

# Highland and Argyll Local Flood Risk Management Plan (2022 – 2028)

## TABLE OF CONTENTS

Section 1 : Flood Risk Management in the highland and Argyll Local Plan district .....	4
1.1 What is a local flood risk management plan? .....	4
1.2 How to read this plan .....	5
1.3 How we have developed the local plan .....	7
1.4 Consultation, Engagement and advice .....	8
1.5 Strategic environmental assessment and habitats regulations assessment .....	9
1.6 Identification of objectives, appraisal and prioritisation of actions .....	10
1.7 Links with other plan, policies and legislative requirements .....	12
Section 2: managing flood risk in the highland and argyll local plan district .....	15
2.1 Actions across the local plan district .....	16
2.2 Potentially vulnerable areas .....	33
2.3 List of Highland and Argyll PVAs .....	35
Thurso and Halkirk (02/01/01) .....	37
Wick (02/01/02) .....	43
Lochinver (02/01/03) .....	46
Golspie (02/01/04) .....	49
Dornoch (02/01/05) .....	53
Aird Point (02/01/06) .....	56
Gairloch (02/01/07) .....	59
Tarbat Ness (02/01/08) .....	64
Invergordon (02/01/09) .....	77
Alness (02/01/10) .....	80
Kinlochewe (02/01/11) .....	83
Garve (02/01/12) .....	86
Dingwall And Strathpeffer (02/01/13) .....	89
Canon Bridge, Muir of Ord and Maryburgh (02/01/14) .....	98
Ardersier (02/01/15) .....	106
Smithton and Culloden (02/01/16) .....	109
Inverness (02/01/17) .....	112
Drumnadrochit (02/01/18) .....	118
Fort Augustus (02/01/19) .....	122

Fort William and Corpach (02/01/20).....	125
Ballachulish and Glencoe (02/01/21) .....	132
Oban (02/01/22) .....	137
Inveraray (02/01/23).....	141
Lochgilphead (02/01/24) .....	144
Tarbert (02/01/25).....	148
Clachan (02/01/26) .....	153
Campbeltown (02/01/27) .....	157
Taynuilt (02/01/28).....	161
Avoch (02/01/29).....	165
Beaully (02/01/30) .....	168
Annex 1: LPD roles and responsibilities .....	171
Annex 2: Links to other plans, policies and legislative requiremnets .....	174
Annex 3: Glossary.....	175
Annex 4: Sea determination .....	185
Annex 5: Consultation responses .....	186
Annex 6: Acknowledgements .....	192

# SECTION 1: FLOOD RISK MANAGEMENT IN THE HIGHLAND AND ARGYLL LOCAL PLAN DISTRICT

## 1.1 WHAT IS A LOCAL FLOOD RISK MANAGEMENT PLAN?

The Local Flood Risk Management Plan (the 'Local Plan') has been developed to set out Actions to reduce the impact of flooding in the Highland and Argyll Local Plan District. The Plan supplements the Flood Risk Management Plan (the 'SEPA Plan' developed and published by SEPA), which sets out Objectives and Actions to reduce flood risk from rivers, the sea and surface water. The SEPA Plan identifies where the risk of flooding and benefit of investment is greatest.

The Local Plan sets out *how* and *when* prioritised Actions will be delivered with this investment.

Local Plans will be delivered over a six-year cycle with the current cycle between 2022 and 2028.

The Local Plan provides information to help individuals and communities to become more resilient to flooding. Everyone can take action with the confidence of what others are doing and with the clear knowledge when they are doing it.

The contents of the Local Plan have been agreed with the lead authority and every other responsible authority which has flood risk related functions exercisable in or in relation to the Local Plan District and SEPA.

The Local Plan is published by The Highland Council, lead authority for the Highland and Argyll Local Plan District, in agreement with:

- Argyll and Bute Council
- Scottish Water
- SEPA
- Scottish Forestry
- Loch Lomond and Trossachs National Park Authority
- Cairngorms National Park Authority.
- Transport Scotland

The Local Plan is a requirement under the **Flood Risk Management (Scotland) Act 2009**.

## 1.2 HOW TO READ THIS PLAN

This Local Plan should be read in parallel with the SEPA Plan for the Highland and Argyll Local Plan District. Where appropriate the Local Plan will refer the reader to the SEPA Plan.

The SEPA Plan contains detailed information on flood risk and the impact it has on communities in the designated Potentially Vulnerable Areas (PVAs). The SEPA Plan was published in December 2021 by SEPA and provides additional background information and national context.

The SEPA Plan can be viewed at the following locations:

Online	<a href="https://www2.sepa.org.uk/frmplans/">https://www2.sepa.org.uk/frmplans/</a>
In paper	Due to the quantity of information contained in the SEPA Plan, hard copies have not been made available for viewing. If you do not have access to the internet, please contact SEPA at the following: <b>SEPA</b> 03000 99 66 99

The Local Plan can be viewed at the following locations:

Online	<b>THE HIGHLAND COUNCIL WEBSITE</b> <a href="http://www.highland.gov.uk/info/1210/environment/81/flooding">http://www.highland.gov.uk/info/1210/environment/81/flooding</a>  <b>ARGYLL and BUTE COUNCIL WEBSITE</b> <a href="https://www.argyll-bute.gov.uk/transport-and-streets/flood-advice">https://www.argyll-bute.gov.uk/transport-and-streets/flood-advice</a>
--------	---

The layout of the Local Plan follows that of the SEPA Plan

- **Section 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. And, most importantly, how flood risk management planning is delivered locally to each Local Plan District through a Local Flood Risk Management Plan.
- **Section 2** includes an overview of the Local Plan District (LPD); a summary of the communities at greatest risk and the sets out Objectives and Actions that will be applied across the whole LPD. This section is the most important section for those individuals and communities seeking to understand their flood risk and its management. For communities at the greatest risk of flooding (called Potentially Vulnerable Areas) there is a short description of the sources and consequences

of flooding. Each PVA includes Objectives to reduce the risk of flooding from significant sources. Most importantly, the Actions that will achieve the Objectives are described, including when they will be implemented, which organisation is responsible, and how they are to be funded.

- **Annexes** to the Local Plan provide supporting documents and references:
  - Annex 1 - Roles and Responsibilities
  - Annex 2 - Links with other plans (location of Schedules of 'Clearance and Repair')
  - Annex 3- Glossary of Terms
  - Annex 4 - SEA Determination
  - Annex 5 - Consultation Response
  - Annex 6 – Acknowledgements

Both the SEPA Plan and the Local Plan will be updated every six years.

## 1.3 HOW WE HAVE DEVELOPED THE LOCAL PLAN

### *Coordination, collaboration and partnership working*

The Local Plan has been developed in partnership with the following organisations:



**Figure 1:** Local Plan District Partnership

**Local Authorities** work together for flood risk management planning purposes through a single 'Lead Authority' which has the responsibility to coordinate, prepare, publish and report on the Local Flood Risk Management Plan. The Highland Council was nominated the Lead Local Authority for the Highland and Argyll Local Plan District, with Argyll and Bute Council as a partner.

**Scottish Environment Protection Agency (SEPA)** has a duty to deliver a strategic approach to flood risk management within Scotland, and is also responsible for providing national flood forecasting and flood warning service. On 22nd December 2021, SEPA published the Flood Risk Management Plan for the Highland and Argyll LPD, and which this Local Plan builds upon.

**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.

**Loch Lomond and the Trossachs National Park Authority/Cairngorms National Park Authority** fulfil an important role in land use planning within the National Parks, and the control of activities that can play a key role in managing and reducing flood risk.

**Scottish Forestry** and **Forestry and Land Scotland** took over the roles of Forestry Commission Scotland in 2018 when the Forestry and Land Management (Scotland) Act 2018 came into force. While these executive agencies of Scottish Government are not formally designated as a responsible authority under the Flood Risk Management (Scotland) Act 2009, they support Scottish Government in delivering its flood risk related duties. This includes engaging in the development of the flood risk management plans through national and local advisory groups, Local Plan District partnerships, and collaborative projects. This reflects the widely held view that forestry can play a significant role in managing flooding.

Further detail on the roles and responsibilities of these organisations can be found in Annex 1.

## 1.4 CONSULTATION, ENGAGEMENT AND ADVICE

Two public consultations have been held during the development of the flood risk management plans. The first by SEPA was on the national flood risk assessment and the identification of PVAs (2018); the second, held jointly with local authorities, was on the understanding of flooding in these priority areas and on the objectives and actions to manage flooding (2021). The second, most recent consultation ran from December 2020 to October 2021 in two parts. From December 2020, information on the Local Plan Districts, the PVAs and the communities identified as target areas was made available. Further information on the objectives and actions planned for each target area was added in July 2021. SEPA published a public consultation digest. A summary of responses from The Highland Council and Argyll and Bute Council can be found in Annex 5.

The SEPA Plans and Local Plans have also benefitted from contributions from the Highland, and Argyll and Lochaber Local Advisory Groups (LAGS), who provided 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, local authorities, Scottish Water, Scottish Forestry, the National Park Authorities and other key interested organisations have assisted each other and developed industry best practice guidance for flood risk management planning.

## 1.5 STRATEGIC ENVIRONMENTAL ASSESSMENT AND HABITATS REGULATIONS ASSESSMENT

A Strategic Environmental Assessment (SEA) was carried out by SEPA on the SEPA Plan for the Highland and Argyll Local Plan District. This included an Environmental Report, and Post Adoption Statement (taking account of consultee's comments).

Since the Local Plan sits below the SEPA Plan, and reflects the measures proposed within the SEPA Plan, no additional SEA has been undertaken. The Highland Council submitted a Screening Opinion to SEA Gateway in October 2019, and the opinion of SEPA, Nature Scot and Historic Environment Scotland was that the Local Plan would have 'no (additional) significant environmental effects' other than those already identified and assessed through the SEPA Plan. The Highland Council published this decision in November 2020 (see Annex 4).

Project level environmental impact assessments will be undertaken where required by planning and environmental regulations.

A Habitats Regulations Appraisal (HRA) was undertaken for the SEPA Plan that has informed the Local Plan. Where the HRA Strategy identified mitigation measures necessary to afford the Natura interests a level of protection, these have been incorporated into the Plan. The Local Plan does not contain any proposed works that have not been identified in the SEPA Plan for which an HRA has been undertaken. Schemes identified in the SEPA Plan and Local Plan that may result in works that will be the subject of a future plan and full assessment would be undertaken as part of the plan development process.

## 1.6 IDENTIFICATION OF OBJECTIVES, APPRAISAL AND PRIORTISATION OF ACTIONS

The identification of Objectives and appraisal of Actions to reduce flood risk has been led by SEPA with significant input from The Highland Council, Argyll and Bute Council 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.

### **Flood Maps**

In 2014, SEPA developed new river, coastal and surface water maps for the whole of Scotland. This was supplemented with more detailed, local assessments where available and suitable for use. Since 2014 the maps have been updated and revised.

In developing the flood maps SEPA have:

- Used the most up to date modelling techniques and applied a consistent approach
- Used industry endorsed methods
- Been able to show more information than ever before on the sources and impacts of flooding
- Developed the first national natural flood management maps showing the areas where natural techniques to help reduce flood risk could be most effective.

In developing the maps SEPA worked in partnership with local authorities. They also worked with the industry to define the overall approach to flood hazard mapping and undertook a series of internal checks and local authority reviews of outputs. Further information on Flood Hazard and Risk including mapping can be found at <https://www.sepa.org.uk/environment/water/flooding/flood-maps/>.

Objectives were then set to focus on the main sources and impacts of flooding identified in each Potentially Vulnerable Area. A wide range of Actions were appraised, including Flood Protection Schemes (or Works), Flood Protection Studies, Flood Warning Schemes, Surface Water Management Plans, and Natural Flood Management Studies (or Works).

To prioritise actions, SEPA separated the technical, risk-based assessment of priorities from aspects of local, practical deliverability. The costs and impacts of actions were used alongside information from delivery and funding bodies jointly to agree priorities and identify indicative delivery dates for actions. A National Prioritisation Advisory Group guided SEPA on the relative priority of flood risk management actions, having considered both the technical ranking and issues of local priority. This group included representatives from SEPA,

local authorities, Scottish Water, Convention of Scottish Local Authorities (CoSLA) and Scottish Government.



**Figure 2:** Key Stages within the Appraisal Process

Possible Actions were initially appraised against Technical, Financial and Practical considerations, before a more detailed appraisal taking account of the benefit to cost ratio and a non-monetised score, including factors that are less tangible such as environmental benefit.

The SEPA Plan provided the list of prioritised actions for the current six-year flood risk management planning cycle, 2022 to 2028 and includes some longer-term actions to be carried out. The Local Plan identifies who will be responsible for delivering each Action, when it will be undertaken; the funding arrangements to deliver each Action and any coordination activities— see Sections 2 and 3.

The agreed actions identified for the first six-year cycle were based on the current level of funding, where available. However, future spending reviews and annualised financial settlements may affect each party's ability to deliver these actions.

Implementation of the Local Plan will be monitored through the Steering Group, which will meet from time to time throughout the first cycle. Progress will be reported through each responsible authority's governance process.

## 1.7 LINKS WITH OTHER PLAN, POLICIES AND LEGISLATIVE REQUIREMENTS

The Local 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 SEPA Plan and Local 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.

### **Duty to assess bodies of water and schedule clearance and repair works**

Under Section 18 of the Flood Risk Management (Scotland) Act (2009), local authorities have a duty to assess bodies of water (e.g. watercourses) and schedule 'clearance and repair' works where such works would substantially reduce flood risk.

The Highland Council has implemented a plan-led, risk based approach to assessing bodies of water that may give rise to flooding, and has documented over 500 watercourses and 2,000 structures throughout the Highlands. A full time watercourse inspector is employed to routinely assess the risk of flooding from each structure (e.g. a culvert inlet or screen).

Should any routine clearance work be required that cannot be carried out at the time of inspection, the work required to substantially reduce the risk of flooding will be put on a 'Schedule of clearance and repair works' and made available for public inspection (see Annex 2).

The Highland Council's Schedule of clearance and repair works is published online at: <http://www.highland.gov.uk/info/1210/environment/81/flooding/5>

Argyll and Bute Council is in the process of establishing a digital asset management system to record inspections, map bodies of water and publish a schedule of clearance and repair. At present the council responds to requests on an individual basis. A request for details of clearance and repair at a specific location can be made online at [floodingenquiries@argyll-bute.gov.uk](mailto:floodingenquiries@argyll-bute.gov.uk)

## **River Basin Management Planning**

River basin management aims to protect and improve the condition of our rivers, lochs, estuaries and coastal waters.

Developing a planned approach to tackling flood risk 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 has led the delivery of River Basin Management Plans and Flood Risk Management Plans, and they have worked with The Highland Council and Argyll and Bute Council in the development of the Local Flood Risk Management Plans to ensure that there is appropriate consistency and coordination in both Plans.

## **Land Use and Spatial Planning**

Periodically, The Highland Council, Argyll and Bute Council, Loch Lomond & Trossachs National Park Authority and Cairngorms National Park Authority review and update their Local Development Plans. These plans set out the Strategy for delivering appropriate development within each area and take into account a number of constraints including flood risk.

### **The Highland Council**

- [The current Highland-wide Local Development Plan](#) (HwLDP) was adopted in 2012 and contains the vast majority of the Council's general planning policies, including those relating to flood risk. Whilst a review of HwLDP began in January 2016, it was agreed that it is generally fit for purpose and that the review is put on hold until the new National Planning Framework 4 (NPF4) is adopted. The Planning (Scotland) Act 2021 introduced that NPF4 (which will include general policies) will become part of the Development Plan for the first time and therefore will be essential for considering how Highland Council policy is taken forward. The Council is also now anticipating that a new single plan for Highland could be prepared that would simplify and consolidate all existing plans into a single local development plan. In any event, the Development Plan will continue to take account of flood risk and the actions proposed in this Local Flood Risk Management Plan.

The Highland Council's three Area Local Development Plans set out a more detailed strategy and site allocations for each area:

- [Inner Moray Firth Local Development Plan](#)
- [Caithness and Sutherland Local Development Plan](#)

- [West Highland and Islands Local Development Plan](#)

The Highland Council's [Highland Forest and Woodland Strategy](#) also looks to build synergy between forestry and other interests which can benefit from woodlands, such as natural flood management.

#### **Argyll and Bute Council**

- The current [Argyll and Bute Local Development Plan](#) was adopted in March 2015. The second Local Development Plan is currently being developed. A consultation was held between November 2019 and January 2020. The proposed second Local Development Plan can be viewed here <https://www.argyll-bute.gov.uk/ldp2>.

#### **Surface Water Management Plans**

The Highland Council will continue to develop its Highland-wide Surface Water Management Plan (SWMP) within the second cycle (2022-2028) that will describe existing and future actions to reduce the flood risk from small watercourses (less than 3km<sup>2</sup>) and surface water runoff (e.g. overland flows across roads, fields and other areas). The SWMP will describe existing activities such as watercourse inspections, assessments and gully maintenance and identify specific actions to alleviate surface water flooding in the following priority areas:

Argyll and Bute Council developed a Surface Water Management Plan during Cycle 1 for Oban and Campbeltown. Further information about next steps for these areas can be found in Section 2.

## SECTION 2: MANAGING FLOOD RISK IN THE HIGHLAND AND ARGYLL LOCAL PLAN DISTRICT

The Highland and Argyll Local Plan District covers an area of around 29,000km<sup>2</sup> and has a population of approximately 260,000 people. It stretches from Campbeltown in the southwest to John o' Groats in the north and from Ardersier in the east to the Inner Hebrides in the west.

Much of the area is characterised by mountainous terrain with some low-lying land in the east around Inverness and the northeast around Wick and Thurso. The area is predominantly rural with the land cover mainly heath, grassland, bog, coniferous woodland and some agricultural land. There are numerous large lochs, including Loch Ness and Loch Awe. Given the hilly nature of much of the area, rivers are abundant. The larger river systems are in the east and northeast including the River Ness, the River Thurso, the River Beaully and the River Conon. The coastline is over 4,200 km in length and typically hard and often deeply indented with sea lochs, firths and occasional beaches. More extensive beach systems are found on parts of the north and east coast.

There is river, surface water and coastal flood risk, with the main risk coming from river and coastal flooding. The area has been affected by several large floods, notably in January 2016 and March 2015 when severe weather led to extensive flooding. This flooding affected many areas, including Inverness, Wick, Halkirk, Beaully, Fort Augustus and Oban.

Currently it is estimated that there are 22,000 people and 15,000 homes and businesses at risk from flooding. This is estimated to increase to 34,000 people and 23,000 homes and businesses by the 2080s due to climate change. The annual cost of flooding is approximately £26 million. There is a significant risk of flooding to transport infrastructure in rural areas.

This could leave communities isolated for long periods of time or result in long diversions. SEPA lead development of the flood risk management plans for Scotland and delivery of flood warning services. Local flood risk management planning is led by The Highland Council who is the lead authority. Other responsible authorities include Argyll and Bute Council, Scottish Water, Cairngorms National Park Authority and Loch Lomond and The Trossachs

National Park Authority. They are supported by Scottish Government agencies including Forestry and Land Scotland, Scottish Forestry and Transport Scotland.

Within this Local Plan District, actions are regularly carried out by SEPA and responsible authorities to help prepare communities for potential flooding and reduce the impact of any flooding that does occur.

## 2.1 ACTIONS ACROSS THE LOCAL PLAN DISTRICT

SEPA and responsible authorities carry out actions in all areas of the Local Plan District which help to manage current and future flooding. These actions help to ensure that key aspects of flood risk management are taken forward in all locations. They ensure that for example new housing developments occur in the right places, and that critical flood risk information is developed and updated for all areas. The following actions are due to take place over the next 6 years, and most of these are carried out on an ongoing basis.



	Awareness Raising
<b>Action</b>	<p>SEPA, the responsible authorities and other organisations such as the Scottish Flood Forum work together through national and local initiatives to help communities understand the risk of flooding and what actions individuals can take. Improved awareness of flood risk and actions that prepare individuals, homes and businesses for flooding can reduce the overall impact of flooding.</p> <p>Local authorities undertake additional awareness raising activities when developing any specific project proposals and will engage with community resilience groups and local communities.</p> <p>Scottish Flood Forum support flood risk communities by raising community awareness, promoting self-help, developing community groups and establish a recovery support programme after a flood.</p>
<b>Funding</b>	<p>SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. The Highland Council and Argyll and Bute Council raise awareness of flood risk through their annual revenue budget</p>
<b>Co-ordination</b>	<p>Delivery of actions to raise awareness will be coordinated by the responsible authorities through the Local Plan District Partnership.</p>
<b>Timing</b>	<p>2022-2028</p>

	Data to Support Climate Resilience
<b>Action</b>	<p>As Scotland's hydrometric authority, SEPA operates a network of stations to measure river level, flow, rainfall, sea level, loch and groundwater level. The data goes into a long term data archive and is critical to underpin all flood risk management activities including flood warning, flood mapping, design of flood protection and sustainable development as well as supporting a range of regulatory and recreational uses.</p> <p>SEPA will continue to maintain and develop its hydrometric network, contribute to UK and international data archives, and improve and update the datasets used for flood frequency analysis.</p> <p>SEPA will support research and development of data, methods and guidance to improve the evidence on which decisions can be made, and to enable the impact of climate change to be included in all flood risk management activities.</p>
<b>Funding</b>	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.
<b>Co-ordination</b>	SEPA will coordinate with a range of other parties as required to deliver better and more accessible data, and ongoing improvements to the use of the data to underpin flood risk management activities and decisions.
<b>Timing</b>	2022-2028

	Emergency Plans
<b>Action</b>	<p>Many organisations, including local authorities, the emergency services and SEPA provide an emergency response to flooding. Emergency plans are prepared and maintained under the Civil Contingencies Act 2004 by Category 1 and 2 Responders and are coordinated through regional and local resilience partnerships, often supported by voluntary organisations. They set out the steps to be taken to maximise safety and minimise impacts during flooding. Emergency plans may also be prepared by individuals, businesses, organisations or communities. Scottish Water is a Category 2 responder under the Civil Contingencies Act 2004 and will support regional and local resilience partnerships as required.</p>
<b>Funding</b>	<p>The Highland Council and Argyll and Bute Council provide emergency planning and response through its annual revenue budget.</p>
<b>Co-ordination</b>	<p>The Highland Council is a member of the Highland and Islands Local Resilience Partnership. This partnership ensures good multi-agency working with other public, private, and voluntary agencies, in particular Police Scotland, Scottish Fire &amp; Rescue Service, Scottish Ambulance Service, Maritime &amp; Coastguard Agency, NHS, SEPA and British Red Cross across the region.</p> <p>Argyll and Bute Local Resilience Partnership membership includes multi-agency partners who regularly attend meetings and exercises. This ensures an effective multi-agency response when required.</p>
<b>Timing</b>	<p>2022-2028</p>

	<b>Flood Forecasting</b>
<b>Action</b>	<p>The Scottish Flood Forecasting Service is a partnership between SEPA and the Met Office. The service continues to produce a daily, national flood guidance statement, issued to emergency responders, local authorities, and other organisations with flood risk management duties. As the flood warning authority for Scotland SEPA continues to provide its flood warning service issuing flood alerts and warnings when required, giving people a better chance of reducing the impact of flooding on their home or business.</p>
<b>Funding</b>	<p>SEPA work in partnership with the Met Office and will work closely with all other authorities involved in emergency response to flooding.</p>
<b>Co-ordination</b>	<p>SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.</p>
<b>Timing</b>	<p>2022-2028</p>

	Flood Warning Development Framework
<b>Action</b>	<p>SEPA published a new flood warning development framework which details its ambitions and strategic actions to maintain and improve our flood warning service across Scotland. This is available here: <a href="https://www.sepa.org.uk/media/594489/sepa-flood-warning-dev-framework-2022-28.pdf">https://www.sepa.org.uk/media/594489/sepa-flood-warning-dev-framework-2022-28.pdf</a>.</p> <p>SEPA will continue to develop the Scottish Flood Forecast, a 3 day forecast of flood risk across Scotland and bring together all live information such as flood warnings, river levels and rainfall data into a central hub easily accessible for the public.</p> <p>Working in close partnership with the Met Office through the Scottish Flood Forecasting Service, SEPA will develop its capability in surface water flooding forecasting, focusing initially on the transport sector to support climate-ready infrastructure. SEPA will also undertake a prioritised improvement programme of existing river and coastal flood warning schemes to provide more accurate forecast with improved lead time.</p>
<b>Funding</b>	SEPA work in partnership with the Met Office. Appropriate engagement with the other authorities involved in emergency response will happen as the flood warning developments are progressed.
<b>Co-ordination</b>	SEPA work in partnership with the Met Office. Appropriate engagement with the other authorities involved in emergency response will happen as the flood warning developments are progressed.
<b>Timing</b>	Ongoing / 2022 - 2028

	Future Flood Risk Management Planning
<b>Action</b>	<p>The years covered by the lifetime of this plan are crucial. Radical progress is needed in how we reduce our impact on the climate and respond to the effects of climate change. How we plan to manage flooding to our communities is on the front line of the challenges of this decade. The 2027 flood risk management plans will be more ambitious than ever before.</p> <p>We will plan for a better future by publishing our flooding services strategy in 2022 with a clear and measurable delivery plan. We will put greener, fairer communities at the heart of our ambitions.</p> <p>SEPA has set its own target to be a regenerative organisation by 2030 and the next set of plans will further this ambition.</p> <p>During this plan cycle, SEPA will work to develop new partnerships with a wider range of stakeholders, including businesses and commercial sectors. We will investigate alternative sources of finance to tackle flooding and drive forward practical options for adaptation.</p>
<b>Funding</b>	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.
<b>Co-ordination</b>	SEPA will lead the work, in partnership with the Scottish Government and other responsible authorities. A wider range of partners and stakeholders will be developed to support the action. SEPA will carry out a full consultation on the next draft flood risk management plans in 2026.
<b>Timing</b>	<p>Ongoing / 2022-2028</p> <p>Flooding services strategy 2023</p> <p>Next flood risk management plans 2027</p>

	Guidance Development
<b>Action</b>	<p>The Scottish Government and SEPA will develop and update guidance to inform flood risk management projects. This guidance will be produced in 2022 and will look at how best to adapt to the long-term impacts of climate change and the most appropriate methods of assessing the benefits of flood risk management actions.</p> <p>Technical guidance to support flood risk management partners will be reviewed and updated by SEPA where required.</p> <p>Scottish Forestry, in collaboration with its UK counterparts, will promote any new guidance on designing and managing forests to reduce flood risk.</p> <p>Guidance will be developed to help local authorities understand the requirements for mapping relevant bodies of water and sustainable urban drainage systems in their areas.</p>
<b>Funding</b>	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.
<b>Co-ordination</b>	The Scottish Government, SEPA and Scottish Forestry all have lead roles in delivering the new or updated guidance outlined. A range of forums will be used to help coordinate and develop the guidance with the appropriate input from others, including SAIFF (The Scottish Advisory Implementation Forum for Flooding) and cross-party working groups.
<b>Timing</b>	<p>Draft flood studies guidance (SEPA) 2023</p> <p>Options appraisal &amp; Adaptation guidance (SG &amp; SEPA) 2023</p> <p>Other guidance &amp; updates 2023-2028</p>

	Hazard Mapping Updates
<b>Action</b>	<p>An understanding of flooding is essential to develop a plan led risk-based approach to flood risk management. SEPA will continue to update their national hazard mapping, which shows the likelihood of flooding in Scotland from different flooding sources:</p> <p><a href="https://www.sepa.org.uk/environment/water/flooding/flood-maps/">https://www.sepa.org.uk/environment/water/flooding/flood-maps/</a>.</p> <p>SEPA will continue to develop the hazard mapping viewer to make it easier for the public, partners and stakeholders to access data on the likelihood of flooding.</p>
<b>Funding</b>	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.
<b>Co-ordination</b>	SEPA will work with other relevant parties - including authorities who have ownership of data used in flood mapping - to develop the quality and accessibility of flood hazard mapping.
<b>Timing</b>	2022-2028



	Land Use Planning
<b>Action</b>	Local authorities, SEPA and Scottish Water all have a responsibility under the Flood Risk Management (Scotland) Act 2009 to support sustainable flood risk management through the land use planning process. National planning policies set out the Scottish Ministers' priorities for the development and use of land. Under this approach, new development in areas with medium to high likelihood of flooding should generally be avoided. Current national planning policies aim to restrict development within the floodplain and limit exposure of new receptors to flood risk, promote flood reduction via natural and structural flood management measures and restoration of natural features, and avoid increased surface water flooding through sustainable drainage and the minimisation of impermeable surfaces. Locally determined planning policies may place further requirements within their area of operation to restrict inappropriate development and prevent unacceptable risk.
<b>Funding</b>	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. The Highland Council and Argyll and Bute Council implement national planning policy through its annual revenue budget.
<b>Co-ordination</b>	<p>SEPA delivery statutory advice on flooding on both planning applications and Local Development Plans and will continue to work with the other responsible authorities to support the land use planning process.</p> <p>Each Planning Authority coordinates the responses of statutory authorities and any other relevant organisations when considering new planning applications. Local Development Plans are reviewed periodically and undergo a widespread and lengthy consultation (called the Main Issues Report) - coordinated by the Planning Authorities.</p>
<b>Timing</b>	2022-2028

	Maintenance
<b>Action</b>	<p>Local authorities have a duty to assess bodies of water and to carry out clearance and repair works where such works would substantially reduce flood risk. Local authorities are also responsible for the drainage of roads. In addition, local authorities may also be responsible for maintenance of any existing flood protection schemes or works.</p> <p>Scottish Water will continue to undertake risk-based inspection, maintenance and repair on the public sewer network.</p> <p>Asset owners and riparian landowners are responsible for the maintenance and management of their own assets including those which help to reduce flood risk.</p>
<b>Funding</b>	The assessment of watercourses, clearance and repair works and maintenance of all council assets are funded through the Council's annual revenue budget
<b>Co-ordination</b>	Scottish Water will keep responsible authorities informed of large scale capital maintenance work to identify opportunities for co-ordination.
<b>Timing</b>	2022-2028

	Natural Flood Management Mapping
<b>Action</b>	<p>SEPA will continue to support activities that improve our understanding of how to effectively target and deliver natural flood management. As part of this, SEPA will review and update the opportunities mapping for natural flood management. This will include linking blue-green infrastructure with the surrounding natural catchment and coastline.</p> <p>Natural flood management seeks to store or slow down flood waters through measures such as the planting of woodlands, wetland creation, river restoration, or the creation of intertidal habitats. In addition to flooding benefits, natural flood management measures can also provide many additional benefits to biodiversity, water quality, recreation, and carbon storage.</p>
<b>Funding</b>	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.
<b>Co-ordination</b>	SEPA will work with key stakeholders to review and update the opportunities mapping.
<b>Timing</b>	2025

	<b>National Flood Risk Assessment</b>
<b>Action</b>	Understanding the future impacts of climate change remains a central theme of SEPA's flood risk management activity. SEPA will use the latest UK information on climate change to support an improved understanding of the changes in flood risk across the 21st century. SEPA will use the most suitable data to develop the national flood risk assessment (NFRA) 2024. This assessment will be used to identify future potentially vulnerable areas.
<b>Funding</b>	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.
<b>Co-ordination</b>	SEPA will work with others as the NFRA is updated, including to keep other responsible authorities informed through the Local Plan District Partnerships.
<b>Timing</b>	December 2024

	<b>National Surface Water Mapping</b>
<b>Action</b>	The national flood risk assessment 2018 identified that surface water flooding has the potential to impact more properties in Scotland than any other source of flooding. Over the next 6 year cycle SEPA will look to vastly improve its national understanding of surface flood risk by undertaking a wholesale update of the national surface water maps to reflect developments in data and understanding, including the impact of climate change.
<b>Funding</b>	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.
<b>Co-ordination</b>	SEPA is currently working with a contractor to develop the modelling needed to deliver the flood maps. As the mapping is developed, local authorities and Scottish Water will continue to be engaged in opportunities to verify, shape and understand the new mapping products.
<b>Timing</b>	2024

	Reservoirs
<b>Action</b>	SEPA will continue to develop its assessment of flood risk from dam failure and use these assessments to direct a proportionate regulatory approach to ensure reservoir safety. Over the next management cycle we will implement further developments of our flood warning capabilities in the unlikely event of reservoir failure.
<b>Funding</b>	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.
<b>Co-ordination</b>	SEPA will work with others as required, to deliver the regulatory duties and to develop flood warning capabilities. Others will include reservoir managers and operators, and Civil Contingencies Act responders who share duties for emergency response.
<b>Timing</b>	Ongoing / 2022-2028  Flood warning developments 2022-2024

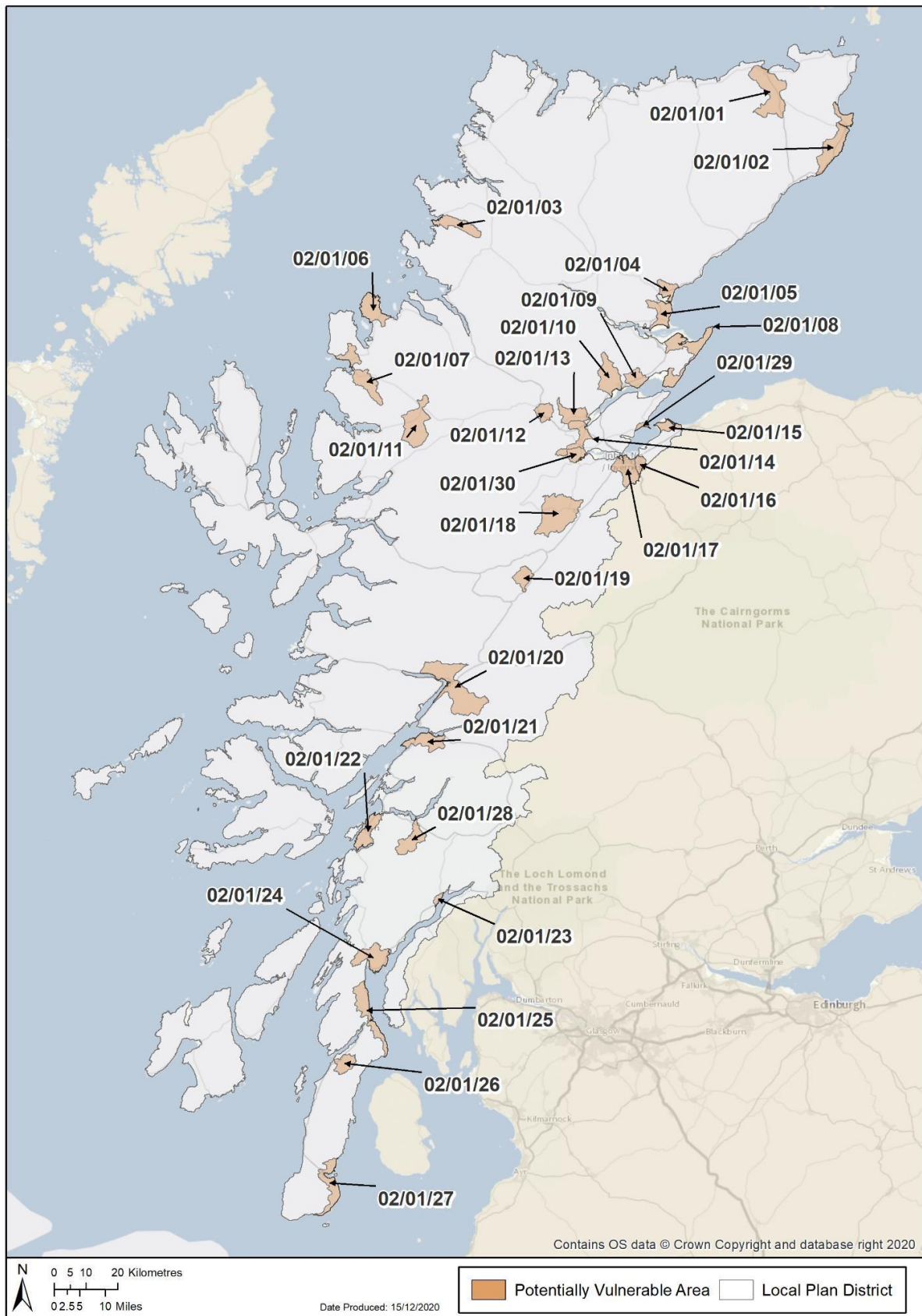
	<b>Scottish Flood Defence Asset Database</b>
<b>Action</b>	The Scottish Flood Defence Asset Database provides information on existing flood protection schemes. National data on flood protection infrastructure is needed to understand flood risk and to develop adaptation planning for Scotland. SEPA will continue to host SFDAD and look for opportunities to support the development of our understanding of how and when Scotland's flood defence assets should be adapted to continue to maintain protection from flooding in the future.
<b>Funding</b>	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.
<b>Co-ordination</b>	SEPA will work with the local authorities to ensure accurate data on existing and new schemes is made available for the Scottish Flood Defence Asset Database.
<b>Timing</b>	2022-2028

	Self Help
<b>Action</b>	<p>Everyone is responsible for protecting themselves and their property from flooding. People can take 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 flood resilience measures, signing up to Floodline, engaging with their local flood group, and ensuring that properties and businesses are insured against flood damage. The following places offer help with taking steps to protect yourself:</p> <p><a href="https://www.floodre.co.uk/">https://www.floodre.co.uk/</a></p> <p><a href="https://www.biba.org.uk/current-issues/flood-insurance/">https://www.biba.org.uk/current-issues/flood-insurance/</a></p> <p><a href="https://floodlinescotland.org.uk/">https://floodlinescotland.org.uk/</a></p> <p><a href="https://scottishfloodforum.org/">https://scottishfloodforum.org/</a></p> <p>Responsible authorities and SEPA will continue to develop the understanding of flood risk to communities and promote measures to help individuals and businesses to reduce their risk.</p>
<b>Funding</b>	<p>SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.</p> <p>The Highland Council and Argyll and Bute Council provide impartial advice through their annual revenue budget.</p>
<b>Co-ordination</b>	<p>Work by the responsible authorities to develop understanding and help communities reduce their risk will be coordinated through the Local Plan District Partnership.</p>
<b>Timing</b>	2022-2028



## 2.2 POTENTIALLY VULNERABLE AREAS

Potentially vulnerable areas (PVAs) were designated in 2018 based on the potential current or future risk from all sources of flooding. This designation was informed by the national flood risk assessment (available to view at: <https://www.sepa.org.uk/data-visualisation/nfra2018/>). As part of continued analysis of flood risk, the national flood risk assessment and potentially vulnerable areas (PVAs) will be reviewed every 6 years to take on board any new information. There are 30 potentially vulnerable areas (PVAs) in this Local Plan District. Following sections provide more information on these areas.



**Figure 1. Potentially vulnerable areas in Highland and Argyll Local Plan District**

## 2.3 LIST OF HIGHLAND AND ARGYLL PVAS

PVA Ref	PVA Name	Local authority area
02/01/01	Thurso and Halkirk	Highland
02/01/02	Wick	Highland
02/01/03	Lochinver	Highland
02/01/04	Golspie	Highland
02/01/05	Dornoch	Highland
02/01/06	Aird Point	Highland
02/01/07	Gairloch	Highland
02/01/08	Tarbat Ness	Highland
02/01/09	Invergordon	Highland
02/01/10	Alness	Highland
02/01/11	Kinlochewe	Highland
02/01/12	Garve	Highland
02/01/13	Dingwall and Strathpeffer	Highland
02/01/14	Conon Bridge, Muir of Ord and Maryburgh	Highland
02/01/15	Ardersier	Highland
02/01/16	Smithton and Culloden	Highland

02/01/17	Inverness	Highland
02/01/18	Drumnadrochit	Highland
02/01/19	Fort Augustus	Highland
02/01/20	Fort William to Corpach	Highland
02/01/21	Ballachulish and Glencoe	Highland
02/01/22	Oban	Argyll & Bute
02/01/23	Inveraray	Argyll & Bute
02/01/24	Lochgilphead	Argyll & Bute
02/01/25	Tarbert	Argyll & Bute
02/01/26	Clachan	Argyll & Bute
02/01/27	Campbeltown	Argyll & Bute
02/01/28	Taynuilt	Argyll & Bute
02/01/29	Avoch	Highland
02/01/30	Beaully	Highland

**Table 1: List of PVAs**

## THURSO AND HALKIRK (02/01/01)

This area is designated as a potentially vulnerable area due to the risk of river, coastal and surface water flooding. Thurso flooded in the past from a combination of high sea levels and high water levels on the River Thurso. Halkirk is frequently affected by surface water flooding.

There are 2 target areas in this potentially vulnerable area, which have been the focus of further assessment, these are listed below. Further information on the objectives and actions to manage flood risk within this area is provided below.

### **List of target areas**

Halkirk	(target area 352)
Thurso	(target area 367)

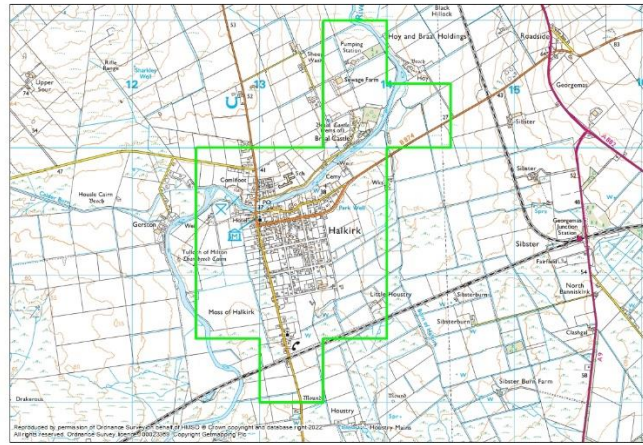
## Local Flood Risk Management plan datasheet

### Halkirk (target area 352)

#### Summary

Halkirk is in Caithness, within the Highland Council area. The main source of flooding in Halkirk is from surface water, however this is not accurately reflected in the current SEPA flood maps. There are approximately 90 people and 50 homes and businesses currently at risk from flooding. This is estimated to increase to approximately 60 homes and businesses by the 2080s due to climate change.

#### Location Map



#### What is the Current understanding of Flood risk

This section provides a summary of information, which has helped to develop an understanding of flood risk in the area. Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources, and this national assessment has highlighted the risk of flooding, (principally associated with surface water flood risk) in this target area. Halkirk has therefore been identified as a new target area for the 2021 flood risk management plans. The understanding of surface water flood risk is improving due to the ongoing development of a Highland wide surface wide management plan which includes Halkirk as a priority area and a sewer flood risk assessment. There is a long history of flooding in Halkirk including records of surface water flooding in November 2013 and January 2016.

Objective	ID	Description
Avoid flood risk	3521	Avoid inappropriate development that increases flood risk in Halkirk
Prepare for flooding	3522	Prepare for current flood risk and future flooding as a result of climate change in Halkirk
Reduce flood risk	3523	Reduce the risk of surface water flooding in Halkirk

Action ID	Halkirk 35201		
Action Type	Surface water management plan		
Action Delivery Lead	THC	Indicative Delivery	
Description	The Highland Council have started working on developing its SWMP. Hotspots within the priority areas have been identified and give priorities and objectives. For Halkirk this initial assessment determined that it should no longer be considered a priority area and no further assessment for Halkirk will be carried out.		
Funding	Allocated in THC Capital Programme		
Coordination	As the initial assessment determined that it should no longer be considered a priority area and no further assessment for Halkirk will be carried out.		

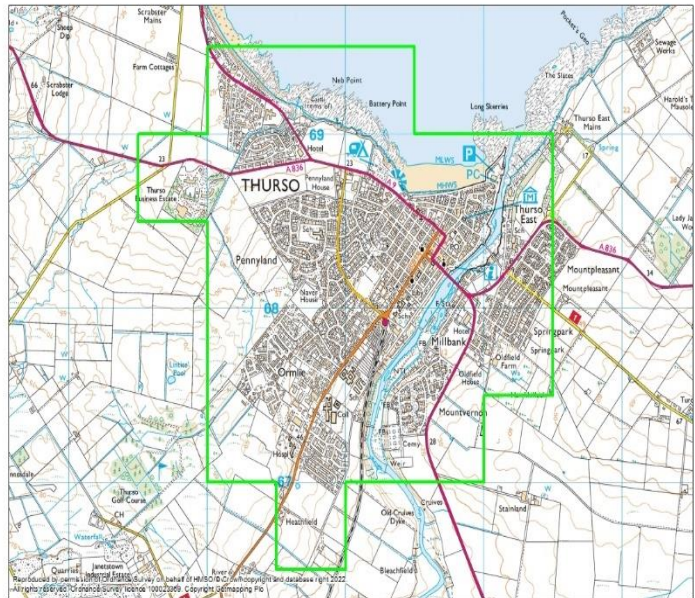
## Local Flood Risk Management plan datasheet

Thurso (target area 367)

### Summary

Thurso is located in Caithness on the north coast of Scotland and is within the Highland Council area. Thurso is at risk from river flooding and coastal flooding. Thurso has flooded in the past from a combination of high sea levels and high water levels on the River Thurso. This combined flood risk is not reflected in SEPA's flood maps. There are approximately 140 people and 90 homes and businesses currently at risk from flooding. This is likely to increase to 200 people and 130 homes and businesses by the 2080s due to climate change.

### Location Map



### What is the Current understanding of Flood risk

This section provides a summary of information, which has helped to develop an understanding of flood risk in the area. Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources. The understanding of river and coastal flood risk has improved due to the completion of the River Thurso Flood Protection Study (2019). There is a long history of flooding in Thurso, including combined tidal and river flooding in January 2005.

Objective	ID	Description
Avoid flood risk	3671	Avoid inappropriate development that increases flood risk in Thurso
Prepare for flooding	3672	Prepare for current flood risk and future flooding as a result of climate change in Thurso
Reduce flood risk	3673	Reduce the risk of coastal flooding in Thurso
Reduce flood risk	3674	Reduce the risk of flooding from the River Thurso in Thurso



Action ID	Thurso 36701		
Action Type	Flood scheme or works design		
Action Delivery Lead	THC	Indicative Delivery	2025-2027
Description	Subject to Scottish Government funding and the outcome of national prioritisation of flood protection schemes. The Highland Council should progress with the detailed design for the River Thurso Flood Protection Scheme. The preferred option consists of flood defence walls and an embankment.		
Funding	Allocated in THC Capital Programme but awaiting Scottish Government grant funding.		
Coordination	SEPA will work with The Highland Council on the potential to coordinate this action with work on coastal flood mapping.		

Action ID	Thurso 36702		
Action Type	Flood scheme or works implementation		
Action Delivery Lead	THC	Indicative Delivery	2027 - 2029
Description	<p>Subject to Scottish Government funding and the outcome of national prioritisation of flood protection schemes. The Highland Council should progress with the detailed design for the River Thurso Flood Protection Scheme. The preferred option consists of flood defence walls and an embankment.</p> <p>In accordance with the flood risk management plan, as part of the scheme or works, the responsible authority should aim to ensure the action will not have an adverse effect on the integrity of the River Thurso Special Area of Conservation.</p>		
Funding	Allocated in THC Capital Programme but awaiting Scottish Government grant funding.		
Coordination	SEPA will work with The Highland Council on the potential to coordinate this action with an update to SFDAD and work on coastal flood mapping.		

Action ID	Thurso 36703		
Action Type	Strategic mapping improvements		
Action Delivery Lead	SEPA	Indicative Delivery	2023 - 2024
Description	In accordance with the flood risk management plan, as part of the scheme or works, the responsible authority should aim to ensure the action will not have an adverse effect on the integrity of the River Thurso Special Area of Conservation.		
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.		
Coordination	SEPA has undertaken improved coastal modelling in this target area including taking account of the impact of waves on coastal flooding. We will complete and publish the outcomes of this modelling work to inform decision making with respect to flooding at the coast.		

## WICK (02/01/02)

This area is designated as a potentially vulnerable area due to the risk of river, coastal and surface water flooding. The main source of flood risk is surface water. Recent floods were caused by surface water and coastal flooding.

There is 1 target area in this potentially vulnerable area which has been the focus of further assessment. Further information on the objectives and actions to manage flood risk within this area is provided below.

### **List of target areas**

Wick

(target area 386)

## Local Flood Risk Management plan datasheet

### Wick (target area 386)

#### Summary

Wick is located in eastern Caithness within the Highland Council area. Wick is at risk from surface water, river and coastal flooding. There are approximately 320 people and 250 homes and businesses currently at risk from flooding. This is likely to increase to 400 people and 330 homes and businesses by the 2080s due to climate change.

#### Location Map



#### What is the Current understanding of Flood risk

This section provides a summary of information, which has helped to develop an understanding of flood risk in the area. Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources. The national level assessment for river flooding has been improved by the flood map improvements for the Burn of Newton and Mill Lade between Loch Hempriggs to the confluence with the River Wick. The understanding of surface water flood risk has improved through a sewer flood risk assessment and for coastal flooding by the development and operation of the Moray flood warning scheme. There is a long history of flooding in Wick. This includes coastal flooding in 2012 and flooding in January 2016 from surface water following heavy rain.

Objective	ID	Description
Avoid flood risk	3861	Avoid inappropriate development that increases flood risk in Wick
Improve data and understanding	3862	Improve data and understanding of the risk of coastal flooding in Wick
Prepare for flooding	3863	Prepare for current flood risk and future flooding as a result of climate change in Wick

Action ID	Wick 38601		
Action Type	Strategic mapping improvements		
Action Delivery Lead	SEPA	Indicative Delivery	2023 - 2024
Description	SEPA has undertaken improved coastal modelling in this target area including taking account of the impact of waves on coastal flooding. We will complete and publish the outcomes of this modelling work to inform decision making with respect to flooding at the coast.		
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.		
Coordination	SEPA will work with The Highland Council on the potential to coordinate the flood map update with any other actions being carried out to understand or reduce coastal flooding.		

Action ID	Wick 38602		
Action Type	Flood warning maintenance		
Action Delivery Lead	SEPA	Indicative Delivery	Ongoing
Description	SEPA should maintain the Moray Firth coastal flood warning scheme.		
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.		
Coordination	SEPA will maintain the Moray Firth coastal flood warning service. SEPA will continue to raise awareness of flood warning, and engage with communities about the service when required.		

## LOCHINVER (02/01/03)

This is designated as a potentially vulnerable area due to the risk of river and coastal flooding to the nursery and primary school in Lochinver from Loch Culag. Coastal and river flooding affecting access to the school is of particular concern.

There is 1 target area in this potentially vulnerable area, which has been the focus of further assessment. Further information on the objectives and actions to manage flood risk within this area is provided below.

### **List of target areas**

Lochinver

(target area 351)

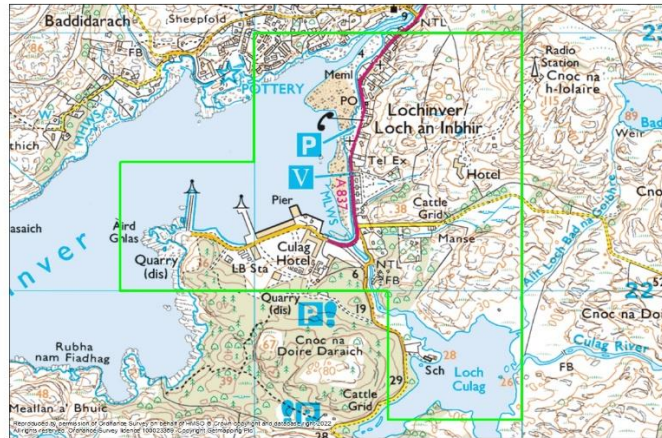
## Local Flood Risk Management plan datasheet

### Lochinver (target area 351)

#### Summary

Lochinver is located in the north west of Scotland within the Highland Council area. Lochinver is at risk of coastal and river flooding with a school being at risk from river flooding. There are approximately 90 people and 70 homes and businesses currently at risk from flooding which is a significant proportion of the community. This is likely to increase to 120 people and 90 homes and businesses by the 2080s due to climate change.

#### Location Map



#### What is the Current understanding of Flood risk

This section provides a summary of information, which has helped to develop an understanding of flood risk in the area. Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources, and this national assessment has highlighted the risk of flooding in this target area. There are limited records of flooding in the Lochinver target area. In February 1998 heavy rainfall caused flooding which is understood to have affected Lochinver Primary School.

Objective	ID	Description
Avoid flood risk	3511	Avoid inappropriate development that increases flood risk in Lochinver.
Prepare for flooding	3512	Prepare for current flood risk and future flooding as a result of climate change in Lochinver.

Action ID	Lochinver 35101		
Action Type	Site protection plan		
Action Delivery Lead	THC	Indicative Delivery	THC
Description	The Highland Council to develop a site protection plan for Lochinver Primary School and nursery.		
Funding	Any site protection plan will be funded through the council's revenue budget.		
Coordination	The Highland Council will coordinate the development of the plan with other responsible authorities.		



## GOLSPIE (02/01/04)

This is designated as a potentially vulnerable area due to the risk of coastal and surface water flooding in Golspie. Coastal flood risk is likely to increase due to sea level rise caused by climate change. Coastal flooding has affected Golspie. Coastal erosion is also an issue particularly at the Links.

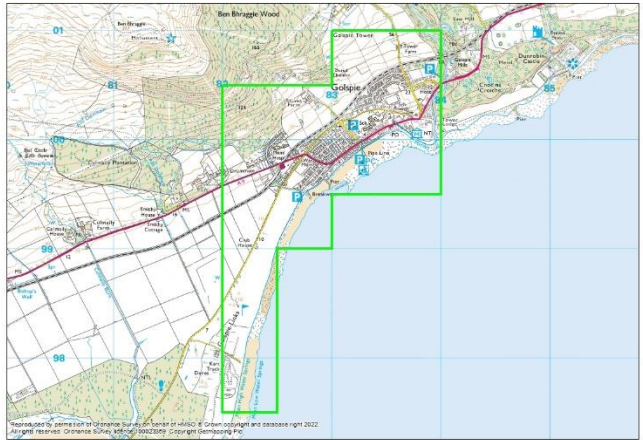
There is 1 target area in this potentially vulnerable area, which has been the focus of further assessment. Further information on the objectives and actions to manage flood risk within this area is provided below.

### **List of target areas**

[Golspie](#) [\(target area 333\)](#)

## Local Flood Risk Management plan datasheet

### Golspie (target area 333)

Summary	Location Map
<p>Golspie is on the north east coast of Scotland within the Highland Council area. Golspie is at risk from coastal flooding and surface water flooding. There are approximately 190 people and 130 homes and businesses currently at risk from flooding. This is likely to increase to 210 people and 150 homes and businesses by the 2080s due to climate change.</p>	

## What is the Current understanding of Flood risk

This section provides a summary of information, which has helped to develop an understanding of flood risk in the area. Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources. The understanding of coastal flood risk has improved due to the completion of the Golspie Flood Protection Study (2019). The understanding of surface water flood risk is improved by a sewer flood risk assessment. There is a long record of flooding in Golspie including notable coastal flooding in October 2014. The Dynamic Coast project has shown that parts of the shoreline in or adjacent to this target area are subject to erosion at present or are considered likely to erode in the future. Consideration should be given to how erosion might impact flood risk. Any actions taken should aim to support building natural resilience to flooding and not lead to an increase in erosion

Objective	ID	Description
Avoid flood risk	3331	Avoid inappropriate development that increases flood risk in Golspie.
Prepare for flooding	3332	Prepare for current flood risk and future flooding as a result of climate change in Golspie.
Reduce flood risk	3333	Reduce the risk of coastal flooding in Golspie.

Action ID	Golspie 33301		
Action Type	Flood scheme or works design		
Action Delivery Lead	THC	Indicative Delivery	2025 -2027
Description	Subject to Scottish Government funding and the outcome of national prioritisation of flood protection schemes. The Highland Council should progress with the detailed design for the Golspie Coast Flood Protection Scheme. The preferred option consists of raising existing coastal flood defences.		
Funding	Allocated in THC Capital Programme but awaiting Scottish Government grant funding.		
Coordination	The Highland Council will coordinate the development of the study with actions of other responsible authorities and engage local community groups.		

Action ID	Golspie 33302		
Action Type	Flood scheme or works implementation		
Action Delivery Lead	THC	Indicative Delivery	2027 -2029
Description	<p>Subject to Scottish Government funding The Highland Council should progress with the Golspie Coast Flood Protection Scheme based on the detailed design.</p> <p>In accordance with the flood risk management plan, as part of the scheme or works, the responsible authority should aim to ensure the action will not have an adverse effect on the integrity of the Moray Firth Special Area of Conservation and the Moray Firth Special Protection Area.</p>		
Funding	Allocated in THC Capital Programme but awaiting Scottish Government grant funding.		
Coordination	The Highland Council will coordinate the development of the study with actions of other responsible authorities and engage local community groups.		

Action ID	Golspie 33303		
Action Type	Flood scheme or works implementation		
Action Delivery Lead	Transport Scotland	Indicative Delivery	2022-2028
Description	Transport Scotland to carry out the planned civil engineering works to reduce flood risk to the A9.		
Funding	Transport Scotland can be contacted for information on how potential schemes are to be delivered		
Coordination	Transport Scotland will lead with the coordination of this action		

Action ID	Golspie 33304		
Action Type	Strategic mapping improvements		
Action Delivery Lead	SEPA	Indicative Delivery	2023-2024
Description	SEPA has undertaken improved coastal modelling in this target area including taking account of the impact of waves on coastal flooding. We will complete and publish the outcomes of this modelling work to inform decision making with respect to flooding at the coast.		
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.		
Coordination	SEPA will work with The Highland Council to potential coordinate the flood map update with any other actions being carried out to understand or reduce coastal flooding.		

Action ID	Golspie 33305		
Action Type	Flood warning maintenance		
Action Delivery Lead	SEPA	Indicative Delivery	Ongoing
Description	SEPA should maintain the Moray Firth coastal flood warning scheme.		
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.		
Coordination	SEPA will work with The Highland Council on the potential to use information from any flood studies around the Moray Firth coast to inform ongoing flood warning. SEPA will continue to raise awareness of flood warning, and engage with communities about the service when required.		

## DORNOCH (02/01/05)

Dornoch is designated as a potentially vulnerable area due to the risk of flooding from surface water and from the Dornoch Burn. Flooding can be affected by blocked culverts. River and surface water flooding has affected Dornoch.

There is 1 target area in this potentially vulnerable area, which has been the focus of further assessment. Further information on the objectives and actions to manage flood risk within this area is provided below.

### **List of target areas**

Dornoch (target area 334)

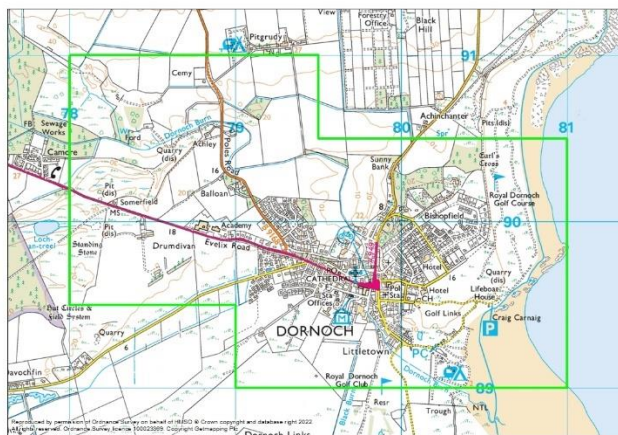
## Local Flood Risk Management plan datasheet

### Dornoch (target area 334)

#### Summary

The town of Dornoch is in the Highland Council area. Dornoch is at risk from river flooding and surface water flooding. There are approximately 150 people and 100 homes and businesses currently at risk from flooding. This is likely to increase to 200 people and 130 homes and businesses by the 2080s due to climate change.

#### Location Map



#### What is the Current understanding of Flood risk

This section provides a summary of information, which has helped to develop an understanding of flood risk in the area. Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources, and this national assessment has highlighted the risk of flooding in this target area. Periodic flooding from the Dornoch Burn and surface water is recorded in Dornoch.

Objective	ID	Description
Avoid flood risk	3341	Avoid inappropriate development that increases flood risk in Dornoch.
Improve data and understanding	3342	Improve data and understanding of the risk of flooding from surface water in Dornoch.
Prepare for flooding	3343	Prepare for current flood risk and future flooding as a result of climate change in Dornoch.

Action ID	Dornoch 33401		
Action Type	Flood risk management review		
Action Delivery Lead	SEPA	Indicative Delivery	2022-2028
Description	No local actions specific to this target area have been identified yet. However, there are national actions to be taken forward which will help identify future needs in this area. SEPA are updating surface water mapping to enhance the understanding of current and future surface water flood risks. Scotland's most vulnerable areas will be reviewed to take account of any new information, which will be published in 2024. Long term flood management actions will be reviewed in 2026. SEPA will continue to collect information on any flooding that occurs in the area, to inform the review process.		
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.		
Coordination	SEPA will work with the other responsible authorities to review flood risk management for this area, through the Local Plan District Partnerships. A public consultation on priority areas will be held in 2024 by SEPA, which will be open for three months. A public consultation on future flood management actions will be held in December 2026 and will be open for at least three months.		

Action ID	Dornoch 33402		
Action Type	Flood Study		
Action Delivery Lead	THC	Indicative Delivery	2028 - 2034
Description	The Highland Council to develop a flood model of the Dornoch Burn to determine the extent of flood risk to Dornoch from the burn. Subject to the outcome of the modelling an appraisal of options to mitigate flooding will be carried out, determining a preferred option.		
Funding	Not yet allocated in Capital Programme.		
Coordination	The Highland Council will coordinate the development of the Study with actions of other responsible authorities and engage local community groups.		

## AIRD POINT (02/01/06)

This area is designated as a potentially vulnerable area due to the risk of coastal flooding to a large proportion of the community. This is expected to increase significantly due to sea level rise, caused by climate change.

There is 1 target area in this potentially vulnerable area, which has been the focus of further assessment. Further information on the objectives and actions to manage flood risk within this area is provided below.

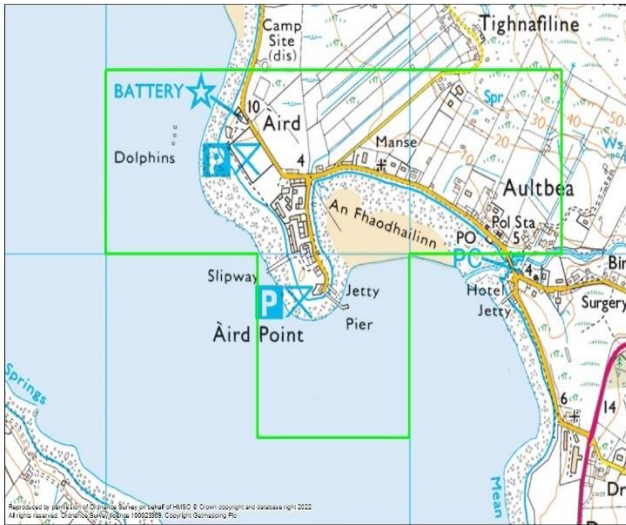
### **List of target areas**

[Aultbea](#) (target area 431)



## Local Flood Risk Management plan datasheet

### Aultbea (target area 431)

Summary	Location Map
<p>Aultbea is located north of Poolewe in the Highland Council area. The main source of flooding that affects the village of Aultbea is coastal flooding. This could worsen due to climate change and sea level rise, possibly leading to tide locking of the Allt Beithe. There are approximately 70 people and 40 homes and businesses currently at risk of flooding, which is a significant proportion of the community. This is likely to increase to 90 people and 50 homes and businesses by the 2080s due to climate change.</p>	

## What is the Current understanding of Flood risk

This section provides a summary of information, which has helped to develop an understanding of flood risk in the area. Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources, and this information has highlighted the risk of flooding, (principally associated with coastal flood risk) in this area. The risk is expected to increase due to climate change, as sea levels are expected to rise and winter storms become more frequent. Aultbea has therefore been identified as a new target area for the 2021 flood risk management plans. There are no records of flooding in the Aultbea target area but this does not confirm that there is no flood risk. The Dynamic Coast project has shown that parts of the shoreline in or adjacent to this target area are subject to erosion at present or are considered likely to erode in the future. Consideration should be given to how erosion might impact flood risk. Any actions taken should aim to support building natural resilience to flooding and not lead to an increase in erosion.

Objective	ID	Description
Avoid flood risk	4311	Avoid inappropriate development that increases flood risk in Aultbea.
Improve data and understanding	4312	Improve data and understanding of the risk of flooding from surface water in Aultbea.

Prepare for flooding	4313	Prepare for current flood risk and future flooding as a result of climate change in Aultbea.	
Action ID	Aultbea43101		
Action Type	Flood warning scoping		
Action Delivery Lead	SEPA	Indicative Delivery	Second half of Cycle 2
Description	Scoping for a coastal flood warning scheme will be carried out in Aultbea.		
Funding	SEPA’s role in this action is funded by Scottish Government through SEPA’s grant in aid settlement.		
Coordination	Scoping for a coastal flood warning scheme for Aultbea will be carried out		

Action ID	Aultbea43102		
Action Type	Flood study		
Action Delivery Lead	THC	Indicative Delivery	2028 - 2034
Description	The Highland Council to develop a coastal flood model to determine the extent of flood risk to Aultbea from the sea. Subject to the outcome of the modelling an appraisal of options to mitigate flooding will be carried out, determining a preferred option.		
Funding	Not yet allocated in Capital Programme.		
Coordination	The Highland Council will coordinate the development of the Study with actions of other responsible authorities and engage local community groups.		

## GAIRLOCH (02/01/07)

Gairloch is designated as a potentially vulnerable area due to the risk of coastal flooding, and risk of frequent river and surface water flooding to roads in the area. There is a history of flooding. When the local road network is affected by flooding it can lead to long diversions.

There are 2 target areas in this potentially vulnerable area, which have been the focus of further assessment. Further information on the objectives and actions to manage flood risk within these areas is provided below.

### List of target areas

Gairloch (target area 354)

Kerrysdale (target area 457)

## Local Flood Risk Management plan datasheet

### Gairloch (target area 354)

#### Summary

The Gairloch target area includes the villages of Strath and Gairloch, which are located south west of Poolewe. The target area is included in the Highland Council area. The main source of flooding in Gairloch is from coastal flooding. There are approximately 70 people at risk from flooding and approximately 40 homes and businesses. This is estimated to increase to 80 people and 50 homes and businesses by the 2080s due to climate change.

#### Location Map



#### What is the Current understanding of Flood risk

This section provides a summary of information, which has helped to develop an understanding of flood risk in the area. Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources, and this national assessment has highlighted the risk of flooding in this target area. Gairloch has therefore been identified as a new target area for the 2021 flood risk management plans. There are limited records of flooding in the Gairloch target area. The Dynamic Coast project has shown that parts of the shoreline in or adjacent to this target area are subject to erosion at present or are considered likely to erode in the future. Consideration should be given to how erosion might impact flood risk. Any actions taken should aim to support building natural resilience to flooding and not lead to an increase in erosion.

Objective	ID	Description
Avoid flood risk	3541	Avoid inappropriate development that increases flood risk in Gairloch.
Improve data and understanding	3542	Improve data and understanding of the risk of flooding from surface water in Gairloch.
Prepare for flooding	3543	Prepare for current flood risk and future flooding as a result of climate change in Gairloch.

Action ID	Gairloch 35401		
Action Type	Flood risk management review		
Action Delivery Lead	SEPA	Indicative Delivery	2022-2028
Description	No local actions specific to this target area have been identified yet. However, there are national actions to be taken forward which will help identify future needs in this area. SEPA are updating surface water mapping to enhance the understanding of current and future surface water flood risks. Scotland's most vulnerable areas will be reviewed to take account of any new information, which will be published in 2024. Long term flood management actions will be reviewed in 2026. SEPA will continue to collect information on any flooding that occurs in the area, to inform the review process.		
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.		
Coordination	SEPA will work with the other responsible authorities to review flood risk management for this area, through the Local Plan District Partnerships. A public consultation on priority areas will be held in 2024 by SEPA, which will be open for three months. A public consultation on future flood management actions will be held in December 2026 and will be open for at least three months.		

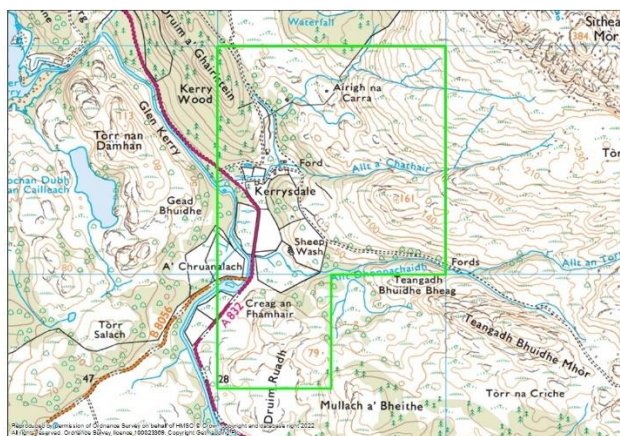
## Local Flood Risk Management plan datasheet

Kerrysdale (target area 457)

### Summary

Kerrysdale is a small community in the Highland Council area. The main source of flooding is the River Kerry, which affects the junction of the A832 and B8056. The road flooding can affect a large number of communities along the B8056, cutting them off from essential services. This may occur more frequently in future due to climate change. There are less than 10 people, homes and businesses currently at risk from flooding.

### Location Map



### What is the Current understanding of Flood risk

This section provides a summary of information, which has helped to develop an understanding of flood risk in the area. Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources, and this information and flood history has highlighted the risk of flooding, (principally to vital roads) in this target area. Kerrysdale has therefore been identified as a new target area for the 2021 flood risk management plans. There is a history of flooding to the road and communities are known to be affected by the road closure. Flooding at the junction of the A832 and B8056 cuts off road access to the communities of Shieldaig, Badachro, Opinan, Port Henderson, South Erradale and Redpoint which are all accessed by the B8056.

Objective	ID	Description
Prepare for flooding	4571	Prepare for current flood risk and future flooding as a result of climate change to the A832 and B8056 road junction.
Reduce flood risk	4572	Reduce the risk of flooding from the River Kerry to the A832 and B8056 road junction, which cuts off communities along the B8056 road.

Action ID	Kerrysdale 45701		
Action Type	Flood risk management review		
Action Delivery Lead	SEPA	Indicative Delivery	2022-2028
Description	No local actions specific to this target area have been identified yet. However, there are national actions to be taken forward which will help identify future needs in this area. SEPA are updating surface water mapping to enhance the understanding of current and future surface water flood risks. Scotland's most vulnerable areas will be reviewed to take account of any new information, which will be published in 2024. Long term flood management actions will be reviewed in 2026. SEPA will continue to collect information on any flooding that occurs in the area, to inform the review process.		
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.		
Coordination	SEPA will work with the other responsible authorities to review flood risk management for this area, through the Local Plan District Partnerships. A public consultation on priority areas will be held in 2024 by SEPA, which will be open for three months. A public consultation on future flood management actions will be held in December 2026 and will be open for at least three months.		

## TARBAT NESS (02/01/08)

Tarbat Ness is designated as a potentially vulnerable area due to the risk of coastal flooding in Balintore, Inver, Portmahomack and Rockfield. Coastal flood risk is likely to increase due to sea level rise caused by climate change. Coastal flooding has previously occurred in the area.

There are 4 target areas in this potentially vulnerable area, which have been the focus of further assessment. Further information on the objectives and actions to manage flood risk within these areas is provided below.

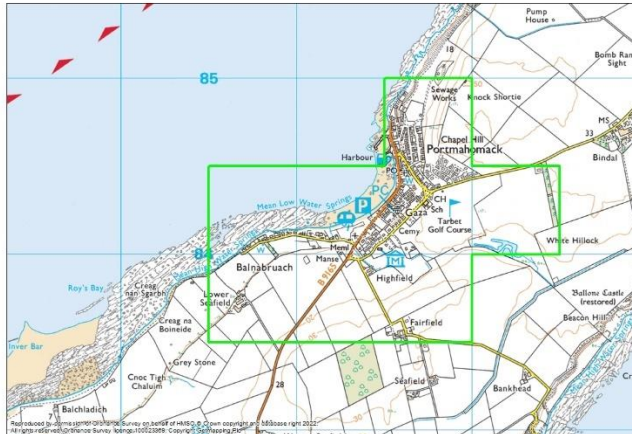
### List of target areas

Portmahomack	(target area 338)
Inver	(target area 339)
Balintore	(target area 438)
Rockfield	(target area 439)



## Local Flood Risk Management plan datasheet

### Portmahomack (target area 338)

Summary	Location Map
<p>Portmahomack is on the Tarbat Ness Peninsula, in the Highland Council area. The main source of flooding in Portmahomack is from coastal flooding. There are approximately 100 people at risk from flooding and approximately 50 homes and businesses. This is not expected to increase significantly by the 2080s due to climate change.</p>	

## What is the Current understanding of Flood risk

This section provides a summary of information, which has helped to develop an understanding of flood risk in the area. Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources. The national flood risk assessment is improved for coastal flood risk through the development and operation of the Moray Firth coastal flood warning scheme. There are limited records of flooding in the Portmahomack area. The Dynamic Coast project has shown that parts of the shoreline in or adjacent to this target area are subject to erosion at present or are considered likely to erode in the future. Consideration should be given to how erosion might impact flood risk. Any actions taken should aim to support building natural resilience to flooding and not lead to an increase in erosion.

Objective	ID	Description
Avoid flood risk	3381	Avoid inappropriate development that increases flood risk in Portmahomack.
Improve data and understanding	3382	Improve understanding of the risk of coastal flooding and the impacts of climate change in Portmahomack.
Prepare for flooding	3383	Prepare for current flood risk and future flooding as a result of climate change in Portmahomack.

Action ID	Portmahomack 33801		
Action Type	Strategic mapping improvements		
Action Delivery Lead	SEPA	Indicative Delivery	2023-2024
Description	SEPA has undertaken improved coastal modelling in this target area including taking account of the impact of waves on coastal flooding. We will complete and publish the outcomes of this modelling work to inform decision making with respect to flooding at the coast.		
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.		
Coordination	SEPA will work with The Highland Council on the potential to coordinate the flood map update with any other actions being carried out to understand or reduce coastal flooding.		

Action ID	Portmahomack 33802		
Action Type	Flood study		
Action Delivery Lead	THC	Indicative Delivery	2026 - 2028
Description	<p>The Highland Council to develop a coastal flood model to determine the extent of flood risk to Portmahomack from the sea. Subject to the outcome of the modelling an appraisal of options to mitigate flooding will be carried out, determining a preferred option. This work will be carried out after SEPA have published the latest revision of their strategic coastal flood mapping.</p> <p>The study is likely to be combined with other locations on the east coast.</p>		
Funding	Not currently allocated in THC Capital Programme		
Coordination	<p>SEPA will work with the local authority on the potential to coordinate this action with work on coastal flood mapping and flood warning actions.</p> <p>The Highland Council will coordinate the development of the Study with actions of other responsible authorities and engage local community groups.</p>		

Action ID	Portmahomack 33803		
Action Type	Flood warning maintenance		
Action Delivery Lead	SEPA	Indicative Delivery	Ongoing
Description	SEPA should maintain the Moray Firth coastal flood warning scheme.		
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.		
Coordination	SEPA will work with The Highland Council on the potential to use information from any flood studies around the Moray Firth coast to inform ongoing flood warning. SEPA will continue to raise awareness of flood warning, and engage with communities about the service when required.		

## Local Flood Risk Management plan datasheet

Inver (target area 339)

### Summary

Inver and Skinnerton are on the south shore of Inver Bay in the Highland Council area. The main source of flooding is coastal flooding. There are approximately 110 people and 80 homes and businesses at risk from flooding, which is a significant proportion of the community. This is estimated to increase significantly to 200 people and 120 homes and businesses by the 2080s due to climate change.

### Location Map



### What is the Current understanding of Flood risk

This section provides a summary of information, which has helped to develop an understanding of flood risk in the area. Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources. The national flood risk assessment is improved for coastal flood risk through the development and operation of the Moray Firth coastal flood warning scheme. There are no records of flooding in the Inver target area but this does not confirm that there is no flood risk. The Dynamic Coast project has shown that parts of the shoreline in or adjacent to this target area are subject to erosion at present or are considered likely to erode in the future. Consideration should be given to how erosion might impact flood risk. Any actions taken should aim to support building natural resilience to flooding and not lead to an increase in erosion.

Objective	ID	Description
Avoid flood risk	3391	Avoid inappropriate development that increases flood risk in Inver.
Improve data and understanding	3392	Improve understanding of the risk of coastal flooding and the impacts of climate change in Inver.
Prepare for flooding	3393	Prepare for current flood risk and future flooding as a result of climate change in Inver.

Action ID	Inver 33901		
Action Type	Strategic mapping improvements		
Action Delivery Lead	SEPA	Indicative Delivery	2023-2024
Description	SEPA has undertaken improved coastal modelling in this target area including taking account of the impact of waves on coastal flooding. We will complete and publish the outcomes of this modelling work to inform decision making with respect to flooding at the coast.		
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.		
Coordination	SEPA will work with The Highland Council on the potential to coordinate the flood map update with any other actions being carried out to understand or reduce coastal flooding.		

Action ID	Inver 33902		
Action Type	Flood study		
Action Delivery Lead	THC	Indicative Delivery	2026 -2028
Description	<p>The Highland Council to develop a coastal flood model to determine the extent of flood risk to Inver from the sea. Subject to the outcome of the modelling an appraisal of options to mitigate flooding will be carried out, determining a preferred option. This work will be carried out after SEPA have published the latest revision of their strategic coastal flood mapping.</p> <p>The study is likely to be combined with other locations on the east coast.</p>		
Funding	SEPA will work with the local authority on the potential to coordinate this action with work on coastal flood mapping.		
Coordination	<p>SEPA will work with the local authority on the potential to coordinate this action with work on coastal flood mapping.</p> <p>The Highland Council will coordinate the development of the Study with actions of other responsible authorities and engage local community groups.</p>		

Action ID	Inver 33903		
Action Type	Flood warning maintenance		
Action Delivery Lead	SEPA	Indicative Delivery	Ongoing
Description	SEPA should maintain the Moray Firth coastal flood warning scheme.		
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.		
Coordination	SEPA will work with The Highland Council on the potential to use information from any flood studies around the Moray Firth coast to inform ongoing flood warning. SEPA will continue to raise awareness of flood warning, and engage with communities about the service when required.		

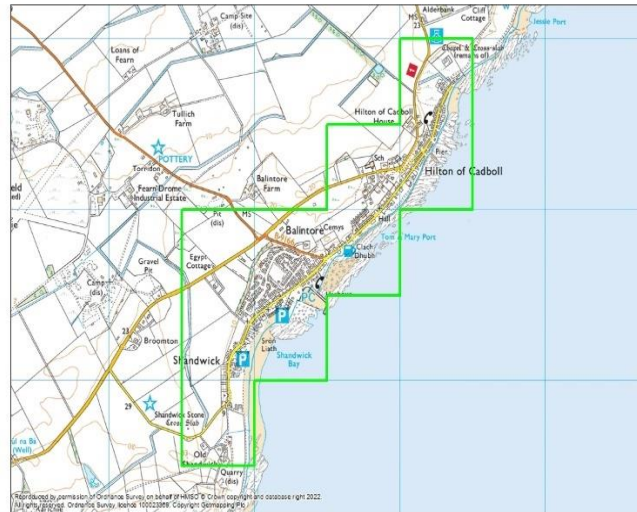
## Local Flood Risk Management plan datasheet

Balintore (target area 438)

### Summary

Balintore is located along the northern shore of the Moray Firth. There are 2 other villages located close by, Hilton of Cadboll and Shandwick which are also included in the Balintore target area. These are known as the Seaboard Villages. This area is in the Highland Council area. The main flood source in the Balintore area is coastal flooding. There are approximately 90 people and 60 homes and businesses currently at risk of flooding. This is likely to remain the same by the 2080s due to climate change.

### Location Map



### What is the Current understanding of Flood risk

This section provides a summary of information, which has helped to develop an understanding of flood risk in the area. Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources. The national flood risk assessment is improved for coastal flood risk through the development and operation of the Moray Firth coastal flood warning scheme. There are limited records of flooding in the Balintore target area. The Dynamic Coast project has shown that parts of the shoreline in or adjacent to this target area are subject to erosion at present or are considered likely to erode in the future. Consideration should be given to how erosion might impact flood risk. Any actions taken should aim to support building natural resilience to flooding and not lead to an increase in erosion.

Objective	ID	Description
Avoid flood risk	4381	Avoid inappropriate development that increases flood risk in Inver.
Improve data and understanding	4382	Improve understanding of the risk of coastal flooding and the impacts of climate change in Inver.
Prepare for flooding	4383	Prepare for current flood risk and future flooding as a result of climate change in Inver.

Action ID	Balintore 43801		
Action Type	Strategic mapping improvements		
Action Delivery Lead	SEPA	Indicative Delivery	2023-2023
Description	SEPA has undertaken improved coastal modelling in this target area including taking account of the impact of waves on coastal flooding. We will complete and publish the outcomes of this modelling work to inform decision making with respect to flooding at the coast.		
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.		
Coordination	SEPA will work with The Highland Council on the potential to coordinate the flood map update with any other actions being carried out to understand or reduce coastal flooding.		

Action ID	Balintore 43802		
Action Type	Flood study		
Action Delivery Lead	THC	Indicative Delivery	2026 -2028
Description	The Highland Council to develop a coastal flood model to determine the extent of flood risk to Balintore from the sea. Subject to the outcome of the modelling an appraisal of options to mitigate flooding will be carried out, determining a preferred option. This work will be carried out after SEPA have published the latest revision of their strategic coastal flood mapping.		
Funding	Not currently allocated in THC Capital Programme.		
Coordination	<p>SEPA will work with The Highland Council on the potential to coordinate this action with work on coastal flood mapping.</p> <p>The Highland Council will coordinate the development of the Study with actions of other responsible authorities and engage local community groups.</p>		



Action ID	Balintore	43803
Action Type	Flood warning maintenance	
Action Delivery Lead	SEPA	Ongoing
	Indicative Delivery	
Description	SEPA should maintain the Moray Firth coastal flood warning scheme.	
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.	
Coordination	SEPA will work with The Highland Council on the potential to use information from any flood studies around the Moray Firth coast to inform ongoing flood warning. SEPA will continue to raise awareness of flood warning, and engage with communities about the service when required.	

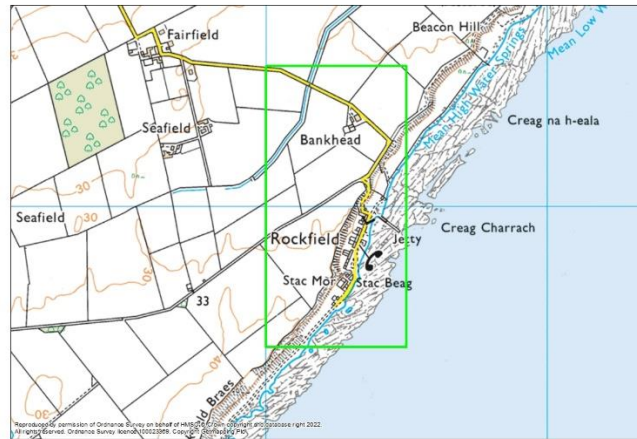
## Local Flood Risk Management plan datasheet

Rockfield (target area 439)

### Summary

Rockfield is on the Tarbat Ness Peninsula, in the Highland Council area. The main source of flooding in Rockfield is coastal flooding, however this is not reflected currently in our understanding as wave overtopping is not accounted for in the SEPA strategic mapping.

### Location Map



### What is the Current understanding of Flood risk

This section provides a summary of information, which has helped to develop an understanding of flood risk in the area. Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources. The national flood risk assessment is improved for coastal flood risk through the development and operation of the Moray Firth coastal flood warning scheme. There is a record of coastal flooding caused by wave overtopping in 2012. The Dynamic Coast project has shown that parts of the shoreline in or adjacent to this target area are subject to erosion at present or are considered likely to erode in the future. Consideration should be given to how erosion might impact flood risk. Any actions taken should aim to support building natural resilience to flooding and not lead to an increase in erosion.

Objective	ID	Description
Avoid flood risk	4391	Avoid inappropriate development that increases flood risk in Rockfield.
Improve data and understanding	4392	Improve understanding of the risk of coastal flooding and the impacts of climate change in Rockfield.
Prepare for flooding	4393	Prepare for current flood risk and future flooding as a result of climate change in Rockfield.

Action ID	Rockfield 43901		
Action Type	Strategic mapping improvements		
Action Delivery Lead	SEPA	Indicative Delivery	2023-2023
Description	SEPA has undertaken improved coastal modelling in this target area including taking account of the impact of waves on coastal flooding. We will complete and publish the outcomes of this modelling work to inform decision making with respect to flooding at the coast		
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.		
Coordination	SEPA will work with The Highland Council on the potential to coordinate the flood map update with any other actions being carried out to understand or reduce coastal flooding.		

Action ID	Rockfield 43902		
Action Type	Flood study		
Action Delivery Lead	THC	Indicative Delivery	2026 - 2028
Description	The Highland Council to develop a coastal flood model to determine the extent of flood risk to Rockfield from the sea. Subject to the outcome of the modelling an appraisal of options to mitigate flooding will be carried out, determining a preferred option. This work will be carried out after SEPA have published the latest revision of their strategic coastal flood mapping.		
Funding	Not currently allocated in THC Capital Programme		
Coordination	<p>SEPA will work with The Highland Council on the potential to coordinate this action with work on coastal flood mapping.</p> <p>The Highland Council will coordinate the development of the Study with actions of other responsible authorities and engage local community groups.</p>		

Action ID	Rockfield 43903		
Action Type	Flood warning maintenance		
Action Delivery Lead	SEPA	Indicative Delivery	Ongoing
Description	SEPA should maintain the Moray Firth coastal flood warning scheme.		
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.		
Coordination	SEPA will work with The Highland Council on the potential to use information from any flood studies around the Moray Firth coast to inform ongoing flood warning. SEPA will continue to raise awareness of flood warning, and engage with communities about the service when required.		

## INVERGORDON (02/01/09)

Invergordon is designated as a potentially vulnerable area due to the risk of surface water flooding.

There is 1 target area in this potentially vulnerable area, which has been the focus of further assessment. Further information on the objectives and actions to manage flood risk within this area is provided below.

### **List of target areas**

[Invergordon](#) (target area 362)

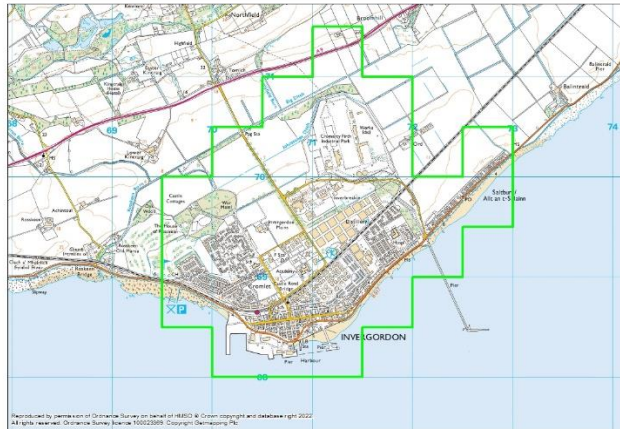
## Local Flood Risk Management plan datasheet

### Invergordon (target area 362)

#### Summary

Invergordon is located in Easter Ross in the north of Scotland within the Highland Council area. The main source of flooding in Invergordon is surface water flooding. There are approximately 290 people and 210 homes and businesses currently at risk of flooding. This is likely to increase to 480 people and 330 homes and businesses by the 2080s due to climate change.

#### Location Map



#### What is the Current understanding of Flood risk

This section provides a summary of information, which has helped to develop an understanding of flood risk in the area. Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources. The national level assessment for surface water flooding is improved by a sewer flood risk assessment. There are limited records of flooding in the Invergordon target area.

Objective	ID	Description
Avoid flood risk	3621	Avoid inappropriate development that increases flood risk in Invergordon.
Reduce Flood Risk	3623	Reduce the risk of surface water flooding in Invergordon.
Prepare for flooding	3622	Prepare for current flood risk and future flooding as a result of climate change in Invergordon.

Action ID	Invergordon	36201
Action Type	Flood warning maintenance	
Action Delivery Lead	SEPA	Indicative Delivery Ongoing
Description	SEPA should maintain the Moray Firth coastal flood warning scheme.	
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.	
Coordination	SEPA will maintain the Moray Firth coastal flood warning scheme. SEPA will continue to raise awareness of flood warning, and engage with communities about the service when required.	

## ALNESS (02/01/10)

This area is designated as a potentially vulnerable area due to river flood risk from the River Averon and Contullich Burns, and surface water flood risk. There is a history of flooding in Alness as a result of river and surface water flooding.

There is 1 target area in this potentially vulnerable area, which has been the focus of further assessment. Further information on the objectives and actions to manage flood risk within this area is provided below.

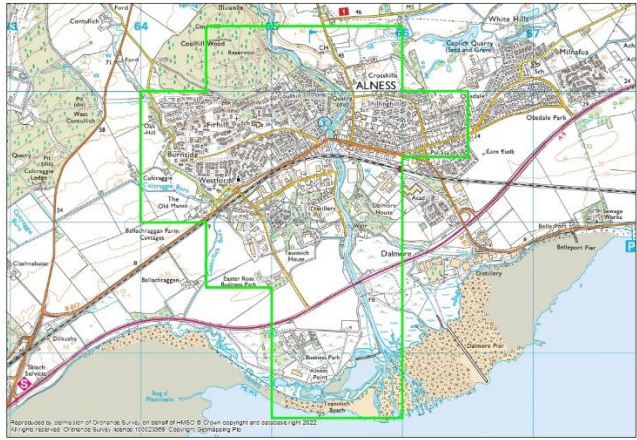
### **List of target areas**

[Alness](#) [\(target area 337\)](#)



## Local Flood Risk Management plan datasheet

### Alness (target area 337)

Summary	Location Map
<p>Alness is located on the northern bank of the Cromarty Firth in the Highland Council area. Alness is at risk from river flooding and surface water flooding. There are approximately 310 people and 200 homes and businesses currently at risk from flooding. This is likely to increase to 420 people and 280 homes and businesses by the 2080s due to climate change.</p>	

### What is the Current understanding of Flood risk

This section provides a summary of information, which has helped to develop an understanding of flood risk in the area. Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources. The national flood risk assessment is improved for river flooding by the flood map update of the River Averon and Contullich Burn in 2018. The understanding of surface water flood risk is improved by a sewer flood risk assessment. There are limited records of flooding in the Alness target area.

Objective	ID	Description
Avoid flood risk	3371	Avoid inappropriate development that increases flood risk in Alness.
Prepare for flooding	3372	Prepare for current flood risk and future flooding as a result of climate change in Alness.

Action ID	Alness 33701		
Action Type	Flood warning maintenance		
Action Delivery Lead	SEPA	Indicative Delivery	Ongoing
Description	SEPA should maintain the Moray Firth coastal flood warning scheme.		
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.		
Coordination	SEPA will maintain the Moray Firth coastal flood warning scheme. SEPA will continue to raise awareness of flood warning, and engage with communities about the service when required.		

## KINLOCHEWE (02/01/11)

Kinlochewe is designated as a potentially vulnerable area due to the risk of river flooding from the A'Ghairbhe.

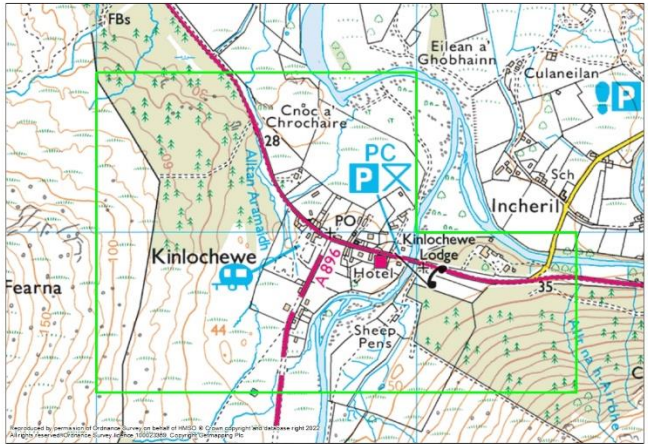
There is 1 target area in this potentially vulnerable area, which has been the focus of further assessment. Further information on the objectives and actions to manage flood risk within this area is provided below.

### **List of target areas**

[Kinlochewe](#) (target area 350)

## Local Flood Risk Management plan datasheet

Kinlochewe (target area 350)

Summary	Location Map
<p>The villages of Caol and Corpach are near Fort Kinlochewe is a village located on the eastern edge of Loch Maree in the Highland Council area. The main source of flooding in Kinlochewe is the A' Ghairbhe. There are approximately 30 people and 30 homes and businesses currently at risk from flooding, which is a significant proportion of the community. This is not estimated to change by the 2080s due to climate change.</p>	

## What is the Current understanding of Flood risk

This section provides a summary of information, which has helped to develop an understanding of flood risk in the area. Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources, and this national assessment has highlighted the risk of flooding in this target area. There are no records of flooding in the Kinlochewe target area but this does not confirm that there is no flood risk.

Objective	ID	Description
Avoid flood risk	3501	Avoid inappropriate development that increases flood risk in Kinlochewe.
Prepare for flooding	3503	Prepare for current flood risk and future flooding as a result of climate change in Kinlochewe.
Improve data and understanding	3502	Improve understanding of the risk of flooding from the A'Ghairbhe in Kinlochewe.

Action ID	Kinlochewe 35001		
Action Type	Flood risk management review		
Action Delivery Lead	SEPA	Indicative Delivery	2022-2028
Description	No local actions specific to this target area have been identified yet. However, there are national actions to be taken forward which will help identify future needs in this area. SEPA are updating surface water mapping to enhance the understanding of current and future surface water flood risks. Scotland's most vulnerable areas will be reviewed to take account of any new information, which will be published in 2024. Long term flood management actions will be reviewed in 2026. SEPA will continue to collect information on any flooding that occurs in the area, to inform the review process.		
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.		
Coordination	SEPA will work with the other responsible authorities to review flood risk management for this area, through the Local Plan District Partnerships. A public consultation on priority areas will be held in 2024 by SEPA, which will be open for three months. A public consultation on future flood management actions will be held in December 2026 and will be open for at least three months.		

## GARVE (02/01/12)

Garve is designated as a potentially vulnerable area due to river flood risk. The main source of flood risk is the Black Water.

There is 1 target area in this potentially vulnerable area, which has been the focus of further assessment. Further information on the objectives and actions to manage flood risk within this area is provided below.

### **List of target areas**

[Garve \(target area 341\)](#)

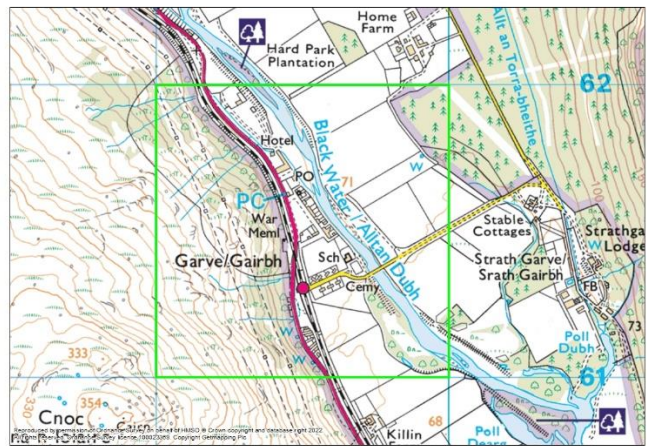
## Local Flood Risk Management plan datasheet

### Garve (target area 341)

#### Summary

Garve is a small village in the Highland Council area, located on the banks of the Black Water. The main source of flooding in Garve is river flooding. There are approximately 30 people and 20 homes and businesses currently at risk from flooding, which is a significant proportion of the community. This is likely to increase to 50 people and 30 homes and businesses by the 2080s due to climate change.

#### Location Map



#### What is the Current understanding of Flood risk

This section provides a summary of information, which has helped to develop an understanding of flood risk in the area. Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources. The national flood risk assessment is improved by the development and operation of the Conon Valley flood warning scheme. There are periodic records of flooding in Garve, including records of flooding from the Black Water affecting the school in 1966, 1983 and 1989.

Objective	ID	Description
Avoid flood risk	3411	Avoid inappropriate development that increases flood risk in Garve.
Prepare for flooding	3412	Prepare for current flood risk and future flooding as a result of climate change in Garve.

Action ID	Garve 34101		
Action Type	Site protection plan		
Action Delivery Lead	THC	Indicative Delivery	2022-2028
Description	The Highland Council to develop a site protection plan for Strathgarve School.		
Funding	Any site protection plan will be funded through the council's revenue budget.		
Coordination	The Highland Council will coordinate the development of the plan with other responsible authorities.		

Action ID	Garve 34102		
Action Type	Flood warning maintenance		
Action Delivery Lead	SEPA	Indicative Delivery	Ongoing
Description	SEPA should maintain the Conon Valley flood warning scheme.		
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.		
Coordination	SEPA should maintain the Conon Valley flood warning scheme. SEPA will continue to raise awareness of flood warning, and engage with communities about the service when required.		



## DINGWALL AND STRATHPEFFER (02/01/13)

Dingwall and Strathpeffer is designated as a potentially vulnerable area due to the risk of river, coastal and surface water flooding to Dingwall, river flood risk to Blairninich and surface water flood risk to Strathpeffer. These areas flood frequently. Recently the areas were all affected by surface water flooding during intense summer rainfall.

There are 3 target areas in this potentially vulnerable area, which have been the focus of further assessment. Further information on the objectives and actions to manage flood risk within these areas is provided below.

### List of target areas

Blairninich	(target area 335)
Dingwall	(target area 336)
Strathpeffer	(target area 436)

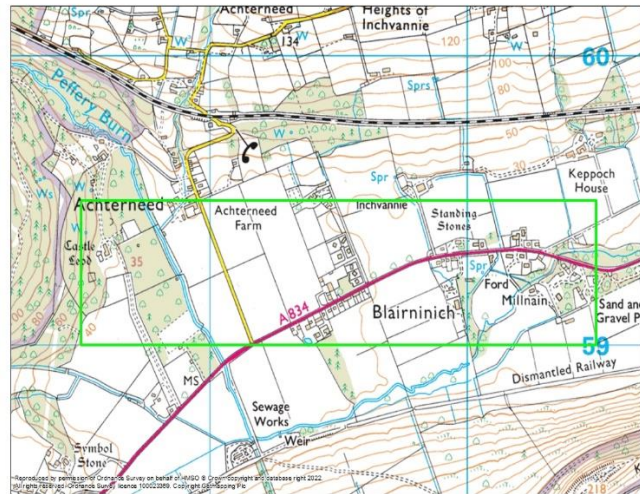
## Local Flood Risk Management plan datasheet

### Blairninich (target area 335)

#### Summary

Blairninich is a village within the Highland Council area. The main source of flooding in Blairninich is river flooding. There are approximately 40 people and 30 homes and businesses currently at risk from flooding. This is expected to remain the same by the 2080s due to climate change.

#### Location Map



#### What is the Current understanding of Flood risk

This section provides a summary of information, which has helped to develop an understanding of flood risk in the area. Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources. The understanding of river flood risk has improved due to the completion of the River Peffery Flood Study (2019). There is a long record of flooding from the River Peffery in Blairninich including floods in October 2012 and December 2013.

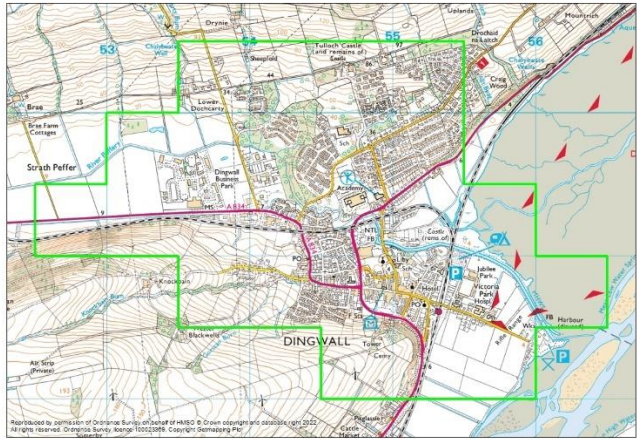
Objective	ID	Description
Avoid flood risk	3351	Avoid inappropriate development that increases flood risk in Blairninich.
Prepare for flooding	3352	Prepare for current flood risk and future flooding as a result of climate change in Blairninich.
Reduce flood risk	3353	Reduce the risk of flooding from the River Peffery in Blairninich.

Action ID	Blairninich 33501		
Action Type	Flood scheme or works design		
Action Delivery Lead	THC	Indicative Delivery	2024 - 2026
Description	Subject to Scottish Government funding and the outcome of national prioritisation of flood protection schemes. The Highland Council should progress with the detailed design for the River Peffery Flood Protection Scheme. The preferred option consists of meandering of existing channels, channel widening, a flood wall and new culverts. Detailed design will be coordinated with SEPA's Water Environment Fund.		
Funding	Allocated in THC Capital Programme but awaiting Scottish Government grant funding.		
Coordination	The Highland Council will coordinate the development of the study with actions of other responsible authorities (SEPA with respect to WEF funding) and engage local community groups		

Action ID	Blairninich 33502		
Action Type	Flood scheme or works implementation		
Action Delivery Lead	THC	Indicative Delivery	2026 -2028
Description	Subject to Scottish Government funding The Highland Council should progress with the River Peffery Flood Protection Scheme. Construction will be coordinated with SEPA's Water Environment Fund.		
Funding	Allocated in THC Capital Programme but awaiting Scottish Government grant funding.		
Coordination	The Highland Council will coordinate the development of the works (linking with SEPA with respect to WEF funding) and engage local community groups.		

## Local Flood Risk Management plan datasheet

### Dingwall (target area 336)

Summary	Location Map
<p>Dingwall is located in the inner Cromarty Firth and is within the Highland Council area. Dingwall is at risk from surface water, river and coastal flooding. There are approximately 640 people and 460 homes and businesses currently at risk from flooding. This is likely to increase to 950 people and 660 homes and businesses by the 2080s due to climate change. Areas of Dingwall are protected from river and coastal flooding by the Dingwall Flood Protection Scheme.</p>	

### What is the Current understanding of Flood risk

This section provides a summary of information, which has helped to develop an understanding of flood risk in the area. Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources. The understanding of river flood risk has improved due to the completion of the River Peffery Flood Study (2019) and for coastal flooding by the development and operation of the Moray Firth coastal flood warning scheme. The understanding of surface water flood risk is improving through the development of the Highland wide surface water management plan which includes Dingwall as a priority area. A sewer flood risk assessment has also been completed. There are frequent records of flooding in Dingwall, including notable floods in October 2006 and July 2019.

Objective	ID	Description
Avoid flood risk	3361	Avoid an increase in river and coastal flood risk by the appropriate management and maintenance of the Dingwall Flood Prevention Scheme.
Avoid flood risk	3362	Avoid inappropriate development that increases flood risk in Dingwall.
Prepare for flooding	3363	Prepare for current flood risk and future flooding as a result of climate change in Dingwall.
Reduce flood risk	3364	Reduce the risk of surface water flooding in Dingwall.
Reduce flood risk	3365	Reduce the risk of flooding from the River Peffery in Dingwall.

Action ID	Dingwall 33601		
Action Type	Flood defence maintenance		
Action Delivery Lead	THC	Indicative Delivery	Ongoing
Description	The Highland Council to continue to maintain the existing Dingwall Flood Protection Scheme.		
Funding	Funding to maintain all existing Highland Council Flood Protection Schemes is allocated through the Council's annual revenue budget.		
Coordination	The Highland Council will coordinate its actions with landowners and SEPA as required		

Action ID	Dingwall 33602		
Action Type	Flood scheme or works design		
Action Delivery Lead	THC	Indicative Delivery	2024 - 2026
Description	Subject to Scottish Government funding and the outcome of national prioritisation of flood protection schemes. The Highland Council should progress with the detailed design for the River Peffery Flood Protection Scheme. The preferred option consists of meandering of existing channels, channel widening, a flood wall and new culverts. Detailed design will be coordinated with SEPA's Water Environment Fund.		
Funding	Allocated in THC Capital Programme but awaiting Scottish Government grant funding.		
Coordination	SEPA will work with partners on the potential to coordinate flooding actions with WEF.		
Action ID	Dingwall 33603		
Action Type	Flood scheme or works implementation		
Action Delivery Lead	THC	Indicative Delivery	2026 - 2028
Description	Subject to Scottish Government funding The Highland Council should progress with the River Peffery Flood Protection Scheme. Construction will be coordinated with SEPA's Water Environment Fund.		
Funding	Allocated in THC Capital Programme but awaiting Scottish Government grant funding.		
Coordination	SEPA will work with the local authority on the potential to coordinate this action with an update to SFDAD and with WEF.		

Action ID	Dingwall 33604		
Action Type	Strategic mapping improvements		
Action Delivery Lead	SEPA	Indicative Delivery	2023-2024
Description	SEPA has undertaken improved coastal modelling in this target area including taking account of the impact of waves on coastal flooding. We will complete and publish the outcomes of this modelling work to inform decision making with respect to flooding at the coast.		
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.		
Coordination	SEPA will work with the local authority on the potential to coordinate the flood map update with any other actions being carried out to understand or reduce coastal flooding.		

Action ID	Dingwall 33605		
Action Type	Flood warning maintenance		
Action Delivery Lead	SEPA	Indicative Delivery	Ongoing
Description	SEPA should maintain the Moray Firth coastal flood warning scheme.		
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.		
Coordination	SEPA will maintain the Moray Firth coastal flood warning scheme. SEPA will continue to raise awareness of flood warning, and engage with communities about the service when required.		

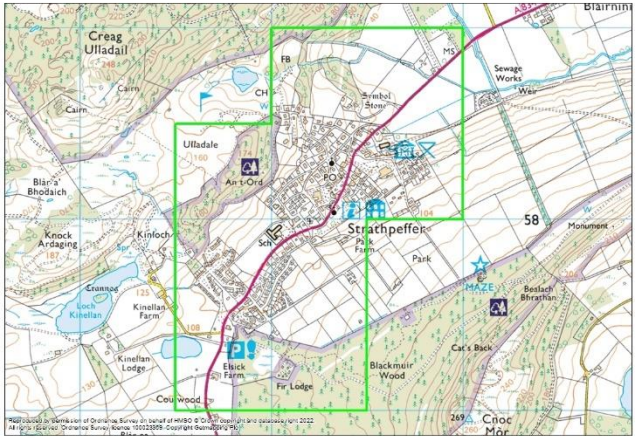
Action ID	Dingwall 33606		
Action Type	Sewer flood risk assessment		
Action Delivery Lead	Scottish Water	Indicative Delivery	2025-2027
Description	Scottish Water will undertake a modelling assessment in the Dingwall sewer catchment to improve knowledge and understanding of flood risk in this area as required under Section 16 of the Flood Risk Management (Scotland) Act 2009		
Funding	Funding for this action is secured within Scottish Water's business plan		
Coordination	Outputs of this modelling assessment will be shared with local authorities and SEPA		

Action ID	Dingwall 33607		
Action Type	Surface water management plan		
Action Delivery Lead	THC	Indicative Delivery	2022 - 2028
Description	The Highland Council to continue to develop and implement the Highland wide surface water management plan, which includes Dingwall as a priority area. The surface water management plan identifies areas most at risk from surface water flooding in Dingwall and identifies options that could alleviate this risk.		
Funding	Allocated in THC Capital Programme		
Coordination	The Highland Council will lead the development of the Surface Water Management Plan and will work with other responsible authorities.		



## Local Flood Risk Management plan datasheet

### Strathpeffer (target area 436)

Summary	Location Map
<p>Strathpeffer is in the Highland Council area. The main source of flooding in Strathpeffer is surface water. There are approximately 90 people and 60 homes and businesses currently at risk of flooding. This is likely to increase to 140 people and 90 homes and businesses by the 2080s due to climate change.</p>	

### What is the Current understanding of Flood risk

This section provides a summary of information, which has helped to develop an understanding of flood risk in the area. Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources. The understanding of surface water flood risk is improving due to the ongoing development of a Highland wide surface wide management plan which includes Strathpeffer as a priority area. A sewer flood risk assessment has also been completed. There are periodic records of surface water flooding in Strathpeffer including recent flooding in August 2019.

Objective	ID	Description
Avoid flood risk	4361	Avoid inappropriate development that increases flood risk in Strathpeffer.
Prepare for flooding	4363	Prepare for current flood risk and future flooding as a result of climate change in Strathpeffer.
Reduce flood risk	4365	Reduce the risk of surface water flooding in Strathpeffer.



Action ID	Strathpeffer 43601		
Action Type	Surface water management plan		
Action Delivery Lead	THC	Indicative Delivery	2022 - 2028
Description	The Highland Council to continue to develop and implement the Highland wide surface water management plan which includes Strathpeffer as a priority area. The surface water mangement plan identifies areas most at risk from surface water flooding in Strathpeffer and identifies options that could alleivate this risk.		
Funding	Allocated in THC Capital Programme.		
Coordination	The Highland Council will lead the development of the Surface Water Management Plan and will work with other responsible authorities.		

## CONON BRIDGE, MUIR OF ORD AND MARYBURGH (02/01/14)

This potentially vulnerable area includes Conon Bridge, Muir of Ord and Maryburgh, which are at risk of river and surface water flooding. Conon Bridge benefits from a flood protection scheme on the River Conon. Muir of Ord has a risk of river flooding from the Allt Fionnaidh, Logie Burn and Ord Loch. In Maryburgh a large number of properties are at risk from river and surface water flooding. Flooding has occurred frequently, recently caused by surface water.

There are 3 target areas in this potentially vulnerable area, which have been the focus of further assessment. Further information on the objectives and actions to manage flood risk within these areas is provided below.

### **List of target areas**

Conon Bridge	(target area 340)
Maryburgh	(target area 363)
Muir of Ord	(target area 435)

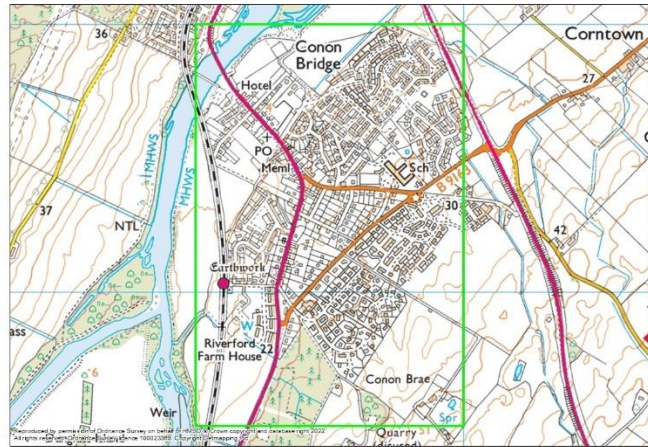
## Local Flood Risk Management plan datasheet

### Conon Bridge (target area 340)

#### Summary

Conon Bridge is located on the banks of the River Conon in the Highland Council area. Conon Bridge is at risk of surface water and river flooding. This can be affected by high sea levels, which may slow discharge of the River Conon into the sea at high tide. There are approximately 180 people and 100 homes and businesses currently at risk from flooding. This is likely to increase to 220 people and 130 homes and businesses by the 2080s due to climate change. Areas of Conon Bridge are protected from river and coastal flooding by the Conon Bridge Flood Protection Scheme.

#### Location Map



#### What is the Current understanding of Flood risk

This section provides a summary of information, which has helped to develop an understanding of flood risk in the area. Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources. The national flood risk assessment is underpinned for river flooding through the development and maintenance of the Conon Bridge Flood Protection Scheme which was completed in 1990. The understanding of surface water flooding is improved by a sewer flood risk assessment. Prior to the completion of the flood protection scheme, there was a long history of periodic flooding recorded in Conon Bridge. Since scheme completion, there are records of surface water flooding (from the Eil Burn).

Objective	ID	Description
Avoid flood risk	3401	Avoid inappropriate development that increases flood risk in Conon Bridge.
Avoid flood risk	3402	Avoid an increase in river flood risk by the appropriate management and maintenance of the Conon Bridge Village Flood Prevention Scheme 1990.
Prepare for flooding	3403	Prepare for current flood risk and future flooding as a result of climate change in Conon Bridge.
Reduce flood risk	3404	Reduce the risk of surface water flooding in Conon Bridge.

Action ID	Conon Bridge 34001		
Action Type	Flood defence maintenance		
Action Delivery Lead	THC	Indicative Delivery	Ongoing
Description	The Highland Council to continue to maintain the Conon Bridge Flood Protection Scheme.		
Funding	Funding to maintain all existing Highland Council Flood Protection Schemes is allocated through the Council's annual revenue budget.		
Coordination	The Highland Council will coordinate its actions with landowners and SEPA as required		

Action ID	Conon Bridge 34002		
Action Type	Flood warning maintenance		
Action Delivery Lead	SEPA	Indicative Delivery	Ongoing
Description	SEPA should maintain the Conon Valley flood warning scheme.		
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.		
Coordination	SEPA will maintain the Conon Valley flood warning scheme. SEPA will continue to raise awareness of flood warning, and engage with communities about the service when required.		

Action ID	Conon Bridge 34803		
Action Type	Flood Study		
Action Delivery Lead	THC	Indicative Delivery	2028 - 2034
Description	The Highland Council to develop a flood model of the Eil Burn to determine the extent of flood risk to Conon Bridge from the burn. Subject to the outcome of the modelling an appraisal of options to mitigate flooding will be carried out, determining a preferred option.		
Funding	Not currently allocated in Capital Programme.		
Coordination	The Highland Council will coordinate the development of the Study with actions of other responsible authorities and engage local community groups.		

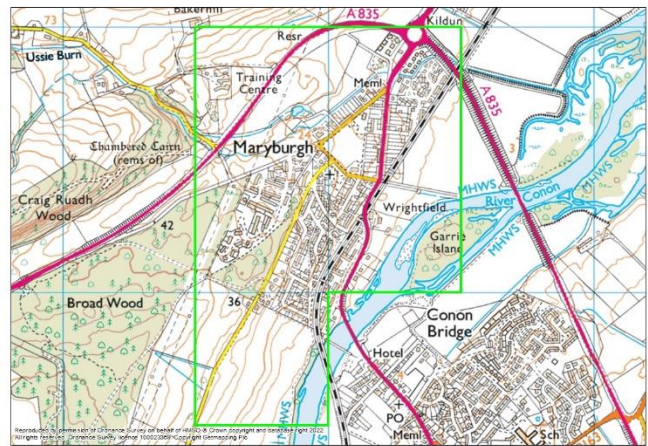
## Local Flood Risk Management plan datasheet

### Maryburgh (target area 363)

#### Summary

Maryburgh is a village on the northern banks of River Conon, within the Highland Council area. Maryburgh is at risk from surface water and river flooding. There are approximately 150 people and 80 homes and businesses currently at risk from flooding. This is likely to increase to 160 people and 90 homes and businesses by the 2080s due to climate change.

#### Location Map



#### What is the Current understanding of Flood risk

This section provides a summary of information, which has helped to develop an understanding of flood risk in the area. Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources, and this national assessment has highlighted the risk of flooding, in this target area. A significant number of homes and businesses in Maryburgh are at risk of surface water and river flooding. Maryburgh has therefore been identified as a new target area for the 2021 flood risk management plans. There are limited records of flooding in the Maryburgh target area.

Objective	ID	Description
Avoid flood risk	3631	Avoid inappropriate development that increases flood risk in Maryburgh.
Improve data and understanding	3632	Improve data and understanding of the risk of flooding from surface water and the Ussie Burn in Maryburgh.
Prepare for flooding	3633	Prepare for current flood risk and future flooding as a result of climate change in Maryburgh.

Action ID	Maryburgh 36301		
Action Type	Flood study		
Action Delivery Lead	THC	Indicative Delivery	2023 - 2025
Description	The Highland Council to develop a flood model of the Ussie Burn to determine the extent of flood risk to Maryburgh from the burn. Subject to the outcome of the modelling an appraisal of options to mitigate flooding will be carried out, determining a preferred option.		
Funding	Not currently allocated in THC Capital Programme.		
Coordination	The Highland Council will coordinate the development of the Study with actions of other responsible authorities and engage local community groups.		

Action ID	Maryburgh 36302		
Action Type	Flood warning maintenance		
Action Delivery Lead	SEPA	Indicative Delivery	Ongoing
Description	SEPA should maintain the Conon Valley flood warning scheme.		
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.		
Coordination	SEPA will maintain the Conon Valley flood warning scheme. SEPA will continue to raise awareness of flood warning, and engage with communities about the service when required.		

## Local Flood Risk Management plan datasheet

### Muir of Ord (target area 435)

#### Summary

Muir of Ord is in the Highland Council area. Muir of Ord is at risk from river and surface water flooding. There are approximately 220 people and 120 properties currently at risk of flooding. This is likely to increase to 250 people and 140 homes and businesses by the 2080s due to climate change. There is reason to suggest flood risk may currently be overestimated.

#### Location Map



#### What is the Current understanding of Flood risk

This section provides a summary of information, which has helped to develop an understanding of flood risk in the area. Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources. The national level assessment for surface water is improved by a sewer flood risk assessment. There are limited records of flooding in the Muir of Ord target area.

Objective	ID	Description
Avoid flood risk	4351	Avoid inappropriate development that increases flood risk in Muir of Ord.
Improve data and understanding	4352	Improve data and understanding of the risk of flooding from the Allt Fionnaidh, the Logie Burn, Ord Loch and surface water in Muir of Ord.
Prepare for flooding	4353	Prepare for current flood risk and future flooding as a result of climate change in Muir of Ord.



Action ID	Muir of Ord 43501		
Action Type	Flood risk management review		
Action Delivery Lead	SEPA	Indicative Delivery	2022-2028
Description	<p>No local actions specific to this target area have been identified yet. However, there are national actions to be taken forward which will help identify future needs in this area. SEPA are updating surface water mapping to enhance the understanding of current and future surface water flood risks. Scotland's most vulnerable areas will be reviewed to take account of any new information, which will be published in 2024. Long term flood management actions will be reviewed in 2026. SEPA will continue to collect information on any flooding that occurs in the area, to inform the review process.</p>		
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.		
Coordination	<p>SEPA will work with the other responsible authorities to review flood risk management for this area, through the Local Plan District Partnerships. A public consultation on priority areas will be held in 2024 by SEPA, which will be open for three months. A public consultation on future flood management actions will be held in December 2026 and will be open for at least three months.</p>		

## ARDERSIER (02/01/15)

This area is designated as a potentially vulnerable area due to the risk of coastal flooding to Ardersier. Coastal flood risk is likely to increase due to sea level rise caused by climate change.

There is 1 target area in this potentially vulnerable area, which has been the focus of further assessment. Further information on the objectives and actions to manage flood risk within this area is provided below.

### **List of target areas**

Ardersier (target area 345)

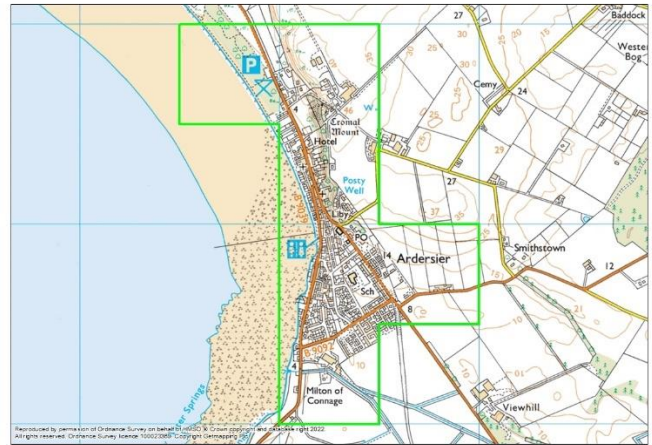
## Local Flood Risk Management plan datasheet

Ardersier (target area 345)

### Summary

The former fishing village of Ardersier is located on the eastern shore of the Moray Firth, near Inverness Airport. It is in the Highland Council area. The main flooding concern is from the impact of climate change on coastal flooding. There are approximately 160 people and 110 homes and businesses at risk from flooding. This is estimated to increase to 320 people and 200 homes and businesses by the 2080s due to climate change.

### Location Map



### What is the Current understanding of Flood risk

This section provides a summary of information, which has helped to develop an understanding of flood risk in the area. Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources. The national flood risk assessment is improved for coastal flooding by the development and operation of the Moray Firth coastal flood warning scheme. There are limited records of flooding in the Ardersier target area. The Dynamic Coast project has shown that parts of the shoreline in or adjacent to this target area are subject to erosion at present or are considered likely to erode in the future. Consideration should be given to how erosion might impact flood risk. Any actions taken should aim to support building natural resilience to flooding and not lead to an increase in erosion.

Objective	ID	Description
Avoid flood risk	3451	Avoid inappropriate development that increases flood risk in Ardersier
Improve data and understanding	3452	Improve data and understanding of the risk of coastal flooding in Ardersier.
Prepare for flooding	3453	Prepare for current flood risk and future flooding as a result of climate change in Ardersier.

Action ID	Ardersier 34501		
Action Type	Strategic mapping improvements		
Action Delivery Lead	SEPA	Indicative Delivery	2023-2024
Description	SEPA has undertaken improved coastal modelling in this target area including taking account of the impact of waves on coastal flooding. We will complete and publish the outcomes of this modelling work to inform decision making with respect to flooding at the coast		
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.		
Coordination	SEPA will work with The Highland Council on the potential to coordinate the flood map update with any other actions being carried out to understand or reduce coastal flooding.		

Action ID	Ardersier 34502		
Action Type	Flood warning maintenance		
Action Delivery Lead	SEPA	Indicative Delivery	Ongoing
Description	SEPA should maintain the Moray Firth coastal flood warning scheme.		
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.		
Coordination	SEPA will maintain the Moray Firth coastal flood warning service. SEPA will continue to raise awareness of flood warning, and engage with communities about the service when required.		

## SMITHTON AND CULLODEN (02/01/16)

This area is designated as a potentially vulnerable area due to the risk of surface water flooding in the Smithton and Culloden area. There is a history of flooding from rainfall and small water courses. Smithton and Culloden benefit from a flood scheme which manages the risk of flooding from surface water and small water courses.

There is 1 target area in this potentially vulnerable area, which has been the focus of further assessment. Further information on the objectives and actions to manage flood risk within this area is provided below.

### **List of target areas**

[Smithton and Culloden](#) (target area 342)

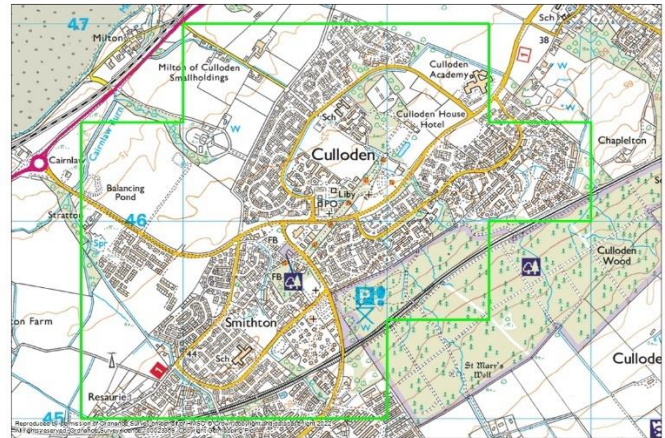
## Local Flood Risk Management plan datasheet

### Smithton and Culloden (target area 342)

#### Summary

Smithton and Culloden are on the outskirts of Inverness within the Highland Council area. The main source of flooding in the area is surface water flooding which includes small watercourses. There are approximately 470 people and 250 homes and businesses currently at risk from flooding. This is estimated to increase to 680 people and 350 homes and businesses by the 2080s due to climate change. Areas of Smithton and Culloden are protected from surface water flooding from small water courses from the Smithton and Culloden Flood Protection Scheme.

#### Location Map



#### What is the Current understanding of Flood risk

This section provides a summary of information, which has helped to develop an understanding of flood risk in the area. Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources. The understanding of surface water flooding from small watercourses has improved due to the completion of the Smithton and Culloden Flood Protection Scheme which was completed in 2020. The understanding of surface water flood risk is improving through the ongoing development of a Highland wide surface water management plan which includes Smithton and Culloden as a priority area. The integrated catchment study and sewer flood risk assessment has also improved understanding of flood risk. Prior to scheme completion there had been a long record of flooding in Smithton and Culloden including notable floods in July and August 2011 when persistent rainfall caused extensive flooding from the Smithton Burn and Culloden Burn West.

Objective	ID	Description
Avoid flood risk	3421	Avoid inappropriate development that increases flood risk in Smithton and Culloden.
Avoid flood risk	3422	Avoid an increase in flood risk by the appropriate management and maintenance of the Smithton and Culloden Flood Protection Scheme.
Prepare for flooding	3423	Prepare for current flood risk and future flooding as a result of climate change in Smithton and Culloden.
Reduce flood risk	3424	Reduce the risk of flooding from surface water and small water courses in Smithton and Culloden.

Action ID	Smithton and Culloden 34201		
Action Type	Flood defence maintenance		
Action Delivery Lead	THC	Indicative Delivery	Ongoing
Description	The Highland Council to continue to maintain the Smithton and Culloden Flood Protection Scheme.		
Funding	Funding to maintain all existing Highland Council Flood Protection Schemes is allocated through the Council's annual revenue budget.		
Coordination	The Highland Council will coordinate its actions with landowners and SEPA as required		

Action ID	Smithton and Culloden 34202		
Action Type	Sewer flood risk assessment		
Action Delivery Lead	Scottish Water	Indicative Delivery	2025-2027
Description	Scottish Water will undertake a modelling assessment in the Inverness sewer catchment to improve knowledge and understanding of flood risk in this area as required under Section 16 of the Flood Risk Management (Scotland) Act 2009		
Funding	Funding for this action is secured within Scottish Water's business plan		
Coordination	Outputs of this modelling assessment will be shared with local authorities and SEPA		

Action ID	Smithton and Culloden 34203		
Action Type	Surface water management plan		
Action Delivery Lead	THC	Indicative Delivery	2022 - 2028
Description	The Highland Council to continue to develop and implement the Highland wide surface water management plan which includes Smithton and Culloden as a priority area. The surface water management plan identifies areas most at risk from surface water flooding		
Funding	Allocated in THC Capital Programme		
Coordination	The Highland Council will lead the development of the Surface Water Management Plan and will work with other responsible authorities.		

## INVERNESS (02/01/17)

This area is designated as a potentially vulnerable area due to the risk of river, coastal and surface water flooding to Inverness. Recent floods were caused by river flooding and surface water. The River Ness Flood Protection Scheme benefits 800 homes and 200 businesses.

There is 1 target area in this potentially vulnerable area, which has been the focus of further assessment. Further information on the objectives and actions to manage flood risk within this area is provided below.

### **List of target areas**

[Inverness](#) [\(target area 387\)](#)



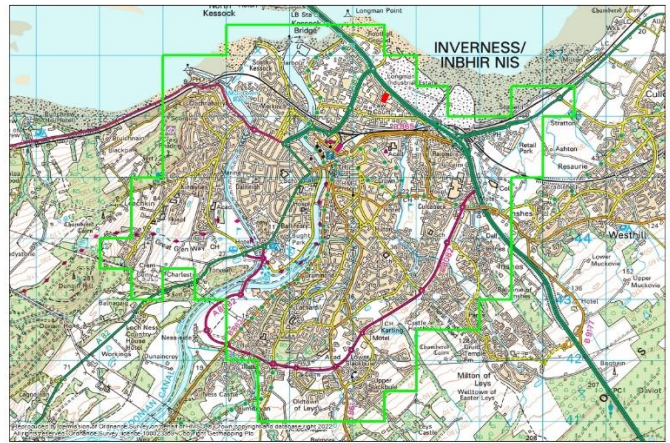
## Local Flood Risk Management plan datasheet

### Inverness (target area 387)

#### Summary

Inverness is located on the Beauly Firth, within the Highland Council area. There is a risk from coastal, river and surface water flooding in Inverness. There are approximately 4,800 people and 2,800 homes and businesses currently at risk from flooding. This is likely to increase to 12,000 people and 6,600 homes and businesses by the 2080s due to climate change. Areas of Inverness are protected by river and coastal flooding by either the River Ness (Tidal) Flood Protection Scheme or the Inverness South West Relief Channel.

#### Location Map



#### What is the Current understanding of Flood risk

This section provides a summary of information, which has helped to develop an understanding of flood risk in the area. Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources. The understanding of river and coastal flooding has been improved by various studies including the Mill Burn Flood Study (2019) and the studies to develop The River Ness (Tidal) Flood Protection Scheme and the Inverness South West Relief Channel. The understanding of surface water flooding is improving due to the ongoing development of a Highland wide surface water management plan which includes Inverness as a priority area. The understanding of flood risk has also been improved by the integrated catchment study and the development and operation of the Moray Firth and Ness River flood warning schemes. Prior to the construction of the flood protection schemes there was a long history of flooding from the River Ness and the small watercourses in the south west of the city. In areas not protected by schemes there is frequent flooding recorded, including from the Mill Burn, the Dell Burn and from surface water.

Objective	ID	Description
Avoid flood risk	3871	Avoid an increase in flood risk by the appropriate management and maintenance of the South West Inverness Flood Protection Scheme.
Avoid flood risk	3872	Avoid an increase in flood risk by the appropriate management and maintenance of the River Ness (Tidal) Flood Protection Scheme.
Avoid flood risk	3873	Avoid inappropriate development that increases flood risk in Inverness.
Improve data and understanding	3874	Improve data and understanding of the performance of the flood protection assets in Inverness.
Improve data and understanding	3875	Improve data and understanding of the risk of coastal flooding and the role of existing assets in the South Kessock area of Inverness.
Prepare for flooding	3876	Prepare for current flood risk and future flooding as a result of climate change in Inverness.
Reduce flood risk	3877	Reduce the risk of surface water flooding in Inverness.
Reduce flood risk	3878	Reduce the risk of flooding from the Mill Burn in Inverness.

Action ID	Inverness 38701		
Action Type	Flood defence maintenance		
Action Delivery Lead	THC	Indicative Delivery	Ongoing
Description	The Highland Council to continue to maintain the existing flood defences in Inverness including the Inverness South West Relief Channel and the River Ness (Tidal) Flood Protection Scheme.		
Funding	Funding to maintain all existing Highland Council Flood Protection Schemes is allocated through the Council's annual revenue budget.		
Coordination	The Highland Council will coordinate its actions with landowners and SEPA as required		

Action ID	Inverness	38702
Action Type	Flood scheme or works design	
Action Delivery Lead	THC	Indicative Delivery 2025 - 2027
Description	<p>Subject to Scottish Government funding and the outcome of national prioritisation of flood protection schemes. The Highland Council should progress with the detailed design for the Mill Burn Flood Protection Scheme. The preferred option consists of direct defences, headwall modifications, pipe removal under Harbour Road Bridge and natural flood management in the upstream catchment. The option to also include channel widening is being considered.</p> <p>In accordance with the flood risk management plan, as part of the scheme or works, the responsible authority should aim to ensure the action will not have an adverse effect on the integrity of the Moray Firth Special Area of Conservation and Special Protection Area, and the Inner Moray Firth Special Protection Area and Ramsar Site.</p>	
Funding	Allocated in THC Capital Programme but awaiting Scottish Government grant funding.	
Coordination	The Highland Council will coordinate the development of the study with actions of other responsible authorities and engage local community groups.	

Action ID	Inverness	38703
Action Type	Flood scheme or works implementation	
Action Delivery Lead	THC	Indicative Delivery 2027 - 2029
Description	Subject to Scottish Government funding The Highland Council should progress with the Mill Burn Flood Protection Scheme based on the detailed design.	
Funding	Allocated in THC Capital Programme but awaiting Scottish Government grant funding.	
Coordination	SEPA will work with The Highland Council on the potential to coordinate this action with an update to SFDAD.	

Action ID	Inverness 38704		
Action Type	Flood study		
Action Delivery Lead	THC	Indicative Delivery	2024 - 2026
Description	The Highland Council to develop a coastal flood model to determine the extent of flood risk to the South Kessock area from the sea. Subject to the outcome of the modelling an appraisal of options to mitigate flooding will be carried out, determining a preferred option.		
Funding	Not currently allocated in THC Capital Programme		
Coordination	SEPA will work with The Highland Council on the potential to coordinate this action with work on coastal flood mapping.  The Highland Council will coordinate the development of the Study with actions of other responsible authorities and engage local community groups.		

Action ID	Inverness 38705		
Action Type	Sewer flood risk assessment		
Action Delivery Lead	Scottish Water	Indicative Delivery	2025-2027
Description	Scottish Water will undertake a modelling assessment in the Inverness sewer catchment to improve knowledge and understanding of flood risk in this area as required under Section 16 of the Flood Risk Management (Scotland) Act 2009		
Funding	Funding for this action is secured within Scottish Water's business plan		
Coordination	Outputs of this modelling assessment will be shared with local authorities and SEPA		

Action ID	Inverness 38706		
Action Type	Surface water management plan		
Action Delivery Lead	THC	Indicative Delivery	2022 -2028
Description	The Highland Council to continue to develop and implement the Highland wide surface water management plan which includes Inverness as a priority area. The surface water mangement plan identifies areas most at risk from surface water flooding in Inverness and identifies options that could alleviate this risk.		
Funding	Allocated in THC Capital Programme.		
Coordination	The Highland Council will lead the development of the Surface Water Management Plan and will work with other responsible authorities.		

Action ID	Inverness 38707		
Action Type	Strategic mapping improvements		
Action Delivery Lead	SEPA	Indicative Delivery	2023-2024
Description	SEPA has undertaken improved coastal modelling in this target area including taking account of the impact of waves on coastal flooding. We will complete and publish the outcomes of this modelling work to inform decision making with respect to flooding at the coast.		
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.		
Coordination	SEPA will work with The Highland Council on the potential to coordinate the flood map update with any other actions being carried out to understand or reduce coastal flooding.		

Action ID	Inverness 38708		
Action Type	Flood warning maintenance		
Action Delivery Lead	SEPA	Indicative Delivery	Ongoing
Description	SEPA should maintain the River Ness and the Moray Firth coastal flood warning schemes.		
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.		
Coordination	SEPA will maintain the River Ness and the Moray Firth coastal flood warning schemes. SEPA will continue to raise awareness of flood warning, and engage with communities about the service when required.		

Action ID	Inverness 38709		
Action Type	Flood warning maintenance		
Action Delivery Lead	SEPA	Indicative Delivery	2028 - 2034
Description	<p>SEPA should investigate improvements to the River Ness flood warning scheme.</p> <p>The requirement for and priority of actions for Cycle 3 will be reviewed during the preparation of the next set of flood risk management plans. Information on how and when these actions are delivered will be provided in 2028.</p>		

## DRUMNADROCHIT (02/01/18)

This area is designated as a potentially vulnerable area due to river flood risk to Drumnadrochit. The main source of flooding is the River Enrick. Recent flooding was caused by surface water and rivers.

There is 1 target area in this potentially vulnerable area, which has been the focus of further assessment. Further information on the objectives and actions to manage flood risk within this area is provided below.

### **List of target areas**

[Drumnadrochit](#) (target area 343)

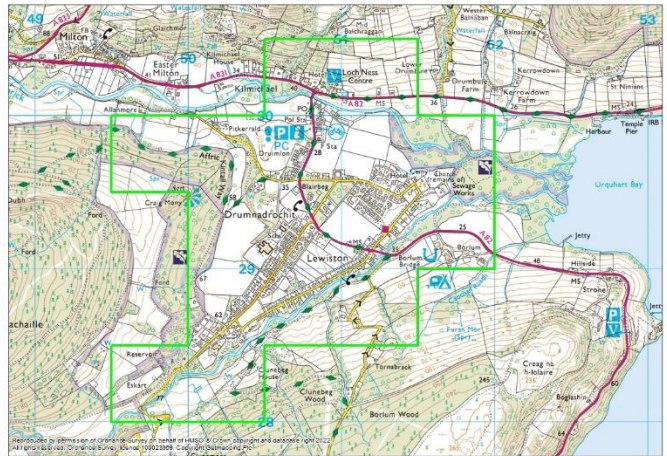
## Local Flood Risk Management plan datasheet

### Drumnadrochit (target area 343)

#### Summary

Drumnadrochit is located on the western banks of Loch Ness within the Highland Council area. The main source of flooding in Drumnadrochit is river flooding. There are approximately 250 people and 180 homes and businesses currently at risk from flooding. This is likely to increase to 310 people and 230 homes and businesses by the 2080s due to climate change. The Drumnadrochit Flood Protection Scheme, which will provide protection to properties at risk of flooding from the River Enrick, has started construction.

#### Location Map



#### What is the Current understanding of Flood risk

This section provides a summary of information, which has helped to develop an understanding of flood risk in the area. Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources. The understanding of flooding from the River Enrick has improved by the various studies used to develop the Drumnadrochit Flood Protection Scheme. There is a long history of periodic flooding from the River Enrick and the River Coiltie recorded in Drumnadrochit.

Objective	ID	Description
Avoid flood risk	3431	Avoid inappropriate development that increases flood risk in Drumnadrochit.
Improve data and understanding	3432	Improve data and understanding of the flood risk of the River Coiltie.
Prepare for flooding	3433	Prepare for current flood risk and future flooding as a result of climate change in Drumnadrochit.
Reduce flood risk	3434	Reduce the risk of flooding from the River Enrick in Drumnadrochit



Action ID	Drumnadrochit 34301		
Action Type	Flood study		
Action Delivery Lead	THC	Indicative Delivery	2025-2027
Description	The Highland Council to develop a flood model of the River Coiltie to determine the extent of flood risk to Lewiston from the river. Subject to the outcome of the modelling an appraisal of options to mitigate flooding will be carried out, determining a preferred option.		
Funding	Not currently allocated in THC Capital Programme.		
Coordination	The Highland Council will coordinate the development of the Study with actions of other responsible authorities and engage local community groups.		

Action ID	Drumnadrochit 34302		
Action Type	Flood scheme or works implementation		
Action Delivery Lead	THC	Indicative Delivery	2022
Description	The Highland Council has completed the Drumnadrochit Flood Protection Scheme		
Funding	The scheme was funded by The Highland Council's capital programme and grant funding from the Scottish Government.		
Coordination	SEPA will work with the local authority on the potential to coordinate this action with an update to SFDAD and flood warning actions.		

Action ID	Drumnadrochit 34303		
Action Type	Flood defence maintenance		
Action Delivery Lead	THC	Indicative Delivery	Ongoing
Description	The Highland Council to continue to maintain the Drumnadrochit Flood Protection Scheme once completed.		
Funding	Funding to maintain all existing Highland Council Flood Protection Schemes is allocated through the Council's annual revenue budget.		
Coordination	The Highland Council will coordinate its actions with landowners and SEPA as required		



Action ID	Drumnadrochit 34304		
Action Type	Flood warning maintenance		
Action Delivery Lead	SEPA	Indicative Delivery	Ongoing
Description	SEPA should maintain the River Ness flood warning scheme.		
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.		
Coordination	SEPA will work with The Highland Council on the potential to use information on the Drumnadrochit flood scheme to inform ongoing flood warning. SEPA will continue to raise awareness of flood warning, and engage with communities about the service when required.		

## FORT AUGUSTUS (02/01/19)

This area is designated as a potentially vulnerable area due to a risk of river flooding to Fort Augustus. This is managed by the Fort Augustus Flood Protection Scheme. Recent flooding in March 2015 from the River Oich, was in an area not protected by the scheme.

There is 1 target area in this potentially vulnerable area, which has been the focus of further assessment. Further information on the objectives and actions to manage flood risk within this area is provided below.

### **List of target areas**

[Fort Augustus](#) (target area 359)

## Local Flood Risk Management plan datasheet

### Fort Augustus (target area 359)

#### Summary

Fort Augustus is located within the Highland Council area at the south west end of Loch Ness. Fort Augustus is at risk from river and surface water flooding. Areas of Fort Augustus are protected against flooding from the River Oich by the Fort Augustus Flood Protection Scheme. There are approximately 150 people and 120 homes and businesses currently at risk from flooding. This is unlikely to change significantly by the 2080s due to climate change.

#### Location Map



#### What is the Current understanding of Flood risk

This section provides a summary of information, which has helped to develop an understanding of flood risk in the area. Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources. The national level assessment for river flooding is underpinned by the studies used to develop The Riggs, Fort Augustus Flood Protection Scheme (1994). Understanding is also improved for river flooding by the development and operation of the River Oich flood warning scheme. Prior to the development of the flood protection scheme there had been several records of flooding from the River Oich, primarily in the Riggs estate, including notable floods in 1989 and 1990.

Objective	ID	Description
Avoid flood risk	3591	Avoid an increase in flood risk by the appropriate management and maintenance of the Fort Augustus flood protection scheme.
Avoid flood risk	3592	Avoid inappropriate development that increases flood risk in Fort Augustus.
Improve data and understanding	3583	Improve data and understanding of the performance of the Fort Augustus flood protection scheme.
Prepare for flooding	3594	Prepare for current flood risk and future flooding as a result of climate change in Fort Augustus.

Action ID	Fort Augustus 35902		
Action Type	Flood warning maintenance		
Action Delivery Lead	SEPA	Indicative Delivery	Ongoing
Description	SEPA should maintain the River Oich flood warning scheme.		
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.		
Coordination	SEPA will maintain the River Oich flood warning scheme. SEPA will continue to raise awareness of flood warning, and engage with communities about the service when required.		

Action ID	Fort Augustus 35901		
Action Type	Flood defence maintenance		
Action Delivery Lead	THC	Indicative Delivery	Ongoing
Description	The Highland Council should continue to maintain the Fort Augustus Flood Protection Scheme.		
Funding	Funding to maintain all existing Highland Council Flood Protection Schemes is allocated through the Council's annual revenue budget.		
Coordination	The Highland Council will coordinate its actions with landowners and SEPA as required.		

Action ID	Fort Augustus 35903		
Action Type	Flood study (existing flood defences)		
Action Delivery Lead	To be determined	Indicative Delivery	2028 - 2032
Description	The requirement for and priority of actions for Cycle 3 will be reviewed during the preparation of the next set of flood risk management plans. Information on how and when these actions are delivered will be provided in 2028.		

## FORT WILLIAM AND CORPACH (02/01/20)

This area is designated as a potentially vulnerable area due to river, coastal and surface water flood risk to Fort William, Corpach and Caol. River flood risk is largely caused by the River Nevis and the River Lochy. Historically these areas have flooded frequently, with recent flooding being caused by coastal flooding and surface water.

There are 2 target areas in this potentially vulnerable area, which have been the focus of further assessment. Further information on the objectives and actions to manage flood risk within these areas is provided below.

### List of target areas

Corpach and Caol	(target area 330)
Fort William	(target area 332)

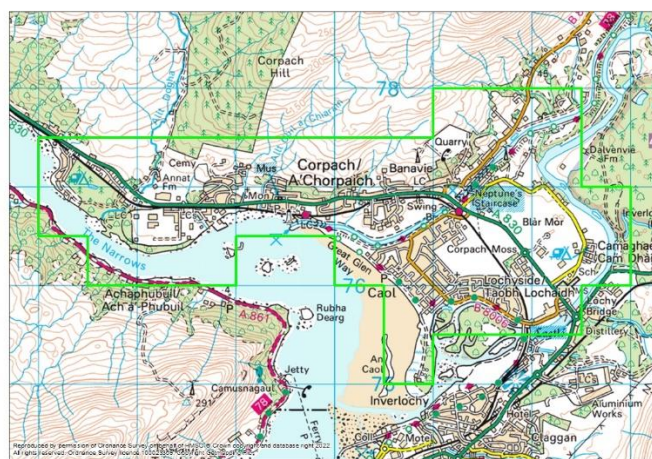
## Local Flood Risk Management plan datasheet

### Corpach and Caol (target area 330)

#### Summary

The villages of Caol and Corpach are near Fort William, on the northern shore of Loch Linnhe, within the Highland Council area. Caol and Corpach are at risk from surface water, coastal and river flooding. There are approximately 750 people at risk from flooding and approximately 440 homes and businesses. This is estimated to increase to 1,400 people and 790 homes and businesses by the 2080s due to climate change. The Caol and Lochside Flood Protection Scheme has started construction.

#### Location Map



#### What is the Current understanding of Flood risk

This section provides a summary of information, which has helped to develop an understanding of flood risk in the area. Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources. The understanding of surface water flood risk is improving due to the ongoing development of a Highland wide surface wide management plan which includes Caol and Corpach as priority areas. A sewer flood risk assessment has also been completed. Understanding of river and coastal flood risk has improved by the studies supporting the development of the Caol and Lochside Flood Protection Scheme. There is a long record of flooding in this target area with notable flooding in January 2005 when a coastal storm surge combined with high flows in the River Lochy.

The Dynamic Coast project has shown that parts of the shoreline in or adjacent to this target area are subject to erosion at present or are considered likely to erode in the future. Consideration should be given to how erosion might impact flood risk. Any actions taken should aim to support building natural resilience to flooding and not lead to an increase in erosion.

Objective	ID	Description
Avoid flood risk	3301	Avoid inappropriate development that increases flood risk in Corpach and Caol.
Prepare for flooding	3302	Prepare for current flood risk and future flooding as a result of climate change in Corpach and Caol.
Reduce flood risk	3303	Reduce the risk of surface water flooding in Corpach and Caol.
Reduce flood risk	3304	Reduce the risk of coastal flooding and flooding from the River Lochy in Caol.

Action ID	Corpach and Caol 33001		
Action Type	Flood scheme or works implementation		
Action Delivery Lead	THC	Indicative Delivery	2023
Description	The Highland Council has undertaken the detailed design and obtained permission and has commenced construction of the Caol and Lochyside Scheme. Completion of the scheme will occur in cycle 2.		
Funding	The Caol and Lochyside is funded by the Highland Council's capital programme and Scottish Government grant funding.		
Coordination	SEPA will work with The Highland Council on the potential to coordinate this action with an update to SFDAD and flood warning actions.		

Action ID	Corpach and Caol 33002		
Action Type	Flood defence maintenance		
Action Delivery Lead	THC	Indicative Delivery	Ongoing
Description	The Highland Council to maintain the Caol and Lochyside Flood Protection Scheme once completed.		
Funding	Funding to maintain all existing Highland Council Flood Protection Schemes is allocated through the Council's annual revenue budget.		
Coordination	The Highland Council will coordinate its actions with landowners and SEPA as required		

Action ID	Corpach and Caol 33003		
Action Type	Flood warning maintenance		
Action Delivery Lead	SEPA	Indicative Delivery	Ongoing
Description	SEPA should maintain the River Lochy and Loch Linnhe coastal flood warning schemes.		
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.		
Coordination	SEPA will work with The Highland Council on the potential to use information on the Caol and Lochyside flood scheme to inform ongoing flood warning. SEPA will continue to raise awareness of flood warning, and engage with communities about the service when required.		

Action ID	Corpach and Caol 33004		
Action Type	Sewer flood risk assessment		
Action Delivery Lead	Scottish Water	Indicative Delivery	2025-2027
Description	Scottish Water will undertake a modelling assessment in the Corpach and Fort William sewer catchments to improve knowledge and understanding of flood risk in this area as required under Section 16 of the Flood Risk Management (Scotland) Act 2009.		
Funding	Funding for this action is secured within Scottish Water's business plan		
Coordination	Outputs of this modelling assessment will be shared with local authorities and SEPA		

Action ID	Corpach and Caol 33005		
Action Type	Surface water management plan		
Action Delivery Lead	THC	Indicative Delivery	2022 - 2028
Description	The Highland Council have started working on developing its SWMP. Hotspots within the Caol and Corpach have been identified and give priorities and objectives, with further work ongoing.		
Funding	Allocated in THC Capital Programme.		
Coordination	The Highland Council will lead the development of the Surface Water Management Plan and will work with other responsible authorities.		



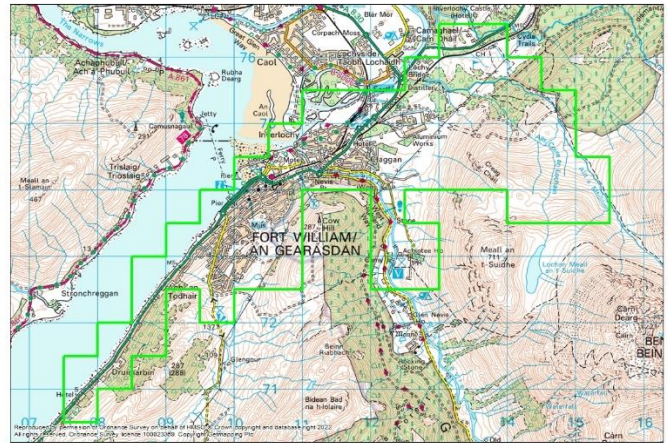
## Local Flood Risk Management plan datasheet

### Fort William (target area 332)

#### Summary

Fort William is a town in the Scottish Highlands, located on the shore of Loch Linnhe within the Highland Council area. Fort William is at risk from surface water, coastal and river flooding. There are approximately 730 people and 500 homes and businesses currently at risk from flooding. This is likely to increase to 1,100 people and 730 homes and businesses by the 2080s due to climate change.

#### Location Map



#### What is the Current understanding of Flood risk

This section provides a summary of information, which has helped to develop an understanding of flood risk in the area. Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources. The understanding of surface water flood risk is improving due to the ongoing development of a Highland wide surface wide management plan which includes Fort William as a priority area. A sewer flood risk assessment has also been completed. The understanding of river and coastal flood warning is improved by the operation and development of the Nevis and Lochy river flood warning schemes and the Loch Linnhe coastal flood warning scheme. There are frequent records of flooding in the Fort William target area including recent coastal flooding in January 2020 during Storm Brendan. The Dynamic Coast project has shown that parts of the shoreline in or adjacent to this target area are subject to erosion at present or are considered likely to erode in the future. Consideration should be given to how erosion might impact flood risk. Any actions taken should aim to support building natural resilience to flooding and not lead to an increase in erosion.

Objective	ID	Description
Avoid flood risk	3321	Avoid inappropriate development that increases flood risk in Fort William.
Improve data and understanding	3322	Improve data and understanding of the risk of coastal flooding from Loch Linnhe and flooding from the River Nevis in Fort William.
Prepare for flooding	3323	Prepare for current flood risk and future flooding as a result of climate change in Fort William.
Reduce flood risk	3324	Reduce the risk of surface water flooding in Fort William.

Action ID	Fort William 33201		
Action Type	Sewer flood risk assessment		
Action Delivery Lead	Scottish Water	Indicative Delivery	2025-2027
Description	Scottish Water will undertake a modelling assessment in the Fort William sewer catchment to improve knowledge and understanding of flood risk in this area as required under Section 16 of the Flood Risk Management (Scotland) Act 2009		
Funding	Funding for this action is secured within Scottish Water's business plan		
Coordination	Outputs of this modelling assessment will be shared with local authorities and SEPA		

Action ID	Fort William 33202		
Action Type	Surface water management plan		
Action Delivery Lead	THC	Indicative Delivery	2022 - 2028
Description	The Highland Council have started working on developing its SWMP. Hotspots within the Fort William have been identified and give priorities and objectives, with further work ongoing.		
Funding	Allocated in THC Capital Programme.		
Coordination	The Highland Council will lead the development of the Surface Water Management Plan and will work with other responsible authorities.		

Action ID	Fort William 33203		
Action Type	Flood warning maintenance		
Action Delivery Lead	SEPA	Indicative Delivery	Ongoing
Description	SEPA should maintain the River Nevis, River Lochy and coastal Loch Linnhe flood warning schemes.		
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.		
Coordination	SEPA will maintain the River Nevis, River Lochy, and coastal Loch Linnhe flood warning schemes. SEPA will continue to raise awareness of flood warning, and engage with communities about the service when required.		

Action ID	Fort William 33204		
Action Type	Flood Study		
Action Delivery Lead	THC	Indicative Delivery	2028 - 2034
Description	The Highland Council to develop a coastal flood model and a flood model of the River Nevis to determine the extent of flood risk to Fort William. Subject to the outcome of the modelling an appraisal of options to mitigate flooding will be carried out, determining a preferred option.		
Funding	Not yet allocated in Capital Programme.		
Coordination	The Highland Council will coordinate the development of the Study with actions of other responsible authorities and engage local community groups.		

## BALLACHULISH AND GLENCOE (02/01/21)

This area is designated as a potentially vulnerable area due to a risk of river, coastal and surface water flooding to Ballachulish and Glencoe. The main sources of flood risk in this area are the River Laroch and Loch Leven. This flood risk may increase significantly due to climate change. Recent flooding occurred in December 2015 as a result of Storm Desmond.

There are 2 target areas in this potentially vulnerable area, which have been the focus of further assessment. Further information on the objectives and actions to manage flood risk within these areas is provided below.

### List of target areas

Glencoe	(target area 348)
Ballachulish	(target area 349)

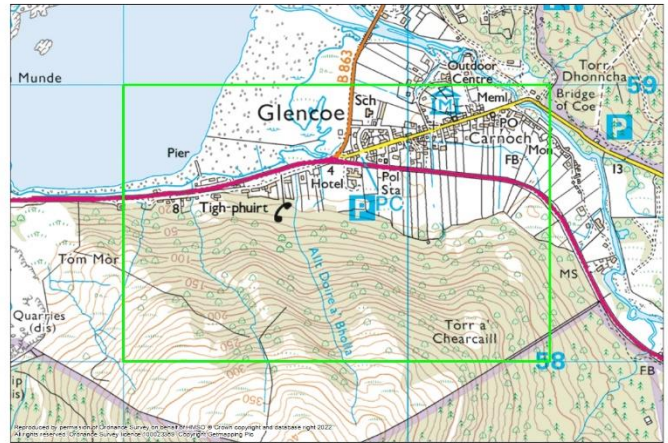
## Local Flood Risk Management plan datasheet

Glencoe (target area 348)

### Summary

The village of Glencoe is located on the coast of Loch Leven within the Highland Council area. Glencoe is at risk from coastal, river and surface water flooding. There are approximately 90 people and 60 homes and businesses currently at risk from flooding. This is estimated to increase to 110 people and 80 homes and businesses by the 2080s due to climate change.

### Location Map



### What is the Current understanding of Flood risk

This section provides a summary of information, which has helped to develop an understanding of flood risk in the area. Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources, and this national assessment has highlighted the risk of flooding in this target area. There are periodic records of flooding in Glencoe in recent years, including flooding during Storm Desmond in December 2015.

Objective	ID	Description
Avoid flood risk	3481	Avoid inappropriate development that increases flood risk in Glencoe.
Improve data and understanding	3482	Improve data and understanding of the risk of flooding from Loch Leven in Glencoe.
Prepare for flooding	3483	Prepare for current flood risk and future flooding as a result of climate change in Glencoe.

Action ID	Glencoe 34801		
Action Type	Flood risk management review		
Action Delivery Lead	SEPA	Indicative Delivery	2022-2028
Description	No local actions specific to this target area have been identified yet. However, there are national actions to be taken forward which will help identify future needs in this area. SEPA are updating surface water mapping to enhance the understanding of current and future surface water flood risks. Scotland's most vulnerable areas will be reviewed to take account of any new information, which will be published in 2024. Long term flood management actions will be reviewed in 2026. SEPA will continue to collect information on any flooding that occurs in the area, to inform the review process.		
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.		
Coordination	SEPA will work with the other responsible authorities to review flood risk management for this area, through the Local Plan District Partnerships. A public consultation on priority areas will be held in 2024 by SEPA, which will be open for three months. A public consultation on future flood management actions will be held in December 2026 and will be open for at least three months.		

Action ID	Glencoe 34802		
Action Type	Flood Study		
Action Delivery Lead	THC	Indicative Delivery	2022 - 2028
Description	The Highland Council to develop a coastal flood model to determine the extent of flood risk to Glencoe from the sea. Subject to the outcome of the modelling an appraisal of options to mitigate flooding will be carried out, determining a preferred option.		
Funding	Not currently allocated in Capital Programme.		
Coordination	The Highland Council will coordinate the development of the Study with actions of other responsible authorities and engage local community groups.		

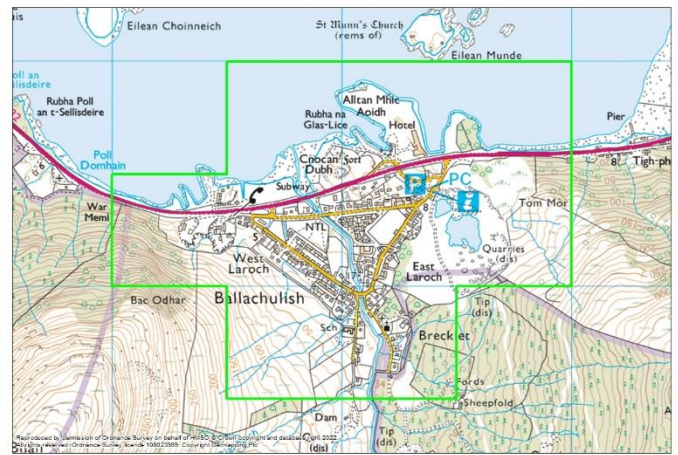
## Local Flood Risk Management plan datasheet

### Ballachulish (target area 349)

#### Summary

The village of Ballachulish is located on the southern shore of Loch Leven within the Highland Council area. Ballachulish is at risk from river and surface water flooding. There are approximately 150 people and 100 homes and businesses at risk from flooding. This is estimated to increase to 220 people and 130 homes and businesses by the 2080s due to climate change.

#### Location Map



#### What is the Current understanding of Flood risk

This section provides a summary of information, which has helped to develop an understanding of flood risk in the area. Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources, and this national assessment has highlighted the risk of flooding in this target area. There are periodic records of flooding in Ballachulish in recent years, including floods in February 1998 as a result of heavy rainfall and blocked culverts and flooding during Storm Desmond in December 2015. The Dynamic Coast project has shown that parts of the shoreline in or adjacent to this target area are subject to erosion at present or are considered likely to erode in the future. Consideration should be given to how erosion might impact flood risk. Any actions taken should aim to support building natural resilience to flooding and not lead to an increase in erosion.

Objective	ID	Description
Avoid flood risk	3491	Avoid inappropriate development that increases flood risk in Ballachulish.
Improve data and understanding	3492	Improve data and understanding of the risk of coastal flooding in Ballachulish.
Prepare for flooding	3493	Prepare for current flood risk and future flooding as a result of climate change in Ballachulish.



Action ID	Ballachulish 34901		
Action Type	Flood risk management review		
Action Delivery Lead	SEPA	Indicative Delivery	2022 - 2028
Description	No local actions specific to this target area have been identified yet. However, there are national actions to be taken forward which will help identify future needs in this area. SEPA are updating surface water mapping to enhance the understanding of current and future surface water flood risks. Scotland's most vulnerable areas will be reviewed to take account of any new information, which will be published in 2024. Long term flood management actions will be reviewed in 2026. SEPA will continue to collect information on any flooding that occurs in the area, to inform the review process.		
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.		
Coordination	SEPA will work with the other responsible authorities to review flood risk management for this area, through the Local Plan District Partnerships. A public consultation on priority areas will be held in 2024 by SEPA, which will be open for three months. A public consultation on future flood management actions will be held in December 2026 and will be open for at least three months		

Action ID	Ballachulish 34902		
Action Type	Flood risk management review		
Action Delivery Lead	THC	Indicative Delivery	2028 - 2032
Description	The Highland Council to develop a flood model of the River Laroch to determine the extent of flood risk to Ballachulish from the river. Subject to the outcome of the modelling an appraisal of options to mitigate flooding will be carried out, determining a preferred option.		
Funding	Not currently allocated in Capital Programme.		
Coordination	The Highland Council will coordinate the development of the Study with actions of other responsible authorities and engage local community groups.		



## OBAN (02/01/22)

Oban is designated as a potentially vulnerable area due to the risk of river, coastal and surface water flooding. Recent flooding has been caused by surface water and river flooding.

There is 1 target area in this potentially vulnerable area, which has been the focus of further assessment. Further information on the objectives and actions to manage flood risk within this area is provided below.

### **List of target areas**

Oban

(target area 366)

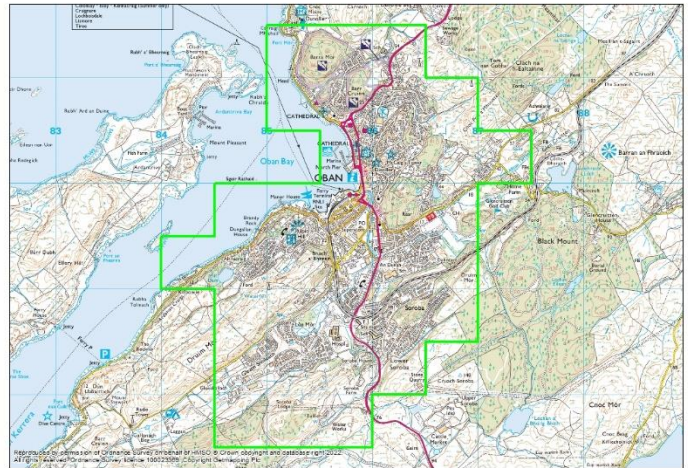
## Local Flood Risk Management plan datasheet

### Oban (target area 366)

#### Summary

Oban is located on the west coast of Scotland and is within the Argyll and Bute Council area. The main source of flooding in Oban is river flooding from the Black Lynn Burn, however there is also a risk of coastal and surface water flooding. There are approximately 1,200 people and 940 homes and businesses currently at risk from flooding. This is likely to increase to 1,500 people and 1,200 homes and businesses by the 2080s due to climate change.

#### Location Map



#### What is the Current understanding of Flood risk

This section provides a summary of information, which has helped to develop an understanding of flood risk in the area. Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources. The national level assessment is improved for coastal, river and surface water by the Oban Flood Study (2019) and a surface water management plan. There is a long history of flooding recorded in the Oban target area including notable coastal flooding in December 2005 and December 2013. A recent record from October 2018 describes flooding after the Black Lynn Burn burst its banks. The Dynamic Coast project has shown that parts of the shoreline in or adjacent to this target area are subject to erosion at present or are considered likely to erode in the future. Consideration should be given to how erosion might impact flood risk. Any actions taken should aim to support building natural resilience to flooding and not lead to an increase in erosion.

Objective	ID	Description
Avoid flood risk	3661	Avoid inappropriate development that increases flood risk in Oban.
Prepare for flooding	3662	Prepare for current flood risk and future flooding as a result of climate change in Oban.
Reduce flood risk	3663	Reduce the risk of surface water flooding in Oban.
Reduce flood risk	3664	Reduce the risk of flooding from Black Lynn Burn in Oban.
Reduce flood risk	3665	Reduce the risk of coastal flooding in Oban.

Action ID	Oban 36601		
Action Type	Flood scheme or works design		
Action Delivery Lead	A&B	Indicative Delivery	To be confirmed - progression dependent upon budget
Description	<p>Develop the detailed design of the Oban Flood Protection Scheme based on the preferred option from the flood study. The preferred option consists of a combined flood storage and direct defence solution to protect against flooding from the Black Lynn and property flood resilience to protect against coastal flooding. Some more work is required on the surface water element.</p> <p>The responsible authority proposes this action as the best viable option for managing flood risk in this community. The delivery of this action is subject to capital funding being made available.</p> <p>In accordance with the flood risk management plan, as part of the scheme or works, the responsible authority should aim to ensure the action will not have an adverse effect on the integrity of the Inner Hebrides and the Minches Special Area of Conservation.</p>		
Funding	Capital/ Revenue plus any available external funding		
Coordination	Scottish Water Community Council, land and property owners, NatureScot		

Action ID	Oban 36602		
Action Type	Flood scheme or works implementation		
Action Delivery Lead	A&B	Indicative Delivery	To be confirmed - progression dependent upon budget
Description	<p>Progress the Oban Flood Protection Scheme based on the detailed design. As built drawings should be made available to SEPA, for consideration in the Scottish Flood Defence Asset Database, flood map updates and flood warning scheme updates.</p> <p>The responsible authority proposes this action as the best viable option for managing flood risk in this community. The delivery of this action is subject to capital funding being made available.</p>		
Funding	Capital/ Revenue plus any available external funding		
Coordination	Community Council, land and property owners		

Action ID	Oban 36603		
Action Type	Community engagement		
Action Delivery Lead	A&B	Indicative Delivery	Ongoing
Description	The responsible authorities to continue to engage with the community, with particular focus on the detailed design of the flood protection scheme.		
Funding	Revenue		
Coordination	Community Council, land and property owners		

Action ID	Oban 36604		
Action Type	Surface water management plan		
Action Delivery Lead	A&B	Indicative Delivery	To be confirmed - progression dependent upon budget
Description	Implement the surface water management plan. The plan should be reviewed and updated regularly.		
Funding	Dependant on funding being made available		
Coordination	Scottish Water / Landowners.		

Action ID	Oban 36605		
Action Type	Flood warning maintenance		
Action Delivery Lead	SEPA	Indicative Delivery	Ongoing
Description	SEPA should maintain the Loch Linnhe coastal flood warning scheme.		
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.		
Coordination	SEPA will work with the local authorities on the potential to use information from the flood study and scheme designs to inform ongoing flood warning. SEPA will continue to raise awareness of flood warning, and engage with communities about the service when required.		

## INVERARAY (02/01/23)

Inveraray is designated as a potentially vulnerable area due to the risk of coastal flooding. Coastal flood risk is likely to increase due to sea level rise caused by climate change.

There is 1 target area in this potentially vulnerable area, which has been the focus of further assessment. Further information on the objectives and actions to manage flood risk within this area is provided below.

### List of target areas

[Inveraray](#)

[\(target area 364\)](#)

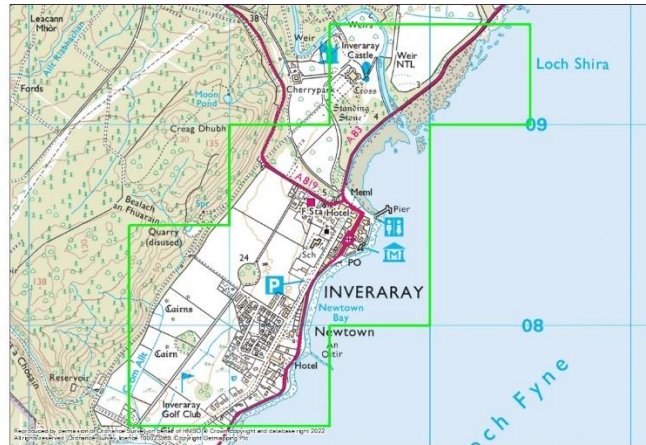
## Local Flood Risk Management plan datasheet

### Inveraray (target area 364)

#### Summary

The town of Inveraray is located on the western shore of Loch Fyne. It is in the Argyll and Bute Council area. The main source of flooding in Inveraray is coastal flooding. There are approximately 130 people and 110 homes and businesses at risk from flooding. This is estimated to increase to 140 people and 120 homes and businesses by the 2080s due to climate change.

#### Location Map



#### What is the Current understanding of Flood risk

This section provides a summary of information, which has helped to develop an understanding of flood risk in the area. Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources. The national level assessment is improved for coastal flooding by the revised modelling for the flood maps in Inveraray. There are limited records of flooding in the Inveraray target area. The records include recent coastal flooding during Storm Brendan in January 2020.

Objective	ID	Description
Avoid flood risk	3641	Avoid inappropriate development that increases flood risk in Inveraray.
Improve data and understanding	3642	Improve data and understanding of the risk of coastal flooding from Loch Fyne in Inveraray.
Prepare for flooding	3643	Prepare for current flood risk and future flooding as a result of climate change in Inveraray.

Action ID	Inveraray	36401
Action Type	Flood risk management review	
Action Delivery Lead	A&B	Indicative Delivery
Description	No local actions specific to this target area have been identified yet. However, there are national actions to be taken forward which will help identify future needs in this area. SEPA are updating surface water mapping to enhance the understanding of current and future surface water flood risks. Scotland's most vulnerable areas will be reviewed to take account of any new information, which will be published in 2024. Long term flood management actions will be reviewed in 2026. SEPA will continue to collect information on any flooding that occurs in the area, to inform the review process.	
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.	
Coordination	SEPA will work with the other responsible authorities to review flood risk management for this area, through the Local Plan District Partnerships. A public consultation on priority areas will be held in 2024 by SEPA, which will be open for three months. A public consultation on future flood management actions will be held in December 2026 and will be open for at least three months.	

Action ID	Inveraray	36402
Action Type	Shoreline management plan (coastal adaptive plan)	
Action Delivery Lead	A&B	Indicative Delivery 2028 - 2034
Description	An assessment of coastal flood and erosion risk is to be carried out. The plan should include assessment of climate change and develop adaptive approaches to allow for the impacts of climate change to be monitored, understood and managed.	
Funding	Dependant on funding being made available	
Coordination	Community Council/Land and Property Owners and SEPA	

## LOCHGILPHEAD (02/01/24)

Lochgilphead is designated as a potentially vulnerable area due to the risk of surface water, coastal (Loch Fyne) and river (Badden Burn and Crinan Canal) flooding. The road network has suffered from flooding in the past. Argyll and Bute Council is progressing a flood study to inform options to address flooding in Lochgilphead from the Badden Burn.

There is 1 target area in this potentially vulnerable area, which has been the focus of further assessment. Further information on the objectives and actions to manage flood risk within this area is provided below.

### List of target areas

Lochgilphead

(target area 365)



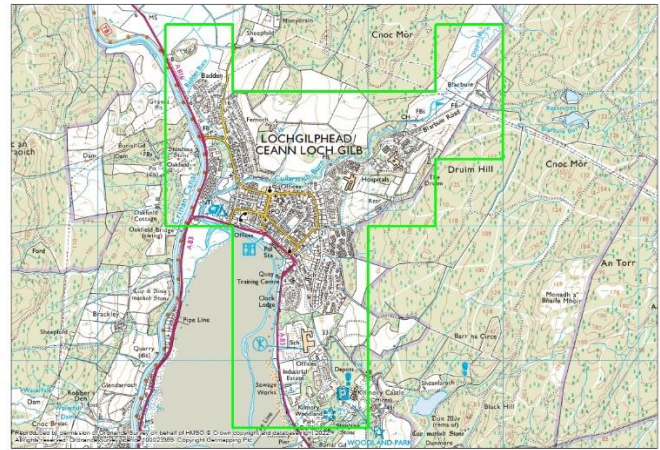
## Local Flood Risk Management plan datasheet

### Lochgilphead (target area 365)

#### Summary

Lochgilphead is to the north of Loch Gilp in the Argyll and Bute Council area. The main source of flooding in Lochgilphead is from surface water, however there is also a risk of river and coastal flooding. There are approximately 240 people and 220 homes and businesses currently at risk from flooding. This is likely to increase to 400 people and 330 homes and businesses by the 2080s due to climate change.

#### Location Map



#### What is the Current understanding of Flood risk

This section provides a summary of information, which has helped to develop an understanding of flood risk in the area. Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources. The national level assessment is improved for coastal and river flood risk by the Lochgilphead Flood Study (2019). The understanding of surface water flood risk is improving through the sewer flood risk assessment. The Front Green is known to frequently be affected by coastal flooding and there are records of periodic flooding in Lochgilphead from the Badden Burn including flooding in November 2012, November 2015 and July 2018. Records indicate the A816 is frequently flooded by floodwater from the Crinan Canal.

Objective	ID	Description
Avoid flood risk	3651	Avoid inappropriate development that increases flood risk in Lochgilphead.
Prepare for flooding	3652	Prepare for current flood risk and future flooding as a result of climate change in Lochgilphead.
Reduce flood risk	6353	Reduce the risk of flooding from the Badden Burn and Crinan Canal in Lochgilphead.
Reduce flood risk	3654	Reduce the risk of coastal flooding from Loch Fyne in Lochgilphead.

Action ID	Lochgilphead 36501		
Action Type	Property flood resilience scheme		
Action Delivery Lead	A&B	Indicative Delivery	To be confirmed - progression dependent upon budget
Description	The Lochgilphead Flood Study (2019) identified property flood resilience as the preferred option for managing the risk of flooding. (There were no economically viable options for river flooding). Argyll and Bute Council presented implementation of a property flood protection scheme on a grant basis with homeowner maintenance. Argyll and Bute Council to progress this in combination with community engagement and promotion of self help. The responsible authority proposes this action as the best viable option for managing flood risk in this community. The delivery of this action is subject to capital funding being made available.		
Funding	Capital plus any available external funding		
Coordination	Property Owners / Community Council		

Action ID	Lochgilphead 36502		
Action Type	Flood warning maintenance		
Action Delivery Lead	SEPA	Indicative Delivery	Ongoing
Description	SEPA should maintain the Firth of Clyde coastal flood warning scheme.		
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.		
Coordination	SEPA will work with the local authorities on the potential to use information from the flood schemes and studies along the Firth of Clyde to inform ongoing flood warning. SEPA will continue to raise awareness of flood warning and engage with communities about the service when required.		

Action ID	Lochgilphead 36503		
Action Type	Shoreline management plan (coastal adaptive plan)		
Action Delivery Lead	A&B	Indicative Delivery	2028 - 2034
Description	An assessment of coastal flood and erosion risk is to be carried out. The plan should include assessment of climate change and develop adaptive approaches to allow for the impacts of climate change to be monitored, understood and managed.		
Funding	Dependant on funding being made available		
Coordination	Community Council/Land and Property Owners and SEPA		

Action ID	Lochgilphead 36504		
Action Type	Flood study		
Action Delivery Lead	A&B	Indicative Delivery	2028 - 2034
Description	<p>An understanding of flood risk and associated issues in the area is to be developed, which may include surveys and modelling and should consider the impacts of climate change on flood risk. In areas where flood risk is confirmed, a range of possible options to manage flood risk are to be identified, including natural flood management actions where suitable, and a preferred approach is to be chosen. This should include adaptive planning to allow for the impacts of climate change to be monitored, understood and managed.</p> <p>SMP to be reviewed along with other updated information in 2026 to determine if Flood Study required.</p>		
Funding	Dependant on funding being made available		
Coordination	Community Council/Land and Property Owners and SEPA		

## TARBERT (02/01/25)

Tarbert is designated as a potentially vulnerable area due to the risk of coastal flooding from Loch Fyne. Coastal flood risk is likely to increase due to sea level rise caused by climate change. Recent flooding has been caused by coastal flooding.

There is 1 target area in this potentially vulnerable area, which has been the focus of further assessment. Further information on the objectives and actions to manage flood risk within this area is provided below.

### **List of target areas**

[Tarbert](#) (target area 361)

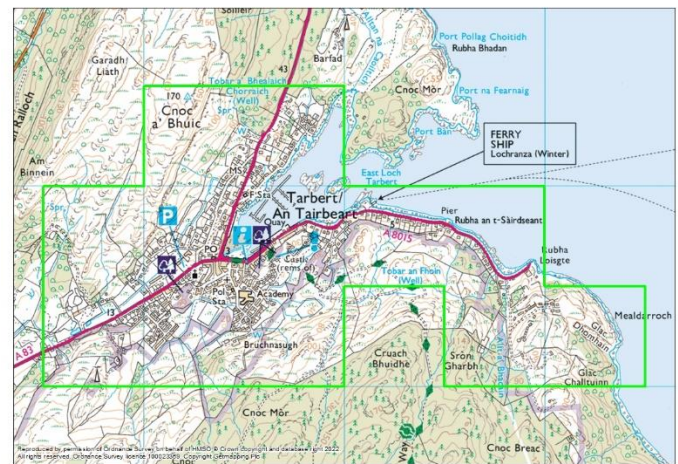
## Local Flood Risk Management plan datasheet

### Tarbert (target area 361)

#### Summary

Tarbert is located in the west of Scotland within the Argyll and Bute Council area. The main source of flooding in Tarbert is coastal flooding, however there is also a risk of surface water flooding. There are approximately 30 people and 50 homes and businesses at risk from flooding. This is estimated to increase to 70 people and 80 homes and businesses by the 2080s due to climate change.

#### Location Map



#### What is the Current understanding of Flood risk

This section provides a summary of information, which has helped to develop an understanding of flood risk in the area. Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources. The national level assessment is improved for coastal flooding by the Tarbert Flood Study (2019). The understanding of surface water flood risk is improved through a sewer flood risk assessment. There are records of periodic coastal flooding in Tarbert including a recent flood in December 2015 during Storm Desmond. The Dynamic Coast project has shown that parts of the shoreline in or adjacent to this target area are subject to erosion at present or are considered likely to erode in the future. Consideration should be given to how erosion might impact flood risk. Any actions taken should aim to support building natural resilience to flooding and not lead to an increase in erosion.

Objective	ID	Description
Avoid flood risk	3611	Avoid inappropriate development that increases flood risk in Tarbert.
Improve data and understanding	3612	Improve data and understanding of the risk of surface water flooding in Tarbert.
Prepare for flooding	3613	Prepare for current flood risk and future flooding as a result of climate change in Tarbert.
Reduce flood risk	3614	Reduce the risk of coastal flooding from Loch Fyne in Tarbert.

Action ID	Tarbert 36101		
Action Type	Flood scheme or works design		
Action Delivery Lead	A&B	Indicative Delivery	To be confirmed - progression dependent upon budget
Description	<p>Further development of the preferred option may be required prior to commencing with the detailed design. Develop the detailed design of the Tarbert Flood Protection Scheme based on the preferred option from the flood study. The preferred option consists of flood defence walls and demountable defences. Property flood resilience is to be provided outwith the scheme extent.</p> <p>The responsible authority proposes this action as the best viable option for managing flood risk in this community. The delivery of this action is subject to capital funding being made available.</p>		
Funding	Capital/Revenue plus any available external funding		
Coordination	Tarbert Harbour Authority, Community Council, land and property owners		

Action ID	Tarbert 36102		
Action Type	Flood scheme or works implementation		
Action Delivery Lead	A&B	Indicative Delivery	To be confirmed - progression dependent upon budget
Description	<p>Progress the Tarbert Flood Protection Scheme based on the detailed design. As built drawings should be made available to SEPA, for consideration in the Scottish Flood Defence Asset Database, flood map updates and flood warning scheme updates.</p> <p>The responsible authority proposes this action as the best viable option for managing flood risk in this community. The delivery of this action is subject to capital funding being made available.</p>		
Funding	Capital/Revenue plus any available external funding		
Coordination	Tarbert Harbour Authority, Community Council, land and property owners		

Action ID	Tarbert 36103		
Action Type	Community engagement		
Action Delivery Lead	A&B	Indicative Delivery	Ongoing
Description	The responsible authorities to continue to engage with the community, with particular focus on the detailed design of the flood protection scheme.		
Funding	Capital/Revenue plus any available external funding		
Coordination	Tarbert Harbour Authority, Community Council, land and property owners		

Action ID	Tarbert 36104		
Action Type	Sewer flood risk assessment		
Action Delivery Lead	Scottish Water	Indicative Delivery	2023-2025
Description	Scottish Water will undertake a modelling assessment in the Tarbert sewer catchment to improve knowledge and understanding of flood risk in this area as required under Section 16 of the Flood Risk Management (Scotland) Act 2009.		
Funding	Funding for this action is secured within Scottish Water's business plan.		
Coordination	Outputs of this modelling assessment will be shared with local authorities and SEPA.		

Action ID	Tarbert 36105		
Action Type	Surface water management plan		
Action Delivery Lead	A&B	Indicative Delivery	To be confirmed - progression dependent upon budget
Description	Develop and implement a surface water management plan. This should be reviewed and updated regularly. The impacts of climate change on flood risk should be assessed. The results of the sewer flood risk assessment should be considered. Opportunities to disconnect surface water from the sewerage system should be identified. The plan should be reviewed and updated regularly.		
Funding	Capital plus any available external funding.		
Coordination	Scottish Water		

Action ID	Tarbert 36106		
Action Type	Flood warning maintenance		
Action Delivery Lead	SEPA	Indicative Delivery	Ongoing
Description	SEPA should maintain the Firth of Clyde coastal flood warning scheme.		
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.		
Coordination	SEPA will work with the local authorities on the potential to use information from the flood schemes and studies along the Firth of Clyde to inform ongoing flood warning. SEPA will continue to raise awareness of flood warning, and engage with communities about the service when required.		



## CLACHAN (02/01/26)

Clachan is designated as a potentially vulnerable area due to the risk of river flooding.

Recent flooding occurred as a result of river flooding.

There is 1 target area in this potentially vulnerable area, which has been the focus of further assessment. Further information on the objectives and actions to manage flood risk within this area is provided below.

### **List of target areas**

Clachan (target area 353)

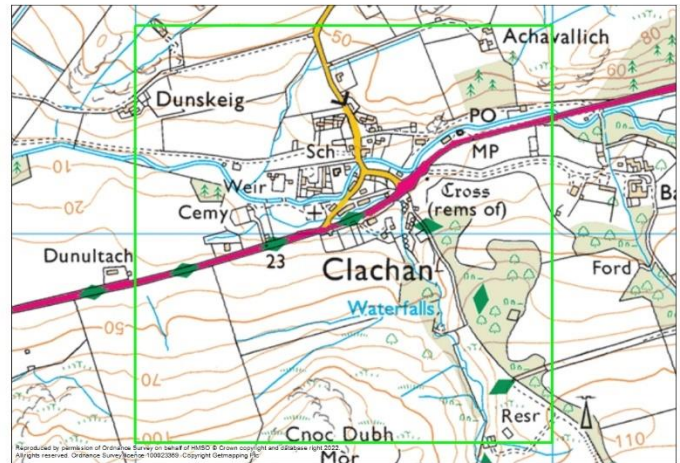
## Local Flood Risk Management plan datasheet

### Clachan (target area 353)

#### Summary

Clachan is located within the Argyll and Bute Council area. The main source of flooding in Clachan is the Clachan Burn, however there is also a risk of surface water flooding. There are approximately 50 people and 30 homes and businesses currently at risk from flooding, which is a significant proportion of the community. This is likely to increase to 60 people and 40 homes and businesses by the 2080s due to climate change.

#### Location Map



#### What is the Current understanding of Flood risk

This section provides a summary of information, which has helped to develop an understanding of flood risk in the area. Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources, and this national assessment and recent flood records have highlighted the risk of flooding from the Clachan Burn and surface water in this target area. Clachan has therefore been identified as a new target area for the 2021 flood risk management plans. The national level assessment is improved for surface water flood risk and flood risk from the Clachan Burn by the Clachan Flood Study (2019). There are frequent records of flooding from the Clachan Burn and surface water in recent years.

Objective	ID	Description
Avoid flood risk	3531	Avoid inappropriate development that increases flood risk in Clachan.
Prepare for flooding	3532	Prepare for current flood risk and future flooding as a result of climate change in Clachan.
Reduce flood risk	3533	Reduce the risk of flooding from the Clachan Burn, Allt Mor and surface water in Clachan.

Action ID	Clachan 35302		
Action Type	Flood scheme or works implementation		
Action Delivery Lead	A&B	Indicative Delivery	To be confirmed - progression dependent upon budget
Description	<p>Develop the detailed design of the flood protection works in Clachan based on the preferred option from the flood study. The preferred option includes removal of a weir structure from the Clachan Burn and property flood resilience.</p> <p>The responsible authority proposes this action as the best viable option for managing flood risk in this community. The delivery of this action is subject to capital funding being made available.</p>		
Funding	Capital plus any available external funding		
Coordination	Community Council, land and property owners		

Action ID	Clachan 35301		
Action Type	Flood scheme or works design		
Action Delivery Lead	A&B	Indicative Delivery	To be confirmed - progression dependent upon budget
Description	Progress the Campbeltown Flood Protection Scheme. As built drawings should be made available to SEPA, for consideration in the Scottish Flood Defence Asset Database, flood map improvements and flood warning scheme updates.		
Funding	Capital plus any available external funding.		
Coordination	Land and property owners.		

Action ID	Clachan 35304		
Action Type	Community resilience group		
Action Delivery Lead	Community resilience group	Indicative Delivery	Ongoing
Description	A community flood group and flood response plans have been established in partnership with the Scottish Flood Forum.		
Funding	Revenue		
Coordination	Community resilience group / Community Council, land and property owners		

Action ID	Clachan 35303		
Action Type	Community engagement		
Action Delivery Lead	A&B	Indicative Delivery	Ongoing
Description	Argyll and Bute Council completed three community consultation events during the flood study and during the appraisal of options. The responsible authorities to continue to engage with the community and the community flood group, with particular focus on the detailed design of the flood protection works.		
Funding	Revenue		
Coordination	Community resilience group/ Community Council, land and property owners		

Action ID	Clachan 35305		
Action Type	Community flood alert		
Action Delivery Lead	A&B	Indicative Delivery	Ongoing
Description	A river level alerting system is being installed with the help of the Scottish Flood Forum.		
Funding	Revenue		
Coordination	Community resilience group / Community Council, land and property owners		

## CAMPBELTOWN (02/01/27)

Campbeltown is designated as a potentially vulnerable area as it is at risk from surface water, small water courses in combination with sewerage and coastal flooding.

Campbeltown has flooded in the past from a combination of high sea levels and high water levels on small watercourses.

There is 1 target area in this potentially vulnerable area, which has been the focus of further assessment. Further information on the objectives and actions to manage flood risk within this area is provided below.

### **List of target areas**

[Campbeltown](#) (target area 346)

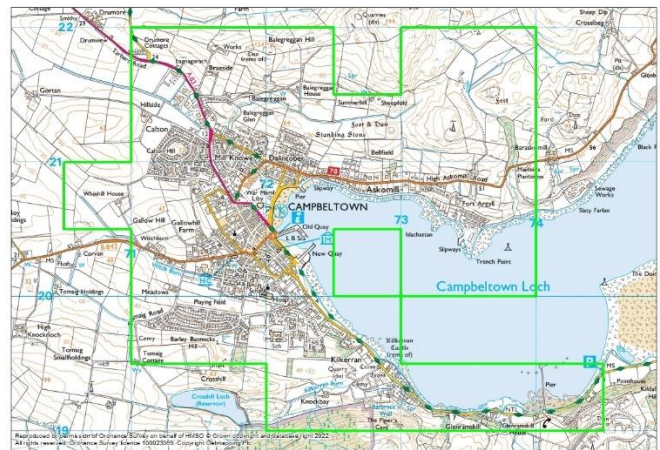
## Local Flood Risk Management plan datasheet

### Campbeltown (target area 346)

#### Summary

The town of Campbeltown is located at the head of Campbeltown Loch on the Kintyre peninsula in the Argyll and Bute Council area. The main source of flooding is from rivers, however there is also a risk from coastal and surface water flooding. There are approximately 840 people and 650 homes and businesses currently at risk from flooding. This is likely to increase to 970 people and 760 homes and businesses by the 2080s due to climate change.

#### Location Map



#### What is the Current understanding of Flood risk

This section provides a summary of information, which has helped to develop an understanding of flood risk in the area. Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources. The national level assessment is improved for river and surface water flooding by the various studies supporting the development of the Campbeltown Flood Protection Scheme. There are records of frequent flooding in Campbeltown from a combination of river, sewer and surface water sources, with notable flooding recorded in November 2014. The Dynamic Coast project has shown that parts of the shoreline in or adjacent to this target area are subject to erosion at present or are considered likely to erode in the future. Consideration should be given to how erosion might impact flood risk. Any actions taken should aim to support building natural resilience to flooding and not lead to an increase in erosion.

Objective	ID	Description
Avoid flood risk	3461	Avoid inappropriate development that increases flood risk in Campbeltown.
Improve data and understanding	3462	Improve data and understanding of the risk of coastal flooding in Campbeltown.
Prepare for flooding	3463	Prepare for current flood risk and future flooding as a result of climate change in Campbeltown.
Reduce flood risk	3464	Reduce the risk of flooding from surface water and small watercourses in Campbeltown.

Action ID	Campbeltown 34601		
Action Type	Sewer flood risk assessment		
Action Delivery Lead	Scottish Water	Indicative Delivery	2024-2026
Description	Scottish Water will undertake a modelling assessment in the Campbeltown sewer catchment to improve knowledge and understanding of flood risk in this area as required under Section 16 of the Flood Risk Management (Scotland) Act 2009		
Funding	Funding for this action is secured within Scottish Water's business plan		
Coordination	Outputs of this modelling assessment will be shared with local authorities and SEPA		

Action ID	Campbeltown 34602		
Action Type	Surface water management plan		
Action Delivery Lead	A&B	Indicative Delivery	Ongoing
Description	Implement the Campbeltown Surface Water Management Plan which will help to manage residual surface water and sewer flood risk. In the Meadows and Burnside Square areas road gullies will be disconnected from the combined sewer network with drainage held in above ground and below ground storage basins, for a controlled release back into the combined system. Additional properties are targeted for property level flood resilience.		
Funding	Capital plus any available external funding		
Coordination	Scottish Water		

Action ID	Campbeltown 34603		
Action Type	Shoreline management plan (coastal adaptive plan)		
Action Delivery Lead	A&B	Indicative Delivery	Ongoing
Description	Progress the shoreline management plan. This should consider the impacts of sea level rise on future flood risk. The need for an adaptation plan should be assessed.		
Funding	Capital plus any available external funding		
Coordination	Land and property owners		

Action ID	Campbeltown 34604		
Action Type	Flood scheme or works implementation		
Action Delivery Lead	A&B	Indicative Delivery	Ongoing
Description	Progress the Campbeltown Flood Protection Scheme. As built drawings should be made available to SEPA, for consideration in the Scottish Flood Defence Asset Database, flood map improvements and flood warning scheme updates.		
Funding	Capital plus any available external funding		
Coordination	Land and property owners		

Action ID	Campbeltown 34605		
Action Type	Flood warning maintenance		
Action Delivery Lead	SEPA	Indicative Delivery	Ongoing
Description	SEPA should maintain the Firth of Clyde coastal flood warning scheme.		
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.		
Coordination	SEPA will work with the local authorities on the potential to use information from the flood schemes and studies along the Firth of Clyde to inform ongoing flood warning. SEPA will continue to raise awareness of flood warning and engage with communities about the service when required.		



## TAYNUILT (02/01/28)

This area is designated as a potentially vulnerable area due to the risk of river flooding from the River Nant and coastal flooding from Loch Etive to Taynuilt and Brochroy. It is expected that this flood risk will significantly increase as the result of climate change.


There is 1 target area in this potentially vulnerable area, which has been the focus of further assessment. Further information on the objectives and actions to manage flood risk within this area is provided below.

### **List of target areas**

Taynuilt and Brochroy (target area 347)

## Local Flood Risk Management plan datasheet

### Taynuilt and Brochroy (target area 347)

Summary	Location Map
<p>Taynuilt and Brochroy are located the shores of Loch Etive, within the Argyll and Bute Council area. The main source of flooding in Taynuilt and Brochroy is coastal flooding, however there is also risk from river flooding. There are approximately 150 people and 90 homes and businesses currently at risk from flooding. This is likely to increase to 180 people and 110 homes and businesses by the 2080s due to climate change.</p>	

### What is the Current understanding of Flood risk

This section provides a summary of information, which has helped to develop an understanding of flood risk in the area. Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources. The national level assessment is improved for river flooding through the revised modelling for the flood maps for the River Nant. There are limited records of flooding in the Taynuilt and Brochroy target area. The Dynamic Coast project has shown that parts of the shoreline in or adjacent to this target area are subject to erosion at present or are considered likely to erode in the future. Consideration should be given to how erosion might impact flood risk. Any actions taken should aim to support building natural resilience to flooding and not lead to an increase in erosion.

Objective	ID	Description
Avoid flood risk	3471	Avoid inappropriate development that increases flood risk in Taynuilt and Brochroy.
Improve data and understanding	3472	Improve data and understanding of the risk of coastal flooding and the impacts of climate change in Taynuilt and Brochroy.
Improve data and understanding	3473	Improve data and understanding of the risk of flooding from the River Nant in Taynuilt and Brochroy.
Prepare for flooding	3474	Prepare for current flood risk and future flooding as a result of climate change in Taynuilt and Brochroy.

Action ID	Taynuilt and Brochroy 34701		
Action Type	Flood risk management review		
Action Delivery Lead	SEPA	Indicative Delivery	2022-2028
Description	No local actions specific to this target area have been identified yet. However, there are national actions to be taken forward which will help identify future needs in this area. SEPA are updating surface water mapping to enhance the understanding of current and future surface water flood risks. Scotland's most vulnerable areas will be reviewed to take account of any new information, which will be published in 2024. Long term flood management actions will be reviewed in 2026. SEPA will continue to collect information on any flooding that occurs in the area, to inform the review process.		
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.		
Coordination	SEPA will work with the other responsible authorities to review flood risk management for this area, through the Local Plan District Partnerships. A public consultation on priority areas will be held in 2024 by SEPA, which will be open for three months. A public consultation on future flood management actions will be held in December 2026 and will be open for at least three months.		

Action ID	Taynuilt and Brochroy 34702		
Action Type	Shoreline management plan (coastal adaptive plan)		
Action Delivery Lead	A&B	Indicative Delivery	2028 - 2034
Description	An assessment of coastal flood and erosion risk is to be carried out. The plan should include assessment of climate change and develop adaptive approaches to allow for the impacts of climate change to be monitored, understood and managed.		
Funding	Dependant on funding being made available		
Coordination	Community Council/Land and Property Owners and SEPA		

Action ID	Taynuilt and Brochroy 34703		
Action Type	Flood study		
Action Delivery Lead	A&B	Indicative Delivery	2028 -2034
Description	<p>An understanding of flood risk and associated issues in the area is to be developed, which may include surveys and modelling and should consider the impacts of climate change on flood risk. In areas where flood risk is confirmed, a range of possible options to manage flood risk are to be identified, including natural flood management actions where suitable, and a preferred approach is to be chosen. This should include adaptive planning to allow for the impacts of climate change to be monitored, understood and managed.</p> <p>Shoreline management plan will be reviewed along with other updated information in 2026 to determine if Flood Study required.</p>		
Funding	Dependant on funding being made available.		
Coordination	Community Council/Land and Property Owners and SEPA		

## AVOCH (02/01/29)

Avoch is designated as a potentially vulnerable area due to a risk of coastal flooding.

Coastal flood risk to Avoch is anticipated to increase significantly due to climate change.

Recent floods were caused by coastal flooding.

There is 1 target area in this potentially vulnerable area, which has been the focus of further assessment. Further information on the objectives and actions to manage flood risk within this area is provided below.

### **List of target areas**

[Avoch](#) (target area 358)

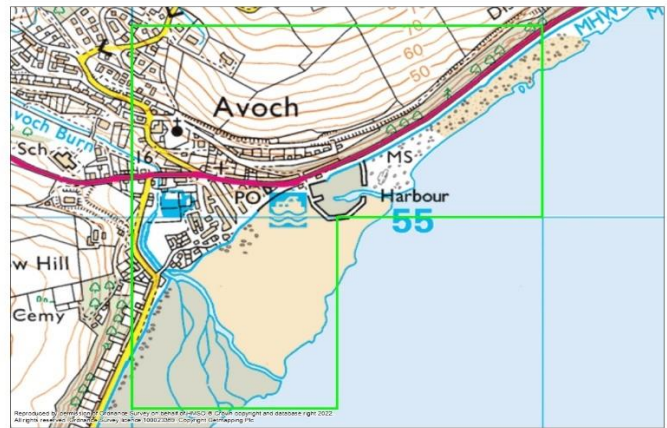
## Local Flood Risk Management plan datasheet

Avoch (target area 358)

### Summary

Avoch is located on the northern coastline of the Moray Firth in the Highland Council area. The main source of flooding is coastal flooding. There are approximately 110 people and 70 homes and businesses at risk from flooding. This is estimated to increase to 200 people and 110 homes and businesses by the 2080s due to climate change.

### Location Map



### What is the Current understanding of Flood risk

This section provides a summary of information, which has helped to develop an understanding of flood risk in the area. Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources, and this information has highlighted the risk of coastal flooding, (principally associated with climate change) in this target area. Avoch has therefore been identified as a new target area for the 2021 flood risk management plans. The national level assessment is improved for coastal flood risk by the development and operation of the Moray Firth flood warning scheme. There are limited records of flooding in the Avoch target area. The Dynamic Coast project has shown that parts of the shoreline in or adjacent to this target area are subject to erosion at present or are considered likely to erode in the future. Consideration should be given to how erosion might impact flood risk. Any actions taken should aim to support building natural resilience to flooding and not lead to an increase in erosion.

Objective	ID	Description
Avoid flood risk	3581	Avoid inappropriate development that increases flood risk in Avoch.
Improve data and understanding	3582	Improve data and understanding of the risk of coastal flooding including the impacts of climate change in Avoch.
Prepare for flooding	3583	Prepare for current flood risk and future flooding as a result of climate change in Avoch.

Action ID	Avoch 35801		
Action Type	Strategic mapping improvements		
Action Delivery Lead	SEPA	Indicative Delivery	2023-2024
Description	SEPA has undertaken improved coastal modelling in this target area including taking account of the impact of waves on coastal flooding. We will complete and publish the outcomes of this modelling work to inform decision making with respect to flooding at the coast.		
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.		
Coordination	SEPA will work with The Highland Council on the potential to coordinate the flood map update with any other actions being carried out to understand or reduce coastal flooding.		

Action ID	Avoch 35802		
Action Type	Flood study		
Action Delivery Lead	THC	Indicative Delivery	2026-2028
Description	The Highland Council to develop a coastal flood model to determine the extent of flood risk to Avoch from the sea. Subject to the outcome of the modelling an appraisal of options to mitigate flooding will be carried out, determining a preferred option. This work will be carried out after SEPA have published the latest revision of their strategic coastal flood mapping.		
Funding	Not currently allocated in THC Capital Programme		
Coordination	SEPA will work with The Highland Council on the potential to coordinate this action with work on coastal flood mapping and flood warning actions.  The Highland Council will coordinate the development of the Study with actions of other responsible authorities and engage local community groups		

Action ID	Avoch 35803		
Action Type	Flood warning maintenance		
Action Delivery Lead	SEPA	Indicative Delivery	Ongoing
Description	SEPA should maintain the Moray Firth coastal flood warning scheme.		
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.		
Coordination	SEPA will work with The Highland Council on the potential to use information from any flood studies around the Moray Firth coast to inform ongoing flood warning. SEPA will continue to raise awareness of flood warning, and engage with communities about the service when required.		

## BEAULY (02/01/30)

Beaully is designated as a potentially vulnerable area due to the risk of flooding from the River Beaully. Recent flooding was caused by surface water and river flooding.

There is 1 target area in this potentially vulnerable area, which has been the focus of further assessment. Further information on the objectives and actions to manage flood risk within this area is provided below.

### List of target areas

[Beaully](#) (target area 357)



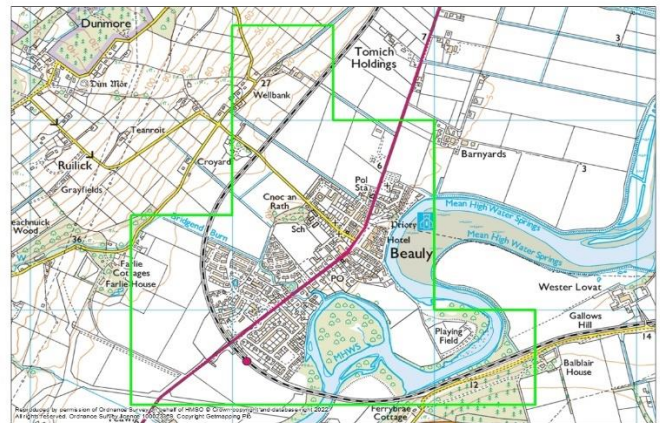
## Local Flood Risk Management plan datasheet

### Beauly (target area 357)

#### Summary

Beauly is located west of Inverness on the River Beauly within the Highland Council area. Beauly is at risk from surface water, river and coastal flooding. However there is also risk of river and coastal flooding. There are approximately 170 people and 90 homes and businesses currently at risk from flooding. This is likely to increase to 250 people and 130 homes and businesses by the 2080s due to climate change.

#### Location Map



#### What is the Current understanding of Flood risk

This section provides a summary of information, which has helped to develop an understanding of flood risk in the area. Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources, and this information has highlighted the risk of flooding, (principally associated with the risk of flooding from the River Beauly) in the area. Beauly has therefore been identified as a new target area for the 2021 flood risk management plans. The national level assessment is improved for surface water by a sewer flood risk assessment. Understanding for river and coastal flood risk is improved by the development and operation of the river and coastal flood warning schemes. There is a long history of flooding in the Beauly target area including in March 2015 after melting snow and heavy rainfall led to the River Beauly to overtop its banks.

Objective	ID	Description
Avoid flood risk	3571	Avoid inappropriate development that increases flood risk in Beauly.
Prepare for flooding	3572	Prepare for current flood risk and future flooding as a result of climate change in Beauly.

Action ID	Beaully 35701		
Action Type	Flood warning maintenance		
Action Delivery Lead	SEPA	Indicative Delivery	Ongoing
Description	SEPA should maintain the Rivers Beaully and Glass flood warning scheme.		
Funding	SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement.		
Coordination	SEPA will maintain the Rivers Beaully and Glass flood warning schemes. SEPA will continue to raise awareness of flood warning, and engage with communities about the service when required.		

# ANNEX 1: LPD ROLES AND RESPONSIBILITIES

## Roles and responsibilities for flood risk management planning

Individuals are the first line of defence against flooding. However, public and private bodies have responsibilities too and are working together to reduce the impacts of flooding in Scotland. SEPA, local authorities and Scottish Water are predominantly responsible for flood risk management planning. 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. SEPA has a statutory duty to produce Scotland's Flood Risk Management Plans. SEPA works 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.

Floodline provides 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 SEPA forecast for flooding they 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 our resources and help to promote preparedness and understanding of how flood risk is managed.

## Local Authorities

Local Authorities have worked together and with SEPA and other responsible authorities for flood risk management planning purposes through a single lead authority which has the responsibility to produce a Local Flood Risk Management Plan. It is the responsibility of each local authority to implement its flood protection Actions agreed within the Flood Risk Management Plan and in turn set out in this plan, including Flood Protection Schemes or Works, operations and maintenance and the clearance and repair of water bodies. You can help your local authority to manage flooding by letting them know if debris is blocking watercourses or if flood defences are tampered with.

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

The lead authority for the Highland and Argyll Local Plan District is The Highland Council. The other responsible local authority in this district is Argyll and Bute Council.

## Scottish Water

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.

## National parks

The two National Park Authorities, Loch Lomond and Trossachs National Park and Cairngorms National Park, were designated as responsible authorities for flood risk management purposes in 2012. Both have worked with SEPA, local authorities and Scottish Water to help develop Flood Risk Management Strategies and Local Flood Risk Management Plans. They also fulfil an important role in land use planning, carrying out or granting permission for activities that can play a key role in managing and reducing flood risk.

Both National Park Authorities are responsible authorities for this Local Plan District.

## 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 the Flood Risk Management Strategy for this local plan district.
- **Nature Scot** has provided general and local advice in the development of the Flood Risk Management Plans. Flooding is seen as natural process that can maintain the features of interest at many designated sites, so Nature Scot helps

to ensure that any changes to patterns of flooding do not adversely affect the environment. Nature Scot also provides advice on the impact of Flood Protection Schemes and other land use development on designated sites and species.

- **Scottish Forestry** and **Forestry and Land Scotland** took over the roles of Forestry Commission Scotland in 2018 when the Forestry and Land Management (Scotland) Act 2018. While these executive agencies of Scottish Government are not formally designated as a responsible authority under the Flood Risk Management (Scotland) Act 2009, they support Scottish Government in delivering its flood risk related duties. This includes engaging in the development of the flood risk management plans through national and local advisory groups, Local Plan District partnerships, and collaborative projects. This reflects the widely held view that forestry can play a significant role in managing flooding.
- During the preparation of the first flood risk management plans **Network Rail** and **Transport Scotland** have agreed works to address flooding at a number of frequently flooded sites. Further engagement is planned with SEPA and local authorities to identify areas of future work. There is the opportunity for further works to be undertaken during the first flood risk management planning cycle although locations for these works are yet to be confirmed.
- **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.
- The **Scottish Flood Forum** is a Scottish charitable organisation that provides support for those who are affected by, or are at risk of, flooding. It provides flood advice, information, awareness, education and training to individuals and communities to help reduce the risk of flooding; in partnership with the local authority, provides support during the recovery process following a flood incident and aims to support the development of resilient communities.

## ANNEX 2: LINKS TO OTHER PLANS, POLICIES AND LEGISLATIVE REQUIREMENTS

### S18 Schedule of Clearance and Repair

The following are links for each local authority to access schedules of clearance and repair under Section 18 of the Flood Risk Management (Scotland) Act 2009:

Local Authority	Method of public access to the S18 Schedule	Hyperlink or web access
The Highland Council	Website	<a href="http://www.highland.gov.uk/info/1210/environment/81/flooding/5">http://www.highland.gov.uk/info/1210/environment/81/flooding/5</a>
Argyll and Bute Council	Website	ABC is in the process of establishing a digital asset management system to record inspections, map bodies of water and publish a schedule of clearance and repair. At present the council responds to requests on an individual basis. A request for details of clearance and repair at a specific location can be made online at <a href="mailto:floodingenquiries@argyll-bute.gov.uk">floodingenquiries@argyll-bute.gov.uk</a>

## ANNEX 3: GLOSSARY

Term	Definition
<b>Actions</b>	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.
<b>Annual Average Damages (AAD)</b>	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 Plan 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 (2016).
<b>Appraisal</b>	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.
<b>Appraisal baseline</b>	Defines the existing level of flood risk under the current flood risk management regime.
<b>Awareness raising</b>	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.
<b>Benefit Cost Ratio (BCR)</b>	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

Term	Definition
	(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.
<b>Catchment</b>	All the land drained by a river and its tributaries.
<b>Category 1 and 2 Responders (Cat 1/2)</b>	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.
<b>Characterisation</b>	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.
<b>Coastal flooding</b>	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.
<b>Community flood action groups</b>	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.
<b>Culvert</b>	A pipe, channel or tunnel used for the conveyance of a watercourse or surface drainage water under a road, railway,



Term	Definition
	canal or other obstacle.
<b>Damages</b>	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'
<b>Economic impact</b>	An assessment of the economic value of the positive and negative effects of flooding and / or the Actions taken to manage floods.
<b>Embankment</b>	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.
<b>Emergency plans / response</b>	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.
<b>Environmental impact</b>	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.
<b>Erosion</b>	A natural process leading to the removal of sediment from a river bed, bank or floodplain or coastline.
<b>Flood</b>	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

Term	Definition
	significant adverse impacts on people, property and the environment. drainage.
<b>Flood defence</b>	Infrastructure, such as flood walls, embankments or flood storage intended to protect an area against flooding to a specified standard of protection.
<b>Flood extent</b>	The area that has been affected by flooding, or is at risk of flooding from one or more sources for a particular likelihood.
<b>Flood forecasting</b>	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.
<b>Flood frequency</b>	The probability that a particular size/severity of flood will occur in a given year (see likelihood).
<b>Flood hazard</b>	In terms of the FRM Act, hazard refers to the characteristics (extent, depth, velocity) of a flood.
<b>Flood hazard map</b>	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.
<b>Flood Prevention Scheme / Flood Protection Scheme (FPS)</b>	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.
<b>Flood Protection Study</b>	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.
<b>Flood protection Works</b>	Flood Protection Works can include the same flood defence measures that would make up a formal Flood Protection Scheme but without the legal process and requirements that would come by delivering the works as a scheme.
<b>Flood risk</b>	A measure of the combination of the likelihood of flooding occurring and the associated impacts on people, the economy and the environment.
<b>Flood Risk</b>	Flood Risk Assessments are detailed studies of an area where

<b>Term</b>	<b>Definition</b>
<b>Assessment (FRA)</b>	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.
<b>Flood Risk Management (Scotland) Act 2009 (FRM Act)</b>	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.
<b>Flood risk management cycle</b>	Under the FRM Act flood risk management planning is undertaken in six year cycles. The second planning cycle is 2022 – 2032. The first delivery cycle is lagged by approximately 6 months and is from 2016 - 2022.
<b>Flood Prevention (Scotland) Act 1961</b>	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.
<b>Flood Risk Management Local Advisory Groups</b>	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.
<b>Flood Risk Management Plans (SEPA Plans, formerly FRM Strategies)</b>	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.
<b>Flood risk map</b>	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.
<b>Flood wall</b>	A flood defence feature used to defend an area from flood water to a specified standard of protection.
<b>Flood Warning Area (FWA)</b>	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.
<b>Flood warning scheme</b>	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.
<b>Floodplain</b>	Area of land that borders a watercourse, an estuary or the sea, over which water flows in time of flood, or would naturally flow

Term	Definition
	but for the presence of flood defences and other structures where they exist.
<b>Integrated Catchment Study (ICS)</b>	In urban areas, the causes of flooding are complex because of the interactions between rivers, surface water drainage and combined sewer systems and tidal waters. Scottish Water works with SEPA and local authorities to assess these interactions through detailed studies.
<b>Land Use Planning (LUP)</b>	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.
<b>Lead Local Authority (LLA)</b>	A local authority responsible for leading the production, consultation, publication and review of a Local Flood Risk Management Plan.
<b>Likelihood of flooding</b>	<p>The chance of flooding occurring.</p> <p><b>High likelihood:</b> 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.</p> <p><b>Medium likelihood:</b> 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.</p> <p><b>Low likelihood:</b> 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.</p>
<b>Local Flood Risk Management Plans (Local Plans)</b>	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.
<b>Local Plan District (LPD)</b>	Geographical areas for the purposes of flood risk management planning. There are 14 Local Plan Districts in Scotland.
<b>Local Plan District partnerships</b>	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.

Term	Definition
<b>Maintenance</b>	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.
<b>National Flood Management Advisory Group (NFMAG)</b>	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.
<b>National Flood Risk Assessment (NFRA)</b>	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 third cycle of FRM Planning by December 2026.
<b>Natural Flood Management (NFM)</b>	A set of flood management techniques that aim to work with natural processes (or nature) to manage flood risk.
<b>Non-residential properties</b>	Properties that are not used for people to live in, such as shops or other public, commercial or industrial buildings.
<b>Objectives</b>	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.
<b>Planning policies</b>	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.
<b>Potentially Vulnerable Areas (PVA)</b>	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.
<b>Q&amp;S</b>	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.

Term	Definition
<b>Receptor</b>	Refers to the entity that may be impacted by flooding (a person, property, infrastructure or habitat). The vulnerability of a receptor can be reduced by increasing its resilience to flooding.
<b>Residual risk</b>	The risk that remains after risk management and mitigation. This may include risk due to very severe (above design standard) storms or risks from unforeseen hazards.
<b>Resilience</b>	The ability of an individual, community or system to recover from flooding.
<b>Responsible authority</b>	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.
<b>Return period</b>	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)
<b>River Basin Management Planning (RBMP)</b>	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.
<b>Sediment management</b>	Sediment management covers a wide range of activities that includes anything from the small scale removal of dry gravels to the dredging of whole river channels and the reintroduction of removed sediment into the water environment. Historically, sediment management has been carried out for several reasons, including reducing flood risk, reducing bank erosion, for use as aggregate and to improve land drainage.
<b>Sewer flooding (and other artificial drainage system flooding)</b>	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.
<b>Source of flooding</b>	The type of flooding. This can be coastal, river, surface water or groundwater.
<b>Standard of protection</b>	All flood protection structures are designed to be effective up to a specified flood likelihood (Standard of Protection). For events

Term	Definition
	beyond this standard, flooding will occur. The chosen Standard of Protection will determine the required defence height and / or capacity.
<b>Strategic Environmental Assessment (SEA)</b>	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.
<b>Strategic mapping and modelling</b>	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.
<b>Surface water flooding</b>	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
<b>Surface Water Management Plan (SWMP)</b>	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.
<b>Surface water plan/ study</b>	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, Integrated Catchment Studies 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.
<b>Sustainable flood risk management</b>	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.
<b>Utility assets</b>	Within the FRM Strategies this refers to electricity sub stations, mineral and fuel extraction sites, telephone assets, television and radio assets.
<b>Vulnerability</b>	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

Term	Definition
	(resilience).
<b>Wave overtopping</b>	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.



## ANNEX 4: SEA DETERMINATION

The following determination was made in November 2021 and published online and in local press.

### **THE HIGHLAND COUNCIL**

#### **FLOOD RISK MANAGEMENT (SCOTLAND) ACT (2009)**

#### **ENVIRONMENTAL ASSESSMENT (SCOTLAND) ACT 2005**

The Highland Council, as Lead Local Authority of the Highland & Argyll Local Plan District, has determined in accordance with Section 8 (1) of the above Act that a Strategic Environmental Assessment *is not* required for the following document.

- **The Highland & Argyll Local Flood Risk Management Plan**

This notice is hereby known as the 'The Determination'.

Copies of The Determination, Screening Report and Statement of Reasons can be obtained at no cost and during normal office from the address at the bottom of this advert or online.

The Highland Council

Flood Risk Management Team

Development & Infrastructure Service

Council Buildings

High Street

Dingwall

IV15 9QN

[frm@highland.gov.uk](mailto:frm@highland.gov.uk)

## ANNEX 5: CONSULTATION RESPONSES

Two public consultations have been held during the development of the flood risk management plans. The first by SEPA was on the national flood risk assessment and the identification of PVAs (2018); the second, held jointly with local authorities, was on the understanding of flooding in these priority areas and on the objectives and actions to manage flooding (2021). The second, most recent consultation ran from December 2020 to October 2021 in two parts. From December 2020, information on the Local Plan Districts, the PVAs and the communities identified as target areas was made available. Further information on the objectives and actions planned for each target area was added in July 2021. SEPA published a public consultation digest.

Reviewing the consultation responses there were five themes that relate to the management of flooding that fall under the remit of local authorities. These are;

- Land Use Planning
- Watercourse Inspection and Maintenance
- Gully and Road Drainage Maintenance
- Outcome of Flood Studies
- Community Engagement

For each of these themes both local authorities have provided a summary on how each of these themes are managed.

### **Land Use Planning**

The Highland Council, as a planning authority, considers flood risk and drainage impact to be a material consideration for any new planning application.

National Planning Policy supports a sustainable approach to flood risk management. As such areas with a medium to high likelihood of flooding should be avoided.

When Local Development Plans are being developed, potential sites for housing or other developments are screened against flood risk. If there is a flood risk to a site being proposed for the Local Development Plan this will either be removed from consideration or included but specified that a Flood Risk Assessment is required for the site.

When a new planning application is submitted to The Highland Council it must satisfy local adopted supplementary guidance on Flood Risk and Drainage Impact Assessment. By following this guidance, The Highland Council, when assessing new applications, looks to,

- Address flood risk issues as early as possible and prior to any development commencement.
- Achieve good quality and reliable flood risk assessments of proposed development sites.

- Ensure that robust drainage design criteria are applied which also addresses design exceedance measures.
- Ensure that Sustainable Drainage Systems (SuDS) schemes are designed and constructed to meet best practice and that long term maintenance is provided for by a responsible and competent body.
- Provision of adequate access to bodies of water for maintenance and inspection purposes.
- Reserving development-free riparian buffer zones to allow watercourses room to move naturally.
- Exploring de-culverting opportunities where possible.
- To reduce flood risk to existing development, if possible, without increasing risk elsewhere.
- Betterment of existing drainage maintenance regimes where possible and particularly where an existing drainage problem exists.
- Working with the water environment and not against it.

Argyll and Bute Council, as a planning authority, considers flood risk and drainage impact to be a material consideration for any new planning application.

National Planning Policy supports a sustainable approach to flood risk management. As such areas with a medium to high likelihood of flooding should be avoided.

Compilation of the Local Development for potential development sites includes screening for flood risk.

If there is a flood risk to a site proposed in the Local Development Plan, this will either be removed from consideration, or included but specified that a Flood Risk Assessment is required for the site.

When a new planning application is submitted to Argyll and Bute Council it must satisfy local adopted supplementary guidance on Flood Risk and Drainage Impact. By following this guidance, Argyll and Bute Council, when assessing new applications, looks to;

- Address flood risk issues as early as possible and prior to any development commencement.
- Achieve good quality and reliable flood risk assessments of proposed development sites.
- Ensure that robust drainage design criteria are applied which also addresses design exceedance measures.
- Ensure that Sustainable Drainage Systems (SuDS) schemes are designed and constructed to meet best practice and that long term maintenance is provided for by a responsible and competent body.
- Provision of adequate access to bodies of water for maintenance and inspection purposes.
- Reserving development-free riparian buffer zones to allow watercourses room to move naturally.

- Exploring de-culverting opportunities where possible.
- To reduce flood risk to existing development, if possible, without increasing risk elsewhere.
- Betterment of existing drainage maintenance regimes where possible and particularly where an existing drainage problem exists.
- Working with the water environment and not against it.

Supporting documents including flood risk and drainage assessments for planning applications are available to view on the ABC website. Comments can also be made on active applications.

[Find and comment on planning applications \(argyll-bute.gov.uk\)](http://argyll-bute.gov.uk)

### **Watercourse Maintenance and Inspection**

The Highland Council employs a watercourse inspector who assess the risk of flooding from watercourses and sets the frequency of repeat inspections. These range from monthly to annually.

If we identify works of clearance or repair which we cannot action immediately, we add this item of work to our Scheduled Watercourse Maintenance Works Pending list. Items are added to this list if they are considered necessary to substantially reduce the risk of flooding and will only consist of:

- Removing obstructions from watercourses
- Removing items that are at significant risk of becoming those obstructions
- Repairing artificial structures which form part of the bed or banks of a watercourse

Once an item is added to our pending list, a date for re-inspection is identified. We will continue to monitor the risk until the works are complete.

Every two months, we publish Scheduled Watercourse Maintenance Works Pending list and Scheduled Watercourse Maintenance Works Completed list.

<https://www.highland.gov.uk/info/1226/emergencies/81/flooding/5>

It is not possible or necessary for The Highland Council to inspect all watercourses and structures within its boundary. Watercourses therefore undergo a preliminary desktop assessment to identify those that require inspection.

Argyll & Bute Council inspect watercourses and inlet grids from time to time.

If we identify works of clearance or repair which we cannot action immediately, we add this item of work to our Watercourse Maintenance Works Pending list. Items are added to this list if they are considered necessary to substantially reduce the risk of flooding and will only consist of:

- Removing obstructions from watercourses

- Removing items that are at significant risk of becoming those obstructions
- Repairing artificial structures which form part of the bed or banks of a watercourse

Once an item is added to our pending list, we will continue to monitor the risk until the works are complete. Argyll & Bute Council is in the process of establishing a digital asset management system to record inspections, map bodies of water and publish a schedule of clearance and repair.

It is not possible or necessary for Argyll and Bute Council to inspect all watercourses and structures within its boundary. Watercourses therefore undergo a preliminary desktop assessment to identify those that require inspection.

Members of the public can report concerns regarding bodies of water they feel might be at risk by contacting

[floodingenquiries@argyll-bute.gov.uk](mailto:floodingenquiries@argyll-bute.gov.uk)

### **Gully and Road Drainage Maintenance**

The Highland Council are responsible for the maintenance of road gullies and surface water pipes on all locally adopted roads. Where the Council has public housing schemes which are not part of the adopted road network, they still have responsibility for their maintenance, but this would fall under the Housing directorate, rather than the Roads Authority. An ongoing maintenance programme for cleaning gullies and jetting pipe systems is undertaken on the adopted road network. In addition to this programme, we also attend to reports of blocked gullies or flood events on the adopted road network where a gully emptier or road sweeper may be used to clean up.

When receiving reports of blocked gullies and drains on the road network, we assess the situation and then what action to take. Priority is given to clearing blockages that directly affect property or present a danger to road users. Where there is an issue with utility infrastructure, we promptly pass the collated information to the utility company concerned.

Argyll and Bute Council carries out its duties and responsibilities as Roads Authority under the Roads (Scotland Act) 1984

As Roads Authority we are responsible for the maintenance of road gullies, surface water pipes and ditches on all publicly adopted non –trunk roads.

An ongoing maintenance programme for cleaning gullies and jetting pipe systems is undertaken on the adopted road network. In addition to this programme, we also attend to reports of blocked gullies, clearing of floods and debris on the network.

Reports of blockages, flooding and debris on the public non –trunk roads network can be reported via the Argyll and Bute Website

[Road And Lighting Defects Form \(custhelp.com\)](http://custhelp.com)

or by calling 01546 605514

Post event non road floods can be reported via

[floodingenquiries@argyll-bute.gov.uk](mailto:floodingenquiries@argyll-bute.gov.uk)

In Argyll and Bute, Trunk Roads are managed by Bear Scotland. Problems on Trunk Roads can be reported by telephoning **0800 028 1414** [or on their website..](#)

Where there is an issue with utility infrastructure, we promptly pass the collated information to the utility company concerned.

### **Outcome of Flood Studies**

The Highland Council undertook in Cycle One of the Local Flood Risk Management Plans, four Flood Protection Studies. These were for the River Peffery, Mill Burn in Inverness, River Thurso, and Golspie Coast. All these studies identified a preferred option to alleviate flood risk to the various communities. All preferred options identified in the various flood studies have gone through a robust option appraisal. As described in Second Cycle Local Flood Risk Management Plan these studies need to be developed further and further consultation with the public to be had, along with a formal consultation on any final proposed solutions.

Argyll and Bute Council undertook, in Cycle One of the Highland and Argyll Local Flood Risk Management Plan, flood studies for

- Coastal, fluvial and surface water flooding in Oban
- Fluvial and coastal flood risk in Lochgiphead
- Coastal flood risk in Tarbert
- Fluvial flood risk in Clachan

All these studies identified a preferred option to alleviate flood risk to the various communities with all preferred options having gone through a robust options appraisal. The studies were submitted to SEPA as part of the national prioritisation process for flood protection schemes

For further information on the Flood Studies please contact:

[floodingenquiries@argyll-bute.gov.uk](mailto:floodingenquiries@argyll-bute.gov.uk)

As described in the Second Cycle of the Highland and Argyll Local Flood Risk Management Plan (to be published late 2022) these studies need to be developed further. This will involve further public consultation, along with a formal consultation on any final proposed solutions.

## **Community Engagement**

The Highland Council will continue to raise awareness to ensure communities are better prepared to deal with flooding.

Where The Highland Council are proposing doing a Flood Protection Study or a Flood Protection Scheme we will engage with the local community on the process and potential outcomes of the study or scheme. A formal consultation is required for any proposed Flood Protection Scheme.

We also worked with SEPA on the consultation for the second National Flood Risk Assessment and the joint consultation on the second cycle Flood Risk Management Plans and Local Flood Risk Management Plans.

Argyll and Bute Council will continue to raise awareness to ensure communities are better prepared to deal with flooding.

Information regarding flooding is available on the Council's website A-Z

[Flood advice \(argyll-bute.gov.uk\)](http://argyll-bute.gov.uk)

Where Argyll and Bute Council propose to carry out a Flood Study or a Flood Protection Scheme we will engage with the local community on the process and potential outcomes of the study or scheme.

A formal consultation is required for any proposed Flood Protection Scheme.

We also worked with SEPA on the consultation for the second National Flood Risk Assessment and the joint consultation on the second cycle Flood Risk Management Plans and Local Flood Risk Management Plans.

## ANNEX 6: ACKNOWLEDGEMENTS

The Highland Council gratefully acknowledges the cooperation and input that various parties have provided, including *inter alia*, the following organisations:

### **SEPA**

Local authorities acknowledge the inclusion of text generated by SEPA in preparation of the Highland & Argyll Flood Risk Management Plan. Figures and Maps produced by SEPA for the Highland & Argyll Flood Risk Management Plan have been reproduced in the Highland & Argyll Local Flood Risk Management Plan with authorisation from SEPA under SEPA Licence number 100016991 (2020).

### **Ordnance Survey**

These reproduced maps are based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown Copyright. Any unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. SEPA Licence number 100016991 (2020). The Highland Council Licence number 100023369 (2022).

### **The Centre for Ecology and Hydrology**

Some features of these reproduced maps are based upon digital spatial data licensed from the Centre for Ecology and Hydrology © NERC (CEH) and third party licensors.

### **Scottish Water**

Provision of sewer flooding data generated by Scottish Water in preparation of Surface Water flood risk information.

The Met Office, James Hutton Institute and British Geological Survey contributed to the 2018 NFRA published by SEPA, more information on which can be found at <https://www.sepa.org.uk/data-visualisation/nfra2018/>