be ongoing engagement both with raising public awareness of the Plan and its approaches to managing or reducing flood risk and as part of the process of preparing for the update cycle of the FRMP after 2022.

One particular initiative which is already underway seeks to have community resilience officers build connections and engagement with local schools, incorporating flooding processes, community resilience and related local examples of such topics into lessons. www.educationscotland.gov.uk/readyforemergencies

Annex 4: Links to other plans, policies, strategies and legislative requirements

1. Strategic Environmental Assessment (SEA)

After wider consultation it is considered that the SEA requirements for the LFRMP have already been address in the SEA process carried out by SEPA during production of the national Flood Management Strategies. A document outlining the reasons for this decision is available [here](#).
(supporting document will be online before publication of the Plan in June)

2. Habitat Regulations Appraisal (HRA)

After wider consultation it is considered that the HRA requirements for the LFRMP have already been address in the HRA process carried out by SEPA during production of the national Flood Management Strategies. A document outlining the reasons for this decision is available [here](#).
(supporting document will be online before publication of the Plan in June)

3. River Basin management Planning (RBMP)

[SEPA RBMP portal](#)
[RBMP for the Scotland river basin district – summary document](#)
[Shetland and Orkney supplementary document](#)

4. Scottish Water’s investment programme

This is set out in the Scottish Water Business Plan available on their website [here](#).

5. S18 Schedule of Clearance and Repair

The Shetland Islands Council’s schedule of clearance and repair under Section 18 of the Flood Risk Management (Scotland) Act 2009 is available [here](#). *(supporting document will be online before publication of the Plan in June)*

6. Shetland Local Development Plan

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

Annex 5: Land Use Planning

Flood risk management actions from national planning policies
<p>AVOID DEVELOPMENT IN MEDIUM TO HIGH RISK AREAS</p> <p>a) Planning authorities work in partnership undertaking catchment-wide Strategic Flood Risk Assessments to inform their development plan allocations in line with SEPA's guidance and Land Use Vulnerability.</p> <p>b) Planning authorities and SEPA require the submission of flood risk assessments that accord with SEPA's Technical Flood Risk Guidance for Stakeholders, to support planning applications where there is a potential flood risk. The flood risk assessment should be used to demonstrate as far as possible that the development will be safe for its lifetime, without increasing flood risk elsewhere and, where possible, takes opportunities to reduce flood risk overall.</p> <p>c) SEPA ensures that its flood risk advice to planning authorities is clear and appropriate. SEPA, in consultation with planning authorities, undertakes an annual assessment of planning advice and its contribution to flood risk.</p> <p>d) SEPA and planning authorities engage at an early stage of the development plan process to agree appropriate forms of development to help inform the preparation and implementation of Strategic Flood Risk Assessments.</p>
<p>REDUCE IMPACTS TO EXISTING BUILDINGS</p> <p>a) SEPA, planning authorities and local communities are required to engage at an early stage of the development plan process to agree the best long term land uses for areas where relocation, abandonment and/or change of use have been identified to deliver sustainable flood risk management. Where possible, new land uses should aim to achieve multiple benefits for local communities such as the creation of blue / green infrastructure and increased resilience to climate change.</p>

<p>PROTECT AND ENHANCE NATURAL FEATURES THAT HAVE A POSITIVE IMPACT ON REDUCING OVERALL FLOOD RISK</p> <p>a) SEPA and planning authorities are required to engage early in the development plan process to identify opportunities for the restoration and protection of natural features which help manage flood risk. Opportunities should be maximised to achieve multiple benefits such as the development of green / blue infrastructure and improved place making. Areas of land that may contribute to flood management should be identified and protected.</p>
<p>NEW DEVELOPMENTS ARE DESIGNED TO ENSURE THAT SURFACE WATER DRAINAGE DOES NOT INCREASE FLOOD RISK ON OR OFF SITE</p> <p>a) SEPA prepares guidance for planning authorities and developers on the use of surface water hazard maps for land use planning purposes.</p> <p>b) Planning authorities support the implementation of Surface Water Management Plans, developed by the local authorities, through development plan allocations and policies. Surface Water Management Plans should take account of development opportunities that could contribute to the reduction of surface water flood risk.</p> <p>c) SEPA engages at an early stage of the development plan process to progress exemplar projects that demonstrate the potential for land use planning to mitigate surface water flooding and contribute to wider environmental benefits.</p>
<p>NEW DEVELOPMENT IS RESILIENT TO PREDICTED FUTURE CHANGES IN CLIMATE</p> <p>a) Planning authorities ensure that climate change is considered in Strategic Flood Risk Assessments and Flood Risk Assessments, based upon the best scientific evidence and the information requirements of planners to make informed decisions.</p>

Table 1: Objectives and actions that reflect national Land Use Planning policies and guidance

Annex 6: Supporting information

1. Sources of flooding described in this strategy

The Flood Risk Management Strategy addresses the risk of flooding from rivers, the coast and surface water. The risk of flooding from rivers is usually due to rainfall causing a river to rise above bank level spreading out and inundating adjacent areas. Coastal flooding is where the risk is from the sea. Sea levels can change in response to tidal cycles or atmospheric conditions. Over the longer term sea levels and coastal flood risk may change due to climate change. Surface water flooding happens when rainwater does not drain away through the normal drainage systems or soak into the ground, but lies on or flows over the ground instead.

There can be interactions between these sources of flooding, but for the purposes of this strategy they are dealt with independently.

The following aspects of flooding have not been incorporated to this strategy:

- **Groundwater** is generally a contributing factor to flooding rather than the primary source. It is caused by water rising up from underlying rocks or flowing from springs.
- **Reservoir breaches** have been assessed under separate legislation. Further information and maps can be found on SEPA's website.
- **Coastal erosion** -the Flood Risk Management Act (Scotland) 2009 does not include powers for SEPA or Responsible Authorities to assess or manage coastal erosion. SEPA have included consideration of erosion in the Flood Risk Management Strategies by identifying areas that are likely to be vulnerable to erosion and therefore where erosion can exacerbate flood risk. As part of considering where actions might deliver multiple benefits, we have looked to see where the focus of coastal flood risk management studies coincides with areas of high susceptibility to coastal erosion. Subsequent detailed studies and scheme design will need to consider how coastal actions interact with coastal erosion.
- **Wave overtopping.** The information on coastal flooding in this strategy is based on SEPA modelling using still water level predictions. The method used simplifies the coastal processes and flooding mechanisms at work during a storm. Wave overtopping cannot be accurately modelled at a national scale due to the importance of local factors such as prevailing wind conditions, the depth and profile of the near-shore sea bed or the influence of any existing defences or management structures. As a result they may be an underestimate of coastal flood risk in some areas. In locations with wide and flat floodplains, the modelling may overestimate flood risk because the volumes of water able to inundate an area over a tidal cycle are not taken into account. To address

this, in a number of locations where more detailed local models were available they have been incorporated into the development of the Flood Risk Management Strategies. Where wave overtopping has been specifically identified as a concern – but where no further detailed modelling is available – particular compensation has been made in the selection of appropriate actions to address coastal flood risk.

2. Understanding commonly used terms in flood risk management

Below are explanatory notes for the approach taken in this strategy and commonly used terms in flood risk management. A glossary of terms is also available.

- **Reference to flood risk.** During the development of this strategy flood risk has been assessed over a range of likelihoods. For consistency in reporting information within the strategies, unless otherwise stated, all references to properties or other receptors being ‘at risk of flooding’ refer to a medium likelihood flood (up to a 1 in 200 chance of flooding in any given year). By exception, references will be made to high or low risk flooding, which should be taken to mean a 1 in 10 chance/likelihood or 1 in 1000 chance/likelihood of flooding in any given year respectively.

Likelihood of flooding	Return period
High	10 year
Medium	200 year
Low	1000 year

- **Annual Average Damages** have been used to assess the potential economic impact of flooding within an area. These are the average economic damages per year when assessed over a very long period of time. They are derived from the estimated economic damages from all sources of flooding to the following receptors: agriculture, residential properties (direct and indirect), non-residential properties, vehicles, emergency services and roads within the area.

3. Flood Risk Management Strategy

The following is extracted from the ‘Managing flooding in Scotland’ section of the Flood Risk Management Strategy.

National Flood Risk Assessment

SEPA published a National Flood Risk Assessment 2011. It significantly improved our understanding of the causes and consequences of flooding, and identified areas most vulnerable to floods. It was the first step to delivering a risk-based, sustainable and plan-led approach to flood risk management.

The assessment considered the likelihood of flooding from rivers, groundwater and the sea, as well as flooding caused when heavy rainfall is unable to enter drainage systems or the river network. The likelihood of flooding was examined alongside the estimated impact on people, the economy, cultural heritage and the environment. This combined understanding of where flooding is likely to occur, and the impact when it does, helped target the efforts of organisations managing flood risk to people, the economy and the environment.

Potentially Vulnerable Areas and Local Plan Districts

Based on the National Flood Risk Assessment, SEPA identified where the estimated impact of flooding was considered to be nationally significant. These areas are based on catchment units as it is within the context of the wider catchment that flooding can be best understood and managed. These nationally significant catchments are referred to as Potentially Vulnerable Areas.

In Scotland, 243 Potentially Vulnerable Areas were identified. They are estimated to contain 92% of the total number of properties at risk within Scotland.

For flood risk management purposes, Scotland was divided into 14 Local Plan Districts. Each Local Plan District will have a Flood Risk Management Strategy and a Local Flood Risk Management Plan.

Lead Local Authority

The FRM Act requires a Lead Local Authority to be identified for each Local Plan District. The Lead Local Authority is crucial to the successful implementation of the FRM Act and, as such, must perform several important functions over and above the general duties and powers given to local authorities elsewhere in the FRM Act.

The Lead Local Authority, having contributed with other local authorities to the production of the Flood Risk Management Strategy, must prepare a Local Flood Risk Management Plan of co-ordinated actions to reduce flood risk within the Local Plan District. Although the Lead Local Authority is responsible for the production of the plan, its content will be drawn from and agreed by all local authorities, other Responsible Authorities and SEPA within the Local Plan District.

Natural flood management assessment and mapping of artificial and natural features

The new approach to Flood Risk Management requires SEPA to consider whether techniques that restore enhance or alter natural features and characteristics can

contribute to managing flood risk. This means looking at the potential to work with natural hydrological and morphological processes.

Because the National Flood Risk Assessment provides only a strategic assessment of flood risk, further refined assessments may be required in Potentially Vulnerable Areas, including the mapping of artificial and natural features whose removal could increase flood risk.

The development of catchment characteristics and methodologies, to assess the potential for natural flood management, commenced in 2012 along side work to identify natural flood management actions that could contribute to the management of flood risk. This information was published in 2013. The assessment of natural flood management is a consideration in the setting of objectives and actions in the Flood Risk Management Strategies.

Flood hazard and flood risk maps

The production of flood hazard and flood risk maps will improve our understanding of flooding and help inform the selection of actions required to manage flood risk in Potentially Vulnerable Areas. Work on production of these maps began in January 2012. The maps show details of flood events for a range of probabilities and cover flooding from rivers, the sea, sewers, surface water run-off and groundwater.

A flood hazard map will show information that describes the nature of a flood, such as the extent of flooding, water level, depth and velocity where appropriate.

A flood risk map provides detail on the impacts on people, the economy, cultural heritage and the environment.

Annex 7: Licensing information

Shetland Islands Council

Map extracts are published by the Shetland Islands Council with permission of the Ordnance Survey on behalf of the HMSO under Ordnance Survey Licence No. 100024344.

SEPA

The Shetland Islands Council acknowledges the inclusion of text generated by SEPA in preparation of the Shetland Flood Risk Management Strategy. Figures and Maps produced by SEPA for the Shetland Flood Risk Management Strategy have been reprinted in the Shetland Local Flood Risk Management Plan with authorisation from SEPA under SEPA Licence number 100016991 (2015).

Glossary

Actions

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 has been based on a detailed assessment and comparison of economic, social and environmental criteria.

Annual Average Damages (AAD)

Depending on its size or severity each flood will cause a different amount of damage to a given area. Annual Average Damages are the theoretical average economic damages caused by flooding when considered over a very long period of time. It does not mean that damage will occur every year: in many years there will be no damages, in some years minor damages and in a few years major damages may occur. High likelihood events, which occur more regularly, contribute proportionally more to AADs than rarer events.

Within the Flood Risk Management Strategies AADs incorporate economic damages to the following receptors: residential properties, non-residential properties, vehicles, emergency services, agriculture and roads. They have been calculated based on the principles set out in the Flood Hazard Research Centre Multi-Coloured Handbook (2010).

Appraisal

Appraisal is the process of defining objectives, examining options and weighing up the costs, benefits, risks and uncertainties before a decision is made. The FRM Strategy appraisal method is designed to set objectives and identify the most sustainable combination of actions to tackle flooding from rivers, sea and surface water.

Awareness raising

Public awareness, participation and community support are essential components of sustainable flood risk management. SEPA and the Responsible Authorities have a duty to raise public awareness of flood risk. This is undertaken both individually and collaboratively by a range of organisations. Improved awareness of flood risk and actions that prepare individuals, homes and businesses for flooding can reduce the overall impact.

Benefit cost ratio (BCR)

A benefit cost ratio summarises the overall value for money of an action or project. It is expressed as the ratio of benefits to costs (both expressed as present value monetary values). A ratio of greater than 1:1 indicates that the economic benefits associated with an action are greater than the economic costs of implementation; therefore this is taken as the threshold of economic viability. It should be acknowledged that it is not always possible to accurately estimate economic values for all elements of benefit, and BCR is just one a number of techniques used in appraisal.

Catchment

All the land drained by a river and its tributaries.

Category 1 and 2 Responders (Cat 1/2)

Category 1 and 2 Responders are defined as part of the Civil Contingencies Act 2004 which seeks to minimise disruption in the event of an emergency.

Category 1 Responders are 'core' responders: local authorities, police, fire and rescue services, ambulance service, NHS health boards, SEPA and the Maritime and Coastguard Agency.

Category 2 Responders are key co-operating responders in support of Category 1 Responders. These include gas and electricity companies, rail and air transport operators, harbour authorities, telecommunications providers, Scottish Water, the Health and Safety Executive and NHS National Services Scotland.

Characterisation

Provides a description of the natural characteristics of catchments, coastlines and urban areas in terms of hydrology, geomorphology, topography and land use. It also includes the characterisation of existing levels of flood risk and existing flood risk management activity.

Coastal flooding

Flooding that results from high sea levels or a combination of high sea levels and stormy conditions. The term coastal flooding is used under the Flood Risk Management (Scotland) Act 2009, but in some areas it is also referred to as tidal flooding and covers areas such as estuaries and river channels that are influenced by tidal flows.

Combined sewer

Combined sewers transport sewage from homes and industry as well as carrying surface water runoff from gutters, drains and some highways. Heavy or prolonged rainfall can rapidly increase the flow in a combined sewer until the amount of water exceeds sewer capacity.

Combined sewer (overflow) (CSO)

Combined sewer overflows are purposely designed structures to ensure any excess water from sewerage systems is discharged in a controlled way and at a specific managed location.

Community facility

Within the FRM Strategies this term includes: Emergency Services (Police, Fire, Ambulance, Coastguard) Educational Buildings (crèche, nursery, primary, secondary, further, higher and special education premises) Healthcare facilities: hospitals, health centres and residential care homes

Community flood action groups

Community flood action groups are community based resilience groups which, on behalf of local residents and business, help to prepare for and minimise the effects of flooding. They reflect the interests of their local communities and may differ in composition and remit. There are over 60 groups already established in Scotland. The Scottish Flood Forum provides support for both new and existing groups.

Conveyance

Conveyance is a measure of the carrying capacity of a watercourse. Increasing conveyance enables flow to pass more rapidly and reducing conveyance slows flow down. Both actions can be effective in managing flood risk depending on local conditions.

Cultural heritage site

Historic Environment Scotland maintains lists of buildings of special architectural or historic interest; these buildings are referred to as 'listed buildings'. The highest level of designation is a World Heritage Site. Other designations included in this assessment are scheduled monuments, gardens and designed landscapes, and battlefields.

Culvert

A pipe, channel or tunnel used for the conveyance of a watercourse or surface drainage water under a road, railway, canal or other obstacle.

Damages

Flood damages are categorised as direct or indirect i.e. as a result of the flood water itself, or subsequent knock on effects. Damage to buildings and contents caused by flood water are an example of direct damages, whilst loss of industrial production, travel disruption or stress and anxiety are indirect. Some damages can be quantified in monetary terms, and others can only be described. The potential damages avoided by implementation of a flood risk management action are commonly referred to as the benefits of that action. When comparing the effectiveness of different actions, it is useful to consider estimated damages and damages avoided across the lifespan of the action. Within the FRM Strategies, a 100 year appraisal period has been used as standard. This allows costs, damages and benefits across this time frame to be compared in present value terms.

See also 'Annual Average Damages'

Economic impact

An assessment of the economic value of the positive and negative effects of flooding and / or the actions taken to manage floods. Embankment Flood embankments are engineered earthfill structures designed to contain high river levels or protect against coastal flooding. They are commonly grass-covered, but may need additional protection against erosion by swiftly flowing water, waves or overtopping.

Emergency plans / response

Emergency response plans are applicable for all types of flooding. They set out the steps to be taken during flooding in order to maximise safety and minimise impacts where possible. Under the Civil Contingencies Act, Category 1 Responders have a duty to maintain emergency plans. Emergency plans may also be prepared by individuals, businesses, organisations or communities.

Environmental impact

A change in the environment as a result of an action or activity. Impacts can be positive or negative and may vary in significance, scale and duration.

Environmental Impact Assessment (EIA)

Environmental Impact Assessment (EIA) is a process which identifies the potential environmental impacts, both negative and positive, of a proposal.

Environmental sites / environmental designated areas / environmentally designated sites

Areas formally designated for environmental importance, such as Sites of Special Scientific Interest (SSSI), Special Protection Area (SPA) or Special Areas of Conservation (SAC).

Erosion

A natural process leading to the removal of sediment from a river bed, bank or floodplain or coastline.

Flash flood

A flood that occurs a short period of time after high intensity rainfall or a sudden snow melt. A sudden increase in the level and velocity of the water body is often characteristic of these events, leaving a short time for warning or actions.

Flood

In the terms of the FRM Act, 'flood' means a temporary covering by water, from any source, of land not normally covered by water. This does not include a flood solely from a sewerage system, as a result of normal weather or infrastructure drainage. A flood can cause significant adverse impacts on people, property and the environment.

Flood bund

A constructed retaining wall, embankment or dyke designed to protect against flooding to a specified standard of protection. Flood defence Infrastructure, such as flood walls, embankments or flood storage intended to protect an area against flooding to a specified standard of protection.

Flood extent

The area that has been affected by flooding, or is at risk of flooding from one or more sources for a particular likelihood.

Flood forecasting

SEPA operates a network of over 250 rainfall, river and coastal monitoring stations throughout Scotland that generate data 24 hours a day. This hydrological information is combined with meteorological information from the Met Office. A team of experts then predict the likelihood and timing of river, coastal and surface water flooding. This joint initiative between SEPA and the Met Office forms the Scottish Flood Forecasting Service.

Flood frequency

The probability that a particular size/severity of flood will occur in a given year (see likelihood).

Flood gate

An adjustable, sometimes temporary, barrier used as a flood defence to control the flow of water within a water system or during a flood. Flood gates can also be part of operational flood defences or protect individual buildings or sites.

Flood guard

Flood guards cover a variety of types of door and window barriers that can be fitted to individual properties and operated by the owners / occupiers prior to a flood event. They act as a physical barrier to water entering the property and can provide protection against frequent and relatively shallow flooding.

Flood hazard

In terms of the FRM Act, hazard refers to the characteristics (extent, depth, velocity) of a flood.

Flood hazard map

Flood hazard maps are required by the FRM Act to show information that describes the nature of a flood in terms of the source, extent, water level or depth and, where appropriate, velocity of water. Flood hazard and risk maps are referred to collectively as flood maps and are available on the SEPA website.

Flood Prevention Scheme / Flood Protection Scheme (FPS)

A flood protection scheme, as defined by the FRM Act, is a scheme by a local authority for the management of flood risk within the authority area. This includes defence measures (flood prevention schemes) formerly promoted under the Flood Prevention (Scotland) Act 1961.

Flood protection study

Flood protection studies aim to refine understanding of the hazard and risk associated with flooding in a particular area, catchment or coastline. They will involve detailed assessment of flood hazard and / or risk and may develop options for managing flood risk.

Flood protection works

Flood protection works can include the same flood defence measures that would make up a formal Flood Protection Scheme but without the legal process, protections and requirements that would come by delivering the works as a scheme.

Flood risk

A measure of the combination of the likelihood of flooding occurring and the associated impacts on people, the economy and the environment.

Flood Risk Assessment (FRA)

Flood Risk Assessments are detailed studies of an area where flood risk may be present. These are often used to inform planning decisions, may help to develop flood schemes and have also contributed to the National Flood Risk Assessment.

Flood Risk Management (Scotland) Act 2009 (FRM Act)

The flood risk management legislation for Scotland. It transposes the EC Floods Directive into Scots Law and aims to reduce the adverse consequences of flooding on communities, the environment, cultural heritage and economic activity.

Flood risk management cycle

Under the FRM Act flood risk management planning is undertaken in six year cycles. The first planning cycle is 2015 – 2021. The first delivery cycle is lagged by approximately 6 months and is from 2016 - 2022.

Flood Prevention (Scotland) Act 1961

The Flood Prevention (Scotland) Act 1961 gave local authorities discretionary powers to make and build flood prevention schemes. It was superseded by the Flood Risk Management (Scotland) Act 2009.

Flood Risk Management Local Advisory Groups

FRM Local Advisory Groups are stakeholder groups convened to advise SEPA and lead local authorities in the preparation of Flood Risk Management Plans. SEPA and lead local authorities must have regard to the advice they provide.

Flood Risk Management Plans (FRM Plans)

A term used in the FRM Act. FRM Plans set out the actions that will be taken to reduce flood risk in a Local Plan District. They comprise Flood Risk Management Strategies, developed by SEPA, and Local Flood Risk Management Plans produced by lead local authorities.

Flood Risk Management Strategy (FRM Strategy)

Sets out a long-term vision for the overall reduction of flood risk. They contain a summary of flood risk in each Local Plan District, together with information on catchment characteristics and a summary of objectives and actions for Potentially Vulnerable Areas. Flood risk map complements the flood hazard maps published on the SEPA website providing detail on the impacts of flooding on people, the economy and the environment. Flood hazard and risk maps are referred to collectively as flood maps and are available on the SEPA website.

Flood wall

A flood defence feature used to defend an area from flood water to a specified standard of protection.

Flood Warning area (FWA)

A Flood Warning area is where SEPA operates a formal Flood Monitoring Scheme to issue targeted Flood Warning messages for properties located in the area.

Flood warning scheme

A flood warning scheme is the network of monitoring on a coastal stretch or river, which provides SEPA with the ability to issue Flood Warnings.

Floods Directive

European Directive 2007/60/EC on the Assessment and Management of Flood Risks builds on and is closely related to the Water Framework Directive (see River Basin Management Planning). It was transposed into Scots Law by the Flood Risk Management (Scotland) Act 2009. The Directive requires Member States to assess if all watercourses and coastlines are at risk from flooding, to map the flood extent, assets and humans at risk in these areas and to take adequate and coordinated measures to reduce this flood risk.

Floodplain

Area of land that borders a watercourse, an estuary or the sea, over which water flows in time of flood, or would naturally flow but for the presence of flood defences and other structures where they exist.

Green infrastructure

The European Commission defines green infrastructure as “the use of ecosystems, green spaces and water in strategic land use planning to deliver environmental and quality of life benefits. It includes parks, open spaces, playing fields, woodlands, wetlands, road verges, allotments and private gardens. Green infrastructure can contribute to climate change mitigation and adaptation, natural disaster risk mitigation, protection against flooding and erosion as well as biodiversity conservation.”

Groundwater flooding

This type of flooding is caused by water rising up from underlying rocks or flowing from springs. In Scotland groundwater is generally a contributing factor to flooding rather than the primary source.

Land use planning (LUP)

The process undertaken by public authorities to identify, evaluate and decide on different options for the use of land, including consideration of long term economic, social and environmental objectives and the implications for different communities and interest groups.

Lead Local Authority

A local authority responsible for leading the production, consultation, publication and review of a Local Flood Risk Management Plan.

Likelihood of flooding

The chance of flooding occurring.

High likelihood: A flood is likely to occur in the defined area on average once in every ten years (1:10). Or a 10% chance of happening in any one year.

Medium likelihood: A flood is likely to occur in the defined area on average once in every two hundred years (1:200). Or a 0.5% chance of happening in any one year.

Low likelihood: A flood is likely to occur in the defined area on average once in every thousand years (1:1000). Or a 0.1% chance of happening in any one year.

Local Flood Risk Management Plans (Local FRM Plan)

Local Flood Risk Management Plans, produced by lead local authorities, will take forward the objectives and actions set out in Flood Risk Management Strategies. They will provide detail on the funding, timeline of delivery, arrangements and co-ordination of actions at the local level during each six year FRM planning cycle.

Local Plan District

Geographical areas for the purposes of flood risk management planning. There are 14 Local Plan Districts in Scotland.

Local Plan District Partnerships

Each LPD has established a local partnership comprised of local authorities, SEPA, Scottish Water and others as appropriate. These partnerships are distinct from the FRM Local Advisory Groups and they retain clear responsibility for delivery of the FRM actions set out in the Local Flood Risk Management Plans. It is the local partnership that makes decisions and supports the delivery of these plans.

Maintenance

Sections 18 and 59 of the Flood Risk Management (Scotland) Act 2009 put duties of watercourse inspection, clearance and repair on local authorities. In addition, local authorities may also be responsible for maintenance of existing flood protection schemes or defences.

National Flood Management Advisory Group (NFMAG)

The National Flood Management Advisory Group provides advice and support to SEPA and, where required, Scottish Water, local authorities and other Responsible Authorities on the production of FRM Strategies and Local FRM Plans.

National Flood Risk Assessment (NFRA)

A national analysis of flood risk from all sources of flooding which also considers climate change impacts. Completed in December 2011 this provides the information required to undertake a strategic approach to flood management that identifies areas at flood risk that require further appraisal. The NFRA will be reviewed and updated for the second cycle of FRM Planning by December 2018.

Natural flood management (NFM)

A set of flood management techniques that aim to work with natural processes (or nature) to manage flood risk.

Non-residential properties

Properties that are not used for people to live in, such as shops or other public, commercial or industrial buildings.

Objectives

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.

One in 200 year flood

See 'likelihood of flooding' and 'return period'.

Planning policies

Current national planning policies, Scottish Planning Policy and accompanying Planning Advice notes restrict development within the floodplain and limit exposure of new receptors to flood risk. In addition to national policies, local planning policies may place further requirements within their area of operation to restrict inappropriate development and prevent unacceptable risk.

Potentially Vulnerable Areas (PVA)

Catchments identified as being at risk of flooding and where the impact of flooding is sufficient to justify further assessment and appraisal. There were 243 PVAs identified by SEPA in the National Flood Risk Assessment and these are the focus of the first FRM planning cycle.

Property level protection

Property level protection includes flood gates, sandbags and other temporary barriers that can be used to prevent water from entering individual properties during a flood.

Resilience

The ability of an individual, community or system to recover from flooding.

Responsible Authority

Designated under the FRM (Scotland) Act 2009 and associated legislation as local authorities, Scottish Water and, from 21 December 2013, the National Park Authorities and Forestry Commission Scotland. Responsible Authorities, along with SEPA and Scottish Ministers, have specific duties in relation to their flood risk related functions.

Return period

A measure of the rarity of a flood event. It is the statistical average length of time separating flood events of a similar size. (See likelihood)

Riparian

The riparian area is the interface between land and a river or stream. For the purposes of FRM this commonly refers to the riparian owner, which denotes ownership of the land area beside a river or stream.

River Basin Management Planning (RBMP)

The Water Environment and Water Services (Scotland) Act 2003 transposed the European Water Framework Directive into Scots law. The Act created the River Basin Management Planning process to achieve environmental improvements to protect and improve our water environment. It also provided the framework for regulations to control the negative impacts of all activities likely to have an impact on the water environment.

Scottish Advisory and Implementation Forum for Flooding (SAIFF)

The stakeholder forum on flooding set up by the Scottish Government to ensure legislative and policy aims are met and to provide a platform for sharing expertise and developing common aspirations and approaches to reducing the impact of flooding on Scotland's communities, environment, cultural heritage and economy.

Self help

Self help actions can be undertaken by any individuals, businesses, organisations or communities at risk of flooding. They are applicable to all sources, frequency and scales of flooding. They focus on awareness raising and understanding of flood risk.

Sewer flooding (and other artificial drainage system flooding)

Flooding as a result of the sewer or other artificial drainage system (e.g. road drainage) capacity being exceeded by rainfall runoff or when the drainage system cannot discharge water at the outfall due to high water levels (river and sea levels) in receiving waters.

Site protection plans

Site protection plans are developed to identify whether normal operation of a facility can be maintained during a flood. This may be due to existing protection or resilience of the facility or the network.

Shoreline Management Plan (SMP)

A Shoreline Management Plan is a large scale assessment of the coastal flood and erosion risks to people and the developed, historic and natural environment. It sets out a long-term framework for the management of these risks in a sustainable manner.

Site of Special Scientific Interest (SSSI)

Sites of Special Scientific Interest are protected by law under the Nature Conservation (Scotland) Act 2004 to conserve their plants, animals and habitats, rocks and landforms.

Source of flooding

The type of flooding. This can be coastal, river, surface water or groundwater.

Special Area of Conservation (SAC)

Special Areas of Conservation are strictly protected sites designated under the European Habitats Directive. The Directive requires the establishment of a European network of protected areas which are internationally important for threatened habitats and species

Special Protection Areas (SPA)

Special Protection Areas are strictly protected sites classified in accordance with the European Birds Directive. They are classified for rare and vulnerable birds (as listed in the Directive), and for regularly occurring migratory species.

Standard of protection (SoP)

All flood protection structures are designed to be effective up to a specified flood likelihood (Standard of Protection). For events beyond this standard, flooding will occur. The chosen Standard of Protection will determine the required defence height and / or capacity.

Storage area

A feature that can be used to store floodwater, this can be natural in the form of low lying land or manmade such as a reservoir or modified landform.

Strategic Environmental Assessment (SEA)

A process for the early identification and assessment of the likely significant environmental effects, positive and negative, of activities. Often considered before actions are approved or adopted.

Strategic Flood Risk Assessment (SFRA)

A Strategic Flood Risk Assessment is designed for the purposes of specifically informing the Development Plan Process. A SFRA involves the collection, analysis and presentation of all existing and readily available flood risk information (from any source) for the area of interest. It constitutes a strategic overview of flood risk.

Strategic mapping and modelling

Strategic mapping and modelling actions have been identified in locations where SEPA is planning to undertake additional modelling or analysis of catchments and coastlines, working collaboratively with local authorities where appropriate, to improve the national understanding of flood risk.

Surcharge

Watercourses and culverts can carry a limited amount of water. When they can no longer cope, they overflow, or 'surcharge'.

Surface water flooding

Flooding that occurs when rainwater does not drain away through the normal drainage systems or soak into the ground, but lies on or flows over the ground instead.

Surface Water Management Plan (SWMP)

A plan that takes an integrated approach to drainage accounting for all aspects of urban drainage systems and produces long term and sustainable actions. The aim is to ensure that during a flood the flows created can be managed in a way that will cause minimum harm to people, buildings, the environment and business.

Surface water plan/study

The management of flooding from surface water sewers, drains, small watercourses and ditches that occurs, primarily in urban areas, during heavy rainfall. FRM Strategy actions in this category include: Surface Water Management Plans and assessment of flood risk from sewerage systems (FRM Act Section 16) by Scottish Water. These have been selected as appropriate for each Potentially Vulnerable Area.

Sustainable flood risk management

The sustainable flood risk management approach aims to meet human needs, whilst preserving the environment so that these needs can be met not only in the present, but also for future generations.

The delivery of sustainable development is generally recognised to reconcile three pillars of sustainability – environmental, social and economic.

Sustainable drainage systems (SuDS)

A set of techniques designed to slow the flow of water. They can contribute to reducing flood risk by absorbing some of the initial rainfall and then releasing it gradually, thereby reducing the flood peak and helping to mitigate downstream problems. SuDS encourage us to take account of quality, quantity and amenity/biodiversity.

UK Climate Change Projections (UKCP09)

The leading source of climate change information for the UK. It can help users to assess their climate risks and plan how to adapt to a changing climate. The high emissions scenario refers to the SRES A1F1 emission scenario.

See Annex 1 of the UKCP09 Climate change projections report for details.

Utility assets

Within the FRM Strategies this refers to electricity sub stations, mineral and fuel extraction sites, telephone assets, television and radio assets.

Voe

A dialect term, common in place names and used to refer to a small bay or creek in Orkney or Shetland.

Vulnerability

A measure of how likely someone or something is to suffer long-term damage as a result of flooding. It is a combination of the likelihood of suffering harm or damage during a flood (susceptibility) and the ability to recover following a flood (resilience).

Wave energy dissipation

Process by which a wave loses its energy.

Wave overtopping

Wave overtopping occurs when water passes over a flood wall or other structure as a result of wave action. Wave overtopping may lead to flooding particularly in exposed coastal locations.

LPD-wide / PVA	Selected Action	Location	Objective	Description	Coordination	Funding	Prioritisation			Proposed lead responsible authority	Proposed delivery period
							National	LPD	LA		
PVA 04/01	Vidlin Flood Protection Study (4001010005)	Vidlin coastal area	Reduce risk of coastal flooding in Vidlin (400101)	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. 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.	The survey and study will be carried out after discussion with SEPA hydrologists to ensure the information is as useful and relevant as possible. Results may help to inform future revisions of SEPA's flood maps	Council delivery of this action will be covered under existing revenue budgets, including survey and design work of approximately £15k.	154	2	2	Shetland Islands Council	Survey and analysis in 2017-2018, with any resulting further work then subject to prioritisation and funding
PVA 04/02	Walls Flood Protection Study (4002010005)	Walls coastal area	Reduce risk of coastal flooding in Shetland Mainland West (400201)	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. 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.	The survey and study will be carried out after discussion with SEPA hydrologists to ensure the information is as useful and relevant as possible. Results may help to inform future revisions of SEPA's flood maps	Council delivery of this action will be covered under existing revenue budgets, including survey and design work of approximately £15k.	138	1	1	Shetland Islands Council	Survey and analysis in 2018-2019, with any resulting further work then subject to prioritisation and funding
PVA 04/03	Cunningsburgh Flood Protection Study (4003010005)	Cunningsburgh - Burn of Mail and Burn of Voxter	Reduce risk in the Cunningsburgh area from river and surface water flooding (400301)	The A970 is the key road linking the southern end of the mainland, including the airport at Sumburgh, to the rest of Shetland. Flooding in the Cunningsburgh area causes significant disruption to residents, commuters, and visitors. A study should be undertaken to assess direct defences upstream of the A970 on the Burn of Laxdale and Burn of Mail and improvements to the conveyance through the culverts underneath the road. Other actions may also be considered to develop the most sustainable range of options.	Discussion will take place with SEPA hydrologists to determine if there is a crossover of useful information. Results may help to inform future revisions of SEPA's flood maps	Council delivery of this action will be covered under existing revenue budgets, including survey and design work of approximately £15k.	156	3	3	Shetland Islands Council	Survey and analysis in 2019-2020, with any resulting further work then subject to prioritisation and funding
PVA 04/03	Surface Water Plan/Study covering Lerwick and Scalloway (4003050018)	Lerwick South Burn of Gremista. Scalloway Burn Beach	Reduce risk from surface water flooding in Lerwick and Scalloway (400305)	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. 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. There are existing land use planning restrictions on upstream development in both catchments and the study will generate improved public engagement and understanding of those issues and the resulting implications for future developments. Scottish Water will provide local knowledge and understanding of the sewer network. This includes Scottish Water corporate data (as applicable) and, where available, outputs of Section 16 studies, to assist with the surface water management planning process.	There are identified flood risks at locations involving Council, Scottish Water and third party properties and drainage infrastructure. SIC will lead the investigation of the catchments, but consideration of options and future work leading on from that will involve a wide range of groups. Scottish Water will work with Shetland Isles Council and support surface water management planning through ensuring that best available knowledge and data is used to input into the Surface Water Management Plans.	Council delivery of this action will be covered under existing revenue budgets, including survey and design work of approximately £15k.	-	4	4	Shetland Islands Council	Survey and outline design work in 2017-2020 for specific works in the priority areas with any resulting construction works then subject to prioritisation and possible third party agreement / contribution
PVA 04/03	Strategic mapping and modelling (4000020019)	Lerwick DOA/Maa Ness DOA	Reduce overall flood risk (400002)	Scottish Water will undertake further investigation and modelling in the Lerwick and Maa Ness sewer catchments to improve knowledge and understanding of flood risk in these areas as required under Section 16 of the Flood Risk Management (Scotland) Act 2009.	Scottish Water will work with Responsible Authorities to incorporate relevant information into these studies by regularly keeping the responsible authorities informed of their progress. Scottish Water will provide responsible authorities with the outputs of the Section 16 assessment which, where relevant, may be used to inform Surface Water Management Plans and SEPA flood hazard and risk maps.	Scottish Water funding is committed in its capital programme through Q&S 4a (2015-2021) which is approved by its regulators and customers.				Scottish Water	2016-2019

LPD Wide	Flood Forecasting (4000020009)	LPD Wide	Reduce overall flood risk. (400002)	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 flood guidance statements provide an assessment of the risk of flooding for a five day period allowing responders time to put preparations in place to reduce the impact of flooding. 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. The Potentially Vulnerable Areas are within the 'Shetland' flood alert area.	SEPA / Met Office joint initiative. Hydrological information is provided by SEPA and meteorological information is provided by the Met Office. SEPA uses the information to predict the likelihood and timing of river, coastal and surface water flooding. Warnings received are circulated to the Council's Severe Weather email list as it the possibility of flooding is usually linked to high winds in a particular direction together with high tides / storm surge.	SEPA's flood forecasting service is funded through Scottish Government's grant in aid allocation. The Met Office receives funding from the UK Government. Existing SIC revenue budgets	-	-	-	SEPA	On-going
LPD Wide	Self Help (4000020011)	LPD Wide	Reduce overall flood risk. (400002)	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.	-	-	-		On-going
PVA 04/01	Awareness Raising (4000020013)	PVA 04/01	Reduce overall flood risk. (400002)	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. Across Scotland, SEPA will create and share communication and education resources with other Responsible Authorities. These resources will include digital materials, awareness campaigns and promotion of our flood forecasting and warning services (Floodline). Where they exist, SEPA will engage with community resilience groups and community safety partnerships. 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. A Scottish Government initiative on awareness raising in Schools is planned, with input from SIC services. Scottish Water will support SEPA and Responsible Authorities with their awareness raising activities as required and provide targeted flooding communications for Scottish Water specific activities. Scottish Water will raise awareness by producing and supplying targeted information to the public on large capital projects and detailed local studies. More general information and flooding guidance will be available on the website at: https://www.scottishwater.co.uk/you-and-your-home/your-home/flooding-information	The Shetland Islands Council, SEPA and Scottish Water will co-ordinate awareness raising activities with other Responsible Authorities, through the regular Local Plan District Partnerships and Flood Risk Management Local Area Group meetings. More information on the roles of these groups is given in Annex 3	Council involvement is funded from existing SIC revenue budgets SEPA's awareness raising activities are funded by Scottish Government through SEPA's grant in aid settlement.	-	-	-	Shetland Islands Council and SEPA	On-going
LPD Wide	Maintenance (4000020007)	LPD Wide	Reduce overall flood risk. (400002)	Local authorities have a duty to assess watercourses and carry out clearance and repair works where such works would substantially reduce flood risk. The Shetland Islands Council Roads Service carry out inspections of Roads bridges and culverts and associated sections of watercourses and produce a schedule of clearance and repair works for priority locations, which is made available for public inspection. Scottish Water undertake risk based inspection, maintenance and repair on the public sewer network. Other asset owners and riparian landowners are responsible for the maintenance and management of their own assets, including those which help to reduce flood risk.	Shetland Islands Council will publish a schedule of planned watercourse inspection, clearance and repair works. Awareness of third party works impacts on watercourses or flood protection infrastructure will be raised with authorities through the required planning permission and/or other required licensing processes and discussions at LPDP and FLAG group meetings. Scottish Water will keep Responsible Authorities informed of large scale capital maintenance work to identify opportunities for co-ordination.	Roads Service inspections are funded from existing SIC revenue budgets	-	-	-	Shetland Islands Council	On-going

LPD Wide	Emergency Response (4000020014)	LPD Wide	Reduce overall flood risk. (400002)	<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>	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.	Emergency Planning and other Council service actions are funded from existing SIC revenue budgets	-	-	-	Category 1 and 2 Responders	On-going
LPD Wide	Planning policy (4000010001)	LPD Wide	Avoid an overall increase in flood risk. (400001)	<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>Areas in Shetland identified for development in the Local Development Plan have had initial flood risk assessments carried out as part of their consideration.</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 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 http://www.sepa.org.uk/environment/land/planning/ Scottish Water is a statutory consultee within the planning legislation and is required to comment on all outline or full planning applications which are referred by 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>Development Planning and other Council service input funded from existing revenue budgets</p> <p>SEPA's land use planning activities are funded by Scottish Government through SEPA's grant in aid settlement.</p>	-	-	-	Shetland Islands Council and SEPA	On-going



**Development Committee
Policy & Resources Committee**

**11 April 2016
18 April 2016**

Business Case for the use of Assets Transferred from Shetland Development Trust

Report No: DV-19-16–F2

**Report Presented by: Executive Manager –
Economic Development**

**Economic Development
Development Services Department**

1.0 Summary

- 1.1 This report concerns the full business case for the use of assets transferred into Shetland Islands Council (Council) from the Shetland Development Trust (SDT). This work forms part of the ongoing project to establish a Shetland investment portfolio, fund and lending service for the Council (the project).
- 1.2 The business case has demonstrated that Option 3, to retain a lending service at a value of £15m, with the balance of £3m invested in managed funds, provides the optimum benefit to Shetland.

2.0 Decision Required

2.1 That the Development Committee RECOMMEND that the Policy and Resources Committee RESOLVE to:

- 2.1.1 Agree a provision of £15m for local lending from a Shetland Investment Fund with the balance of £3m remaining as managed funds.
- 2.1.2 Note that the Project Board will continue to meet to oversee the review of policies and procedures for lending activity, reporting progress, and recommending decisions, where necessary.

3.0 Detail

- 3.1 A project was initiated in 2014 to establish a Shetland Investment portfolio, fund and lending service for the Economic Development Service (EDS). The first phase of this included the transfer of SDT assets and undertakings to the Council and this has been achieved.

- 3.2 The Project Board made a decision to review the Business Case for the use of the transferred assets in May 2015. This decision reflected the need to ensure that best value is achieved from the assets. It is important that the Council takes decisions based on evidence and supported by effective assessments of options and potential effects.
- 3.3 The Development Committee on 8 October 2015 [Min Ref: 40/15], and Policy and Resources Committee on 26 October 2015 [Min Ref: 63/15] resolved to note progress with the Business Case and agreed to 4 short-listed options. The Committee also agreed to retain the fishing quota assets transferred to the Council. The business case therefore relates to the remaining assets with an approximate value of £18m.
- 3.4 The shortlisted options have now been assessed and the Full Business Case is attached as appendix A. The recommended option is to retain a lending service and to agree a Shetland Investment Fund of £15m. The balance of £3m will remain in managed funds.
- 3.5 The business case evidences why the Council should continue to provide a lending service. By investing cash into the economy, rather than financial markets, the Council receives less direct income but proportionally more value and benefit to the Shetland economy, which is in line with the aim of this project.
- 3.6 A lending service will address the access to finance barrier that exists for many businesses starting up, expanding and maintaining sustainability. However, we must ensure that risks taken are measured and managed to ensure the sustainability of the fund into the future.
- 3.7 If approved, the next step will be to recommence the project and to complete the review of all policies, procedures and systems required to deliver an effective service. The Project Board will continue to oversee the work with decisions taken by Committee as required.

4.0 Implications

Strategic

- 4.1 Delivery on Corporate Priorities – Shetland Islands Council's Our Plan 2016 - 2020 recognises that Shetland's future prosperity is dependent on maintaining a sustainable economy. The lending service assists in the delivery of the following Economy & Housing objectives detailed in the Corporate Plan:
- "The long term community plan aim is for Shetland to have good places to live as well as sustainable economic growth with good employment opportunities, and for our residents to have the skills they need to benefit from those opportunities."
 - "We have an economy that promotes enterprise and is based on making full use of local resources, skills and a desire to investigate new commercial ideas."
 - "We will be investing development funds wisely to produce the maximum benefit for Shetland's economy."

- 4.2 Community/Stakeholder Issues – The Business Case identifies the option which maximises benefit from the assets for the good of the Shetland community.
- 4.3 Policy and/or Delegated Authority – The need to plan and deliver the best use of the transferred assets, combined with the current Council local investment assets, fits with the Council's overall investment strategy.

The Medium Term Financial Plan (MTFP) includes an objective to achieve financial sustainability over the lifetime of the current Council and ensure that resources are appropriately aligned to Corporate, Directorate and Service Plans.

The Development Committee has functional responsibility for economic development matters, including decisions on business investments.

The Policy and Resources Committee must however make a decision as this Committee has functional responsibility for Council resources, including assets and delegated authority for the co-ordination, control and proper management of the financial affairs of the Council.

- 4.4 Risk Management – The detailed risks associated with providing a lending service are covered in the Business Case (section 3.9).

All investments carry some degree of risk. Risks associated with investing in the stock market or local businesses are mitigated through active management.

- 4.5 Equalities, Health and Human Rights – None.

- 4.6 Environmental – None.

Resources

- 4.7 Financial – At present there is an MTFP provision of £12m for local lending. As at 1 February 2016 the total value of loans and commitments yet to be released was £8.5m.

The proposal comes at an additional revenue cost of £0.05m, which would be met from within existing budgets.

The updated MTFP can accommodate the proposal, due to the funding that transferred from SDT being excluded from any commitments in advance of this report being prepared.

- 4.8 Legal – None.

- 4.9 Human Resources – Additional staffing resources will be required to be allocated to this service area to ensure professional delivery of the lending services as the value of the portfolio increases.

- 4.10 Assets and Property – This report concerns the best use of assets owned by the Council.

5.0 Conclusions

- 5.1 The attached Full Business Case demonstrates the best use of the assets transferred into the Council from the SDT. Approval is sought to retain a lending service and to agree a Shetland Investment Fund of £15m. The balance of funds transferred from the SDT will remain in managed funds.

For further information please contact:

Name: Douglas Irvine
Position: Executive Manager – Economic Development
Tel: 01595 744932
E-mail: douglas.irvine@shetland.gov.uk
Report finalised: 4 April 2016

Appendices:

- Appendix A – Full Business Case for the Use of Assets Transferred from Shetland Development Trust
- Appendix 1 – Case Studies
- Appendix 2 – Long List of Options
- Appendix 3 – Assessment of Long List of Options
- Appendix 4 – Estimated Costs and Assumptions
- Appendix 5 – Estimated Monetary Benefits and Assumptions
- Appendix 6 – Estimated Non Monetary Benefits and Assumptions
- Appendix 7 – Net Present Value (NPV) Calculations
- Appendix 8 – Sensitivity Analysis
- Appendix 9 – Comparison of Income and Expenditure
- Appendix 10 – Project Plan
- Appendix 11 – Strategy, Policies, Systems and Procedures

Background documents:

- [Report agreeing short-listed options - DV047-15](#) - Development Committee, 8 October 2015 [Min Ref: 40/15] and P&R-1026-DV-47 - Policy and Resources Committee, 26 October 2015 [Min Ref: 63/15]
- [Shetland Islands Council's Our Plan 2016 – 2020](#)
- [Medium Term Financial Plan 2015/16-2020/21](#)



FULL BUSINESS CASE

FOR THE USE OF ASSETS TRANSFERRED FROM SHETLAND DEVELOPMENT TRUST

Date: March 2016

TABLE OF CONTENTS

Executive Summary	1
1.0 Introduction	6
2.0 The Strategic Case	7
2.1 Introduction	7
2.2 Objective	7
2.3 Existing Arrangements	7
2.4 Strategic Context	8
2.5 Links to Economic Development Policy	8
2.6 Links to Corporate Plan	10
2.7 Links to the Community	11
2.8 Links to National Strategy and Outcomes	11
2.9 Main Benefits Criteria	12
2.10 Main Risks	13
2.11 Constraints and Dependencies	13
3.0 The Economic Case	14
3.1 Introduction	14
3.2 Critical Success Factors	14
3.3 Long List of Options	14
3.4 Assessment of Long List	14
3.5 Short List of Options	15
3.6 Economic Appraisal	15
3.7 Estimated Costs	16
3.8 Estimated Benefits	17
3.9 Risk Appraisal	20
3.10 Summary of Economic Appraisal	21
3.11 Net Present Value (NPV) Calculation	22
3.12 Options Ranking.....	22
3.13 Sensitivity Analysis	22
3.14 Preferred Option	24
4.0 The Commercial Case	25
4.1 Introduction	25
4.2 Expertise	25
4.3 Demand	25
4.4 Procurement Considerations	27
4.5 Preferred Option	28

5.0	The Financial Case	29
5.1	Introduction	29
5.2	Annual Budget Statement	29
5.3	Annual Cash Flow Statement	29
5.4	Affordability	30
5.5	Preferred Option	31
6.0	The Management Case	32
6.1	Introduction	32
6.2	Programme Management Arrangements	32
6.3	Project Management Arrangements	32
6.4	Arrangements for Benefits Realisation	33
6.5	Arrangements for Post Project Evaluation	33
6.6	Preferred Option	33

Appendices

Appendix 1 –	Case Studies
Appendix 2 –	Long List of Options
Appendix 3 –	Assessment of Long List of Options
Appendix 4 –	Estimated Costs and Assumptions
Appendix 5 –	Estimated Monetary Benefits and Assumptions
Appendix 6 –	Estimated Non Monetary Benefits and Assumptions
Appendix 7 –	Net Present Value (NPV) Calculations
Appendix 8 –	Sensitivity Analysis
Appendix 9 –	Comparison of Income and Expenditure
Appendix 10 –	Project Plan
Appendix 11 –	Strategy, Policies, Systems and Procedures

List of Abbreviations

BBBC	Building Better Business Case
The Council	Shetland Islands Council
SDT	Shetland Development Trust
EDS	Economic Development Service
The assets	Assets transferred from SDT to the Council
MTFP	Medium Term Financial Plan
VfM	Value for Money
SME	Small to Medium-sized Enterprises
LOIP	Local Outcome Improvement Plan
CSFs	Critical Success Factors
MF	Managed Funds (Council Investments)
SIF	Shetland Investment Fund
NPV	Net Present Value
FTE	Full Time Equivalent

EXECUTIVE SUMMARY

Introduction

- This Business Case seeks approval to invest up to £15m in a Shetland Investment Fund (SIF) with the balance of funds, approximately £3m, invested as managed funds (MF).
- Through the application of the Building Better Business Case (BBBC) methodology this report shows that a £15m in a SIF, with the balance of funds invested as MF, is the best use of the assets transferred from the Shetland Development Trust (SDT) to the Shetland Islands Council (the Council).

The Strategic Case

- The Council is committed to being a properly led and well managed organisation making sure resources are used in the most effective way possible.
- The receipt of assets from the SDT has increased the level of long term investments held by the Council for the purpose of achieving an investment return. The income on investments enables the Council to top-up Government funding to enhance and extend service delivery across Shetland. For the purposes of the analysis the asset value is rounded up to £18m.
- The primary objective is to “to ensure that the assets transferred into the Council from SDT are used sustainably for the benefit of the Shetland Community”.
- The context within which the Council needs to consider the assets is driven by the competing and challenging factors that exist for it and all local authorities at this time. It is important that the Council is operating effectively and that the decisions taken are based on evidence and supported by effective assessments of options and potential effects.
- This report details how the recommended option links with the corporate objectives of the Council and in particular how lending activity supports the Economy and Housing priorities. There are also clear policy links with the Community Plan and Scottish Government/National policy.

The Economic Case

- A long list of options associated with achieving the objective were identified and assessed against the following Critical Success Factors (CSFs):
 - Achieve priorities across the Council in line with identified outcomes and Medium Term Financial Plan (MTFP)
 - Ability to earn income
 - Sustainable use of resources to preserve value
 - Minimised risk to capital
 - Having reliable staff, systems and procedures in place to manage use of funds over the long term.

- The results are 4 short listed options, which all meet the CSFs, including 3 higher ranking options and a 'do nothing' option:

Best Options:

Option 3 - Operate a SIF of £15m, available for investment in local industry, with the £3m balance of funds invested as MF.

Option 4 - Operate a SIF of £12m, available for investment in local industry, with the £6m balance of funds invested as MF (status quo).

Option 5 - Operate a SIF of £9m, available for investment in local industry, with the £9m balance of funds invested as MF.

Do Nothing Option:

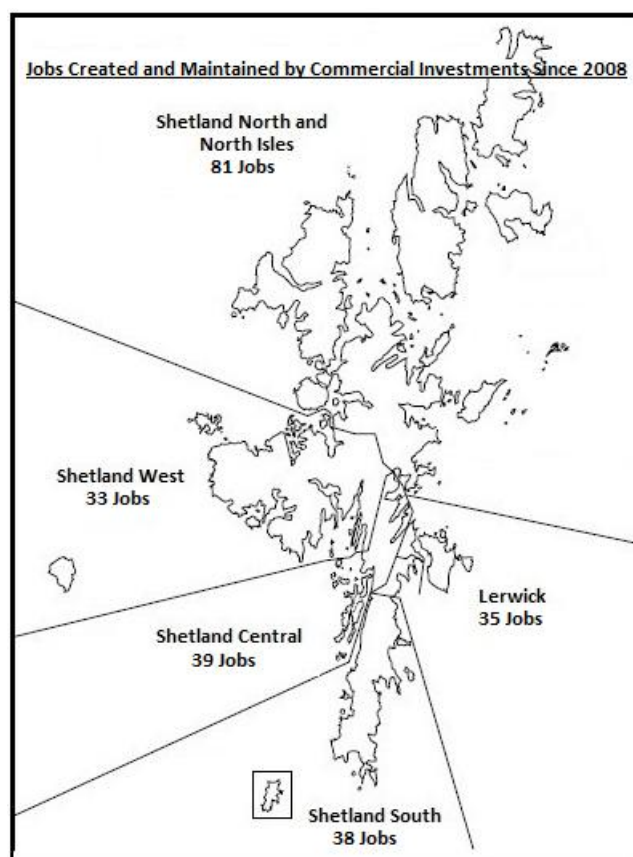
Option 12 - In this case the do nothing option has been interpreted as no local lending in SIF with all capital invested as in MF and income spent in line with the MTFP. This option requires the sale or trade out of existing local investments.

- The transfer of cash and investments to the Council has direct cash releasing and measurable benefits.
- A cost/benefit analysis was carried out on the short listed options based on the benefits which can be quantified in monetary terms. The following provides the key results of the economic appraisals:

	Option 3 SIF of £15m and MF of £3m	Option 4 SIF of £12m and MF of £6m	Option 5 SIF of £9m and MF of £9m	Option 12 SIF of £0 and MF of £18m
Costs	£0.81m	£1.23m	£1.64m	£2.87m
Benefits	£3.94m	£3.52m	£3.12m	£1.88m
Net Benefits	£3.13m	£2.29m	£1.48m	£0.99m

- In accordance with the BBBC framework the benefits considered extend to the wider benefits to the Shetland and UK economy and not just to the Council. In addition to the net benefits above the options involving lending there are additional economic benefits including creating and safeguarding jobs, increasing exports from Shetland and leveraging in external finance.
- There are additional social and community benefits associated with supporting business development. More jobs and business growth helps to strengthen communities by offering greater prospects for local employment and progression as well as helping to attract and retain more people of working age to Shetland.

- To illustrate how lending to date has supported rural communities a review of recent Council loans has been carried out and the following map shows the distribution of jobs created directly through providing commercial investment to Shetland businesses between 2008-2016.



- A NPV calculation was also applied to net benefits showing the economic value associated with each investment over a period of time. The NPV results are below and are the basis of the options ranking.

	Option 3	Option 4	Option 5	Option 12
	SIF of £15m and MF of £3m	SIF of £12m and MF of £6m	SIF of £9m and MF of £9m	SIF of £0 and MF of £18m
Net Benefits	£3.13m	£2.29m	£1.48m	-£0.99m
Net Benefits with NPV Applied	£24.62m	£18.07m	£11.71m	-£7.84m

- Options Ranking:

	Option 3	Option 4	Option 5	Option 12
	SIF of £15m and MF of £3m	SIF of £12m and MF of £6m	SIF of £9m and MF of £9m	SIF of £0 and MF of £18m
Ranking	1	2	3	4

- The options have been sensitivity tested and relevant data has been risk adjusted.

The Commercial Case

- Assessment of the commercial case shows that the lending service is deliverable in terms of the required staff resource and there is demand for lending.
- There are no significant procurement issues as the lending service will be administered and delivered by Economic Development Service (EDS) staff, supported by Corporate Services staff, principally Finance Services and Governance & law. Where external legal advice is required the existing Framework Agreement or procurement policy will be followed.

The Financial Case

- An assessment of the annual income and expenditure implications shows that the preferred option will cost the Council £0.38m in cash terms. This total includes revenue costs and loss of financial return as shown below:

	Option 3	Option 4	Option 5	Option 12
	SIF of £15m and MF of £3m	SIF of £12m and MF of £6m	SIF of £9m and MF of £9m	SIF of £0 and MF of £18m
Gross Income	£1.00m	£1.06m	£1.12m	£1.31m
Expenditure	-£0.16m	-£0.14m	-£0.15m	-£0.09m
Net Income	£0.84m	£0.92m	£0.98m	£1.22m
Loss of Financial Return *	£0.38m	£0.30m	£0.24m	£0.00m

* Loss of Financial Return shows the direct financial loss to the Council of choosing an option which is not the optimum net income option i.e. Option 12.

- Affordability has been considered in relation to capital and revenue requirements. The capital has been received from the SDT and therefore there are no affordability issues. In relation to the existing MTFP provisions, the preferred option will cost an additional £0.05m to deliver. This will be met from existing budgets.

The Management Case

- There are existing management arrangements in place for the lending service as lending to support business development is already one of a number of intervention used within EDS to achieve its objectives. It is however recognised that a review of policies, procedures and systems is required to ensure the appropriate control systems are in place and up to date.
- A project managed in accordance with PRINCE2 methodology is currently on hold pending the decision on the business case. If a decision is taken to continue a lending service, the Project Board will review the Project Plan and continue to deliver on the remaining objectives.

- The economic benefits associated with the lending service will be measured along with other EDS activity and reported quarterly to Development Committee as part of the Development Directorate Performance Report. A post project evaluation will be carried out to appraise how well the project was managed and whether it delivered to expectations.

Recommendation

- It is recommended that the preferred option is approved and proceeds to delivery phase.

1.0 Introduction

- 1.1 This business case has been prepared to assist Shetland Islands Council (the Council) to decide on the best use of the assets transferred from the Shetland Development Trust (SDT) to the Council. The outcome will also determine whether the Council wishes to continue to provide a lending service to support the Shetland economy.
- 1.2 The business case uses the agreed standards and format for public sector business cases and will ensure best value is obtained from the assets. Best value is not simply about financial factors and, in order to achieve the outcomes to which the Council aspires, there is a need to consider other direct and indirect benefits achievable from the use of the assets.
- 1.3 The approved format is the Five Case Model, which comprises the following key components:
 - the **strategic case**. This sets out the case for change, together with the supporting investment objectives for the use of the assets.
 - the **economic case**. This demonstrates that the Council has selected the most economically advantageous option, which optimises Value for Money (VfM).
 - the **commercial case**. This sets out the content of the required service.
 - the **financial case**. This confirms funding arrangements and affordability for the Council.
 - the **management case**. This details the plans for successful delivery.

2.0 The Strategic Case

2.1 Introduction

- 2.1.1 A project was initiated in 2014 to establish a Shetland investment portfolio, fund and lending service for the Economic Development Service (EDS). The first phase of this included the transfer of SDT assets and undertakings to the Council and this was achieved in early 2015. The assets/undertakings in question include cash and existing investments (loans, equities, guarantees, fishing licences and fishing quota).
- 2.1.2 The Project Board and Corporate Management Team decided in May 2015 to review options for the use of transferred assets and prepare a business case to support the preferred option. The outcome of this work will identify whether the Council wishes to continue to manage a Shetland investment portfolio and whether or not to lend to local businesses.
- 2.1.3 A decision was subsequently taken by the Council in October 2015 to retain the fishing quota assets. The business case appraisal therefore relates to the remaining assets with an approximate value of £18m (hereafter referred to as ‘the assets’).

2.2 Objective

- 2.2.1 The Council is committed to being a properly led and well managed organisation making sure resources are used in the most effective way possible.
- 2.2.2 The primary objective to be achieved is:

<p>“to ensure that the assets transferred into Shetland Islands Council from Shetland Development Trust are used sustainably for the benefit of the Shetland Community”</p>

- 2.2.3 The context within which the Council needs to consider the assets is driven by the competing and challenging factors that exist for the Council and all local authorities at this time. It is important that the Council is operating effectively and that the decisions taken are based on evidence and supported by effective assessments of options and potential effects.

2.3 Existing Arrangements

- 2.3.1 The cash assets transferred to the Council already form part of the Council reserves.

- 2.3.2 The Council has been providing a lending service since 2008 and the current investment portfolio includes previous SDT investments which were transferred in 2015. For the financial year 2015/16 £12m is available for lending to local businesses and as at 1 February 2016 the value of loans (including committed loans) was £8.5m. The portfolio is monitored and managed within the EDS in compliance with the Council's Medium Term Financial Plan (MTFP) and Annual Investment and Treasury Strategy.
- 2.3.3 The lending service primarily refers to the provision of loan and hire purchase finance to SME businesses. Security is sought to reduce financial risk to the Council and repayments, with interest, are received over an agreed term. The current investment portfolio also includes equities, guarantees and fishing licence assets. If the lending service continues these mechanisms for investment will be considered further and it is unlikely that guarantees or asset purchase will be recommended in future.

2.4 Strategic Context

- 2.4.1 The receipt of assets from the SDT has increased the level of long term investments held by the Council for the purpose of achieving an investment return. The income on investments enables the Council to top-up Government funding to enhance and extend service delivery across Shetland.
- 2.4.2 The Council recognises that there are additional economic benefits from investing in local businesses rather than having all funds invested and managed externally. Although the MTFP includes provision for local lending, it also highlights that the economic benefits of local lending have not been qualified or quantified. The economic assessment of lending options contained in this business case will provide this information.
- 2.4.3 The following sections outline how the lending service delivers on existing policy and priorities including the Council's Economic Development Policy, Corporate Plan and Community Plan, through to Scottish Government and National Strategy.

2.5 Links to Economic Development Policy

- 2.5.1 The EDS is part of the Development Services Directorate and is committed to supporting the Department's Vision of "enabling our communities to develop their potential".
- 2.5.2 The lending service is one of a number of interventions which the EDS use to achieve its Service Plan objectives. Commercial investment applications can be considered from any business that meets the terms of the Council's Economic Policy Statement.

2.5.3 Lending supports the following objective within the current Economic Policy Statement:

“Develop the economic health of local communities and a more diverse business base, through encouraging innovation and sustainable growth”.

2.5.4 There is added value in having the lending service integrated with other EDS functions. For example, Business Gateway is the initial contact point for all enquiries and staff are able to assist applicants with advice, research and training at an early stage to develop robust business plans. EDS staff can then follow these ideas to the point at which financial assistance is required to enable developments to happen. Council commercial finance is also important in unlocking inward investment, including European grants, as it is often part of a funding package which includes external grant and private investment.

2.5.5 The main focus for Council lending is direct business investment in SMEs. The Council has however recently provided loans to promote the development of new housing and could consider lending opportunities for any purpose that supports the wider aims of the Council.

2.5.6 The ability to lend to businesses is particularly beneficial in supporting local industries which find it difficult to access finance due to the application of blanket national policies that do not take account of Shetland’s regional differences. The fisheries sector is a good example where banks have restricted funding provision based on the average performance of the UK industry. Shetland has a unique fishing industry and there are many proven examples of how Council investment has made good financial returns, in addition to economic benefits.

2.5.7 The Council generally acts as gap funder by investing in businesses with good commercial proposals which struggle to access commercial funding for the same reasons outlined above. This means that the Council funds projects which would not otherwise go ahead. By providing gap funding, only the minimum public sector support is provided to enable projects to proceed.

2.5.8 Projects seeking commercial investment are generally larger in scale than those requiring other forms of development support and thus have higher level impacts on the local economy. This makes the lending service a particularly useful intervention with which to support economic growth.

- 2.5.9 The provision of loans rather than grant funding from the Council is a more sustainable form of support. As loans are repaid, and the money returns to the Council to be re-invested in future businesses.
- 2.5.10 A recent study as part of the ongoing Review of the Economic Development Service notes the value placed on this service by the local business community.
- 2.5.11 The following Performance Indicators are used to measure the targets set annually in the EDS Service Plan against baseline data. The lending service aims to assist the Council achieve the annual targets set.
- Business start-ups per 1,000 of resident population
 - Jobseeker's allowance claimant count
 - Gross average weekly pay for full-time workers

2.6 Links to the Corporate Plan

- 2.6.1 The Corporate Plan recognises that Shetland's future prosperity is dependent on maintaining a sustainable economy. Whilst Shetland is currently in a strong position in terms of employment, earnings, output and growing population, this is likely to be affected in future as the energy industry boom passes and the public sector continues to contract.
- 2.6.2 The lending service assists in the delivery of the following Economy & Housing objectives detailed in the Corporate Plan:
- "The long term community plan aim is for Shetland to have good places to live as well as sustainable economic growth with good employment opportunities, and for our residents to have the skills they need to benefit from those opportunities."
 - "We have an economy that promotes enterprise and is based on making full use of local resources, skills and a desire to investigate new commercial ideas."
 - "We will be investing development funds wisely to produce the maximum benefit for Shetland's economy."
- 2.6.3 An important point to consider is the interdependencies between Council services and economic success. A successful economy is not achievable without people to employ and places for them to live and enjoy life. Equally, demand requirements for schools, further education, housing, care facilities and transport etc. are linked to having businesses throughout Shetland which offer employment opportunities. This point is particularly relevant to Shetland's remote settlements where there is added vulnerability to change. There is therefore a strong link between supporting rural businesses and supporting rural communities.

2.7 Links to the Community Plan

2.7.1 The Community Plan aims to structure how the Shetland Partnership members will work together for the benefit of Shetland. The Council is an important member of the Shetland Partnership which recognises the link between economic success and strong communities.

2.7.2 The Community Plan incorporates the Local Outcome Improvement Plan (LOIP) which was endorsed by the Shetland Partnership Board in March 2016 and will now be considered for approval by the partner agencies. The Plan details how partners will achieve over and above what each partner could achieve as individual organisations. The most relevant outcomes within the LOIP are:

“D2: Make the best use of existing assets, infrastructure and human capital for sustainable socio-economic development”

“D3: Supporting the development of a digital, diverse and innovative business base.”

2.8 Links to National Strategy and Outcomes

2.8.1 In supporting economic growth the Council is contributing to National objectives as outlined in Scotland’s Economic Strategy published by the Scottish Government in 2015. The overarching objective is:

“to focus government and public services on creating a more successful country, with opportunities for all of Scotland to flourish, through increasing sustainable economic growth.”

2.8.2 Scotland’s Economic Strategy outlines four priority areas – investment, innovation, inclusive growth and internationalisation. Within the ‘investment’ priority, the ‘business investment’ strategy is to encourage business growth and competitiveness and targeting assistance in areas where the market fails to step in. These are objectives which are supported by direct investment into local businesses by the Council. Market failure in the provision of loan finance is a known barrier to development in Scotland and particularly in remote and rural locations such as Shetland.

2.8.3 The Scottish Government has been instrumental in creating a Pan-Scotland business loan fund, in which the Council is a member. This fund will provide access to finance for some businesses but is restrictive in the amount of assistance offered and the industry sectors which can apply. This initiative does not therefore fully satisfy the gap funding needs of Shetland businesses.

- 2.8.4 Shetland's economic performance also forms part of the overall economic performance of Scotland. The National Performance Framework details a range of socio-economic indicators and outcomes against which economic performance is measured.
- 2.8.5 Whilst not a major consideration for the Council, economic benefits derived from supporting successful local businesses extend to other UK businesses who supply or receive goods/services from Shetland. Shetland businesses also contribute to UK targets (GDP, jobs, exports etc).

2.9 Main benefits criteria

- 2.9.1 The transfer of cash and investments to the Council has had direct cash releasing and measurable benefits. Income from investments (either local investments or externally managed) is used in line with the financial planning framework contained in the MTFP to support the strategic aims of the Council.
- 2.9.2 There are additional measurable economic benefits derived from investing in local business rather than in external financial markets. Some economic benefits can be quantified in monetary terms i.e. increasing business turnover (direct and indirect). Others are quantifiable in other ways such as number of jobs created and retained (direct and indirect); number of new start businesses; leverage of external finance; and increased exports. There are other qualitative benefits to consider including community regeneration in remote areas; environmental; productivity and efficiency improvements; engagement and knowledge sharing with businesses, etc.
- 2.9.3 The recirculation of funds from the repayment of loan capital enables ongoing, long term economic benefits.
- 2.9.4 Appendix 1 provides three examples of local businesses which have been supported by lending from the Council in recent years. Each case study illustrates the direct and wider economic benefits achieved.

2.10 Main Risks

- 2.10.1 The primary risk to achieving the objective of this business case is loss of capital. This risk to funds applies whether lending locally or in externally managed funds. Risks associated with lending locally are mitigated by due diligence; appropriate securities; monitoring and management of the portfolio.
- 2.10.2 Market risk poses the biggest threat to externally managed Council funds. All external investments are managed in a way that minimises risk to capital and optimises the return on investment consistent with those risks. There are also reputational risks associated with failed/poorly performing local and external investments.
- 2.10.3 The main risks of not having a lending service is the inability of the Council, through the EDS, to fulfil Economy and Housing objectives as detailed in the Corporate Plan.

2.11 Constraints and Dependencies

- 2.11.1 Over the next few years it is expected that there will be substantial reductions in government funding and hence increased pressure on Council budgets. The cost of the lending service must be weighed against the benefits achieved.
- 2.11.2 The benefits to Shetland from operating a lending service are both constrained by, and dependent on, demand for lending. There are not endless opportunities to invest locally. Information on historical demand is however available which suggests that there has always been a market failure in the supply of business finance that has acted as a barrier to development. The average value of public loans to support the local economy is £13.5m, although this level has been lower in recent years.

3.0 The Economic Case

3.1 Introduction

This section documents and evidences that the most economically advantageous option has been selected as the preferred option, which best represents public value to the wider economy.

3.2 Critical Success Factors

The following critical success factors (CSFs) have been identified in relation to achieving the strategic objective (see section 2.2) and have been used to assess all options for the use of assets transferred from the SDT:

- Achieve priorities across the Council in line with identified outcomes and MTFP
- Ability to earn income
- Sustainable use of resources to preserve value
- Minimised risk to capital
- Having reliable staff, systems and procedures in place to manage use of funds over the long term.

3.3 Long List of Options

A broad range of 12 options associated with the objective were identified. An assessment of these long list options was presented to the Development Committee on 8 October 2015, DV047-15, [Min Ref: 40/15], and the Policy and Resources Committee on 26 October 2015, P&R-1026-DV-47, [Min Ref: 63/15] (see Appendix 2 for descriptions of the options).

These options fell into two main groups:

- Spending options
- Capital investment options - in either a local 'Shetland Investment Fund' or 'externally managed funds', or a mix of both.

3.4 Assessment of Long List

Appendix 3 details the criteria and matrix used to assess the long list. These criteria are based on the CSFs identified above and measure the benefits, costs and risks associated with the options.

A grading system was applied where each option was given a score from 0 to 10 with the higher scores representing better fit with the CSFs. The totals for each option are also shown on the table and the grading results show that providing a lending service, rather than no service, is the preferred way forward.

3.5 Short List of Options

The recommended short list options, including the required “do nothing option”, were agreed as the basis for more detailed economic analysis.

The long term Council investments in reserves are referred to as Managed Funds (MF) and lending to support local businesses from a Shetland Investment Fund is referred to as local lending in the Shetland Investment Fund (SIF).

The short list options have been identified as:

Best Options:

Option 3 - Operate a SIF of £15m, available for investment in local industry, with the £3m balance of funds invested as MF.

Option 4 - Operate a SIF of £12m, available for investment in local industry, with the £6m balance of funds invested as MF (status quo).

Option 5 - Operate a SIF of £9m, available for investment in local industry, with the £9m balance of funds invested as MF.

Do Nothing Option:

Option 12 - In this case the do nothing option has been interpreted as no local lending in SIF with all capital invested as in MF and income spent in line with the MTFP. This option requires the sale or trade out of existing local investments.

3.6 Economic Appraisal

This section provides detail on the cost benefit analysis of the short list options as shown above.

The following general assumptions have been made:

- Costs and benefits have been assessed for all options based on an approximate asset transfer value of £18m. It is important to note that the Council is already in receipt of the assets and so a proportion of the costs are existing costs and the benefits from assets are already being received. Assessing the transferred assets in isolation of existing use does however allow a fairer basis for analysis.
- For the purposes of the analysis each option which includes local lending (options 3, 4 & 5) assumes that the full value of available funds are utilised i.e. for option 4 with a SIF of up to £12m, the costs and benefits are based on the maximum lending of £12m at all times. However, in practice it is unlikely that all available SIF funds would be loaned at any point in time. Any balance on the provision for a SIF, or funds committed but not yet drawn down, would remain part of MF.

- The assessment assumes benefits from the options achieved from year 1. It would however take a period of time to achieve full benefits from any option involving SIF i.e. for option 3, with average lending of £15m, it would take approximately 5 years to increase the lending portfolio from the current £8.5m up to £15m. Similarly it would take up to 10 years to trade out most of the existing investments and longer to trade out all local loans.
- Economic multipliers have been applied, where applicable, thus taking into account the multiplied effect on economic output.

3.7 Estimated Costs

The assessment of costs includes three main areas of cost:

- 3.7.1 Direct Revenue Costs: Cost to the Council in terms of direct revenue costs i.e. staff wages, overheads, legal fees and external MF fees.
- 3.7.2 Contingent Liability: Costs which relate to the possibility that expected returns from investments in MF and SIF are not achieved.
- 3.7.3 Opportunity Costs: An opportunity cost is the difference in the return between the chosen option and the one that is being passed up, i.e. the return that is forgone.

It is therefore necessary to appraise the benefits achieved by the best option from the shortlist of options which would generate the best benefits from MF and SIF.

Option 12, £18m in MF, generates the highest cash releasing benefits to the Council as its rate of return is higher in cash terms to the Council than using the funds elsewhere. Therefore the opportunity costs from selecting an alternative option are:

- the loss of income from MF investments at 7.3% return, plus multiplier on income; and
- the loss of benefit to the economy from the spending on MF fees (fees will provide third party economic benefit i.e. wages and the associated multiplier effects).

Option 3, £15m in SIF, would create the highest benefits to Shetland businesses in terms of economic benefit, i.e. turnover. Therefore the opportunity costs from selecting an alternative option are:

- the loss of economic benefit in terms of turnover to Shetland businesses; and

- the loss of staff wages required to deliver SIF (wages will provide third party economic benefits through spending plus the associated multiplier effect).

Opportunity cost for MF is calculated by measuring the loss of benefit achieved by the option being considered compared to the benefit which would have been achieved had Option 12 been selected. Similarly the opportunity costs for SIF are measured by calculating the benefit from the option considered less the benefits which would have been achieved had Option 3 been selected.

3.7.4 Comparison of Costs for Each Option

The costs for each of the short-listed options have been calculated and shown in Appendix 4 along with a list of assumptions made.

The following is a summary of the total costs for each of the short-listed options:

	Option 3	Option 4	Option 5	Option 12
	SIF of £15m and MF of £3m	SIF of £12m and MF of £6m	SIF of £9m and MF of £9m	SIF of £0 and MF of £18m
Total Costs	£0.81m	£1.23m	£1.64m	£2.87m

3.8 Estimated Benefits

The benefits include the direct benefit to the Council in terms of income and the wider economic benefit to Shetland and beyond.

It is recognised that there are both quantitative and qualitative benefits from the options being considered, as separated below:

3.8.1 Quantifiable Benefits

These are benefits which can be measured and take account of all wider benefits to the UK, not just benefits to Shetland or the Council. It is recognised that not all benefits can be expressed in monetary values but as far as possible a monetary value has been given to benefits in order to enable a comparison between options to be achieved.

Monetary Benefits: The monetary benefits that have been identified are as follows:

- The estimated increase in turnover for the businesses which receive Council investments. Baseline data has been calculated from analysis of increased turnover in businesses receiving loans from Council between 2008-2016. Turnover is a recognised economic measure as the benefit to business would not have been achieved if the economic intervention, in this case commercial lending, had not taken place
- the income to the Council in terms of return on SIF and MF investments
- the benefits to the wider economy achieved from the Council's expenditure, on wages and MF fees, required to manage the SIF and MF

Details of the estimated monetary benefits for each option, including assumptions, are shown in Appendix 5 and summarised below:

	Option 3	Option 4	Option 5	Option 12
	SIF of £15m and MF of £3m	SIF of £12m and MF of £6m	SIF of £9m and MF of £9m	SIF of £0 and MF of £18m
Total Monetary Benefits	£3.94m	£3.52m	£3.12m	£1.88m

Non Monetary Benefits: The economic measures for non-monetary benefits which have been identified are as follows, including the application of a multiplier to each investment sector, where relevant:

- Increased exports from Shetland
- Leverage of private sector match funding
- Direct jobs created
- Direct jobs maintained

These benefits have been quantified using analysis of historic data.

Export activity in the investments, between 2008-2013, represented 63% in turnover. Leverage of private sector match funding in the match funding on average was 34% of total project costs.

The following table shows the jobs created and maintained for the provision of loans between 2008-2016 as explained in Appendix 6 and summarised below:

	Option 3 SIF of £15m and MF of £3m	Option 4 SIF of £12m and MF of £6m	Option 5 SIF of £9m and MF of £9m	Option 12 SIF of £0 and MF of £18m
Direct Jobs Created *	80	76	71	57
Direct Jobs Maintained *	334	267	200	0

* Including multiplier

3.8.2 Qualitative Benefits

As outlined in the strategic case, the benefits associated with each option are wider than those which can be quantified by income generation; economic growth; job creation; leverage or exports.

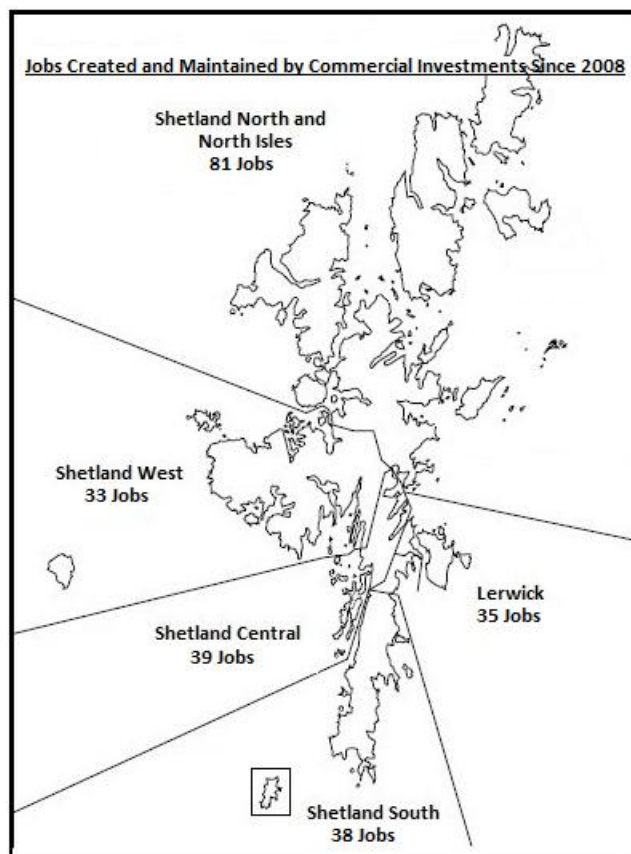
Examples of qualitative benefits achieved by supporting business developments through local lending include:

- Supporting **innovative projects** or **new technology** e.g. new net cleaning methods for the fish farming industry
- **Environmental improvements** e.g. from supporting more fuel-efficient fishing vessels
- **Resource efficiency** e.g. a loan to support investment in a new stock management system
- **Social impacts** e.g. investing in housing developments to create new homes
- **Internationalisation** e.g. assisting the development of a knitwear business to produce new products and access new export markets
- Creating **community assets** e.g. investing in a fish market which supports many other fishing businesses

There are additional social and community benefits associated with supporting business development. More jobs and business growth in rural areas helps to strengthen communities by offering greater prospects for local employment and progression as well as helping to attract and retain more people of working age to Shetland.

More jobs, and thus more people, in rural areas in turn keep communities prosperous and regenerated, and fulfil community aspirations to preserve their schools, shops, transport links and health centres.

To illustrate how lending to date has supported rural communities in Shetland, a review of recent local lending activity has been undertaken. The following map shows the distribution of jobs created directly through providing commercial investment to Shetland businesses between 2008-2016.



The level of qualitative benefits achievable from each of the four short listed options is, as with other measurable benefits, proportionate to the level of investment in local business i.e. the greater the value of the SIF fund, the greater the qualitative benefit potential.

By having funds invested as MF these qualitative benefits are reduced.

3.9 Risk appraisal

Quantifiable risks have been costed and factored into the shortlisted options and so the net present values assessed are risk adjusted.

There are other risks which are more difficult to quantify but remain relevant to the options. The following table shows all identified risks associated with local lending from the SIF and externally managed funds (MF). The table also shows how these risks are mitigated.

Risk	SIF	MF
Financial Risk - capital losses	Failed investment and resulting bad debt Mitigated by: Due diligence/monitoring of investments	Poor performance of stock market Mitigated by: diversified portfolio
Financial Risk – reduced income	Arrears/bad debt Mitigated by: Due diligence/monitoring of investments	Poor performance of stock market Mitigated by: diversified portfolio
Business Risk – not achieving corporate priorities	Not having a sufficient lending mechanism to meet demand and achieve Economy and Housing objectives. Mitigated by: creating a robust case for retaining the service and reviewing the service if demand decreases	Impact of reduced income on achieving priorities Mitigated by: contracting of best fund managers
Service Risk – operational costs vary from budget	Increased costs Mitigated by: preparing detailed budgets for the service	n/a as management fees are proportionate to income generation
Reputational Risk – undermining of perception of Council	Failed investments Mitigated by: minimising failed investments through due diligence and investment management. Also in promoting good investments	Poor performing investments Mitigated by: contracting of best fund managers
External Risk – changes to economic conditions. Legislation and Government/European Policy changes	Company Law/State aid rule changes Mitigated by: Monitoring and amending procedures to keep in line with changes	Interest rate/Exchange rate changes Mitigated by: Council Investment Management policy

A risk register exists for the project on the Council's JCAD RiskWEB system and will be updated when a decision is made on the use of assets.

3.10 Summary of Economic Appraisal

The cost benefit analysis has been carried out based on the benefits which have been quantified in monetary terms. No weighting or scoring technique has been applied to measure the qualitative benefits although it is acknowledged that they are a valid consideration when assessing options.

The following provides the key results of the economic appraisals for each of the short listed options:

	Option 3 SIF of £15m and MF of £3m	Option 4 SIF of £12m and MF of £6m	Option 5 SIF of £9m and MF of £9m	Option 12 SIF of £0 and MF of £18m
Costs	-£0.81m	-£1.23m	-£1.64m	-£2.87m
Benefits	£3.94m	£3.52m	£3.12m	£1.88m
Net Benefits	£3.13m	£2.29m	£1.48m	-£0.99m

3.11 Net Present Value (NPV) Calculation

NPV is defined as the sum of the discounted net benefits over a period of time, with the view that a pound today is worth less tomorrow. Therefore it is necessary to calculate the present value of the net benefits on each option. To do this the net benefits are discounted over time, using the recommended UK public service discount rate of 3.5%. A period of 8 years has been identified given that this is the average length of a loan, and hence the time it takes capital to re-circulate in the SIF. A longer period was considered to see if it provided a comparative measure of NPV however this was discounted as the results were proportionate to the result achieved using 8 years. Appendix 7 shows the NPV calculation for each option. These results are summarised below:

	Option 3 SIF of £15m and MF of £3m	Option 4 SIF of £12m and MF of £6m	Option 5 SIF of £9m and MF of £9m	Option 12 SIF of £0 and MF of £18m
Net Benefits	£3.13m	£2.29m	£1.48m	-£0.99m
Net Benefits with NPV Applied	£24.62m	£18.07m	£11.71m	-£7.84m

3.12 Options Ranking

The net benefits with NPV applied have been ranked in order of results, as shown below:

	Option 3 SIF of £15m and MF of £3m	Option 4 SIF of £12m and MF of £6m	Option 5 SIF of £9m and MF of £9m	Option 12 SIF of £0 and MF of £18m
Ranking	1	2	3	4

3.13 Sensitivity Analysis

It is prudent to test the vulnerability of options and to check the robustness of the ranking order. Therefore it is important to consider how changes to the calculation of costs and benefits i.e. the key assumptions, may affect the NPV.

The sensitivity analysis undertaken considered the following assumptions which were most likely to be vulnerable to change:

- 3.13.1 Change on Rates of Returns: sensitivities on changes to income generated from the SIF and MF were considered. It was assessed that the result would be more sensitive to a lower rate of return as it is unlikely that the rate of return can increase considerably. However, given that the SIF rate of return is limited due to state aid rules i.e. lending cannot be offered below a market rate, sensitivity was therefore measured on -2% below the current i.e. SIF at 3.2% return, MF at 5.3%
- 3.13.2 Changes to Economic Benefit: the main economic benefit used in assessing options was the impact investments from SIF had on the turnover of Shetland businesses. The assumption was based upon the % increase in turnover accreditable to the investment made. This rate was calculated as being 66%, the average level of funding package provided by the Council between 2008-2016. This level was then accredited to the benefit from SIF on the increase turnover in Shetland businesses receiving commercial investment from the Council. Therefore sensitivity on the accreditable economic benefit from SIF was considered and it was agreed to test the results at 50% and 25%
- 3.13.3 Changes to other costs and benefits: It was decided not to do sensitivity on individual costs such as wages or fees as any changes would be so small that they could not materially affect the options appraisal.

The results from sensitivity analysis are presented in Appendix 8 and are summarised overleaf:

	Option 3	Option 4	Option 5	Option 12
	SIF of £15m and MF of £3m	SIF of £12m and MF of £6m	SIF of £9m and MF of £9m	SIF of £0 and MF of £18m
Base Line (see 3.11)	£24.62m	£18.07m	£11.71m	-£7.84m
Ranking	1	2	3	4
Rate of Return reduced by 2%	£21.30m	£15.23m	£9.34m	-£8.79m
Ranking	1	2	3	4
Accredited economic benefit from SIF reduced from 66% to 50%	£17.14m	£13.58m	£10.21m	-£0.35m
Ranking	1	2	3	4
Accredited economic benefit from SIF reduced from 66% to 25%	£10.15m	£9.39m	£8.82m	£6.64m
Ranking	1	2	3	4

The results show that the changes to both the interest rates and the % of accreditable economic benefits from SIF do alter the proportion between options but not significantly enough to alter the results. The results are not sensitive enough to discredit, as it is only when the economic benefits accredited to SIF investments reduce to 17% that the order of the ranking changes between Option 3 and Option 5 (see shaded table in Appendix 8).

Therefore the sensitivity analysis shows that the cost benefit analysis is robust and the changes to the key assumptions do not alter the ranking of the options.

3.14 Preferred Option

Following a full cost benefit analysis the best option is Option 3 which generates the highest risk adjusted NPV, see paragraph 3.11.

4.0 The Commercial Case

4.1 Introduction

This section covers three main aspects in relation to the preferred option of providing a lending service of £15m, with the balance of funds of £3m managed externally:

- whether the preferred option can be delivered in terms of expertise;
- whether there is demand for lending of £15m; and
- whether there are any procurement considerations in relation to the preferred option.

4.2 Expertise

In terms of staff resource it is believed that the lending service is deliverable due to the expertise of staff from all services required to deliver the SIF i.e. EDS, Finance, Governance and Law. The Council has been providing a lending service for over 25 years, either directly or formerly through the SDT. There are existing management arrangements in place and experience in commercial lending to local business within the EDS.

4.3 Demand

There are not endless opportunities to invest locally and therefore demand for finance has to be considered to assess whether lending of £15m is achievable:

4.3.1 Historical Demand – Research on historical demand for lending from the Council has been carried out. The results demonstrate market failure in the supply of business finance that has acted as a barrier to development. This is also recognised in Scotland's Economy Strategy which supports direct investment to local businesses by Councils. This therefore demonstrates that there is an opportunity for the Council to continue to lend to local businesses now and in the future.

Historically the average value of public loans to support the local economy has been £13.5m.

4.3.2 Consultation on Council's Lending Service – A report by Anderson Solutions, commissioned in July 2015, on the Future of the Council's EDS showed that 56% of respondents to market research stated that it was important for the Council to continue its lending service. Several respondents stated that their development was dependant on the Council providing the gap funding to allow the project to proceed, and subsequently develop.

The report showed that with the SDT assets transferring to the Council, businesses were unaware of the continuance of the lending service through the Council. This will be redressed through promotion by EDS.

4.3.2 Market – There has been a decrease in demand for local lending in recent years which can be as a result of a combination of factors.

The main market is our local industrial sectors, such as fisheries, which find it difficult to access finance due to application of blanket national policies that do not take account of regional differences. This means that there are opportunities for the EDS to support projects which would not otherwise go ahead. Commercial investments can be considered for any project that meets the terms of the Council's Economic Policy Statement. The overall market in Shetland is 1000+ businesses although, in essence, there is only a small percentage that would be contemplating suitable development projects in the short or medium term.

It is proposed that new lending opportunities will be identified from improved promotion of the service, consulting with and networking with local businesses. However, future commercial investment opportunities will continue to only be recommended where due diligence shows that the loans are serviceable and secure.

It is recognised that the current total lending commitment of £8.5m is lower than the historical average of £13.5m and therefore it is estimated that a period of approximately 5 years will be required to increase lending to this level.

4.4 Procurement Considerations

This section does not examine the procurement process for funds invested in the financial markets as the Council's existing procedure for procuring Fund Manager services will apply.

4.4.1 Required Services - The lending service will be administered and managed by the EDS staff, supported by Corporate Services, primarily Finance and Governance and Law.

4.4.1.1 Economic Development Service - Staff dealing with enquiries are qualified and experienced Project Managers and are responsible for:

- identifying need for investment;
- working with business clients to define funding packages;
- undertaking due diligence on proposals;
- recommending proposals for approval or otherwise;
- dealing with the pre-conditions to investment release;
- organising monthly repayment collections;
- managing and monitoring investments until completion; and
- reporting performance to Development Committee.

Currently the required staffing to run the commercial lending service is 1.7 FTE project officer posts and 0.5 FTE admin support. However, this total of 2.2 FTE would require 2.9 FTE for a lending service of £15m.

4.4.1.2 Finance Services - The Executive Manager, Finance, is the Proper Officer in terms of Section 95 of the 1973 Act, Section 35 of the 2003 Act and the appropriate provisions of The Prudential Code for Capital Finance in Local Authorities, and accordingly, shall be responsible for the administration and financial affairs of the Council.

Financial advice and support in relation to this project, is required at all stages of the loan life cycle, from the financial assessment of an applicant/business, drafting and approval of the loan terms, to monitoring and collection of instalments.

Accountancy Services are responsible for the financial governance of this project. Compliance with accounting requirements is assured through the external audit of the Annual Accounts.

4.4.1.3 Governance and Law

Legal advice is required at all stages of a loan life cycle from pre-application stage through to discharge of securities at the end of a loan. Advice is also required from time to time on issues not related to individual projects i.e. on implications from the change of Company law.

Legal advice relating to individual investments is recharged to the borrower. One exception to this is when there is a situation of insolvency of the borrower where legal fees will not be recoverable. There is also the requirement for occasional advice on general legal matters which cannot be recharged.

When legal advice is required by Economic Development in relation to a loan the legal requirements are firstly discussed with Legal Services.

In some cases, where resources allow within the Council, the legal work can be carried out by Council Solicitors (recharged to the borrower). If external legal advice is required the existing Framework Agreement for procuring advice is used.

If specialist legal advice is required which is not covered by the Framework agreement (i.e. where non-UK law or industry specific advice is required) the Council's procurement processes are followed to tender for work on a case by case basis.

Currently service requirements for Finance and Governance and Law combined is equivalent to 0.2 FTE posts. (based on gross earning average of £30,784 per annum). This would increase to 0.3 FTE posts with a SIF of £15m. This would need to be met from the existing resources.

4.5 Preferred Option

The Commercial Case has demonstrated that a SIF of up to £15m is deliverable, subject to demand.

5.0 The Financial Case

5.1 Introduction

This section assesses the affordability and funding requirements of the preferred option, in relation to the other three short-listed options.

5.2 Annual Budget Statement

5.2.1 Annual Income and Expenditure Implications

A summary of the annual income and expenditure implications are shown below, a detailed breakdown is provided at Appendix 9:

	Option 3 SIF of £15m and MF of £3m	Option 4 SIF of £12m and MF of £6m	Option 5 SIF of £9m and MF of £9m	Option 12 SIF of £0 and MF of £18m
Gross Income	£1.00m	£1.06m	£1.12m	£1.31m
Expenditure	-£0.16m	-£0.14m	-£0.15m	-£0.09m
Net Income	£0.84m	£0.92m	£0.98m	£1.22m

This shows that option 12 provides the Council with the optimum return on investment.

5.2.2 Loss of Financial Return

Loss of Financial Return shows the direct financial loss to the Council of choosing an option which is not the optimum net income option i.e. Option 12.

Therefore there is a Loss of Financial Return in selection Option 3. This is as follows:

	Option 3 SIF of £15m and MF of £3m	Option 12 SIF of £0 and MF of £18m
Net Income	£0.84m	£1.22m
Loss of Financial Return =	-£0.38m p.a.	

5.3 Annual Cash Flow Statement

There are immaterial cashflow implications for the Council with regard to all of the options under review. Option 12, however generates returns with less certainty than commercial lending through a SIF with annual contractual repayments.

5.4 Affordability

5.4.1 Capital Requirements

The transfer of assets from the SDT into the Council equalled £16.8m and included cash of £15.42m and £1.38m net in local investments. In addition, the Council has provided commercial loans direct to Shetland business since 2008.

The capital has therefore been applied for this purpose, and presents no affordability issues.

5.4.2 Revenue Requirements

5.4.2.1 Revenue Required for Option 3 Compared to Existing MTFP

There is provision within the MTFP, to fund option 4 (the status quo option). The preferred option, Option 3, is 0.08m more expensive, (Net Income for Option 3 of £0.84m minus Net Income of Option 4 of £0.92m), when compared to the status quo option.

However in real terms the actual annual unfunded element would be £0.05m because there is an element of the costs already accounted for in existing budgets i.e. existing staff costs and overheads.

The additional cost, £0.05m to deliver Option 3 would therefore require to be met from within existing resources.

5.4.2.2 Revenue Required for Option 12 Compared to Existing MTFP

Option 12 provides an annual budget saving of £0.29m for the Council, (Net Income for Option 12 of £1.22m minus Net Income of Option 4 of £0.92m plus costs) when compared to the status quo option.

5.4.2.3 Revenue Required for Option 3 Compared to Option 12

If the MTFP reflected the optimal financial option (Option 12), then the difference between that option and the preferred option would be an additional cost to the Council of £0.36m.

5.4.2.4 Summary of Affordability

The Financial Case has demonstrated that all 4 options are affordable to the Council.

5.5 Preferred Option

Following review of the Financial Case, Option 3 has been deemed as affordable. Therefore a SIF of £15m and MF of £3m remains the preferred option.

6.0 The Management Case

6.1 Introduction

This section outlines the management arrangements for establishing a SIF of £15m and providing a lending service to support business development. An assumption has been made that the £3m balance of funds invested as MF will be managed in line with the Council's Investment Strategy.

The Council has been providing a lending service for over 25 years, either directly or formerly through the SDT. There are existing management arrangements in place although it is recognised that a review of policies, procedures and systems is required to ensure the appropriate control systems remain appropriate and up to date.

6.2 Programme Management Arrangements

Lending to support business development is one of a number of economic interventions used within EDS to achieve its objectives. A review of the EDS was carried out in 2015 and the findings were presented to, and adopted by the Council, in October 2015. The structure agreed by the Council includes provision for the lending service to continue.

6.3 Project Management Arrangements

A project managed in accordance with PRINCE 2 methodology was initiated in 2014 to establish a Shetland investment portfolio, fund and lending service for the EDS. The Project Plan is attached as Appendix 10. The first phase of the project was to transfer the assets from the SDT to the Council and this was completed successfully. The second phase was placed on hold until the review of the Business Case for the use of the transferred assets was complete. Subject to approval of the preferred option, the project can recommence to deliver on the remaining two objectives:

- To establish a portfolio of economic development investments and Shetland Investment Fund (SIF) within the Council.
- Document the plans for management of investments and the SIF.

The initial timescale for completing the project has been affected by the preparation of the Business Case and therefore a revised timescale will be presented to the Project Board for agreement. The Project Board will continue to report to the Development Committee, Policy and Resources Committee and Council, as required.

A list of required policies, procedures and systems to facilitate management of the SIF is attached as Appendix 11. A plan will be prepared to prioritise and timetable the review of each.

6.4 Arrangements for Benefits Realisation

The economic benefits associated with the lending service will be measured along with other EDS activity and reported quarterly to Development Committee as part of the Development Directorate Performance Report.

As part of the due diligence process for lending applications, the projected economic benefits of each case will be identified and presented within the report.

A monitoring database will be established to record performance data on each business in which investment is approved. This will allow actual results to be tracked against projected performance and benefits. This will also provide a good statistical base for future analysis of the lending service. The financial return on SIF investments will also be recorded to provide data on average lending rates and bad debt.

6.5 Arrangements for Post Project Evaluation

A project evaluation review will be prepared to appraise how well the project was managed and whether it delivered to expectations, timescales to be agreed by the Board.

6.6 Preferred Option

There are sufficient management arrangements in place or planned for Option 3 to remain the preferred option.

Case Studies

Aurora Marine Ltd

The Economic Development Service assisted Aurora Marine Ltd. in 2012. This support resulted in the business accessing business planning, marketing and training support through Business Gateway, a member state grant of £37,250 to lever in European Fisheries Fund grant of £223,500 and SIC loan finance of £372,500 towards their £785,000 project to purchase a workboat and innovative net cleaning equipment.

Aurora Marine Ltd., a new start business, created 6 new FTE jobs to operate its pioneering remote controlled equipment, from Norway, offering a new cleaning and inspection service for aquaculture businesses that is quicker and more sustainable than any other cleaning method.

The business, which has grown rapidly to have a turnover of around £700,000 in just 3 years, is currently working with Cooke Aquaculture Scotland on a full-time basis. Their second vessel is scheduled to be delivered in July/August 2016, creating further jobs in Shetland rural areas, to supply services to others in the aquaculture sector.



Shetland Farm Dairies Ltd

A Hire Purchase (HP) facility of £142,900 was approved by the Council in 2013 towards the cost of purchasing a milk bottling plant and associated equipment/works. The main bottling plant was manufactured and shipped from the USA.

The Dairy Manager has commented that the new system has resulted in efficiencies with the elimination of product and packaging losses. Filling times have been reduced, shelf life has improved and customer complaints are much lower. Staff morale is also better.

In addition to the 11 FTE workers employed by the Company, another 11 FTE workers are employed by the four dairy farms which depend on the Company.

Shetland Farm Dairies also has plans going forward to replace more equipment and invest in new products and processes. This will result in increased efficiencies and turnover and will further eliminate the dumping of quality raw milk thus allowing the dairy farms to become efficient by producing to their maximum capacity.



Guardian Angell Fishing Company Ltd.

The Guardian Angell Fishing Company Ltd. completed their new build vessel, Guardian Angell last year, the first new whitefish vessel to join the Shetland fleet since 2008. The level of interest generated by the arrival of Guardian Angell also highlighted the vitally important socio-economic benefits the local whitefish fleet generates throughout Shetland.

The project was funded through a combination of £1.1m loans from the Clydesdale Bank and the Economic Development Service of the SIC, in addition to funds invested by the owners through existing equity and quota.

Owned by Yell skipper Michael Henderson, together with partners Mark Hoseason and Lindsay Inkster of the Guardian Angell Fishing Company Ltd., the 26m trawler was built by Parkol Marine Engineering at Whitby. Together with crewmen Grant Irvine and Edward Leask, the owners expect to work 10 day trips around Shetland, during which time they will make three landings, usually into Cullivoe, Lerwick or Scalloway.

Working through Lerwick agents LHD Ltd., Guardian Angell's catches will be sold electronically on the Shetland Seafood Auction.

Local suppliers for the new build included LHD Ltd. (nets and wire), J J Measuring Systems (fish handling system) and H Williamson & Son Ltd. (electronics).



Option	Use of Capital	Summary	Capital Allocation
Option 1: £18m capital + additional £6m Council funds	Shetland Investment Fund of £24m (estimated new investment of £3m per annum in local businesses)	Investment provision of £12m in MTFP for 15/16	Currently a £2.9m budget available for investment in local industry
			£5.3m current investment portfolio + £3.8m commitments (£9.1m). Committed funds invested by Council until required
		£12m provision (£3m per annum) in MTFP between 01/04/16 and 01/04/19	£12m invested locally (balance remaining from MTFP of investing £3m per annum until 2019, subject to annual approval)
Option 2: £18m capital	Shetland Investment Fund £18m (estimated new investment of £2.25m per annum in local businesses)	Investment budget of £12m in MTFP for 15/16	Currently a £2.9m budget available for investment in local industry
			£5.3m current investment portfolio + £3.8m commitments (£9.1m) Funds invested by Council until required
		Balance of capital for future investment capped at £18m	£6m for investment in future years, subject to annual approval of budget
Option 3: £18m capital	Shetland Investment Fund £15m (estimated new investment of £1.875m per annum in local businesses)	Investment budget of £12m in MTFP for 15/16	Currently a £2.9m budget available for investment in local industry .
			£5.3m current investment portfolio + £3.8m commitments (£9.1m). Funds invested by Council until required
		Balance of capital for future investment capped at £15m	£3m for investment in future years, subject to annual approval of budget
	£3m Council long term investment	Currently invested in line with Council policy	£3m long term investment in line with MTFP/Investment Strategy
Option 4: £18m capital	Shetland Investment Fund £12m (estimated new investment of £1.5m per annum in local businesses)	Investment budget of £12m in MTFP 15/16	Currently a £2.9m budget available for investment in local industry
			£5.3m current investment portfolio + £3.8m commitments (£9.1m). Funds invested by Council until required
	£6m Council long term investment	Currently invested in line with Council policy	£6m long term investment in line with MTFP/Investment Strategy
Option 5: £18m capital	Shetland Investment Fund £9m (no funds for investment in local business until investment balance reduced below £9m)	Less than the £12m commitment provided for in the MTFP in 15/16.	No budget for further local investment in the short term
			£5.3m current investment portfolio. Fulfil £3.8m commitments. Trade out £0.1m of existing and committed investments to reach investment level of £9m
	£9m Council long term investment	Currently invested in line with Council policy	£9m long term investment in line with MTFP/Investment Strategy, subject to receipt of monthly repayments on loans until this figure is achieved.
Option 6: £18m capital	Shetland Investment Fund £6m (no funds for investment in local business until investment balance reduced below £6m)	Less than the £12m commitment provided for in MTFP in 15/16.	No budget for further local investment in the short term
			£5.3m current investment portfolio. Fulfil £3.8m commitments. Trade out £3.1m of existing/committed investments to reach investment level
	£12m Council long term investment	Currently invested in line with Council policy	£12m long term investment in line with MTFP/Investment Strategy, subject to receipt of monthly repayments on loans until this figure is achieved or sale of investments
Option 7: £18m capital	Spend on Council Capital Projects	Trade out or sell investments. Council decisions required to allocate funds	£18m spent, subject to receipt of monthly repayments on loans until this figure is achieved or sale of investments.
Option 8: £18m capital	Spend on Council Services	Trade out or sell investments. Council decisions required to allocate funds	£18m spent, subject to receipt of monthly repayments on loans until this figure is achieved or sale of investments
Option 9: £18m capital	Council long term investment	Trade out or sell all local investments and income reinvested to grow capital base	£18m long term investment, subject to receipt of monthly repayments on loans until this figure is achieved or sale of investments.
Option 10: £18m capital	Council long term investment	Trade out or sell all local investments and income spent on Council services	£18m long term investment, subject to receipt of monthly repayments on loans until this figure is achieved or sale of investments.
Option 11: £18m capital	Council long term investment	Trade out or sell all local investments and income spent on capital projects	£18m long term investment subject to receipt of monthly repayments on loans until this figure is achieved or sale of investments.
Option 12: £18m capital	Council long term investment	Trade out or sell all local investments and invest in line with Council Policy (MTFP and Investment Strategy)	£18m long term investment, subject to receipt of monthly repayments on loans until this figure is achieved or sale of investments.

Assessment of Long List of Options

Option	Use of Capital	Capital Used (£m)	BENEFITS			COSTS		RISKS	
			Income Generation	Benefits to Shetland Community	Sustainability of Funds	Cost to Deliver	Negative Implications	Risk to Capital	In line with MTFP
1	Shetland Investment Fund	24	6	8	8	1	7	2	10
2	Shetland Investment Fund	18	7	8	8	2	8	4	10
	Managed Funds	0							
3	Shetland Investment Fund	15	7	8	8	4	9	5	10
	Managed Funds	3							
4	Shetland Investment Fund	12	8	7	8	5	9	6	10
	Managed Funds	6							
5	Shetland Investment Fund	9	8	6	8	5	9	7	9
	Managed Funds	9							
6	Shetland Investment Fund	6	9	4	8	6	6	8	7
	Managed Funds	12							
7	Spend on Capital Projects	18	0	9	0	1	3	0	0
8	Spend on Council Services	18	0	8	0	2	3	0	0
9	Managed Funds, income reinvested	18	10	2	10	9	3	9	7
10	Managed Funds, income spent on services	18	10	3	8	8	3	8	7
11	Managed Funds, Income spent on capital projects	18	10	5	8	7	3	8	7
12	Managed Funds, income used in line with MTFP	18	10	4	9	8	3	8	8

All options graded on a scale of 0-10 (0 being lowest and 10 being highest)
 Option 9 and Option 12 both score 50. However, BBBC methodology states that one of your short list of option must be the "do nothing option".
 Therefore Option3 ,4, 5 and 12 were shortlisted

Estimated Costs

Cost Type	Cost Detail	Assumption Number	Option 3	Option 4	Option 5	Option 12
			SIF of £15m and MF of £3m	SIF of £12m and MF of £6m	SIF of £9m and MF of £9m	SIF of £0 and MF of £18m
Direct Revenue Costs	Staff wages (Economic Development Service)	1	£-97,517	£-75,013	£-67,511	£0
	Staff wages (Other SIC Services)	2	£-9,100	£-7,000	£-6,300	£0
	Overheads	3	£-11,530	£-11,530	£-11,530	£0
	Legal fees	4	£-26,000	£-20,000	£-18,000	£0
	External MF fees	5	£-15,000	£-30,000	£-45,000	£-90,000
Contingent Liability	Risk of MF investment returns	6	£-33,900	£-67,800	£-101,700	£-203,400
	SIF bad debt provision	7	£-93,750	£-75,000	£-56,250	
Opportunity Costs	Opportunity Cost - income from MF	8	£-421,155	£-336,924	£-252,693	£0
	Opportunity Cost - economic benefit from spending on MF fees	9	£-100,275	£-80,220	£-60,165	£0
	Opportunity Costs - economic benefit in terms of turnover to Shetland businesses	10	£0	£-487,304	£-974,608	£-2,436,520
	Opportunity Costs - Loss of economic benefit from wages to deliver SIF	11	£0	£-32,895	£-43,860	£-142,546
Total Costs			£-808,227	£-1,223,686	£-1,637,618	£-2,872,467

Assumptions

Assumption No:	Summary	Detail
1	Employment costs relating to SIF. Include salaries, NI and pension costs. The proposed restructure of the Economic Development Service has been used to assess costs. Work includes assessing new applications and monitoring existing investments.	Option 4 used as baseline since the current lending budget is also £12m. Option 3 x 130%, Option 5 x 90%. Not proportionate to the lending level i.e. lending £3m will not cost half as much as lending £6m
2	Employment costs of other SIC services supporting the delivery of SIF, including SIC Finance Services, Administration Services and Legal Services.	Option 4 used as baseline since the current lending budget is also £12m. Option 3 x 130%, Option 5 x 90%. Not proportionate to the lending level i.e. lending £3m will not cost half as much as lending £6m.
3	Office costs	Fixed overheads relating to staff. Not proportioned due to nature of costs.
4	Cost of general legal advice relating to operation of SIF.	This does not include the cost of preparing loan offers and associated security documents as these costs are recharged to the client. Fees proportionate to level of SIF.

5	Professional MF fees, external to SIC	0.5% of MF value i.e. 0.5% of £18m = £90,000
6	Allowance for risk of not achieving the anticipated return on MF. Risk % is provide by Finance based on the likelihood of achieving a higher or lower rate of rate than the 7.3% expected	Expected MF return of 7.3% less 6.17% x level of MF (6.17% provided by Executive Manager, Finance)
7	Allowance for potential bad debt (equal to capitalisation of interest)	5% of anticipated annual capital invested based on an average lending period of 8 years
8	Difference between investing £18m at 7.3% and the return on investments (both MF and SIF) in the option being considered	(MF Income, inc. multiplier + SIF Income, inc. Multiplier in the option being considered) less the MF Income, inc. Multiplier in Option 12
9	Difference between multiplier on MF fees of investing £18m and the MF fees in the option being considered	MF Fees in option being considered less the MF Fees in Option 12 x Public Administration Multiplier of 1.337
10	Difference between economic benefit achieved from investing £15m compared to economic benefit achieved by the option being considered. Economic impact is measured in terms of increased turnover in businesses awarded lending from SIF. Historical data has been used to provide baseline data.	SIF Measurable Benefit in the option being considered less the SIF Measurable Economic Benefit in Option 3
11	Difference in SIF wage cost relating to investing £15m in SIF and the SIF wage cost for the option being considered	SIF wage costs, inc multiplier in option being considered less the less SIF wages, inc multiplier in Option 3

General Cost Assumptions

Costs to the Shetland community of not having a lending service i.e. stagnating business performance or failure, are not costed (avoids double counting as benefits/disbenefits of investing/not lending will show in impact of lending)
Costs based on providing loans only. Other mechanisms, such as guarantees and equity, have not been included
No costs have been calculated for the spend of income on the £18m in Option 12
Costs for options 3, 4 & 5 assume the full investment fund is utilised although in practice it is likely that this will not be the case
Wider costs have not been considered, only costs incurred by SIC, excluding the costs of using any income generated
Transfer payments such as VAT have been excluded
No inflation is included in the calculations

Estimated Monetary Benefits

Benefit Detail	Assumption Number	Option 3	Option 4	Option 5	Option 12
		SIF of £15m and MF of £3m	SIF of £12m and MF of £6m	SIF of £9m and MF of £9m	SIF of £0 and MF of £18m
Measurable Economic Benefit to Shetland	1	£2,436,520	£1,949,216	£1,461,912	£0
Income on SIF Investments	2	£780,000	£624,000	£468,000	£0
Multiplier on SIF Investments Income	3	£262,860	£210,288	£157,716	£0
Economic Benefits From SIF Jobs	4	£142,546	£109,651	£98,686	£0
MF Income	5	£219,000	£438,000	£657,000	£1,314,000
Multiplier on MF Income	6	£73,803	£147,606	£221,409	£442,818
Economic Benefits From MF Fees	7	£20,055	£40,110	£60,165	£120,330
Total Benefits		£3,934,785	£3,518,871	£3,124,888	£1,877,148

Assumptions

Assumption No:	Summary	Detail
1	Economic impact is measured in terms of increased turnover in businesses awarded lending from SIF. Historical data, from loan investments between 2008-2016, has been used to provide baseline data. The assumption was based upon the % of increase in turnover accreditable to the investment made, this rate was calculated as being 66.46% (the average level of funding package provided by the SIC between 2008-2016). Full utilisation of the SIF and MF is assumed in each option.	Historical data showed that a SIF of £9,264,880 generated £1,504,938 of turnover per annum in local businesses (including the multiplier on each investment) x 66.46%. This is equivalent to £1 invested in SIF generating £0.16 per annum in turnover for local businesses.
2	Assumes a fully operating fund where the full SIF is invested annually	Rate of Return on SIF is 5.2%, the current minimum lending rate
3	Assumes a fully operating fund where the full SIF is invested annually	Multiplier on Income of 1.337*
4	Jobs are required to administer SIF which provides an economic impact from the provision of jobs in Shetland	Employment Costs including multiplier on Income of 1.337*
5	Assumes a fully operating fund where the full MF is invested	Rate of Return on MF is 7.3%
6	Assumes a fully operating fund where the full MF is invested	Multiplier on Income of 1.337*
7	Fund managers are required to administer MF which provides an economic impact from the buying of these external services	MF Fees including multiplier of 1.337*

*Public Administration Multiplier 2010-2011

Estimated Non Monetary Benefits

Increase in Exports and Leverage of Private Sector Match Funding – SIF

Benefit	Assumption Number	Option 3	Option 4	Option 5
		SIF of £15m	SIF of £12m	SIF of £9m
Average Increase in Exports (63% of turnover)*	1	£1.55m	£1.24m	£0.93m
Leverage of Private Sector Match Funding (34% of project value)	2	£5.03m	£4.03m	£3.02m

Jobs Impacts From SIF Lending

Benefit	Assumption Number	Option 3	Option 4	Option 5
		SIF of £15m	SIF of £12m	SIF of £9m
Direct Jobs Created *	1	32	26	19
Direct Jobs Maintained *	1	334	267	200

Jobs Created by SIF and MF Operation and Income

Benefit	Assumption Number	Option 3	Option 4	Option 5	Option 12
		SIF of £15m and £3m MF	SIF of £12m and £6m MF	SIF of £9m and £9m MF	SIF of £0 and £18m MF
Direct Council Jobs *	3	5	4	3	0
Potential Jobs Created in Economy by SIF & MF Income *	4	43	46	49	57

* Including multiplier

Assumptions

Assumption No	Detail
1	Results are in proportion to the benefits in businesses awarded lending from SIF between from 2008-2016. Capital Invested between 2008-2016 = £9,264,880, resulted in: Exports of £959,228* Direct Jobs of 20* Jobs Maintained of 206* * inc. multiplier
2	Leverage of Private Sector Match Funding is calculated by taking the average leverage rate of 34% for lending recipients between 2008-2016 x the SIF total relating to the option being considered.
3	Direct Council Jobs, inc multiplier, is calculated by taking the value of the staff wages in the Council for delivery of SIF, per option, divided by the average wage of £30,784 p.a. (£592 gross weekly earning average from SIC Development Services key performance indicators 2014/15) x public administration multiplier of 1.337
4	Potential Jobs Created in Economy, is calculated by taking the value of the SIF and MF Income, inc. multiplier, per option, divided by the average wage of £30,784 p.a. (£592 gross weekly earning average x 52 weeks, source: SIC Development Services key performance indicators 2014/15) x public administration multiplier of 1.337

Net Present Value (NPV) Calculations

Year	0	1	2	3	4	5	6	7	8
Discount Factor	1.0000	0.9662	0.9335	0.9019	0.8714	0.8420	0.8135	0.7860	0.7594

Option 3 - SIF of £15m and MF of £3m

Costs	-£808,227	-£808,227	-£808,227	-£808,227	-£808,227	-£808,227	-£808,227	-£808,227	-£808,227
Benefits	£3,934,785	£3,934,785	£3,934,785	£3,934,785	£3,934,785	£3,934,785	£3,934,785	£3,934,785	£3,934,785
NPV	£3,126,558	£3,020,829	£2,918,676	£2,819,976	£2,724,615	£2,632,478	£2,543,457	£2,457,446	£2,374,344
									£24,618,380

Option 4 - SIF of £12m and MF of £6m

Costs	-£1,223,686	-£1,223,686	-£1,223,686	-£1,223,686	-£1,223,686	-£1,223,686	-£1,223,686	-£1,223,686	-£1,223,686
Benefits	£3,518,871	£3,518,871	£3,518,871	£3,518,871	£3,518,871	£3,518,871	£3,518,871	£3,518,871	£3,518,871
NPV	£2,295,185	£2,217,570	£2,142,580	£2,070,126	£2,000,121	£1,932,484	£1,867,135	£1,803,995	£1,742,990
									£18,072,186

Option 5 - SIF of £9m and MF of £9m

Costs	-£1,637,618	-£1,637,618	-£1,637,618	-£1,637,618	-£1,637,618	-£1,637,618	-£1,637,618	-£1,637,618	-£1,637,618
Benefits	£3,124,888	£3,124,888	£3,124,888	£3,124,888	£3,124,888	£3,124,888	£3,124,888	£3,124,888	£3,124,888
NPV	£1,487,270	£1,436,976	£1,388,383	£1,341,432	£1,296,070	£1,252,242	£1,209,895	£1,168,981	£1,129,450
									£11,710,699

Option 12 - SIF of £0 and Managed Funds of £18m

Costs	-£2,872,467	-£2,872,467	-£2,872,467	-£2,872,467	-£2,872,467	-£2,872,467	-£2,872,467	-£2,872,467	-£2,872,467
Benefits	£1,877,148	£1,877,148	£1,877,148	£1,877,148	£1,877,148	£1,877,148	£1,877,148	£1,877,148	£1,877,148
NPV	-£995,319	-£961,661	-£929,141	-£897,720	-£867,363	-£838,032	-£809,692	-£782,312	-£755,857
									-£7,837,096

* Discount Factor 3.5%

Sensitivity Analysis

Rate of Return reduced by 2% (SIF 3.2%. MF 5.3%)	Option 3	Option 4	Option 5	Option 12
	SIF of £15m and MF of £3m	SIF of £12m and MF of £6m	SIF of £9m and MF of £9m	SIF of £0 and MF of £18m
Total Costs	-£748,227	-£1,103,686	-£1,457,618	-£2,512,467
Total Benefits	£3,453,465	£3,037,551	£2,643,568	£1,395,828
Net Benefits	£2,705,238	£1,933,865	£1,185,950	-£1,116,639
Net Benefits with NPV Applied	£21,300,925	£15,227,169	£9,338,119	-£8,792,364

Accreditable economic benefit from SIF reduced from 66.46% to 50%	Option 3	Option 4	Option 5	Option 12
	SIF of £15m and MF of £3m	SIF of £12m and MF of £6m	SIF of £9m and MF of £9m	SIF of £0 and MF of £18m
Total Costs	-£808,227	-£1,033,608	-£1,257,461	-£1,922,074
Total Benefits	£2,984,392	£2,758,557	£2,554,652	£1,877,148
Net Benefits	£2,176,165	£1,724,949	£1,297,192	-£44,926
Net Benefits with NPV Applied	£17,135,028	£13,582,175	£10,214,028	-£353,743

Accreditable economic benefit from SIF reduced from 66.46% to 25%	Option 3	Option 4	Option 5	Option 12
	SIF of £15m and MF of £3m	SIF of £12m and MF of £6m	SIF of £9m and MF of £9m	SIF of £0 and MF of £18m
Total Costs	-£808,227	-£856,110	-£902,466	-£1,034,586
Total Benefits	£2,096,904	£2,048,566	£2,022,160	£1,877,148
Net Benefits	£1,288,677	£1,192,457	£1,119,694	£842,562
Net Benefits with NPV Applied	£10,146,986	£9,389,350	£8,816,420	£6,634,298

Accreditable economic benefit from SIF reduced from 66.46% to 16.76%	Option 3	Option 4	Option 5	Option 12
	SIF of £15m and MF of £3m	SIF of £12m and MF of £6m	SIF of £9m and MF of £9m	SIF of £0 and MF of £18m
Total Costs	-£808,227	-£813,782	-£817,810	-£822,948
Total Benefits	£1,885,266	£1,879,256	£1,895,177	£1,877,148
Net Benefits	£1,077,039	£1,065,474	£1,077,366	£1,054,200
Net Benefits with NPV Applied	£8,480,559	£8,389,494	£8,483,135	£8,300,726

Income and Expenditure**Estimated Income**

Income Detail	Option 3	Option 4	Option 5	Option 12
	SIF of £15m and MF of £3m	SIF of £12m and MF of £6m	SIF of £9m and MF of £9m	SIF of £0 and MF of £18m
SIF Income	£780,000	£624,000	£468,000	£0
MF Income	£219,000	£438,000	£657,000	£1,314,000
Total	£999,000	£1,062,000	£1,125,000	£1,314,000

Estimated Expenditure

Detail	Option 3	Option 4	Option 5	Option 12
	SIF of £15m and MF of £3m	SIF of £12m and MF of £6m	SIF of £9m and MF of £9m	SIF of £0 and MF of £18m
Staff wages (EDS)	-£97,517	-£75,013	-£67,511	£0
Staff wages (Other SIC Services)	-£9,100	-£7,000	-£6,300	£0
Overheads	-£11,530	-£11,530	-£11,530	£0
Legal fees	-£26,000	-£20,000	-£18,000	£0
External MF fees	-£15,000	-£30,000	-£45,000	-£90,000
Total	-£159,147	-£143,543	-£148,341	-£90,000

Assumptions

The above costs and benefits have been used to calculate the Net Income to the Council as per the guidelines for preparing the Financial Case.

The calculations of income and expenditure are as per the assumptions shown in Appendix 4 & 5.



PROJECT PLAN

Project: Establishment of a Shetland Investment Portfolio, Fund and Lending Service for Economic Development

Author: Sheila Keith/Wendy Grant

Date: 10 November 2014

Document Ref: Project Plan - Shetland Investment and Lending Service
Project V1.0

Version No: V1.0

1 Project objectives and desired outcomes

- To wind up the SDT, including the transfer of assets and undertakings to the Council.
- To establish a portfolio of investments and Shetland Investment Fund within the Council which will generate direct income and provide economic benefit to the local economy.
- To create a robust system for lending to local organisations.

2 Project Scope and Exclusions

Scope:

- To wind up the SDT with lending and non-lending assets/undertakings transferred to the Council by 20 November 2015. This will include actions to:
 - Define assets for transfer.
 - Identify assets which should be concluded before transfer date or written off and not transferred.
 - Value assets and complete reviews of all investments.
 - Forecast income and expenditure within the SDT until the date of wind up, including tax liabilities.
 - Maximise tax efficiency by making full use of tax reclamation and surplus distribution before wind up.
 - Prepare and execute legal documents for transferring assets.
 - Prepare accounts and tax returns for the date of cessation.
 - Ensure previous SDT surplus beneficiaries are kept informed of the wind up timescales and are aware of the implications for future funding.
- To establish a portfolio of economic development investments and Shetland Investment Fund (SIF) within the Council.
- Document the plans for management of investments and the SIF. This will include actions to:
 - Set financial controls for the management of the economic development investment asset portfolio.
 - Communicate with, and take advice from Council auditors in order to avoid audit qualification.
 - Forecast income and expenditure associated with lending activity post asset transfer.
 - Review the Council's tax position with regard to the transferred assets.
 - Prepare an investment strategy for lending to local businesses.
 - Prepare revised/new policy and procedures for economic development investment.

Exclusions:

- Finding alternative funding mechanisms for previous SDT surplus beneficiaries (this activity will need to be done in tandem with the project detailed in this document but is not within the scope).
- The management of the asset portfolio, SIF and operation of the lending service.
- The promotion of the business lending service by the Council.

3 Tolerances

Time:

- The wind up of the SDT must be completed by 20 November 2015 to avoid the payment of Inheritance Tax. The date of 28 February 2015 is the proposed date for dissolution of the SDT.
Tolerance: +1 month
- The review of Investment Strategy and preparation of revised policies and procedures aims to complete in September 2015.
Tolerance: +/-3 months

Cost:

- Subject to Development Committee agreement, the budget for external advice is £100,000.
- Tolerance: There is no authority to exceed the budget.

4 External Dependencies

Specialist Legal and Trust accountancy advice is being sought from external advisors as part of the project. Procurement guidance has also been sought.

5 Project Controls

The following strategies have been prepared to monitor and control the project:

- Quality Management Strategy
- Configuration Management Strategy
- Risk Management Strategy
- Communications Management strategy.

6 Schedule of Activity

To be agreed by Board.

Strategy, Policies, Systems and Procedures

Lending Strategy - to include:

- Product offering/types of funding – i.e. loan/equity/HP
- Identifying target sectors for development
- Encouraging a diverse portfolio - industry/size of investment
- Min/max lending levels per application/company
- Annual budgeting and cashflow management
- Fit within the market i.e. gap funder, matching bank lending to spread risk, position in relation to Pan-Scotland loan funding scheme
- Promotion

Policies - to include:

- Minimum/maximum lending levels
- Eligibility – Proving benefits to Shetland, viability, proven attempts to secure investment from other lenders
- Ineligible project guidelines (including exclusions under FCA regulation)
- Rejection process and appeal
- Deed of Conditions
- Interest rate policy
- Administration fees/APR's
- Early repayment fees
- Risk policy/security
- FOI/Data protection
- Press Release Policy

Systems and Procedures - to include:

- Delegated authorities – signing, rescheduling, negotiating, release of securities
- Application information and process
- Reporting formats/level of detail/loan schedule format
- Legal advisors, pricing
- Due diligence procedure and financial assessments
- Decision making process
- Filing systems
- Debt Management/Default procedure
- System for preparation of repayment schedules
- Management of repayments/master spreadsheets
- Communication with borrowers – annual statements
- Business Review and monitoring process
- Aftercare support through other Economic Development Services
- Secure/Fire safe storage of legal documents
- FCA authorisation requirements
- End of year procedures
- End of loan procedures
- PPMF reporting (reporting by exception) Annual and quarterly