Scottish Environment Protection Agency
Buidheann Dìon Àrainneachd na h-Alba

Highland and Argyll Local Plan District (LPD 1)

Draft flood risk management plans 2022-2028

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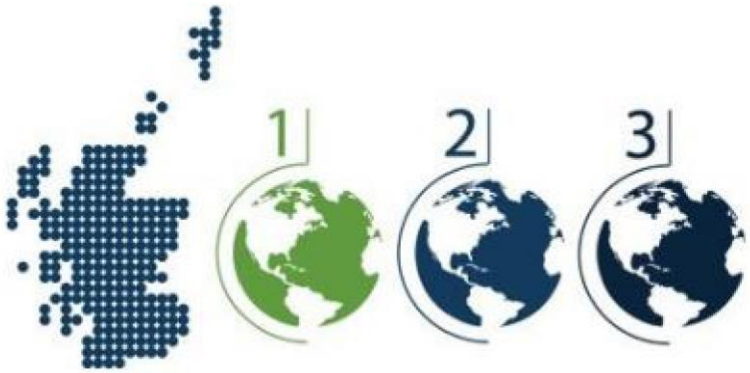
We call this One Planet Prosperity



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Highland and Argyll Local Plan District (LPD 1)

Draft flood risk management plans 2022-2028

The Highland and Argyll Local Plan District covers an area of around 29,000km^2 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 north-east 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 north-east including the River Ness, the River Thurso, the River Beauly 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, Beauly, 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. 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 isol ated 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.

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 six years, and most of these are carried out on an ongoing basis.

Specific local actions to manage flood risk in target areas are detailed in the Potentially Vulnerable Areas (PVA) sections below.

	Awareness raising
Action	SEPA the responsible authorities and other organisations such as the Scottish Flood Forum work together to help communities understand the risk of flooding and what actions individuals can take through national and local initiatives. Improved awareness of flood risk and actions that prepare individuals, homes and businesses for flooding can reduce the overall impact of flooding. Local authorities undertake additional awareness raising activities when developing any specific project proposals and will engage with community resilience groups and local communities. 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.

	Emergency response and plans
Action	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.

	Flood forecasting
Action	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.

	Flood Warning Development Framework
Action	SEPA will publish a new Flood Warning Development Framework by March 2022, which will detail its ambitions and strategic actions to maintain and improve our flood warning service across Scotland. 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. 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.

	Guidance
Action	The Scottish Government and SEPA will develop and update guidance to inform flood risk management projects. This guidance will be produced by June 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. Technical modelling guidance from SEPA will also be reviewed and revised where required.

	Hazard mapping updates
Action	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. Link. 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.

	Land use planning
Action	National planning policies set out the Scottish Ministers' priorities for the operation of the planning system and 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, the Scottish Planning Policy and accompanying Planning Advice notes restrict development within the floodplain and limit exposure of new receptors to flood risk. Local planning policies may place further requirements within their area of operation to restrict inappropriate development and prevent unacceptable risk. Local authorities, SEPA and Scottish Water all have a role to support sustainable development. Further information on each organisations responsibilities is detailed in Annex 1.

	Maintenance
Action	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. Scottish Water will continue to undertake risk-based inspection, maintenance and repair on the public sewer network. Asset owners and riparian landowners are responsible for the maintenance and management of their own assets including those which help to reduce flood risk.

	National Flood risk assessment
Action	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 2024. This assessment will be used to identify future Potentially Vulnerable Areas.

	National surface water mapping
Action	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 six-year cycle SEPA will look to vastly improve its national understanding of surface flood risk by undertaking a wholescale update of the national surface water maps to reflect developments in data and understanding, including the impact of climate change.

	Reservoirs
Action	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.

	Scottish Flood Defence Asset Database
Action	We are in a global climate emergency. The evidence is clear. In Scotland one of the main impacts of climate change will be increased flooding. SEPA will push forward the development of adaptation planning within Scotland. This work will start by reviewing and developing our understand of how and when Scotland's flood defence assets can be adapted to continue to provide vital protection from flooding in the future.

	Self help
Action	Everyone is responsible for protecting themselves and their property from flooding. Property and business owners can take simple steps to reduce damage and disruption to their homes and businesses should flooding happen. This includes preparing a flood plan and flood kit, installing property flood resilience measures, signing up to Floodline, engaging with their local flood group, and ensuring that properties and businesses are insured against flood damage. 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.

Potentially Vulnerable Areas

Potentially Vulnerable Areas (PVA) 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 (link). As part of continued analysis of flood risk, the National Flood Risk Assessment and Potentially Vulnerable Areas (PVA) will be reviewed every six years to take on board any new information. There are 30 Potentially Vulnerable Areas (PVA) in this Local Plan District. Following sections provide more information on these areas.

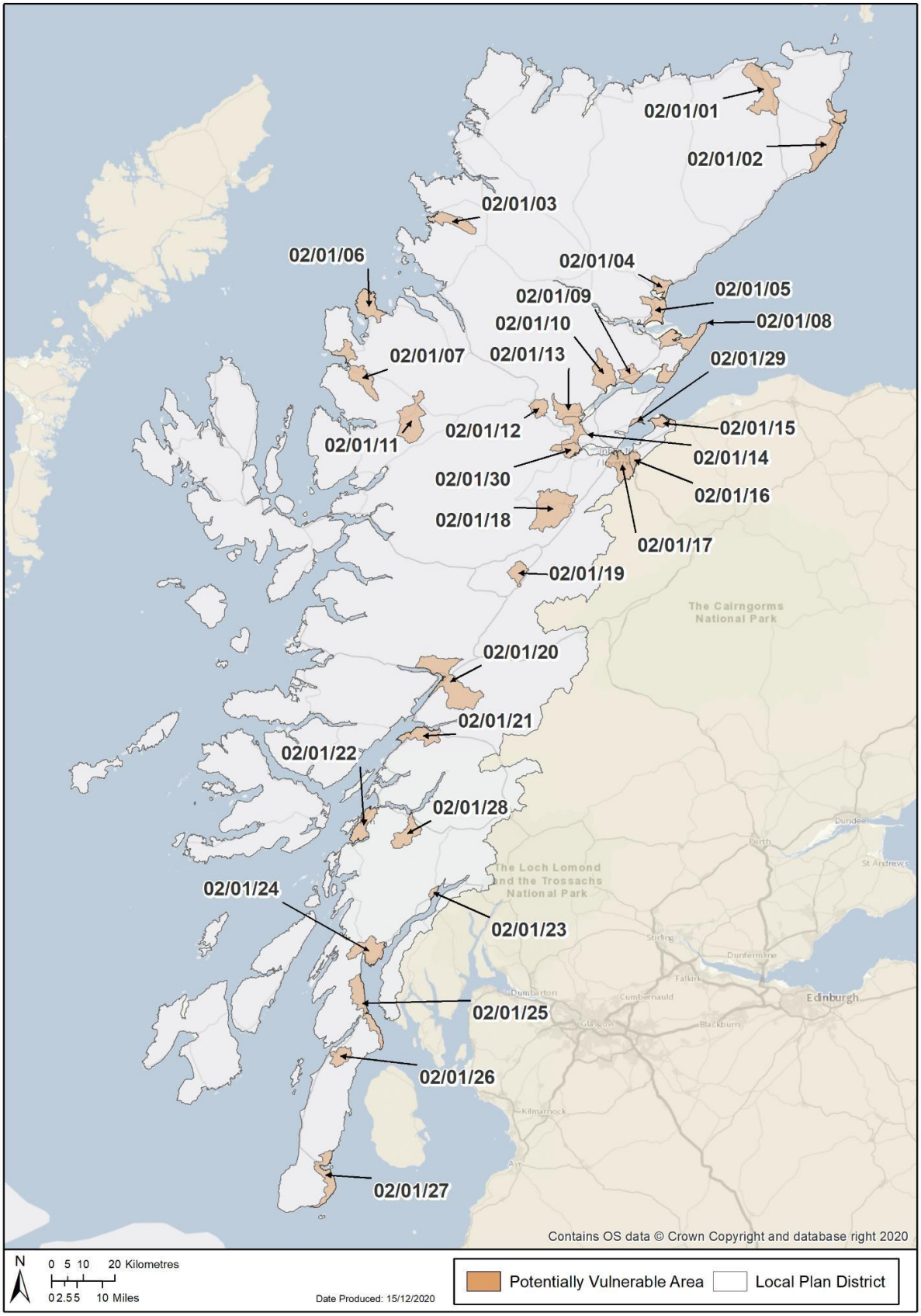


Figure 1. Potentially Vulnerable Areas in Highland and Argyll Local Plan District

LPD 1 Highland and Argyll - table of contents

Click the blue text to select your area of interest

02/01/16	Smithton and Culloden	Highland
02/01/17	Inverness	Highland
02/01/18	Drumnadrochit	Highland
PVA Ref	**PVA NAME**	**Local Authority**
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	Beauly	Highland

02/01/01 (Thurso and Halkirk)

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 areas in this Potentially Vulnerable Areas, which have been the focus of further assessment, these are listed below. Further information on the proposed 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)

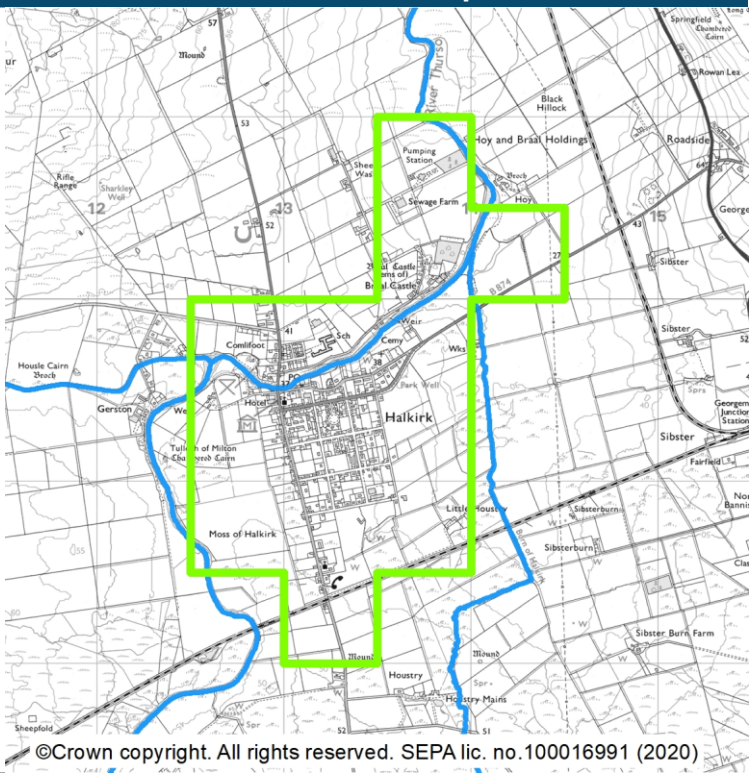
Flood risk management plan datasheet

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.

What are the objectives for the area?

In each target area, SEPA and the responsible authorities have set objectives for the management of flood risk. In some locations, the objectives provide a short-term direction that will be reviewed and updated when more information is available. In others they provide a long-term direction for the management of flooding within a community. The objectives along with the current understanding of flood risk help to identify the actions that are required in the short and long term. It may take several years or multiple 6 year cycles to achieve the identified objectives, but they set a common goal for multiple agencies. The following package of objectives have been established for this area. The objectives must be considered alongside national principles to manage flood risk. These include:

• Take a long term, risk-based approach to flood risk management decisions and one that considers the impacts of and adaptability to climate change.

• Deliver coordinated and integrated flood risk management by engaging with communities and working in partnership, sharing data, expertise, services, and resources.

• Consider whole catchments and coastlines and work with natural processes and the environment to deliver multiple outcomes.

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

What actions are proposed for this area?

This section provides information on the draft proposed actions for this target area. The proposed actions take account of the understanding of flood risk and the package of objectives set for the area. Actions will be coordinated to achieve maximum benefit; this will be determined once the actions have been finalised. The proposed actions are draft for consultation and are provided for comment. Your comments will help shape future flood risk management. The delivery of the proposed actions is subject to available funding and resources.

Actions proposed to start before June 2028

	Surface water management plan (Ref: 35201)
Action	Areas at risk of heavy or prolonged rainfall causing flooding due to water ponding on man-made surfaces or overwhelming the drainage system are to be identified. These priority areas will provide a baseline for the identification of next steps in managing water ponding or over-whelmed drainage systems. This should guide adaptive planning to allow for the impacts of climate change to be monitored, understood and managed.
Action detail	The Highland Council to continue to develop and implement the Highland wide surface water management plan which includes Halkirk as a priority area. The surface water management plan identifies areas most at risk from surface water flooding in Halkirk and identifies options that could alleviate this risk.
Coordination	The action delivery lead is The Highland Council and coordination will be determined once the actions have been finalised.

SEPA and responsible authorities carry out actions in all areas 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. A description of these actions is included in the Local Plan District section at the start of this document.

What are the opportunities for joint working?

Working in partnership is at the heart of flood risk management, responsible authorities and SEPA regularly work together in all areas to improve the coordination of flood management. Working across organisations and groups contributes to sustainable ways of managing current and future flood risk in a community. The potential for joint working will be further explored following the consultation feedback.

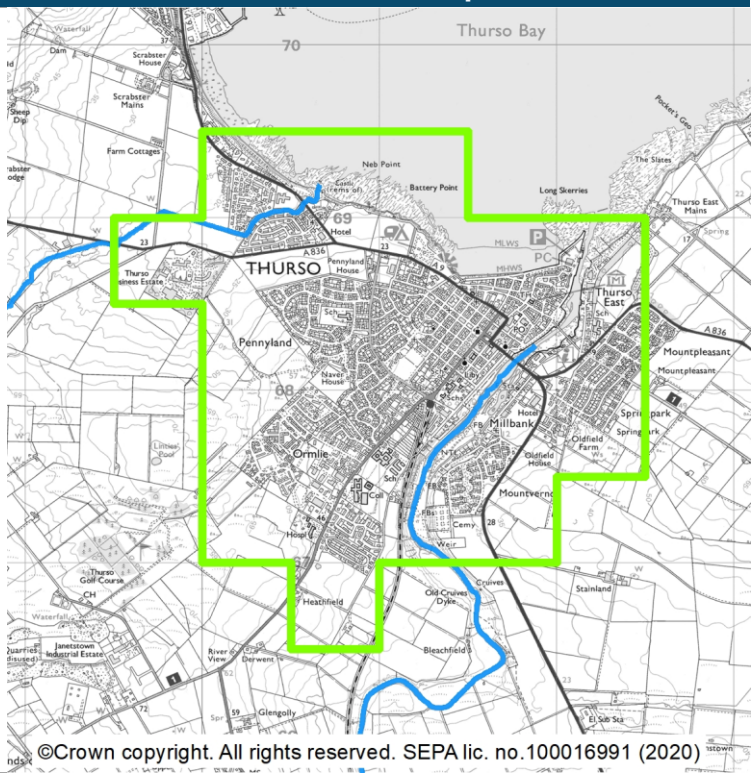
Flood risk management plan datasheet

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.

What are the objectives for the area?

In each target area, SEPA and the responsible authorities have set objectives for the management of flood risk. In some locations, the objectives provide a short-term direction that will be reviewed and updated when more information is available. In others they provide a long-term direction for the management of flooding within a community. The objectives along with the current understanding of flood risk help to identify the actions that are required in the short and long term. It may take several years or multiple 6 year cycles to achieve the identified objectives, but they set a common goal for multiple agencies. The following package of objectives have been established for this area. The objectives must be considered alongside national principles to manage flood risk. These include:

• Take a long term, risk-based approach to flood risk management decisions and one that considers the impacts of and adaptability to climate change.

• Deliver coordinated and integrated flood risk management by engaging with communities and working in partnership, sharing data, expertise, services, and resources.

• Consider whole catchments and coastlines and work with natural processes and the environment to deliver multiple outcomes.

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

What actions are proposed for this area?

This section provides information on the draft proposed actions for this target area. The proposed actions take account of the understanding of flood risk and the package of objectives set for the area. Actions will be coordinated to achieve maximum benefit; this will be determined once the actions have been finalised. The proposed actions are draft for consultation and are provided for comment. Your comments will help shape future flood risk management. The delivery of the proposed actions is subject to available funding and resources.

Actions proposed to start before June 2028

	Flood scheme or works design (Ref: 36701)
Action	The selected preferred approach for managing flood risk is to be designed following the completion of the flood study, including consideration of the long-term impacts of climate change. These can include small scale works or works to improve catchment management. This should guide adaptive planning to allow for the impacts of climate change to be monitored, understood and managed.
Action detail	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.
Coordination	The action delivery lead is The Highland Council and coordination will be determined once the actions have been finalised.

	Flood scheme or works implementation (Ref: 36702)
Action	The flood scheme/works is to be built following agreement of the design, costs and timescales.
Action detail	Subject to Scottish Government funding The Highland Council should progress with the River Thurso Flood Protection Scheme based on the detailed design.
Coordination	The action delivery lead is The Highland Council and coordination will be determined once the actions have been finalised.

	Strategic mapping improvements (Ref: 36703)
Action	SEPA will continue to update flood maps based on new information.
Action detail	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.
Coordination	The action delivery lead is SEPA and coordination will be determined once the actions have been finalised.

SEPA and responsible authorities carry out actions in all areas 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. A description of these actions is included in the Local Plan District section at the start of this document.

What are the opportunities for joint working?

Working in partnership is at the heart of flood risk management, responsible authorities and SEPA regularly work together in all areas to improve the coordination of flood management. Working across organisations and groups contributes to sustainable ways of managing current and future flood risk in a community. The potential for joint working will be further explored following the consultation feedback.

02/01/02 (Wick)

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 area in this Potentially Vulnerable Areas which has been the focus of further assessment, further information on the proposed objectives and actions to manage flood risk within this area is provided below.

List of target areas

Wick (target area 386)

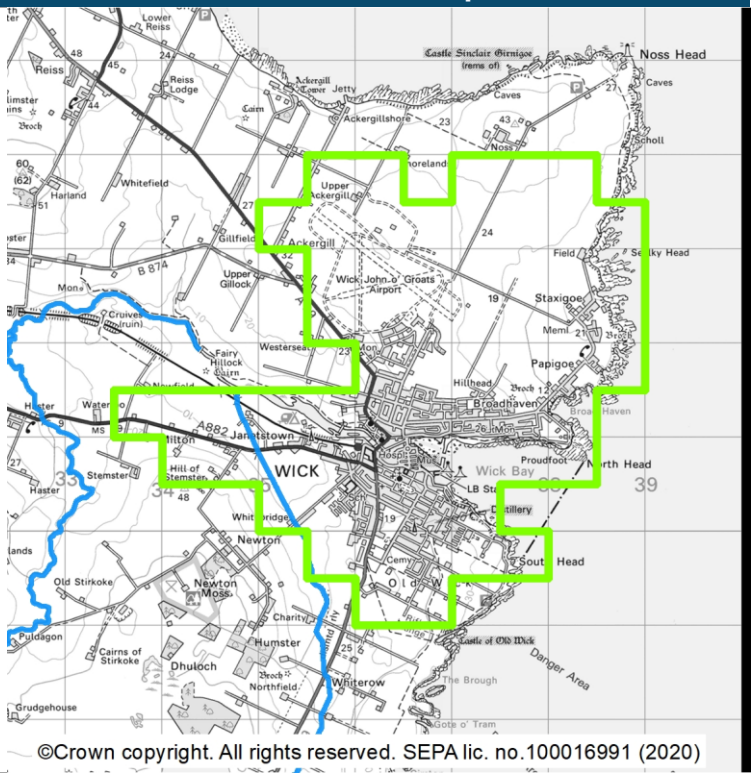
Flood risk management plan datasheet

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.

What are the objectives for the area?

In each target area, SEPA and the responsible authorities have set objectives for the management of flood risk. In some locations, the objectives provide a short-term direction that will be reviewed and updated when more information is available. In others they provide a long-term direction for the management of flooding within a community. The objectives along with the current understanding of flood risk help to identify the actions that are required in the short and long term. It may take several years or multiple 6 year cycles to achieve the identified objectives, but they set a common goal for multiple agencies. The following package of objectives have been established for this area. The objectives must be considered alongside national principles to manage flood risk. These include:

• Take a long term, risk-based approach to flood risk management decisions and one that considers the impacts of and adaptability to climate change.

• Deliver coordinated and integrated flood risk management by engaging with communities and working in partnership, sharing data, expertise, services, and resources.

• Consider whole catchments and coastlines and work with natural processes and the environment to deliver multiple outcomes.

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

What actions are proposed for this area?

This section provides information on the draft proposed actions for this target area. The proposed actions take account of the understanding of flood risk and the package of objectives set for the area. Actions will be coordinated to achieve maximum benefit; this will be determined once the actions have been finalised. The proposed actions are draft for consultation and are provided for comment. Your comments will help shape future flood risk management. The delivery of the proposed actions is subject to available funding and resources.

Actions proposed to start before June 2028

	Strategic mapping improvements (Ref: 38601)
Action	SEPA will continue to update flood maps based on new information.
Action detail	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.
Coordination	The action delivery lead is SEPA and coordination will be determined once the actions have been finalised.

	Flood warning maintenance (Ref: 38602)
Action	The Floodline flood warning service is to be kept operational through maintenance to the existing system and updates being undertaken as required.
Action detail	SEPA should maintain the Moray Firth coastal flood warning scheme.
Coordination	The action delivery lead is SEPA and coordination will be determined once the actions have been finalised.

SEPA and responsible authorities carry out actions in all areas 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. A description of these actions is included in the Local Plan District section at the start of this document.

What are the opportunities for joint working?

Working in partnership is at the heart of flood risk management, responsible authorities and SEPA regularly work together in all areas to improve the coordination of flood management. Working across organisations and groups contributes to sustainable ways of managing current and future flood risk in a community. The potential for joint working will be further explored following the consultation feedback.

02/01/03 (Lochinver)

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 area in this Potentially Vulnerable Areas, which has been the focus of further assessment, further information on the proposed objectives and actions to manage flood risk within this area is provided below.

List of target areas

Lochinver (target area 351)

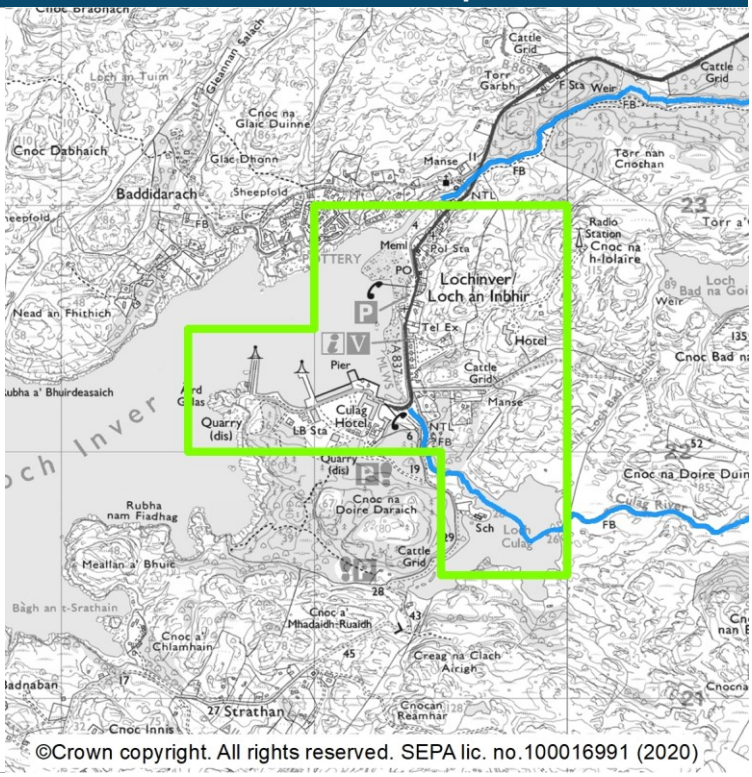
Flood risk management plan datasheet

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.

What are the objectives for the area?

In each target area, SEPA and the responsible authorities have set objectives for the management of flood risk. In some locations, the objectives provide a short-term direction that will be reviewed and updated when more information is available. In others they provide a long-term direction for the management of flooding within a community. The objectives along with the current understanding of flood risk help to identify the actions that are required in the short and long term. It may take several years or multiple 6 year cycles to achieve the identified objectives, but they set a common goal for multiple agencies. The following package of objectives have been established for this area. The objectives must be considered alongside national principles to manage flood risk. These include:

• Take a long term, risk-based approach to flood risk management decisions and one that considers the impacts of and adaptability to climate change.

• Deliver coordinated and integrated flood risk management by engaging with communities and working in partnership, sharing data, expertise, services, and resources.

• Consider whole catchments and coastlines and work with natural processes and the environment to deliver multiple outcomes.

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

What actions are proposed for this area?

This section provides information on the draft proposed actions for this target area. The proposed actions take account of the understanding of flood risk and the package of objectives set for the area. Actions will be coordinated to achieve maximum benefit; this will be determined once the actions have been finalised. The proposed actions are draft for consultation and are provided for comment. Your comments will help shape future flood risk management. The delivery of the proposed actions is subject to available funding and resources.

Actions proposed to start before June 2028

	Site protection plan (Ref: 35101)
Action	The plan to protect an individual site from flood risk should be maintained and executed as required by the site owner or operator.
Action detail	The Highland Council to develop a site protection plan for Lochinver Primary School and nursery.
Coordination	The action delivery lead is The Highland Council and coordination will be determined once the actions have been finalised.

SEPA and responsible authorities carry out actions in all areas 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. A description of these actions is included in the Local Plan District section at the start of this document.

What are the opportunities for joint working?

Working in partnership is at the heart of flood risk management, responsible authorities and SEPA regularly work together in all areas to improve the coordination of flood management. Working across organisations and groups contributes to sustainable ways of managing current and future flood risk in a community. The potential for joint working will be further explored following the consultation feedback.

02/01/04 (Golspie)

This is designated as a Potentially Vulnerable Area due to 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 area in this Potentially Vulnerable Areas, which has been the focus of further assessment, further information on the proposed objectives and actions to manage flood risk within this area is provided below.

List of target areas

Golspie (target area 333)

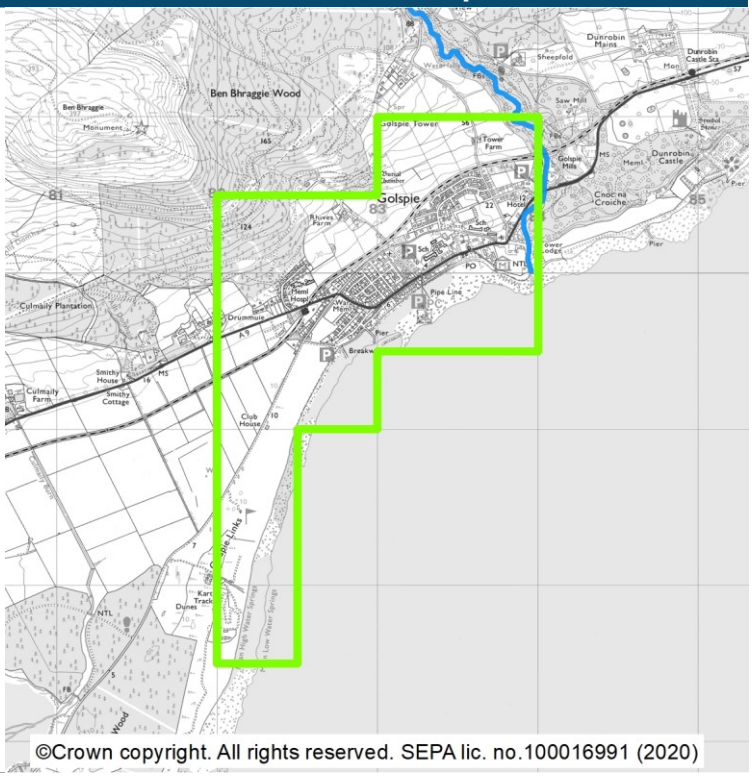
Flood risk management plan datasheet

Golspie (target area 333)

Summary

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.

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 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 a 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.

What are the objectives for the area?

In each target area, SEPA and the responsible authorities have set objectives for the management of flood risk. In some locations, the objectives provide a short-term direction that will be reviewed and updated when more information is available. In others they provide a long-term direction for the management of flooding within a community. The objectives along with the current understanding of flood risk help to identify the actions that are required in the short and long term. It may take several years or multiple 6 year cycles to achieve the identified objectives, but they set a common goal for multiple agencies. The following package of objectives have been established for this area. The objectives must be considered alongside national principles to manage flood risk. These include:

• Take a long term, risk-based approach to flood risk management decisions and one that considers the impacts of and adaptability to climate change.

• Deliver coordinated and integrated flood risk management by engaging with communities and working in partnership, sharing data, expertise, services, and resources.

• Consider whole catchments and coastlines and work with natural processes and the environment to deliver multiple outcomes.

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

What actions are proposed for this area?

This section provides information on the draft proposed actions for this target area. The proposed actions take account of the understanding of flood risk and the package of objectives set for the area. Actions will be coordinated to achieve maximum benefit; this will be determined once the actions have been finalised. The proposed actions are draft for consultation and are provided for comment. Your comments will help shape future flood risk management. The delivery of the proposed actions is subject to available funding and resources.

Actions proposed to start before June 2028

	Flood scheme or works design (Ref: 33301)
Action	The selected preferred approach for managing flood risk is to be designed following the completion of the flood study, including consideration of the long-term impacts of climate change. These can include small scale works or works to improve catchment management. This should guide adaptive planning to allow for the impacts of climate change to be monitored, understood and managed.
Action detail	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.
Coordination	The action delivery lead is The Highland Council in coordination with Transport Scotland and other actions in the area.

	Flood scheme or works implementation (Ref: 33302)
Action	The flood scheme/works is to be built following agreement of the design, costs and timescales.
Action detail	Subject to Scottish Government funding The Highland Council should progress with the Golspie Coast Flood Protection Scheme based on the detailed design.
Coordination	The action delivery lead is The Highland Council in coordination with Transport Scotland and other actions in the area.

	Flood scheme or works implementation (Ref: 33303)
Action	The flood scheme/works is to be built following agreement of the design, costs and timescales.
Action detail	Transport Scotland to carry out the planned civil engineering works to reduce flood risk to the A9.
Coordination	The action delivery lead is Transport Scotland in coordination with The Highland Council and other actions in the area.

	Strategic mapping improvements (Ref: 33304)
Action	SEPA will continue to update flood maps based on new information.
Action detail	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.
Coordination	The action delivery lead is SEPA and coordination will be determined once the actions have been finalised.

	Flood warning maintenance (Ref: 33305)
Action	The Floodline flood warning service is to be kept operational through maintenance to the existing system and updates being undertaken as required.
Action detail	SEPA should maintain the Moray Firth coastal flood warning scheme.
Coordination	The action delivery lead is SEPA and coordination will be determined once the actions have been finalised.

SEPA and responsible authorities carry out actions in all areas 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. A description of these actions is included in the Local Plan District section at the start of this document.

What are the opportunities for joint working?

Working in partnership is at the heart of flood risk management, responsible authorities and SEPA regularly work together in all areas to improve the coordination of flood management. Working across organisations and groups contributes to sustainable ways of managing current and future flood risk in a community. The potential for joint working will be further explored following the consultation feedback.

02/01/05 (Dornoch)

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 area in this Potentially Vulnerable Areas, which has been the focus of further assessment, further information on the proposed objectives and actions to manage flood risk within this area is provided below.

List of target areas

Dornoch (target area 334)

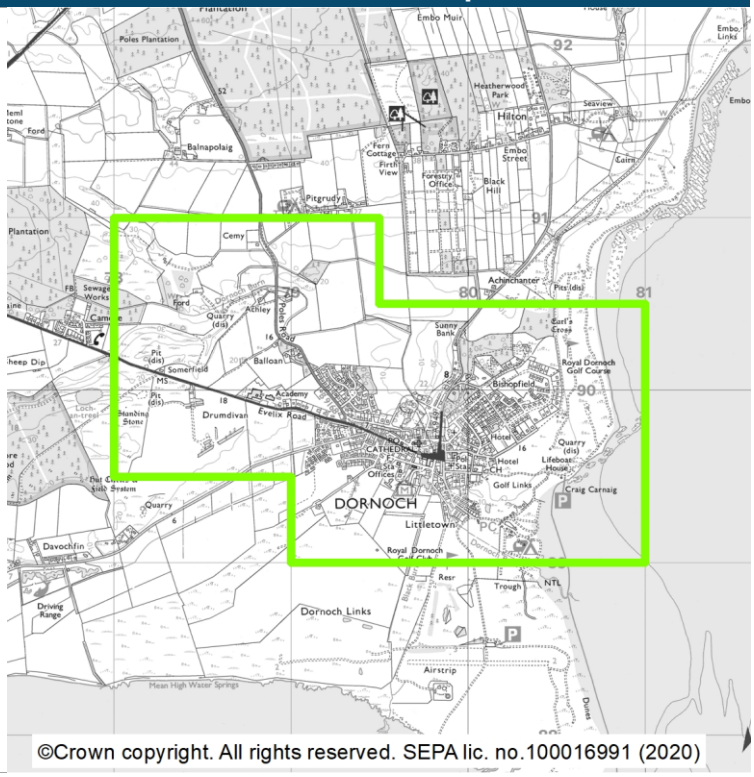
Flood risk management plan datasheet

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.

What are the objectives for the area?

In each target area, SEPA and the responsible authorities have set objectives for the management of flood risk. In some locations, the objectives provide a short-term direction that will be reviewed and updated when more information is available. In others they provide a long-term direction for the management of flooding within a community. The objectives along with the current understanding of flood risk help to identify the actions that are required in the short and long term. It may take several years or multiple 6 year cycles to achieve the identified objectives, but they set a common goal for multiple agencies. The following package of objectives have been established for this area. The objectives must be considered alongside national principles to manage flood risk. These include:

• Take a long term, risk-based approach to flood risk management decisions and one that considers the impacts of and adaptability to climate change.

• Deliver coordinated and integrated flood risk management by engaging with communities and working in partnership, sharing data, expertise, services, and resources.

• Consider whole catchments and coastlines and work with natural processes and the environment to deliver multiple outcomes.

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

What actions are proposed for this area?

This section provides information on the draft proposed actions for this target area. The proposed actions take account of the understanding of flood risk and the package of objectives set for the area. Actions will be coordinated to achieve maximum benefit; this will be determined once the actions have been finalised. The proposed actions are draft for consultation and are provided for comment. Your comments will help shape future flood risk management. The delivery of the proposed actions is subject to available funding and resources.

Actions proposed after June 2028

The following actions are proposed to take place after June 2028. These will be reviewed in 2026, considering added information at that time, to ensure they are still the most appropriate actions for the community.

	Flood study (Ref: 33401)
Action	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.
Action detail	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
Coordination	The action delivery lead is The Highland Council and coordination will be determined once the actions have been finalised.

SEPA and responsible authorities carry out actions in all areas 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. A description of these actions is included in the Local Plan District section at the start of this document.

What are the opportunities for joint working?

Working in partnership is at the heart of flood risk management, responsible authorities and SEPA regularly work together in all areas to improve the coordination of flood management. Working across organisations and groups contributes to sustainable ways of managing current and future flood risk in a community. The potential for joint working will be further explored following the consultation feedback.

02/01/06 (Aird Point)

This 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 area in this Potentially Vulnerable Areas, which has been the focus of further assessment, further information on the proposed objectives and actions to manage flood risk within this area is provided below.

List of target areas

Aultbea (target area 431)

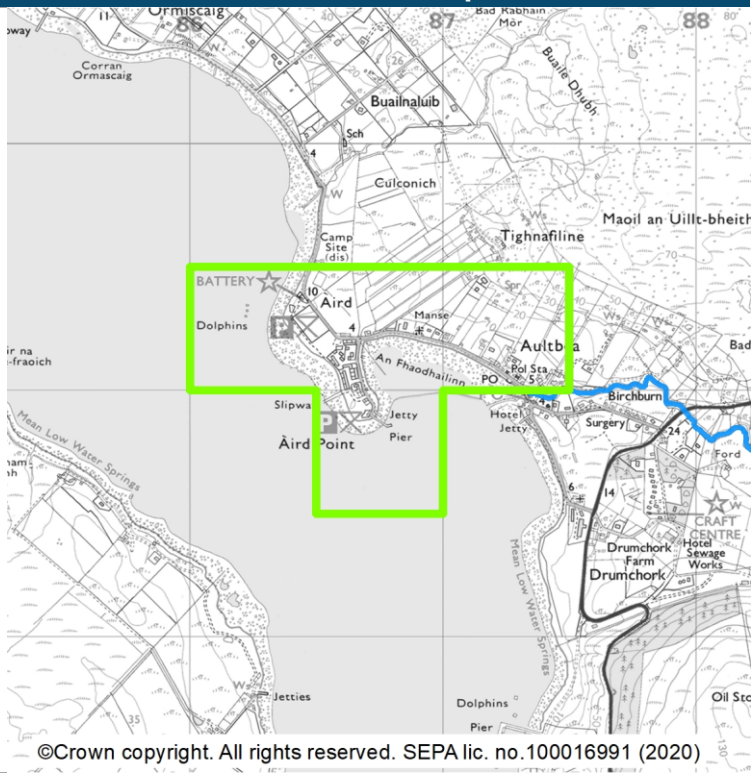
Flood risk management plan datasheet

Aultbea (target area 431)

Summary

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.

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 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.

What are the objectives for the area?

In each target area, SEPA and the responsible authorities have set objectives for the management of flood risk. In some locations, the objectives provide a short-term direction that will be reviewed and updated when more information is available. In others they provide a long-term direction for the management of flooding within a community. The objectives along with the current understanding of flood risk help to identify the actions that are required in the short and long term. It may take several years or multiple 6 year cycles to achieve the identified objectives, but they set a common goal for multiple agencies. The following package of objectives have been established for this area. The objectives must be considered alongside national principles to manage flood risk. These include:

• Take a long term, risk-based approach to flood risk management decisions and one that considers the impacts of and adaptability to climate change.

• Deliver coordinated and integrated flood risk management by engaging with communities and working in partnership, sharing data, expertise, services, and resources.

• Consider whole catchments and coastlines and work with natural processes and the environment to deliver multiple outcomes.

Objective ref	Objective type	Objective description
4311	Avoid flood risk	Avoid inappropriate development that increases flood risk in Aultbea.
4312	Improve data and understanding	Improve data and understanding of coastal flood risk and the impacts of climate change on Aultbea.
4313	Prepare for flooding	Prepare for current flood risk and future flooding as a result of climate change in Aultbea.

What actions are proposed for this area?

This section provides information on the draft proposed actions for this target area. The proposed actions take account of the understanding of flood risk and the package of objectives set for the area. Actions will be coordinated to achieve maximum benefit; this will be determined once the actions have been finalised. The proposed actions are draft for consultation and are provided for comment. Your comments will help shape future flood risk management. The delivery of the proposed actions is subject to available funding and resources.

Actions proposed to start before June 2028

	Flood warning scoping (Ref: 43101)
Action	The potential to provide a new flood warning scheme is to be considered by SEPA. Flood warnings are only effective where it is possible to send a warning message with sufficient time to allow communities to take appropriate actions before flooding occurs.
Action detail	Scoping for a coastal flood warning scheme will be carried out in Aultbea.
Coordination	The action delivery lead is SEPA and coordination will be determined once the action has been finalised.

Actions proposed after June 2028

The following actions are proposed to take place after June 2028. These will be reviewed in 2026, considering added information at that time, to ensure they are still the most appropriate actions for the community.

	Flood study (Ref: 43102)
Action	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.
Action detail	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.
Coordination	The action delivery lead is The Highland Council in coordination with SEPA.

SEPA and responsible authorities carry out actions in all areas 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. A description of these actions is included in the Local Plan District section at the start of this document.

What are the opportunities for joint working?

Working in partnership is at the heart of flood risk management, responsible authorities and SEPA regularly work together in all areas to improve the coordination of flood management. Working across organisations and groups contributes to sustainable ways of managing current and future flood risk in a community. The potential for joint working will be further explored following the consultation feedback.

02/01/07 (Gairloch)

Gairloch is designated as a Potentially Vulnerable Area due to the risk of frequent river and surface water flooding to the roads. There is a history of flooding, recently caused by rivers. The local road network is frequently affected by flooding, which can lead to long diversions.

There are 2 areas in this Potentially Vulnerable Areas, which have been the focus of further assessment, further information on the proposed 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)

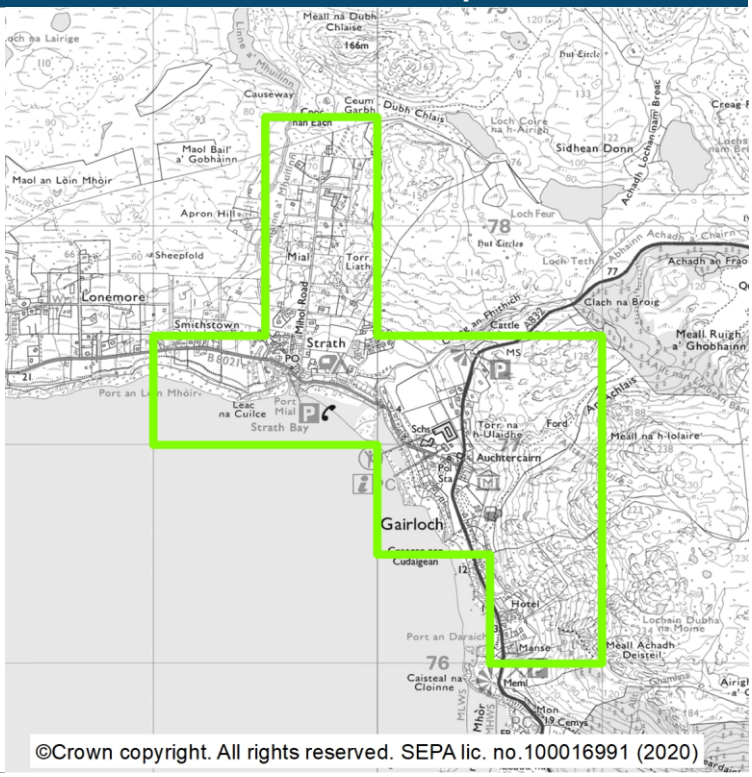
Flood risk management plan datasheet

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. 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.

What are the objectives for the area?

In each target area, SEPA and the responsible authorities have set objectives for the management of flood risk. In some locations, the objectives provide a short-term direction that will be reviewed and updated when more information is available. In others they provide a long-term direction for the management of flooding within a community. The objectives along with the current understanding of flood risk help to identify the actions that are required in the short and long term. It may take several years or multiple 6 year cycles to achieve the identified objectives, but they set a common goal for multiple agencies. The following package of objectives have been established for this area. The objectives must be considered alongside national principles to manage flood risk. These include:

• Take a long term, risk-based approach to flood risk management decisions and one that considers the impacts of and adaptability to climate change.

• Deliver coordinated and integrated flood risk management by engaging with communities and working in partnership, sharing data, expertise, services, and resources.

• Consider whole catchments and coastlines and work with natural processes and the environment to deliver multiple outcomes.

Objective ref	Objective type	Objective description
3541	Avoid flood risk	Avoid inappropriate development that increases flood risk in Gairloch.
3542	Improve data and understanding	Improve understanding of the risk of coastal flooding and the impacts of climate change in Gairloch.
3543	Prepare for flooding	Prepare for current flood risk and future flooding as a result of climate change in Gairloch.

What actions are proposed for this area?

This section provides information on the draft proposed actions for this target area. The proposed actions take account of the understanding of flood risk and the package of objectives set for the area. Actions will be coordinated to achieve maximum benefit; this will be determined once the actions have been finalised. The proposed actions are draft for consultation and are provided for comment. Your comments will help shape future flood risk management. The delivery of the proposed actions is subject to available funding and resources.

Actions proposed to start before June 2028

	Flood risk management review (Ref: 35401)
Action	During each 6 year planning cycle, we update our understanding of flooding to include all new data and information that has become available. This includes information on any flooding that has happened and the latest predictions on the impacts of climate change. The updated understanding is used to set any appropriate objectives and actions for areas at risk of flooding.
Action detail	No local actions specific to this target area have been identified yet. There are national actions planned that will cover this area, including an update to SEPA's surface water flood maps and an update to the national flood risk assessment. These, along with other actions that are carried out across the whole local plan district covering this area, will help to manage flood risk in the long term. The need for actions for this area will be reviewed again in 2026.
Coordination	The action delivery lead is SEPA and coordination will be determined once the actions have been finalised.

SEPA and responsible authorities carry out actions in all areas 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. A description of these actions is included in the Local Plan District section at the start of this document.

What are the opportunities for joint working?

Working in partnership is at the heart of flood risk management, responsible authorities and SEPA regularly work together in all areas to improve the coordination of flood management. Working across organisations and groups contributes to sustainable ways of managing current and future flood risk in a community. The potential for joint working will be further explored following the consultation feedback.

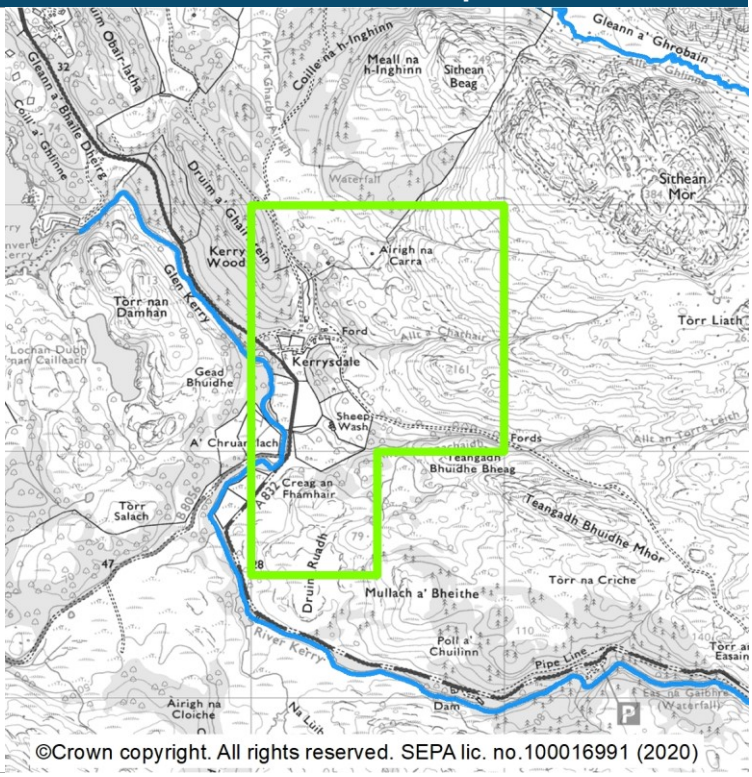
Flood risk management plan datasheet

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.

What are the objectives for the area?

In each target area, SEPA and the responsible authorities have set objectives for the management of flood risk. In some locations, the objectives provide a short-term direction that will be reviewed and updated when more information is available. In others they provide a long-term direction for the management of flooding within a community. The objectives along with the current understanding of flood risk help to identify the actions that are required in the short and long term. It may take several years or multiple 6 year cycles to achieve the identified objectives, but they set a common goal for multiple agencies. The following package of objectives have been established for this area. The objectives must be considered alongside national principles to manage flood risk. These include:

• Take a long term, risk-based approach to flood risk management decisions and one that considers the impacts of and adaptability to climate change.

• Deliver coordinated and integrated flood risk management by engaging with communities and working in partnership, sharing data, expertise, services, and resources.

• Consider whole catchments and coastlines and work with natural processes and the environment to deliver multiple outcomes.

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

What actions are proposed for this area?

This section provides information on the draft proposed actions for this target area. The proposed actions take account of the understanding of flood risk and the package of objectives set for the area. Actions will be coordinated to achieve maximum benefit; this will be determined once the actions have been finalised. The proposed actions are draft for consultation and are provided for comment. Your comments will help shape future flood risk management. The delivery of the proposed actions is subject to available funding and resources.

Actions proposed to start before June 2028

	Flood risk management review (Ref: 45701)
Action	During each 6 year planning cycle, we update our understanding of flooding to include all new data and information that has become available. This includes information on any flooding that has happened and the latest predictions on the impacts of climate change. The updated understanding is used to set any appropriate objectives and actions for areas at risk of flooding.
Action detail	No local actions specific to this target area have been identified yet. There are national actions planned that will cover this area, including an update to SEPA's surface water flood maps and an update to the national flood risk assessment. These, along with other actions that are carried out across the whole local plan district covering this area, will help to manage flood risk in the long term. The need for actions for this area will be reviewed again in 2026.
Coordination	The action delivery lead is SEPA and coordination will be determined once the actions have been finalised.

SEPA and responsible authorities carry out actions in all areas 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. A description of these actions is included in the Local Plan District section at the start of this document.

What are the opportunities for joint working?

Working in partnership is at the heart of flood risk management, responsible authorities and SEPA regularly work together in all areas to improve the coordination of flood management. Working across organisations and groups contributes to sustainable ways of managing current and future flood risk in a community. The potential for joint working will be further explored following the consultation feedback.

02/01/08 (Tarbat Ness)

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 areas in this Potentially Vulnerable Areas, which have been the focus of further assessment, further information on the proposed 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)

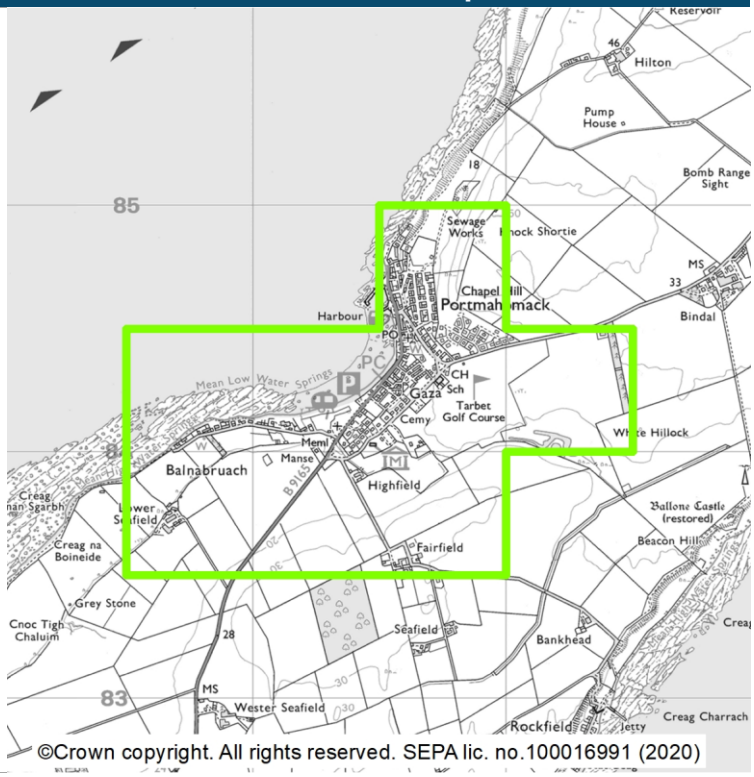
Flood risk management plan datasheet

Portmahomack (target area 338)

Summary

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.

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 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.

What are the objectives for the area?

In each target area, SEPA and the responsible authorities have set objectives for the management of flood risk. In some locations, the objectives provide a short-term direction that will be reviewed and updated when more information is available. In others they provide a long-term direction for the management of flooding within a community. The objectives along with the current understanding of flood risk help to identify the actions that are required in the short and long term. It may take several years or multiple 6 year cycles to achieve the identified objectives, but they set a common goal for multiple agencies. The following package of objectives have been established for this area. The objectives must be considered alongside national principles to manage flood risk. These include:

• Take a long term, risk-based approach to flood risk management decisions and one that considers the impacts of and adaptability to climate change.

• Deliver coordinated and integrated flood risk management by engaging with communities and working in partnership, sharing data, expertise, services, and resources.

• Consider whole catchments and coastlines and work with natural processes and the environment to deliver multiple outcomes.

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

What actions are proposed for this area?

This section provides information on the draft proposed actions for this target area. The proposed actions take account of the understanding of flood risk and the package of objectives set for the area. Actions will be coordinated to achieve maximum benefit; this will be determined once the actions have been finalised. The proposed actions are draft for consultation and are provided for comment. Your comments will help shape future flood risk management. The delivery of the proposed actions is subject to available funding and resources.

Actions proposed to start before June 2028

	Strategic mapping improvements (Ref: 33801)
Action	SEPA will continue to update flood maps based on new information.
Action detail	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.
Coordination	The action delivery lead is SEPA and coordination will be determined once the actions have been finalised.

	Flood study (Ref: 33802)
Action	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.
Action detail	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.
Coordination	The action delivery lead is The Highland Council and coordination will be determined once the actions have been finalised.

	Flood warning maintenance (Ref: 33803)
Action	The Floodline flood warning service is to be kept operational through maintenance to the existing system and updates being undertaken as required.
Action detail	SEPA should maintain the Moray Firth coastal flood warning scheme.
Coordination	The action delivery lead is SEPA and coordination will be determined once the actions have been finalised.

SEPA and responsible authorities carry out actions in all areas 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. A description of these actions is included in the Local Plan District section at the start of this document.

What are the opportunities for joint working?

Working in partnership is at the heart of flood risk management, responsible authorities and SEPA regularly work together in all areas to improve the coordination of flood management. Working across organisations and groups contributes to sustainable ways of managing current and future flood risk in a community. The potential for joint working will be further explored following the consultation feedback.

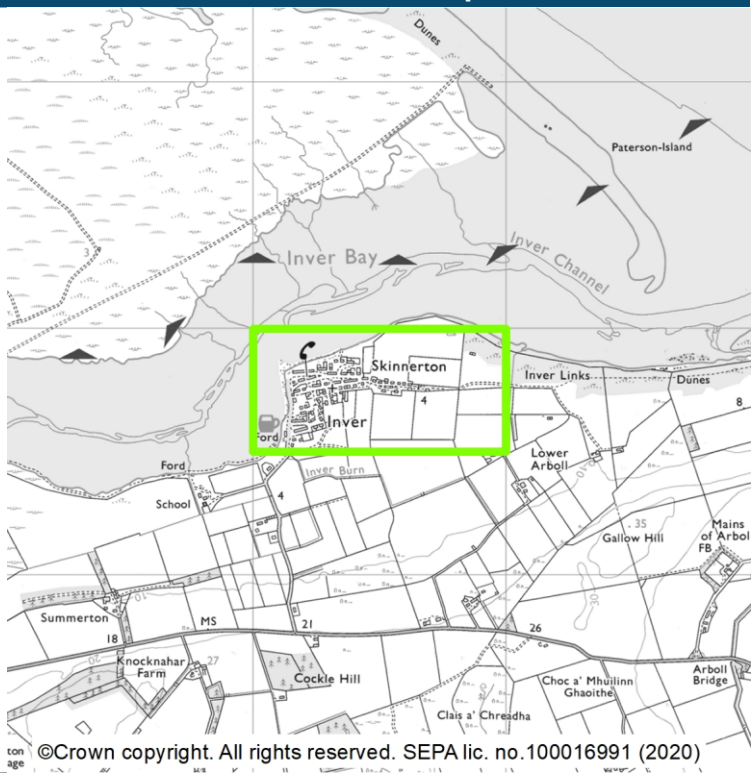
Flood risk management plan datasheet

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.

What are the objectives for the area?

In each target area, SEPA and the responsible authorities have set objectives for the management of flood risk. In some locations, the objectives provide a short-term direction that will be reviewed and updated when more information is available. In others they provide a long-term direction for the management of flooding within a community. The objectives along with the current understanding of flood risk help to identify the actions that are required in the short and long term. It may take several years or multiple 6 year cycles to achieve the identified objectives, but they set a common goal for multiple agencies. The following package of objectives have been established for this area. The objectives must be considered alongside national principles to manage flood risk. These include:

• Take a long term, risk-based approach to flood risk management decisions and one that considers the impacts of and adaptability to climate change.

• Deliver coordinated and integrated flood risk management by engaging with communities and working in partnership, sharing data, expertise, services, and resources.

• Consider whole catchments and coastlines and work with natural processes and the environment to deliver multiple outcomes.

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

What actions are proposed for this area?

This section provides information on the draft proposed actions for this target area. The proposed actions take account of the understanding of flood risk and the package of objectives set for the area. Actions will be coordinated to achieve maximum benefit; this will be determined once the actions have been finalised. The proposed actions are draft for consultation and are provided for comment. Your comments will help shape future flood risk management. The delivery of the proposed actions is subject to available funding and resources.

Actions proposed to start before June 2028

	Strategic mapping improvements (Ref: 33901)
Action	SEPA will continue to update flood maps based on new information.
Action detail	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.
Coordination	The action delivery lead is SEPA and coordination will be determined once the actions have been finalised.

	Flood study (Ref: 33902)
Action	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.
Action detail	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.
Coordination	The action delivery lead is The Highland Council and coordination will be determined once the actions have been finalised.

	Flood warning maintenance (Ref: 33903)
Action	The Floodline flood warning service is to be kept operational through maintenance to the existing system and updates being undertaken as required.
Action detail	SEPA should maintain the Moray Firth coastal flood warning scheme.
Coordination	The action delivery lead is SEPA and coordination will be determined once the actions have been finalised.

SEPA and responsible authorities carry out actions in all areas 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. A description of these actions is included in the Local Plan District section at the start of this document.

What are the opportunities for joint working?

Working in partnership is at the heart of flood risk management, responsible authorities and SEPA regularly work together in all areas to improve the coordination of flood management. Working across organisations and groups contributes to sustainable ways of managing current and future flood risk in a community. The potential for joint working will be further explored following the consultation feedback.

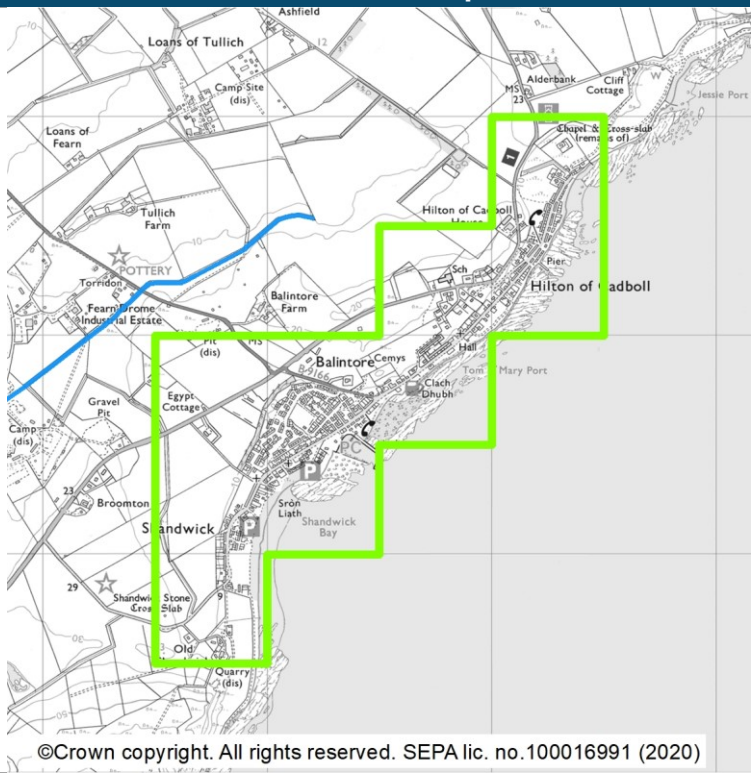
Flood risk management plan datasheet

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.

What are the objectives for the area?

In each target area, SEPA and the responsible authorities have set objectives for the management of flood risk. In some locations, the objectives provide a short-term direction that will be reviewed and updated when more information is available. In others they provide a long-term direction for the management of flooding within a community. The objectives along with the current understanding of flood risk help to identify the actions that are required in the short and long term. It may take several years or multiple 6 year cycles to achieve the identified objectives, but they set a common goal for multiple agencies. The following package of objectives have been established for this area. The objectives must be considered alongside national principles to manage flood risk. These include:

• Take a long term, risk-based approach to flood risk management decisions and one that considers the impacts of and adaptability to climate change.

• Deliver coordinated and integrated flood risk management by engaging with communities and working in partnership, sharing data, expertise, services, and resources.

• Consider whole catchments and coastlines and work with natural processes and the environment to deliver multiple outcomes.

Objective ref	Objective type	Objective description
4381	Avoid flood risk	Avoid inappropriate development that increases flood risk in Balintore.
4382	Improve data and understanding	Improve data and understanding of coastal flood risk and the impacts of climate change to Balintore.
4383	Prepare for flooding	Prepare for current flood risk and future flooding as a result of climate change in Balintore.

What actions are proposed for this area?

This section provides information on the draft proposed actions for this target area. The proposed actions take account of the understanding of flood risk and the package of objectives set for the area. Actions will be coordinated to achieve maximum benefit; this will be determined once the actions have been finalised. The proposed actions are draft for consultation and are provided for comment. Your comments will help shape future flood risk management. The delivery of the proposed actions is subject to available funding and resources.

Actions proposed to start before June 2028

	Strategic mapping improvements (Ref: 43801)
Action	SEPA will continue to update flood maps based on new information.
Action detail	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.
Coordination	The action delivery lead is SEPA and coordination will be determined once the actions have been finalised.

	Flood study (Ref: 43802)
Action	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.
Action detail	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.
Coordination	The action delivery lead is The Highland Council and coordination will be determined once the actions have been finalised.

	Flood warning maintenance (Ref: 43803)
Action	The Floodline flood warning service is to be kept operational through maintenance to the existing system and updates being undertaken as required.
Action detail	SEPA should maintain the Moray Firth coastal flood warning scheme.
Coordination	The action delivery lead is SEPA and coordination will be determined once the actions have been finalised.

SEPA and responsible authorities carry out actions in all areas 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. A description of these actions is included in the Local Plan District section at the start of this document.

What are the opportunities for joint working?

Working in partnership is at the heart of flood risk management, responsible authorities and SEPA regularly work together in all areas to improve the coordination of flood management. Working across organisations and groups contributes to sustainable ways of managing current and future flood risk in a community. The potential for joint working will be further explored following the consultation feedback.

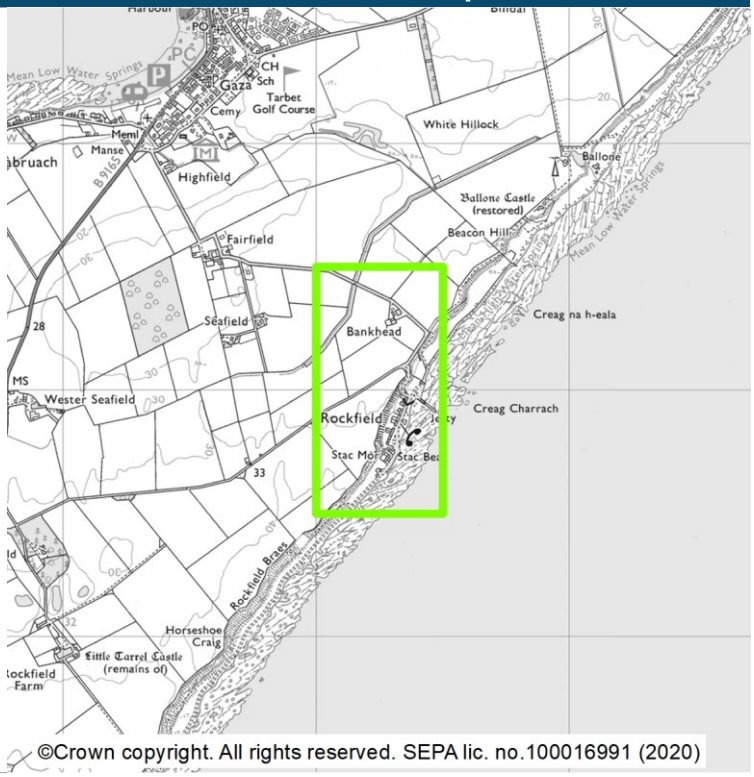
Flood risk management plan datasheet

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.

What are the objectives for the area?

In each target area, SEPA and the responsible authorities have set objectives for the management of flood risk. In some locations, the objectives provide a short-term direction that will be reviewed and updated when more information is available. In others they provide a long-term direction for the management of flooding within a community. The objectives along with the current understanding of flood risk help to identify the actions that are required in the short and long term. It may take several years or multiple 6 year cycles to achieve the identified objectives, but they set a common goal for multiple agencies. The following package of objectives have been established for this area. The objectives must be considered alongside national principles to manage flood risk. These include:

• Take a long term, risk-based approach to flood risk management decisions and one that considers the impacts of and adaptability to climate change.

• Deliver coordinated and integrated flood risk management by engaging with communities and working in partnership, sharing data, expertise, services, and resources.

• Consider whole catchments and coastlines and work with natural processes and the environment to deliver multiple outcomes.

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

What actions are proposed for this area?

This section provides information on the draft proposed actions for this target area. The proposed actions take account of the understanding of flood risk and the package of objectives set for the area. Actions will be coordinated to achieve maximum benefit; this will be determined once the actions have been finalised. The proposed actions are draft for consultation and are provided for comment. Your comments will help shape future flood risk management. The delivery of the proposed actions is subject to available funding and resources.

Actions proposed to start before June 2028

	Strategic mapping improvements (Ref: 43901)
Action	SEPA will continue to update flood maps based on new information.
Action detail	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.
Coordination	The action delivery lead is SEPA and coordination will be determined once the actions have been finalised.

	Flood study (Ref: 43902)
Action	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.
Action detail	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.
Coordination	The action delivery lead is The Highland Council and coordination will be determined once the actions have been finalised.

	Flood warning maintenance (Ref: 43903)
Action	The Floodline flood warning service is to be kept operational through maintenance to the existing system and updates being undertaken as required.
Action detail	SEPA should maintain the Moray Firth coastal flood warning scheme.
Coordination	The action delivery lead is SEPA and coordination will be determined once the actions have been finalised.

SEPA and responsible authorities carry out actions in all areas 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. A description of these actions is included in the Local Plan District section at the start of this document.

What are the opportunities for joint working?

Working in partnership is at the heart of flood risk management, responsible authorities and SEPA regularly work together in all areas to improve the coordination of flood management. Working across organisations and groups contributes to sustainable ways of managing current and future flood risk in a community. The potential for joint working will be further explored following the consultation feedback.

02/01/09 (Invergordon)

Invergordon is designated as a Potentially Vulnerable Area due to the risk of surface water flooding.

There is 1 area in this Potentially Vulnerable Areas, which has been the focus of further assessment, further information on the proposed objectives and actions to manage flood risk within this area is provided below.

List of target areas

Invergordon (target area 362)

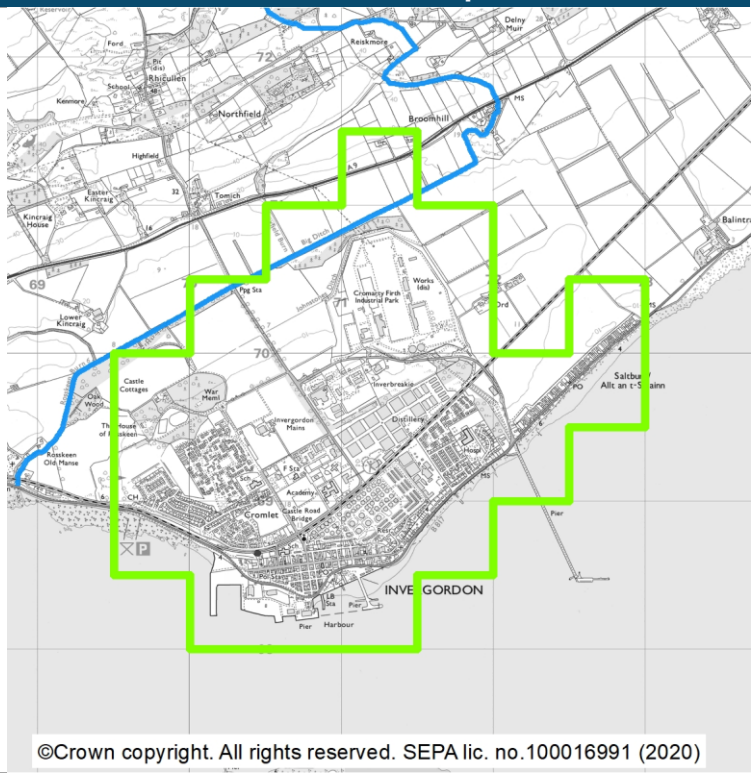
Flood risk management plan datasheet

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.

What are the objectives for the area?

In each target area, SEPA and the responsible authorities have set objectives for the management of flood risk. In some locations, the objectives provide a short-term direction that will be reviewed and updated when more information is available. In others they provide a long-term direction for the management of flooding within a community. The objectives along with the current understanding of flood risk help to identify the actions that are required in the short and long term. It may take several years or multiple 6 year cycles to achieve the identified objectives, but they set a common goal for multiple agencies. The following package of objectives have been established for this area. The objectives must be considered alongside national principles to manage flood risk. These include:

• Take a long term, risk-based approach to flood risk management decisions and one that considers the impacts of and adaptability to climate change.

• Deliver coordinated and integrated flood risk management by engaging with communities and working in partnership, sharing data, expertise, services, and resources.

• Consider whole catchments and coastlines and work with natural processes and the environment to deliver multiple outcomes.

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

What actions are proposed for this area?

This section provides information on the draft proposed actions for this target area. The proposed actions take account of the understanding of flood risk and the package of objectives set for the area. Actions will be coordinated to achieve maximum benefit; this will be determined once the actions have been finalised. The proposed actions are draft for consultation and are provided for comment. Your comments will help shape future flood risk management. The delivery of the proposed actions is subject to available funding and resources.

Actions proposed to start before June 2028

	Flood warning maintenance (Ref: 36201)
Action	The Floodline flood warning service is to be kept operational through maintenance to the existing system and updates being undertaken as required.
Action detail	SEPA should maintain the Moray Firth coastal flood warning scheme.
Coordination	The action delivery lead is SEPA and coordination will be determined once the actions have been finalised.

SEPA and responsible authorities carry out actions in all areas 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. A description of these actions is included in the Local Plan District section at the start of this document.

What are the opportunities for joint working?

Working in partnership is at the heart of flood risk management, responsible authorities and SEPA regularly work together in all areas to improve the coordination of flood management. Working across organisations and groups contributes to sustainable ways of managing current and future flood risk in a community. The potential for joint working will be further explored following the consultation feedback.

02/01/10 (Alness)

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 area in this Potentially Vulnerable Areas, which has been the focus of further assessment, further information on the proposed objectives and actions to manage flood risk within this area is provided below.

List of target areas

Alness (target area 337)

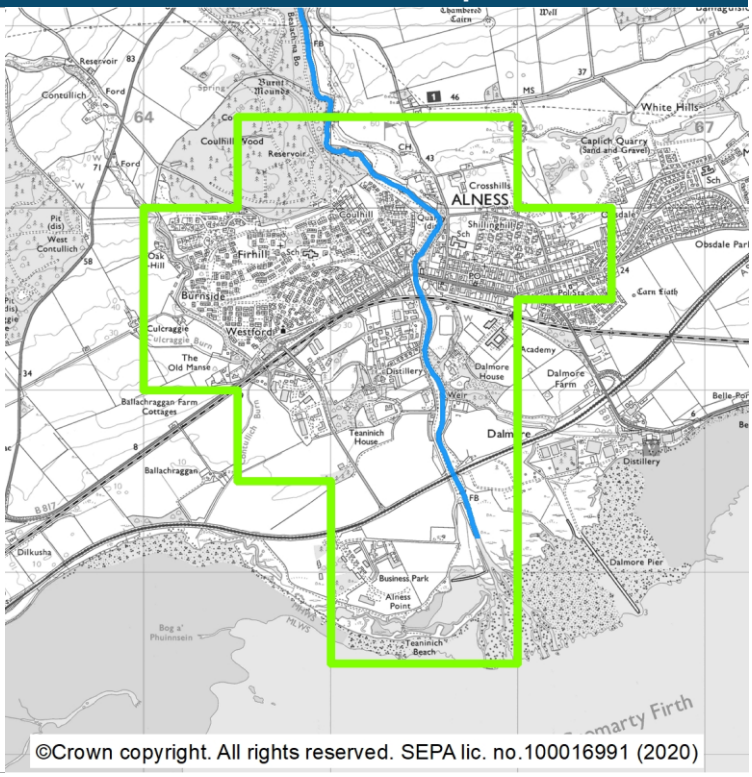
Flood risk management plan datasheet

Alness (target area 337)

Summary

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.

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 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.

What are the objectives for the area?

In each target area, SEPA and the responsible authorities have set objectives for the management of flood risk. In some locations, the objectives provide a short-term direction that will be reviewed and updated when more information is available. In others they provide a long-term direction for the management of flooding within a community. The objectives along with the current understanding of flood risk help to identify the actions that are required in the short and long term. It may take several years or multiple 6 year cycles to achieve the identified objectives, but they set a common goal for multiple agencies. The following package of objectives have been established for this area. The objectives must be considered alongside national principles to manage flood risk. These include:

• Take a long term, risk-based approach to flood risk management decisions and one that considers the impacts of and adaptability to climate change.

• Deliver coordinated and integrated flood risk management by engaging with communities and working in partnership, sharing data, expertise, services, and resources.

• Consider whole catchments and coastlines and work with natural processes and the environment to deliver multiple outcomes.

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

What actions are proposed for this area?

This section provides information on the draft proposed actions for this target area. The proposed actions take account of the understanding of flood risk and the package of objectives set for the area. Actions will be coordinated to achieve maximum benefit; this will be determined once the actions have been finalised. The proposed actions are draft for consultation and are provided for comment. Your comments will help shape future flood risk management. The delivery of the proposed actions is subject to available funding and resources.

Actions proposed to start before June 2028

	Flood warning maintenance (Ref: 33701)
Action	The Floodline flood warning service is to be kept operational through maintenance to the existing system and updates being undertaken as required.
Action detail	SEPA should maintain the Moray Firth coastal flood warning scheme.
Coordination	The action delivery lead is SEPA and coordination will be determined once the actions have been finalised.

SEPA and responsible authorities carry out actions in all areas 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. A description of these actions is included in the Local Plan District section at the start of this document.

What are the opportunities for joint working?

Working in partnership is at the heart of flood risk management, responsible authorities and SEPA regularly work together in all areas to improve the coordination of flood management. Working across organisations and groups contributes to sustainable ways of managing current and future flood risk in a community. The potential for joint working will be further explored following the consultation feedback.

02/01/11 (Kinlochewe)

Kinlochewe is designated as a Potentially Vulnerable Area due to the risk of river flooding from the A'Ghairbhe.

There is 1 area in this Potentially Vulnerable Areas, which has been the focus of further assessment, further information on the proposed objectives and actions to manage flood risk within this area is provided below.

List of target areas

Kinlochewe (target area 350)

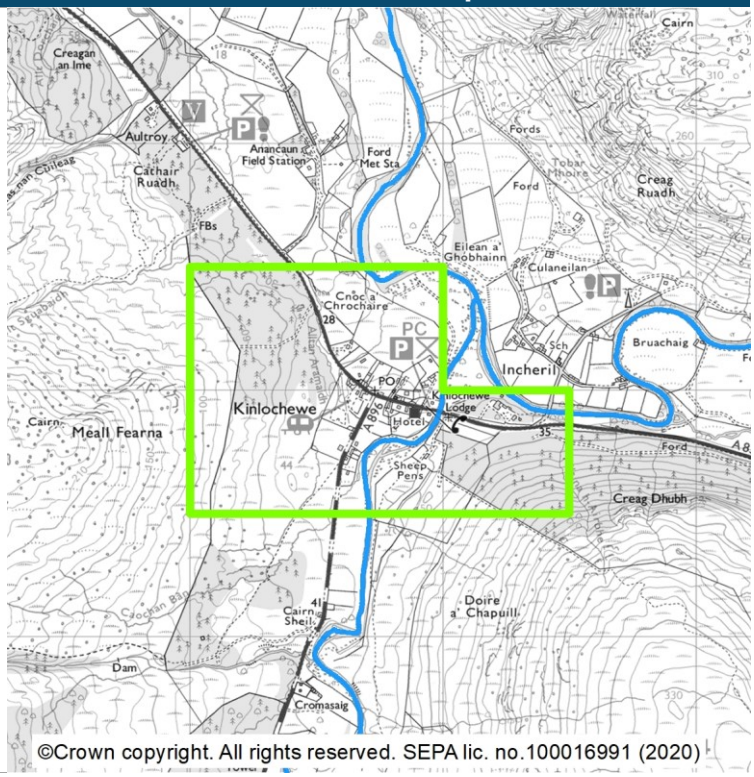
Flood risk management plan datasheet

Kinlochewe (target area 350)

Summary

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.

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 no records of flooding in the Kinlochewe target area but this does not confirm that there is no flood risk.

What are the objectives for the area?

In each target area, SEPA and the responsible authorities have set objectives for the management of flood risk. In some locations, the objectives provide a short-term direction that will be reviewed and updated when more information is available. In others they provide a long-term direction for the management of flooding within a community. The objectives along with the current understanding of flood risk help to identify the actions that are required in the short and long term. It may take several years or multiple 6 year cycles to achieve the identified objectives, but they set a common goal for multiple agencies. The following package of objectives have been established for this area. The objectives must be considered alongside national principles to manage flood risk. These include:

• Take a long term, risk-based approach to flood risk management decisions and one that considers the impacts of and adaptability to climate change.

• Deliver coordinated and integrated flood risk management by engaging with communities and working in partnership, sharing data, expertise, services, and resources.

• Consider whole catchments and coastlines and work with natural processes and the environment to deliver multiple outcomes.

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

What actions are proposed for this area?

This section provides information on the draft proposed actions for this target area. The proposed actions take account of the understanding of flood risk and the package of objectives set for the area. Actions will be coordinated to achieve maximum benefit; this will be determined once the actions have been finalised. The proposed actions are draft for consultation and are provided for comment. Your comments will help shape future flood risk management. The delivery of the proposed actions is subject to available funding and resources.

Actions proposed to start before June 2028

	Flood risk management review (Ref: 35001)
Action	During each 6 year planning cycle, we update our understanding of flooding to include all new data and information that has become available. This includes information on any flooding that has happened and the latest predictions on the impacts of climate change. The updated understanding is used to set any appropriate objectives and actions for areas at risk of flooding.
Action detail	No local actions specific to this target area have been identified yet. There are national actions planned that will cover this area, including an update to SEPA's surface water flood maps and an update to the national flood risk assessment. These, along with other actions that are carried out across the whole local plan district covering this area, will help to manage flood risk in the long term. The need for actions for this area will be reviewed again in 2026.
Coordination	The action delivery lead is SEPA and coordination will be determined once the actions have been finalised.

SEPA and responsible authorities carry out actions in all areas 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. A description of these actions is included in the Local Plan District section at the start of this document.

What are the opportunities for joint working?

Working in partnership is at the heart of flood risk management, responsible authorities and SEPA regularly work together in all areas to improve the coordination of flood management. Working across organisations and groups contributes to sustainable ways of managing current and future flood risk in a community. The potential for joint working will be further explored following the consultation feedback.

02/01/12 (Garve)

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 area in this Potentially Vulnerable Areas, which has been the focus of further assessment, further information on the proposed objectives and actions to manage flood risk within this area is provided below.

List of target areas

Garve (target area 341)

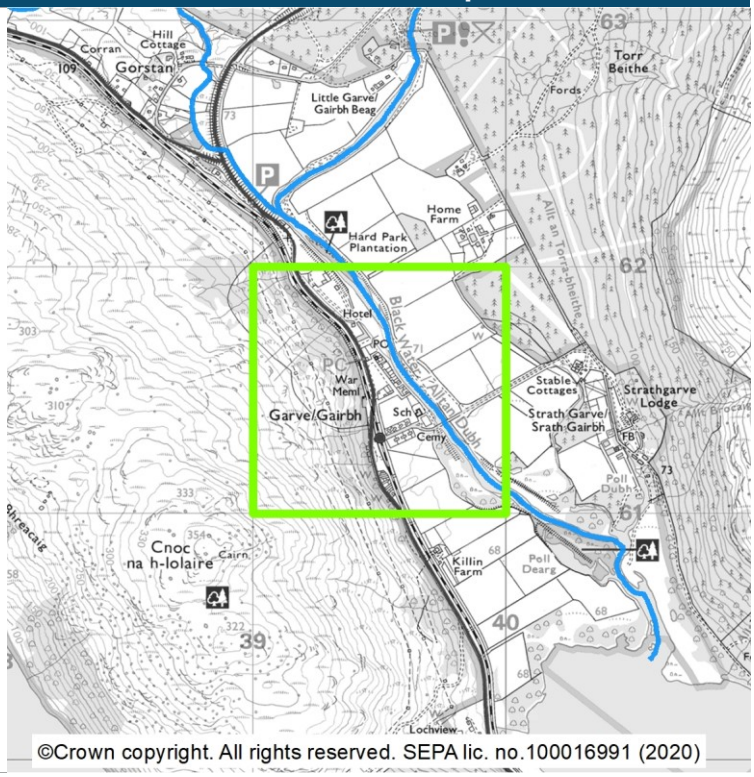
Flood risk management plan datasheet

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.

What are the objectives for the area?

In each target area, SEPA and the responsible authorities have set objectives for the management of flood risk. In some locations, the objectives provide a short-term direction that will be reviewed and updated when more information is available. In others they provide a long-term direction for the management of flooding within a community. The objectives along with the current understanding of flood risk help to identify the actions that are required in the short and long term. It may take several years or multiple 6 year cycles to achieve the identified objectives, but they set a common goal for multiple agencies. The following package of objectives have been established for this area. The objectives must be considered alongside national principles to manage flood risk. These include:

• Take a long term, risk-based approach to flood risk management decisions and one that considers the impacts of and adaptability to climate change.

• Deliver coordinated and integrated flood risk management by engaging with communities and working in partnership, sharing data, expertise, services, and resources.

• Consider whole catchments and coastlines and work with natural processes and the environment to deliver multiple outcomes.

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

What actions are proposed for this area?

This section provides information on the draft proposed actions for this target area. The proposed actions take account of the understanding of flood risk and the package of objectives set for the area. Actions will be coordinated to achieve maximum benefit; this will be determined once the actions have been finalised. The proposed actions are draft for consultation and are provided for comment. Your comments will help shape future flood risk management. The delivery of the proposed actions is subject to available funding and resources.

Actions proposed to start before June 2028

	Site protection plan (Ref: 34101)
Action	The plan to protect an individual site from flood risk should be maintained and executed as required by the site owner or operator.
Action detail	The Highland Council to develop a site protection plan for Strathgarve School.
Coordination	The action delivery lead is The Highland Council and coordination will be determined once the actions have been finalised.

	Flood warning maintenance (Ref: 34102)
Action	The Floodline flood warning service is to be kept operational through maintenance to the existing system and updates being undertaken as required.
Action detail	SEPA should maintain the Conon Valley flood warning scheme.
Coordination	The action delivery lead is SEPA and coordination will be determined once the actions have been finalised.

SEPA and responsible authorities carry out actions in all areas 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. A description of these actions is included in the Local Plan District section at the start of this document.

What are the opportunities for joint working?

Working in partnership is at the heart of flood risk management, responsible authorities and SEPA regularly work together in all areas to improve the coordination of flood management. Working across organisations and groups contributes to sustainable ways of managing current and future flood risk in a community. The potential for joint working will be further explored following the consultation feedback.

02/01/13 (Dingwall and Strathpeffer)

Dingwall and Strathpeffer is designated as a Potentially Vulnerable Area due to the risk of river, coastal and surface water flooding to Dingwall and river flood risk to Blairninich. These areas flood frequently. Recently the areas were affected by surface water flooding.

There are 3 areas in this Potentially Vulnerable Areas, which have been the focus of further assessment, further information on the proposed 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)

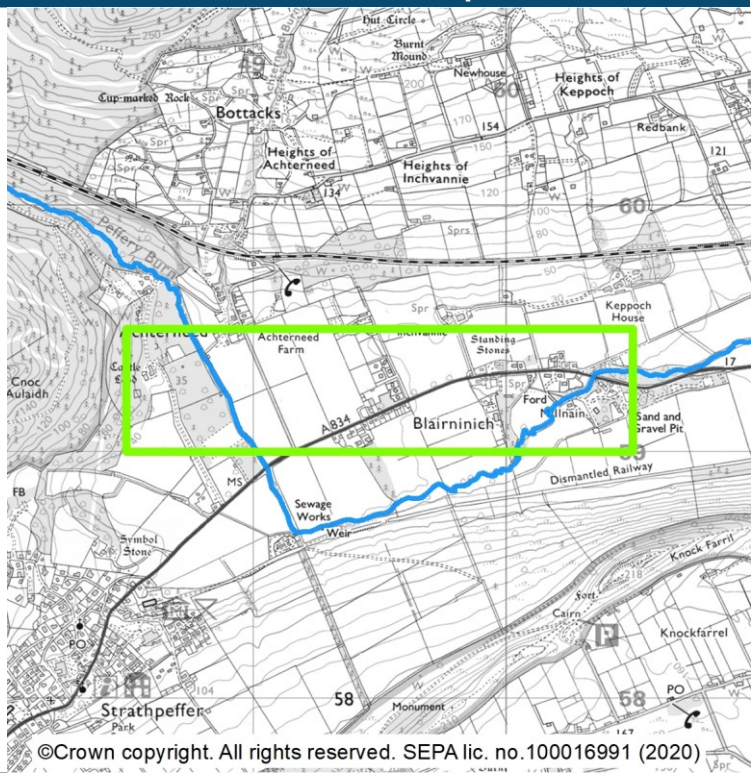
Flood risk management plan datasheet

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.

What are the objectives for the area?

In each target area, SEPA and the responsible authorities have set objectives for the management of flood risk. In some locations, the objectives provide a short-term direction that will be reviewed and updated when more information is available. In others they provide a long-term direction for the management of flooding within a community. The objectives along with the current understanding of flood risk help to identify the actions that are required in the short and long term. It may take several years or multiple 6 year cycles to achieve the identified objectives, but they set a common goal for multiple agencies. The following package of objectives have been established for this area. The objectives must be considered alongside national principles to manage flood risk. These include:

• Take a long term, risk-based approach to flood risk management decisions and one that considers the impacts of and adaptability to climate change.

• Deliver coordinated and integrated flood risk management by engaging with communities and working in partnership, sharing data, expertise, services, and resources.

• Consider whole catchments and coastlines and work with natural processes and the environment to deliver multiple outcomes.

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

What actions are proposed for this area?

This section provides information on the draft proposed actions for this target area. The proposed actions take account of the understanding of flood risk and the package of objectives set for the area. Actions will be coordinated to achieve maximum benefit; this will be determined once the actions have been finalised. The proposed actions are draft for consultation and are provided for comment. Your comments will help shape future flood risk management. The delivery of the proposed actions is subject to available funding and resources.

Actions proposed to start before June 2028

	Flood scheme or works design (Ref: 33501)
Action	The selected preferred approach for managing flood risk is to be designed following the completion of the flood study, including consideration of the long-term impacts of climate change. These can include small scale works or works to improve catchment management. This should guide adaptive planning to allow for the impacts of climate change to be monitored, understood and managed.
Action detail	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.
Coordination	The action delivery lead is The Highland Council in coordination with SEPA and other actions in the area.

	Flood scheme or works implementation (Ref: 33502)
Action	The flood scheme/works is to be built following agreement of the design, costs and timescales.
Action detail	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.
Coordination	The action delivery lead is The Highland Council in coordination with SEPA and other actions in the area.

SEPA and responsible authorities carry out actions in all areas 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. A description of these actions is included in the Local Plan District section at the start of this document.

What are the opportunities for joint working?

Working in partnership is at the heart of flood risk management, responsible authorities and SEPA regularly work together in all areas to improve the coordination of flood management. Working across organisations and groups contributes to sustainable ways of managing current and future flood risk in a community. The potential for joint working will be further explored following the consultation feedback.

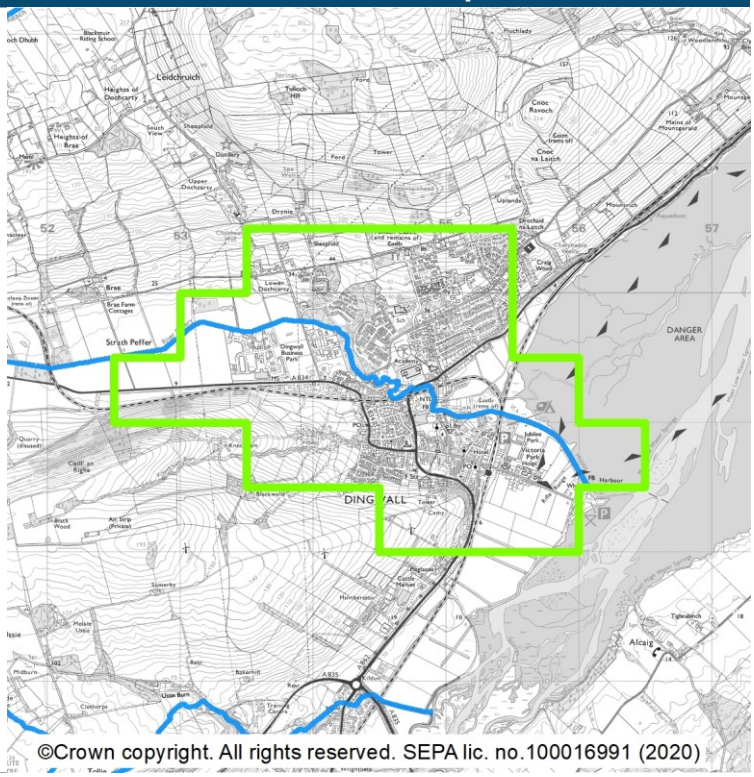
Flood risk management plan datasheet

Dingwall (target area 336)

Summary

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.

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) 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.

What are the objectives for the area?

In each target area, SEPA and the responsible authorities have set objectives for the management of flood risk. In some locations, the objectives provide a short-term direction that will be reviewed and updated when more information is available. In others they provide a long-term direction for the management of flooding within a community. The objectives along with the current understanding of flood risk help to identify the actions that are required in the short and long term. It may take several years or multiple 6 year cycles to achieve the identified objectives, but they set a common goal for multiple agencies. The following package of objectives have been established for this area. The objectives must be considered alongside national principles to manage flood risk. These include:

• Take a long term, risk-based approach to flood risk management decisions and one that considers the impacts of and adaptability to climate change.

• Deliver coordinated and integrated flood risk management by engaging with communities and working in partnership, sharing data, expertise, services, and resources.

• Consider whole catchments and coastlines and work with natural processes and the environment to deliver multiple outcomes.

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

What actions are proposed for this area?

This section provides information on the draft proposed actions for this target area. The proposed actions take account of the understanding of flood risk and the package of objectives set for the area. Actions will be coordinated to achieve maximum benefit; this will be determined once the actions have been finalised. The proposed actions are draft for consultation and are provided for comment. Your comments will help shape future flood risk management. The delivery of the proposed actions is subject to available funding and resources.

Actions proposed to start before June 2028

	Flood defence maintenance (Ref: 33601)
Action	The existing flood defences are to be maintained by the asset owner to ensure they are in good condition.
Action detail	The Highland Council to continue to maintain the existing Dingwall Flood Protection Scheme.
Coordination	The action delivery lead is The Highland Council and coordination will be determined once the actions have been finalised.

	Flood scheme or works design (Ref: 33602)
Action	The selected preferred approach for managing flood risk is to be designed following the completion of the flood study, including consideration of the long-term impacts of climate change. These can include small scale works or works to improve catchment management. This should guide adaptive planning to allow for the impacts of climate change to be monitored, understood and managed.
Action detail	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.
Coordination	The action delivery lead is The Highland Council in coordination with SEPA and other actions in the area.

	Flood scheme or works implementation (Ref: 33603)
Action	The flood scheme/works is to be built following agreement of the design, costs and timescales.
Action detail	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.
Coordination	The action delivery lead is The Highland Council in coordination with SEPA and other actions in the area.

	Strategic mapping improvements (Ref: 33604)
Action	SEPA will continue to update flood maps based on new information.
Action detail	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.
Coordination	The action delivery lead is SEPA and coordination will be determined once the actions have been finalised.

	Flood warning maintenance (Ref: 33605)
Action	The Floodline flood warning service is to be kept operational through maintenance to the existing system and updates being undertaken as required.
Action detail	SEPA should maintain the Moray Firth coastal flood warning scheme.
Coordination	The action delivery lead is SEPA and coordination will be determined once the actions have been finalised.

	Sewer flood risk assessment (Ref: 33606)
Action	The volume of water that would overwhelm the sewer system and cause flooding from man-holes or inside our homes is to be assessed, to support understanding of the performance of the urban drainage network
Action detail	Scottish Water will carry out an assessment of sewer flood risk within the highest priority sewer catchments, which includes Dingwall sewer catchment in this target area. This will help to improve knowledge and understanding of potential surface water flood risk. Funding for this action is secured through Scottish Water's strategic planning commitments.
Coordination	The action delivery lead is Scottish Water in coordination with the local authority and SEPA.

	Surface water management plan (Ref: 33607)
Action	Areas at risk of heavy or prolonged rainfall causing flooding due to water ponding on man-made surfaces or overwhelming the drainage system are to be identified. These priority areas will provide a baseline for the identification of next steps in managing water ponding or over-whelmed drainage systems. This should guide adaptive planning to allow for the impacts of climate change to be monitored, understood and managed.
Action detail	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.
Coordination	The action delivery lead is The Highland Council in coordination with Scottish Water and other actions in the area.

SEPA and responsible authorities carry out actions in all areas 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. A description of these actions is included in the Local Plan District section at the start of this document.

What are the opportunities for joint working?

Working in partnership is at the heart of flood risk management, responsible authorities and SEPA regularly work together in all areas to improve the coordination of flood management. Working across organisations and groups contributes to sustainable ways of managing current and future flood risk in a community. The potential for joint working will be further explored following the consultation feedback.

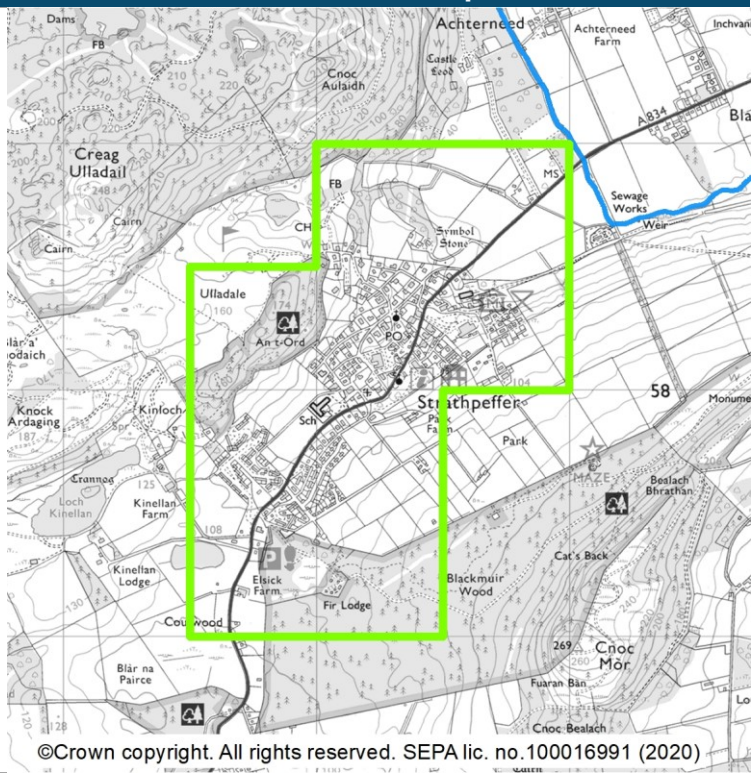
Flood risk management plan datasheet

Strathpeffer (target area 436)

Summary

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.

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 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.

What are the objectives for the area?

In each target area, SEPA and the responsible authorities have set objectives for the management of flood risk. In some locations, the objectives provide a short-term direction that will be reviewed and updated when more information is available. In others they provide a long-term direction for the management of flooding within a community. The objectives along with the current understanding of flood risk help to identify the actions that are required in the short and long term. It may take several years or multiple 6 year cycles to achieve the identified objectives, but they set a common goal for multiple agencies. The following package of objectives have been established for this area. The objectives must be considered alongside national principles to manage flood risk. These include:

• Take a long term, risk-based approach to flood risk management decisions and one that considers the impacts of and adaptability to climate change.

• Deliver coordinated and integrated flood risk management by engaging with communities and working in partnership, sharing data, expertise, services, and resources.

• Consider whole catchments and coastlines and work with natural processes and the environment to deliver multiple outcomes.

Objective ref	Objective type	Objective description
4361	Avoid flood risk	Avoid inappropriate development that increases flood risk in Strathpeffer.
4362	Prepare for flooding	Prepare for current flood risk and future flooding as a result of climate change in Strathpeffer.
4363	Reduce flood risk	Reduce the risk of surface water flooding in Strathpeffer.

What actions are proposed for this area?

This section provides information on the draft proposed actions for this target area. The proposed actions take account of the understanding of flood risk and the package of objectives set for the area. Actions will be coordinated to achieve maximum benefit; this will be determined once the actions have been finalised. The proposed actions are draft for consultation and are provided for comment. Your comments will help shape future flood risk management. The delivery of the proposed actions is subject to available funding and resources.

Actions proposed to start before June 2028

	Surface water management plan (Ref: 43601)
Action	Areas at risk of heavy or prolonged rainfall causing flooding due to water ponding on man-made surfaces or overwhelming the drainage system are to be identified. These priority areas will provide a baseline for the identification of next steps in managing water ponding or over-whelmed drainage systems. This should guide adaptive planning to allow for the impacts of climate change to be monitored, understood and managed.
Action detail	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.
Coordination	The action delivery lead is The Highland Council in coordination with Scottish Water and other actions in the area.

SEPA and responsible authorities carry out actions in all areas 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. A description of these actions is included in the Local Plan District section at the start of this document.

What are the opportunities for joint working?

Working in partnership is at the heart of flood risk management, responsible authorities and SEPA regularly work together in all areas to improve the coordination of flood management. Working across organisations and groups contributes to sustainable ways of managing current and future flood risk in a community. The potential for joint working will be further explored following the consultation feedback.

02/01/14 (Conon Bridge, Muir of Ord and Maryburgh)

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 areas in this Potentially Vulnerable Areas, which have been the focus of further assessment, further information on the proposed 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)

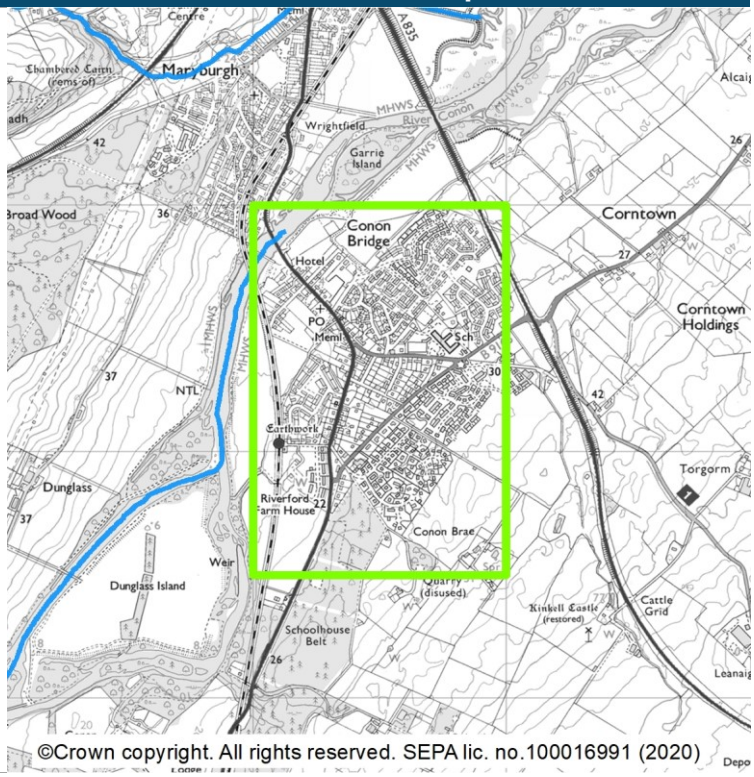
Flood risk management plan datasheet

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).

What are the objectives for the area?

In each target area, SEPA and the responsible authorities have set objectives for the management of flood risk. In some locations, the objectives provide a short-term direction that will be reviewed and updated when more information is available. In others they provide a long-term direction for the management of flooding within a community. The objectives along with the current understanding of flood risk help to identify the actions that are required in the short and long term. It may take several years or multiple 6 year cycles to achieve the identified objectives, but they set a common goal for multiple agencies. The following package of objectives have been established for this area. The objectives must be considered alongside national principles to manage flood risk. These include:

• Take a long term, risk-based approach to flood risk management decisions and one that considers the impacts of and adaptability to climate change.

• Deliver coordinated and integrated flood risk management by engaging with communities and working in partnership, sharing data, expertise, services, and resources.

• Consider whole catchments and coastlines and work with natural processes and the environment to deliver multiple outcomes.

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

What actions are proposed for this area?

This section provides information on the draft proposed actions for this target area. The proposed actions take account of the understanding of flood risk and the package of objectives set for the area. Actions will be coordinated to achieve maximum benefit; this will be determined once the actions have been finalised. The proposed actions are draft for consultation and are provided for comment. Your comments will help shape future flood risk management. The delivery of the proposed actions is subject to available funding and resources.

Actions proposed to start before June 2028

	Flood defence maintenance (Ref: 34002)
Action	The existing flood defences are to be maintained by the asset owner to ensure they are in good condition.
Action detail	The Highland Council to continue to maintain the Conon Bridge Flood Protection Scheme.
Coordination	The action delivery lead is The Highland Council and coordination will be determined once the actions have been finalised.

	Flood warning maintenance (Ref: 34003)
Action	The Floodline flood warning service is to be kept operational through maintenance to the existing system and updates being undertaken as required.
Action detail	SEPA should maintain the Conon Valley flood warning scheme.
Coordination	The action delivery lead is SEPA and coordination will be determined once the actions have been finalised.

Actions proposed after June 2028

The following actions are proposed to take place after June 2028. These will be reviewed in 2026, considering added information at that time, to ensure they are still the most appropriate actions for the community.

	Flood study (Ref: 34001)
Action	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.
Action detail	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.
Coordination	The action delivery lead is The Highland Council and coordination will be determined once the actions have been finalised.

SEPA and responsible authorities carry out actions in all areas 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. A description of these actions is included in the Local Plan District section at the start of this document.

What are the opportunities for joint working?

Working in partnership is at the heart of flood risk management, responsible authorities and SEPA regularly work together in all areas to improve the coordination of flood management. Working across organisations and groups contributes to sustainable ways of managing current and future flood risk in a community. The potential for joint working will be further explored following the consultation feedback.

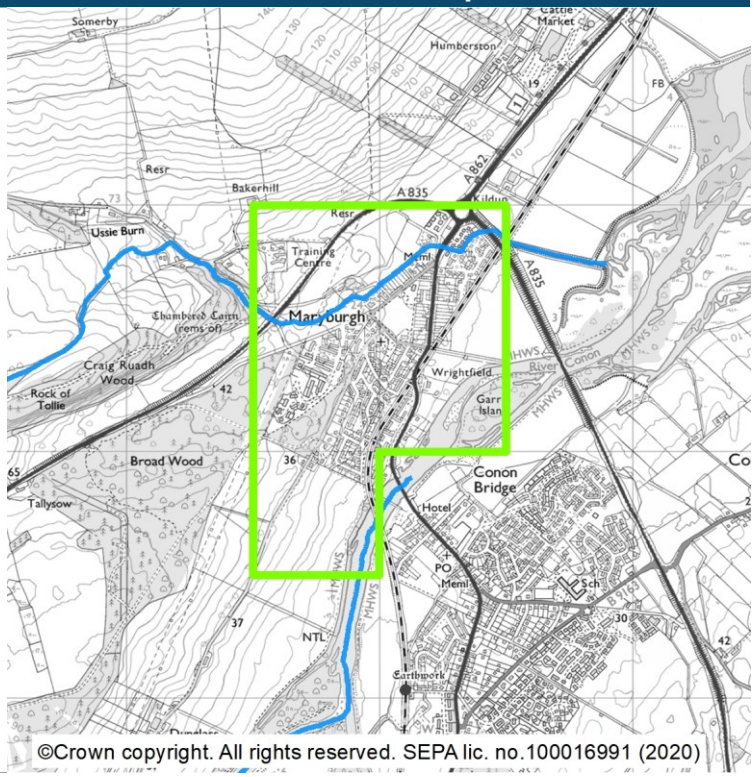
Flood risk management plan datasheet

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.

What are the objectives for the area?

In each target area, SEPA and the responsible authorities have set objectives for the management of flood risk. In some locations, the objectives provide a short-term direction that will be reviewed and updated when more information is available. In others they provide a long-term direction for the management of flooding within a community. The objectives along with the current understanding of flood risk help to identify the actions that are required in the short and long term. It may take several years or multiple 6 year cycles to achieve the identified objectives, but they set a common goal for multiple agencies. The following package of objectives have been established for this area. The objectives must be considered alongside national principles to manage flood risk. These include:

• Take a long term, risk-based approach to flood risk management decisions and one that considers the impacts of and adaptability to climate change.

• Deliver coordinated and integrated flood risk management by engaging with communities and working in partnership, sharing data, expertise, services, and resources.

• Consider whole catchments and coastlines and work with natural processes and the environment to deliver multiple outcomes.

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

What actions are proposed for this area?

This section provides information on the draft proposed actions for this target area. The proposed actions take account of the understanding of flood risk and the package of objectives set for the area. Actions will be coordinated to achieve maximum benefit; this will be determined once the actions have been finalised. The proposed actions are draft for consultation and are provided for comment. Your comments will help shape future flood risk management. The delivery of the proposed actions is subject to available funding and resources.

Actions proposed to start before June 2028

	Flood study (Ref: 36301)
Action	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.
Action detail	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.
Coordination	The action delivery lead is The Highland Council and coordination will be determined once the actions have been finalised.

	Flood warning maintenance (Ref: 36302)
Action	The Floodline flood warning service is to be kept operational through maintenance to the existing system and updates being undertaken as required.
Action detail	SEPA should maintain the Conon Valley flood warning scheme.
Coordination	The action delivery lead is SEPA and coordination will be determined once the actions have been finalised.

SEPA and responsible authorities carry out actions in all areas 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. A description of these actions is included in the Local Plan District section at the start of this document.

What are the opportunities for joint working?

Working in partnership is at the heart of flood risk management, responsible authorities and SEPA regularly work together in all areas to improve the coordination of flood management. Working across organisations and groups contributes to sustainable ways of managing current and future flood risk in a community. The potential for joint working will be further explored following the consultation feedback.

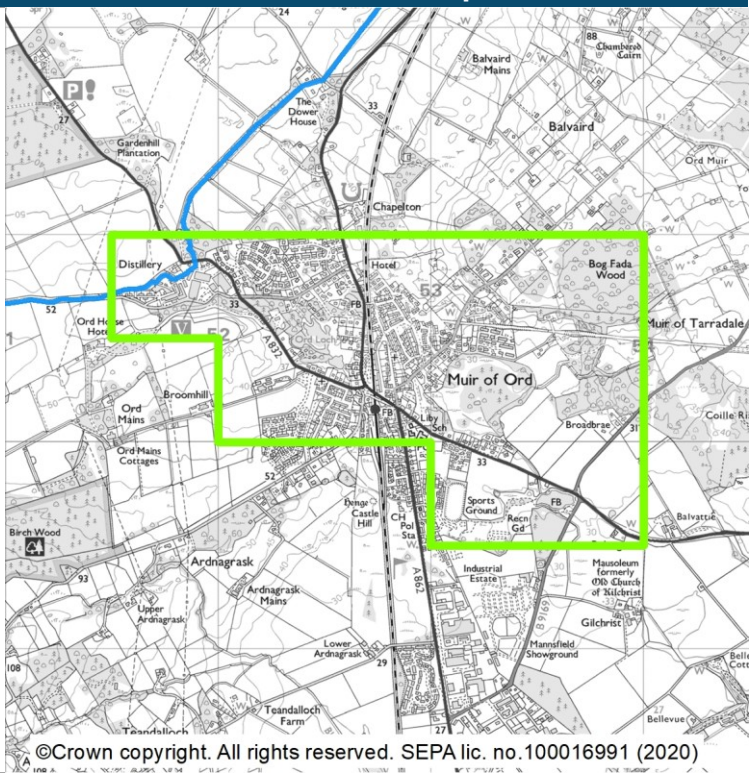
Flood risk management plan datasheet

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.

What are the objectives for the area?

In each target area, SEPA and the responsible authorities have set objectives for the management of flood risk. In some locations, the objectives provide a short-term direction that will be reviewed and updated when more information is available. In others they provide a long-term direction for the management of flooding within a community. The objectives along with the current understanding of flood risk help to identify the actions that are required in the short and long term. It may take several years or multiple 6 year cycles to achieve the identified objectives, but they set a common goal for multiple agencies. The following package of objectives have been established for this area. The objectives must be considered alongside national principles to manage flood risk. These include:

• Take a long term, risk-based approach to flood risk management decisions and one that considers the impacts of and adaptability to climate change.

• Deliver coordinated and integrated flood risk management by engaging with communities and working in partnership, sharing data, expertise, services, and resources.

• Consider whole catchments and coastlines and work with natural processes and the environment to deliver multiple outcomes.

Objective ref	Objective type	Objective description
4351	Avoid flood risk	Avoid inappropriate development that increases flood risk in Muir of Ord.
4352	Improve data and understanding	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.
4353	Prepare for flooding	Prepare for current flood risk and future flooding as a result of climate change in Muir of Ord.

What actions are proposed for this area?

This section provides information on the draft proposed actions for this target area. The proposed actions take account of the understanding of flood risk and the package of objectives set for the area. Actions will be coordinated to achieve maximum benefit; this will be determined once the actions have been finalised. The proposed actions are draft for consultation and are provided for comment. Your comments will help shape future flood risk management. The delivery of the proposed actions is subject to available funding and resources.

Actions proposed to start before June 2028

	Flood risk management review (Ref: 43501)
Action	During each 6 year planning cycle, we update our understanding of flooding to include all new data and information that has become available. This includes information on any flooding that has happened and the latest predictions on the impacts of climate change. The updated understanding is used to set any appropriate objectives and actions for areas at risk of flooding.
Action detail	No local actions specific to this target area have been identified yet. There are national actions planned that will cover this area, including an update to SEPA's surface water flood maps and an update to the national flood risk assessment. These, along with other actions that are carried out across the whole local plan district covering this area, will help to manage flood risk in the long term. The need for actions for this area will be reviewed again in 2026.
Coordination	The action delivery lead is SEPA and coordination will be determined once the actions have been finalised.

SEPA and responsible authorities carry out actions in all areas 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. A description of these actions is included in the Local Plan District section at the start of this document.

What are the opportunities for joint working?

Working in partnership is at the heart of flood risk management, responsible authorities and SEPA regularly work together in all areas to improve the coordination of flood management. Working across organisations and groups contributes to sustainable ways of managing current and future flood risk in a community. The potential for joint working will be further explored following the consultation feedback.

02/01/15 (Ardersier)

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 area in this Potentially Vulnerable Areas, which has been the focus of further assessment, further information on the proposed objectives and actions to manage flood risk within this area is provided below.

List of target areas

Ardersier	(target area 345)

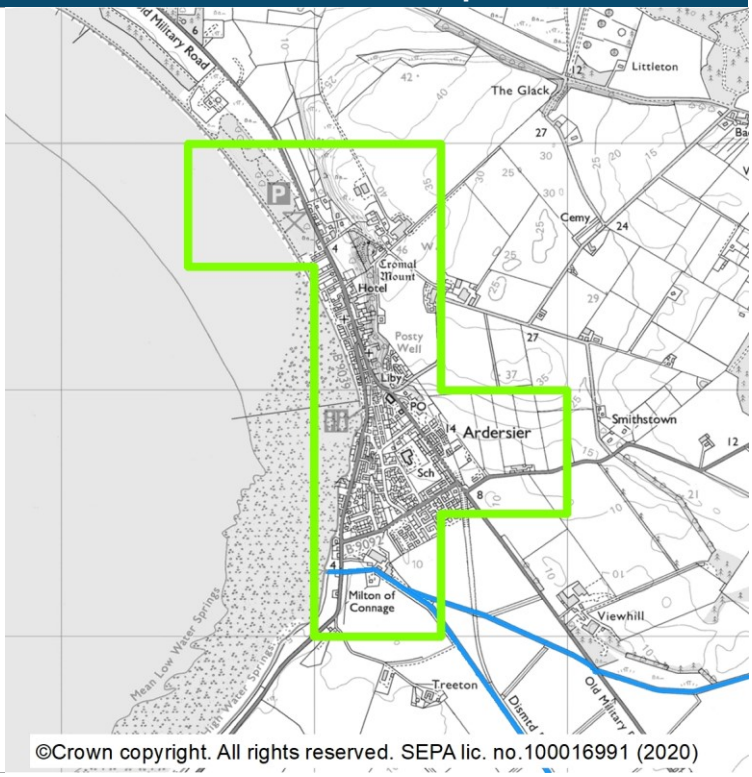
Flood risk management plan datasheet

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.

What are the objectives for the area?

In each target area, SEPA and the responsible authorities have set objectives for the management of flood risk. In some locations, the objectives provide a short-term direction that will be reviewed and updated when more information is available. In others they provide a long-term direction for the management of flooding within a community. The objectives along with the current understanding of flood risk help to identify the actions that are required in the short and long term. It may take several years or multiple 6 year cycles to achieve the identified objectives, but they set a common goal for multiple agencies. The following package of objectives have been established for this area. The objectives must be considered alongside national principles to manage flood risk. These include:

• Take a long term, risk-based approach to flood risk management decisions and one that considers the impacts of and adaptability to climate change.

• Deliver coordinated and integrated flood risk management by engaging with communities and working in partnership, sharing data, expertise, services, and resources.

• Consider whole catchments and coastlines and work with natural processes and the environment to deliver multiple outcomes.

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

What actions are proposed for this area?

This section provides information on the draft proposed actions for this target area. The proposed actions take account of the understanding of flood risk and the package of objectives set for the area. Actions will be coordinated to achieve maximum benefit; this will be determined once the actions have been finalised. The proposed actions are draft for consultation and are provided for comment. Your comments will help shape future flood risk management. The delivery of the proposed actions is subject to available funding and resources.

Actions proposed to start before June 2028

	Strategic mapping improvements (Ref: 34501)
Action	SEPA will continue to update flood maps based on new information.
Action detail	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.
Coordination	The action delivery lead is SEPA and coordination will be determined once the actions have been finalised.

	Flood warning maintenance (Ref: 34502)
Action	The Floodline flood warning service is to be kept operational through maintenance to the existing system and updates being undertaken as required.
Action detail	SEPA should maintain the Moray Firth coastal flood warning scheme.
Coordination	The action delivery lead is SEPA and coordination will be determined once the actions have been finalised.

SEPA and responsible authorities carry out actions in all areas 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. A description of these actions is included in the Local Plan District section at the start of this document.

What are the opportunities for joint working?

Working in partnership is at the heart of flood risk management, responsible authorities and SEPA regularly work together in all areas to improve the coordination of flood management. Working across organisations and groups contributes to sustainable ways of managing current and future flood risk in a community. The potential for joint working will be further explored following the consultation feedback.

02/01/16 (Smithton and Culloden)

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 benefits from a flood scheme which manages the risk of flooding from surface water and small water courses.

There is 1 area in this Potentially Vulnerable Areas, which has been the focus of further assessment, further information on the proposed objectives and actions to manage flood risk within this area is provided below.

List of target areas

Smithton and Culloden	(target area 342)

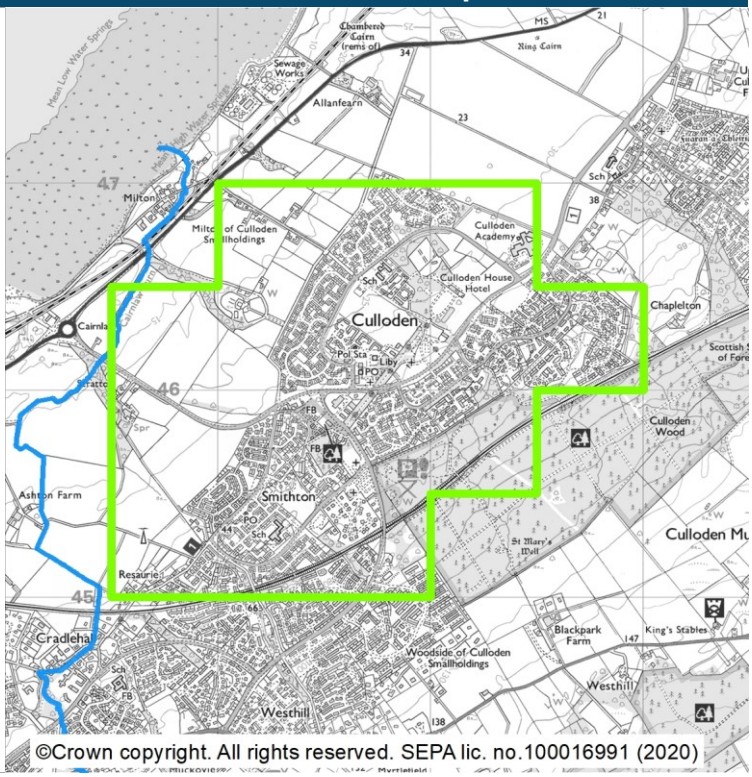
Flood risk management plan datasheet

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.

What are the objectives for the area?

In each target area, SEPA and the responsible authorities have set objectives for the management of flood risk. In some locations, the objectives provide a short-term direction that will be reviewed and updated when more information is available. In others they provide a long-term direction for the management of flooding within a community. The objectives along with the current understanding of flood risk help to identify the actions that are required in the short and long term. It may take several years or multiple 6 year cycles to achieve the identified objectives, but they set a common goal for multiple agencies. The following package of objectives have been established for this area. The objectives must be considered alongside national principles to manage flood risk. These include:

• Take a long term, risk-based approach to flood risk management decisions and one that considers the impacts of and adaptability to climate change.

• Deliver coordinated and integrated flood risk management by engaging with communities and working in partnership, sharing data, expertise, services, and resources.

• Consider whole catchments and coastlines and work with natural processes and the environment to deliver multiple outcomes.

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

What actions are proposed for this area?

This section provides information on the draft proposed actions for this target area. The proposed actions take account of the understanding of flood risk and the package of objectives set for the area. Actions will be coordinated to achieve maximum benefit; this will be determined once the actions have been finalised. The proposed actions are draft for consultation and are provided for comment. Your comments will help shape future flood risk management. The delivery of the proposed actions is subject to available funding and resources.

Actions proposed to start before June 2028

	Flood defence maintenance (Ref: 34201)
Action	The existing flood defences are to be maintained by the asset owner to ensure they are in good condition.
Action detail	The Highland Council to continue to maintain the Smithton and Culloden Flood Protection Scheme.
Coordination	The action delivery lead is The Highland Council and coordination will be determined once the actions have been finalised.

	Sewer flood risk assessment (Ref: 34202)
Action	The volume of water that would overwhelm the sewer system and cause flooding from man-holes or inside our homes is to be assessed, to support understanding of the performance of the urban drainage network
Action detail	Scottish Water will carry out an assessment of sewer flood risk within the highest priority sewer catchments, which includes Inverness sewer catchment in this target area. This will help to improve knowledge and understanding of potential surface water flood risk. Funding for this action is secured through Scottish Water's strategic planning commitments.
Coordination	The action delivery lead is Scottish Water in coordination with the local authority and SEPA.

	Surface water management plan (Ref: 34203)
Action	Areas at risk of heavy or prolonged rainfall causing flooding due to water ponding on man-made surfaces or overwhelming the drainage system are to be identified. These priority areas will provide a baseline for the identification of next steps in managing water ponding or over-whelmed drainage systems. This should guide adaptive planning to allow for the impacts of climate change to be monitored, understood and managed.
Action detail	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 in Smithton and Culloden and identifies options that could alleviate this risk.
Coordination	The action delivery lead is The Highland Council in coordination with Scottish Water and other actions in the area.

SEPA and responsible authorities carry out actions in all areas 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. A description of these actions is included in the Local Plan District section at the start of this document.

What are the opportunities for joint working?

Working in partnership is at the heart of flood risk management, responsible authorities and SEPA regularly work together in all areas to improve the coordination of flood management. Working across organisations and groups contributes to sustainable ways of managing current and future flood risk in a community. The potential for joint working will be further explored following the consultation feedback.

02/01/17 (Inverness)

This area is designated as a Potentially Vulnerable Area due the risk of river, coastal and surface water flooding to Inverness. Recent floods were caused by river flooding. The River Ness flood scheme benefits 800 homes and 200 businesses.

There is 1 area in this Potentially Vulnerable Areas, which has been the focus of further assessment, further information on the proposed objectives and actions to manage flood risk within this area is provided below.

List of target areas

Inverness	(target area 387)

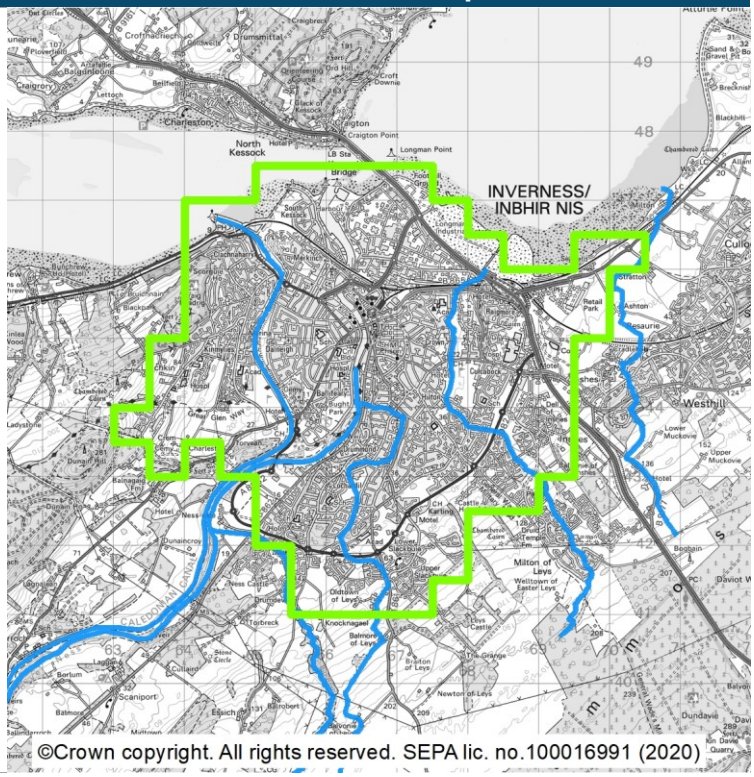
Flood risk management plan datasheet

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.

What are the objectives for the area?

In each target area, SEPA and the responsible authorities have set objectives for the management of flood risk. In some locations, the objectives provide a short-term direction that will be reviewed and updated when more information is available. In others they provide a long-term direction for the management of flooding within a community. The objectives along with the current understanding of flood risk help to identify the actions that are required in the short and long term. It may take several years or multiple 6 year cycles to achieve the identified objectives, but they set a common goal for multiple agencies. The following package of objectives have been established for this area. The objectives must be considered alongside national principles to manage flood risk. These include:

• Take a long term, risk-based approach to flood risk management decisions and one that considers the impacts of and adaptability to climate change.

• Deliver coordinated and integrated flood risk management by engaging with communities and working in partnership, sharing data, expertise, services, and resources.

• Consider whole catchments and coastlines and work with natural processes and the environment to deliver multiple outcomes.

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

What actions are proposed for this area?

This section provides information on the draft proposed actions for this target area. The proposed actions take account of the understanding of flood risk and the package of objectives set for the area. Actions will be coordinated to achieve maximum benefit; this will be determined once the actions have been finalised. The proposed actions are draft for consultation and are provided for comment. Your comments will help shape future flood risk management. The delivery of the proposed actions is subject to available funding and resources.

Actions proposed to start before June 2028

	Flood defence maintenance (Ref: 38701)
Action	The existing flood defences are to be maintained by the asset owner to ensure they are in good condition.
Action detail	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.
Coordination	The action delivery lead is The Highland Council and coordination will be determined once the actions have been finalised.

	Flood scheme or works design (Ref: 38702)
Action	The selected preferred approach for managing flood risk is to be designed following the completion of the flood study, including consideration of the long-term impacts of climate change. These can include small scale works or works to improve catchment management. This should guide adaptive planning to allow for the impacts of climate change to be monitored, understood and managed.
Action detail	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 managmement in the upstream catchment. The option to also include channel widening is being considered.
Coordination	The action delivery lead is The Highland Council and coordination will be determined once the actions have been finalised.

	Flood scheme or works implementation (Ref: 38703)
Action	The flood scheme/works is to be built following agreement of the design, costs and timescales.
Action detail	Subject to Scottish Government funding The Highland Council should progress with the Mill Burn Flood Protection Scheme based on the detailed design.
Coordination	The action delivery lead is The Highland Council and coordination will be determined once the actions have been finalised.

	Flood study (Ref: 38704)
Action	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.
Action detail	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.
Coordination	The action delivery lead is The Highland Council and coordination will be determined once the actions have been finalised.

	Sewer flood risk assessment (Ref: 38705)
Action	The volume of water that would overwhelm the sewer system and cause flooding from man-holes or inside our homes is to be assessed, to support understanding of the performance of the urban drainage network
Action detail	Scottish Water will carry out an assessment of sewer flood risk within the highest priority sewer catchments, which includes Inverness sewer catchment in this target area. This will help to improve knowledge and understanding of potential surface water flood risk. Funding for this action is secured through Scottish Water's strategic planning commitments.
Coordination	The action delivery lead is Scottish Water in coordination with the local authority and SEPA.

	Surface water management plan (Ref: 38706)
Action	Areas at risk of heavy or prolonged rainfall causing flooding due to water ponding on man-made surfaces or overwhelming the drainage system are to be identified. These priority areas will provide a baseline for the identification of next steps in managing water ponding or over-whelmed drainage systems. This should guide adaptive planning to allow for the impacts of climate change to be monitored, understood and managed.
Action detail	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 alleivate this risk.
Coordination	The action delivery lead is The Highland Council in coordination with Scottish Water and other actions in the area.

	Strategic mapping improvements (Ref: 38707)
Action	SEPA will continue to update flood maps based on new information.
Action detail	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.
Coordination	The action delivery lead is SEPA and coordination will be determined once the actions have been finalised.

	Flood warning maintenance (Ref: 38708)
Action	The Floodline flood warning service is to be kept operational through maintenance to the existing system and updates being undertaken as required.
Action detail	SEPA should maintain the River Ness and the Moray Firth coastal flood warning schemes.
Coordination	The action delivery lead is SEPA and coordination will be determined once the actions have been finalised.

Actions proposed after June 2028

The following actions are proposed to take place after June 2028. These will be reviewed in 2026, considering added information at that time, to ensure they are still the most appropriate actions for the community.

	Flood warning maintenance (Ref: 38709)
Action	The Floodline flood warning service is to be kept operational through maintenance to the existing system and updates being undertaken as required.
Action detail	SEPA should investigate improvements to the River Ness flood warning scheme.
Coordination	The action delivery lead is SEPA and coordination will be determined once the actions have been finalised.

SEPA and responsible authorities carry out actions in all areas 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. A description of these actions is included in the Local Plan District section at the start of this document.

What are the opportunities for joint working?

Working in partnership is at the heart of flood risk management, responsible authorities and SEPA regularly work together in all areas to improve the coordination of flood management. Working across organisations and groups contributes to sustainable ways of managing current and future flood risk in a community. The potential for joint working will be further explored following the consultation feedback.

There is potential to work with SEPA's River Basin Management team to improve the physical condition of the water environment.

02/01/18 (Drumnadrochit)

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 area in this Potentially Vulnerable Areas, which has been the focus of further assessment, further information on the proposed objectives and actions to manage flood risk within this area is provided below.

List of target areas

Drumnadrochit (target area 343)

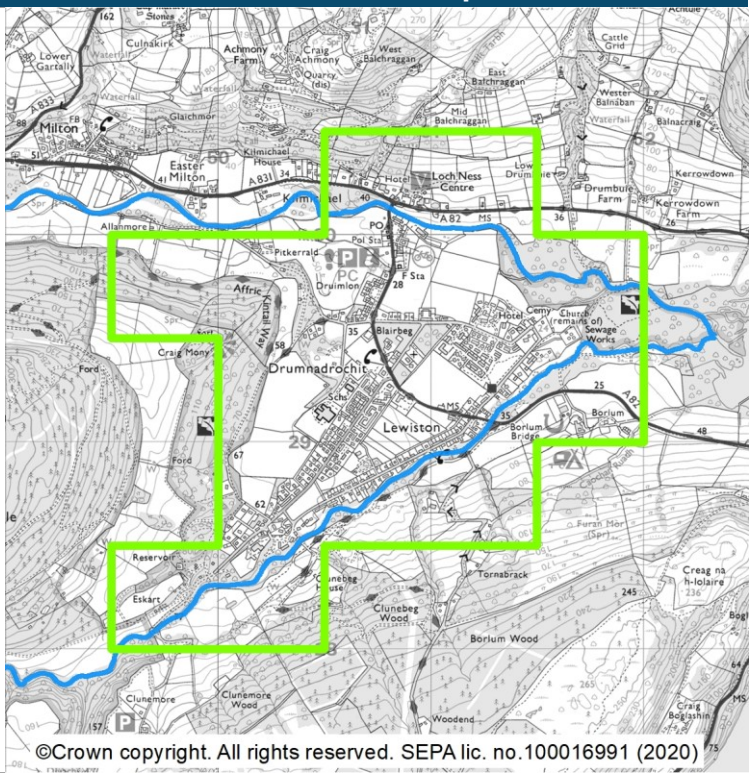
Flood risk management plan datasheet

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.

What are the objectives for the area?

In each target area, SEPA and the responsible authorities have set objectives for the management of flood risk. In some locations, the objectives provide a short-term direction that will be reviewed and updated when more information is available. In others they provide a long-term direction for the management of flooding within a community. The objectives along with the current understanding of flood risk help to identify the actions that are required in the short and long term. It may take several years or multiple 6 year cycles to achieve the identified objectives, but they set a common goal for multiple agencies. The following package of objectives have been established for this area. The objectives must be considered alongside national principles to manage flood risk. These include:

• Take a long term, risk-based approach to flood risk management decisions and one that considers the impacts of and adaptability to climate change.

• Deliver coordinated and integrated flood risk management by engaging with communities and working in partnership, sharing data, expertise, services, and resources.

• Consider whole catchments and coastlines and work with natural processes and the environment to deliver multiple outcomes.

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

What actions are proposed for this area?

This section provides information on the draft proposed actions for this target area. The proposed actions take account of the understanding of flood risk and the package of objectives set for the area. Actions will be coordinated to achieve maximum benefit; this will be determined once the actions have been finalised. The proposed actions are draft for consultation and are provided for comment. Your comments will help shape future flood risk management. The delivery of the proposed actions is subject to available funding and resources.

Actions proposed to start before June 2028

	Flood study (Ref: 34301)
Action	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.
Action detail	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.
Coordination	The action delivery lead is The Highland Council and coordination will be determined once the actions have been finalised.

	Flood scheme or works implementation (Ref: 34302)
Action	The flood scheme/works is to be built following agreement of the design, costs and timescales.
Action detail	The Highland Council has undertaken the detailed design and obtained permission and has commenced construction of the Drumnadrochit Flood Protection Scheme. Completion of the scheme will occur in cycle 2.
Coordination	The action delivery lead is The Highland Council.

	Flood defence maintenance (Ref: 34303)
Action	The existing flood defences are to be maintained by the asset owner to ensure they are in good condition.
Action detail	The Highland Council to continue to maintain the Drumnadrochit Flood Protection Scheme once completed.
Coordination	The action delivery lead is The Highland Council and coordination will be determined once the actions have been finalised.

	Flood warning maintenance (Ref: 34304)
Action	The Floodline flood warning service is to be kept operational through maintenance to the existing system and updates being undertaken as required.
Action detail	SEPA should maintain the River Ness flood warning scheme.
Coordination	The action delivery lead is SEPA and coordination will be determined once the actions have been finalised.

SEPA and responsible authorities carry out actions in all areas 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. A description of these actions is included in the Local Plan District section at the start of this document.

What are the opportunities for joint working?

Working in partnership is at the heart of flood risk management, responsible authorities and SEPA regularly work together in all areas to improve the coordination of flood management. Working across organisations and groups contributes to sustainable ways of managing current and future flood risk in a community. The potential for joint working will be further explored following the consultation feedback.

02/01/19 (Fort Augustus)

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 area in this Potentially Vulnerable Areas, which has been the focus of further assessment, further information on the proposed objectives and actions to manage flood risk within this area is provided below.

List of target areas

Fort Augustus (target area 359)

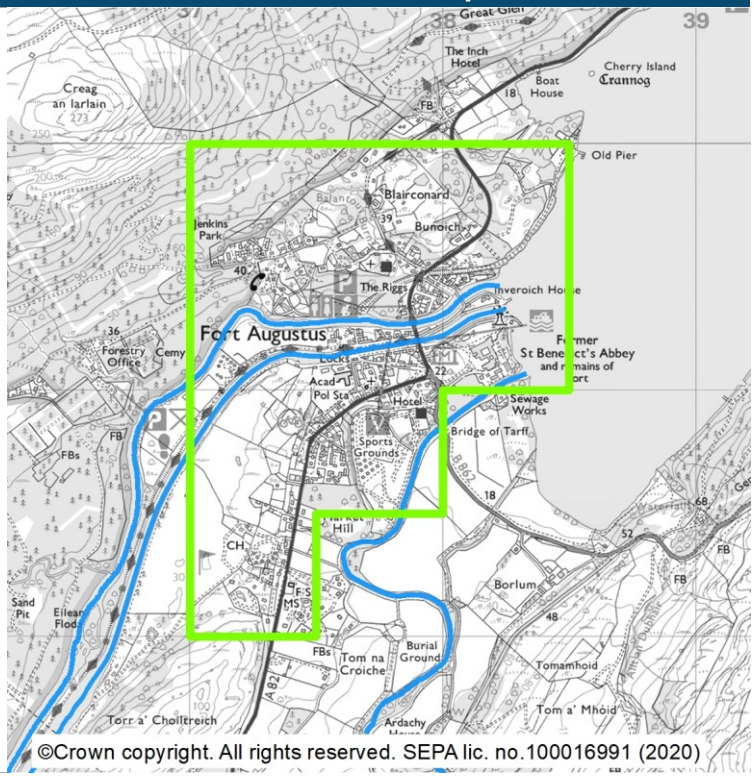
Flood risk management plan datasheet

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.

What are the objectives for the area?

In each target area, SEPA and the responsible authorities have set objectives for the management of flood risk. In some locations, the objectives provide a short-term direction that will be reviewed and updated when more information is available. In others they provide a long-term direction for the management of flooding within a community. The objectives along with the current understanding of flood risk help to identify the actions that are required in the short and long term. It may take several years or multiple 6 year cycles to achieve the identified objectives, but they set a common goal for multiple agencies. The following package of objectives have been established for this area. The objectives must be considered alongside national principles to manage flood risk. These include:

• Take a long term, risk-based approach to flood risk management decisions and one that considers the impacts of and adaptability to climate change.

• Deliver coordinated and integrated flood risk management by engaging with communities and working in partnership, sharing data, expertise, services, and resources.

• Consider whole catchments and coastlines and work with natural processes and the environment to deliver multiple outcomes.

Objective ref	Objective type	Objective description
3591	Avoid flood risk	Avoid an increase in flood risk by the appropriate management and maintenance of the Fort Augustus flood protection scheme.
3592	Avoid flood risk	Avoid inappropriate development that increases flood risk in Fort Augustus.
3593	Improve data and understanding	Improve data and understanding of the performance of the Fort Augustus flood protection scheme.
3594	Prepare for flooding	Prepare for current flood risk and future flooding as a result of climate change in Fort Augustus.

What actions are proposed for this area?

This section provides information on the draft proposed actions for this target area. The proposed actions take account of the understanding of flood risk and the package of objectives set for the area. Actions will be coordinated to achieve maximum benefit; this will be determined once the actions have been finalised. The proposed actions are draft for consultation and are provided for comment. Your comments will help shape future flood risk management. The delivery of the proposed actions is subject to available funding and resources.

Actions proposed to start before June 2028

	Flood defence maintenance (Ref: 35901)
Action	The existing flood defences are to be maintained by the asset owner to ensure they are in good condition.
Action detail	The Highland Council should continue to maintain the Fort Augustus Flood Protection Scheme.
Coordination	The action delivery lead is The Highland Council and coordination will be determined once the actions have been finalised.

	Flood warning maintenance (Ref: 35902)
Action	The Floodline flood warning service is to be kept operational through maintenance to the existing system and updates being undertaken as required.
Action detail	SEPA should maintain the River Oich flood warning scheme.
Coordination	The action delivery lead is SEPA and coordination will be determined once the actions have been finalised.

Actions proposed after June 2028

The following actions are proposed to take place after June 2028. These will be reviewed in 2026, considering added information at that time, to ensure they are still the most appropriate actions for the community.

	Flood study (existing flood defences) (Ref: 35903)
Action	The performance and condition of the existing flood defences are to be evaluated, including consideration of the likely impacts of climate change. This should guide adaptive planning to allow for the impacts of climate change to be monitored, understood and managed.
Action detail	Assess the performance of the Fort Augustus Flood Protection Scheme.
Coordination	The action delivery lead and coordination will be determined once the actions have been finalised.

SEPA and responsible authorities carry out actions in all areas 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. A description of these actions is included in the Local Plan District section at the start of this document.

What are the opportunities for joint working?

Working in partnership is at the heart of flood risk management, responsible authorities and SEPA regularly work together in all areas to improve the coordination of flood management. Working across organisations and groups contributes to sustainable ways of managing current and future flood risk in a community. The potential for joint working will be further explored following the consultation feedback.

02/01/20 (Fort William to Corpach)

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 surface water. Storm Desmond caused river flooding in December 2015.

There are 2 areas in this Potentially Vulnerable Area, which have been the focus of further assessment, further information on the proposed 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)

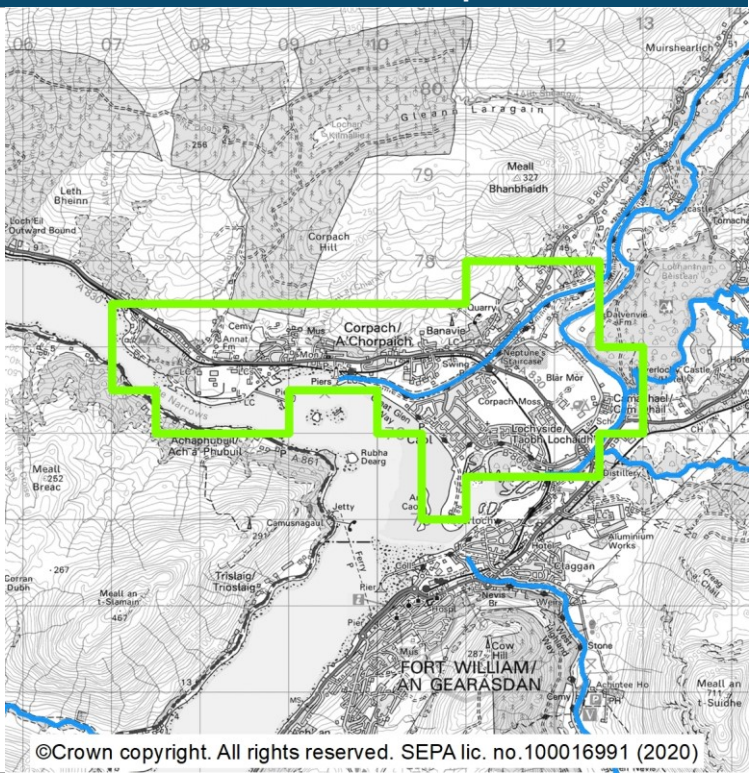
Flood risk management plan datasheet

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 Lochyside 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 Lochyside 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.

What are the objectives for the area?

In each target area, SEPA and the responsible authorities have set objectives for the management of flood risk. In some locations, the objectives provide a short-term direction that will be reviewed and updated when more information is available. In others they provide a long-term direction for the management of flooding within a community. The objectives along with the current understanding of flood risk help to identify the actions that are required in the short and long term. It may take several years or multiple 6 year cycles to achieve the identified objectives, but they set a common goal for multiple agencies. The following package of objectives have been established for this area. The objectives must be considered alongside national principles to manage flood risk. These include:

• Take a long term, risk-based approach to flood risk management decisions and one that considers the impacts of and adaptability to climate change.

• Deliver coordinated and integrated flood risk management by engaging with communities and working in partnership, sharing data, expertise, services, and resources.

• Consider whole catchments and coastlines and work with natural processes and the environment to deliver multiple outcomes.

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

What actions are proposed for this area?

This section provides information on the draft proposed actions for this target area. The proposed actions take account of the understanding of flood risk and the package of objectives set for the area. Actions will be coordinated to achieve maximum benefit; this will be determined once the actions have been finalised. The proposed actions are draft for consultation and are provided for comment. Your comments will help shape future flood risk management. The delivery of the proposed actions is subject to available funding and resources.

Actions proposed to start before June 2028

	Flood scheme or works implementation (Ref: 33001)
Action	The flood scheme/works is to be built following agreement of the design, costs and timescales.
Action detail	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.
Coordination	The action delivery lead is The Highland Council.

	Flood defence maintenance (Ref: 33002)
Action	The existing flood defences are to be maintained by the asset owner to ensure they are in good condition.
Action detail	The Highland Council to maintain the Caol and Lochyside Flood Protection Scheme once completed.
Coordination	The action delivery lead is The Highland Council and coordination will be determined once the actions have been finalised.

	Flood warning maintenance (Ref: 33003)
Action	The Floodline flood warning service is to be kept operational through maintenance to the existing system and updates being undertaken as required.
Action detail	SEPA should maintain the River Lochy and Loch Linnhe coastal flood warning schemes.
Coordination	The action delivery lead is SEPA and coordination will be determined once the actions have been finalised.

	Sewer flood risk assessment (Ref: 33004)
Action	The volume of water that would overwhelm the sewer system and cause flooding from man-holes or inside our homes is to be assessed, to support understanding of the performance of the urban drainage network
Action detail	Scottish Water will carry out an assessment of sewer flood risk within the highest priority sewer catchments, which includes Corpach and Fort William sewer catchments in this target area. This will help to improve knowledge and understanding of potential surface water flood risk. Funding for this action is secured through Scottish Water's strategic planning commitments.
Coordination	The action delivery lead is Scottish Water in coordination with the local authority and SEPA.

	Surface water management plan (Ref: 33005)
Action	Areas at risk of heavy or prolonged rainfall causing flooding due to water ponding on man-made surfaces or overwhelming the drainage system are to be identified. These priority areas will provide a baseline for the identification of next steps in managing water ponding or over-whelmed drainage systems. This should guide adaptive planning to allow for the impacts of climate change to be monitored, understood and managed.
Action detail	The Highland Council to continue to develop and implement the Highland wide surface water management plan which includes Caol and Corpach as a priority area. The surface water management plan identifies areas most at risk from surface water flooding and identifies options that could alleviate this risk.
Coordination	The action delivery lead is The Highland Council in coordination with Scottish Water and other actions in the area.

SEPA and responsible authorities carry out actions in all areas 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. A description of these actions is included in the Local Plan District section at the start of this document.

What are the opportunities for joint working?

Working in partnership is at the heart of flood risk management, responsible authorities and SEPA regularly work together in all areas to improve the coordination of flood management. Working across organisations and groups contributes to sustainable ways of managing current and future flood risk in a community. The potential for joint working will be further explored following the consultation feedback.

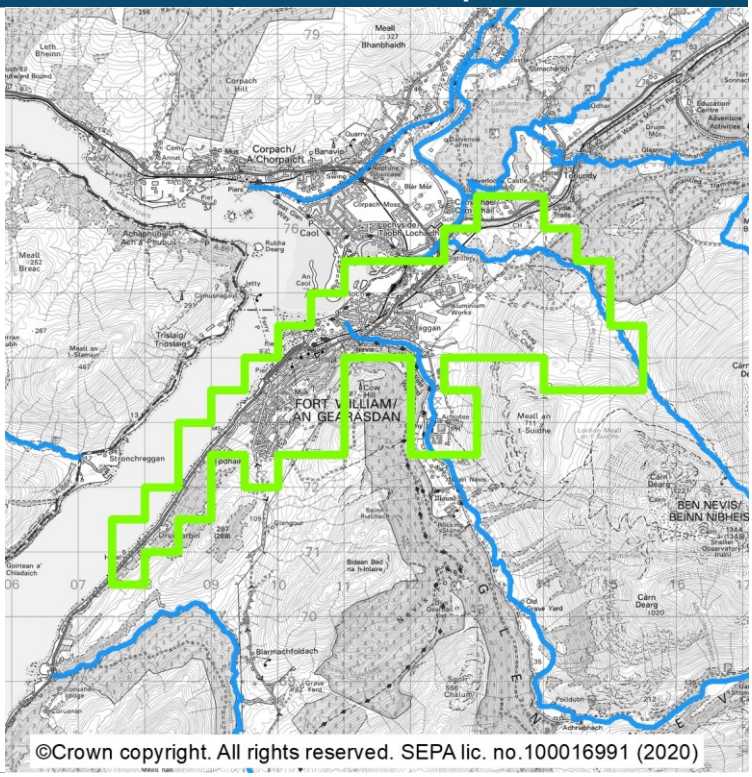
Flood risk management plan datasheet

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.

What are the objectives for the area?

In each target area, SEPA and the responsible authorities have set objectives for the management of flood risk. In some locations, the objectives provide a short-term direction that will be reviewed and updated when more information is available. In others they provide a long-term direction for the management of flooding within a community. The objectives along with the current understanding of flood risk help to identify the actions that are required in the short and long term. It may take several years or multiple 6 year cycles to achieve the identified objectives, but they set a common goal for multiple agencies. The following package of objectives have been established for this area. The objectives must be considered alongside national principles to manage flood risk. These include:

• Take a long term, risk-based approach to flood risk management decisions and one that considers the impacts of and adaptability to climate change.

• Deliver coordinated and integrated flood risk management by engaging with communities and working in partnership, sharing data, expertise, services, and resources.

• Consider whole catchments and coastlines and work with natural processes and the environment to deliver multiple outcomes.

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

What actions are proposed for this area?

This section provides information on the draft proposed actions for this target area. The proposed actions take account of the understanding of flood risk and the package of objectives set for the area. Actions will be coordinated to achieve maximum benefit; this will be determined once the actions have been finalised. The proposed actions are draft for consultation and are provided for comment. Your comments will help shape future flood risk management. The delivery of the proposed actions is subject to available funding and resources.

Actions proposed to start before June 2028

	Sewer flood risk assessment (Ref: 33202)
Action	The volume of water that would overwhelm the sewer system and cause flooding from man-holes or inside our homes is to be assessed, to support understanding of the performance of the urban drainage network
Action detail	Scottish Water will carry out an assessment of sewer flood risk within the highest priority sewer catchments, which includes Fort William sewer catchment in this target area. This will help to improve knowledge and understanding of potential surface water flood risk. Funding for this action is secured through Scottish Water's strategic planning commitments.
Coordination	The action delivery lead is Scottish Water in coordination with the local authority and SEPA.

	Surface water management plan (Ref: 33203)
Action	Areas at risk of heavy or prolonged rainfall causing flooding due to water ponding on man-made surfaces or overwhelming the drainage system are to be identified. These priority areas will provide a baseline for the identification of next steps in managing water ponding or over-whelmed drainage systems. This should guide adaptive planning to allow for the impacts of climate change to be monitored, understood and managed.
Action detail	The Highland Council to continue to develop and implement the Highland wide surface water management plan, which includes Fort William as a priority area. The surface water management plan identifies areas most at risk from surface water flooding in Fort William and identifies options that could alleviate this risk.
Coordination	The action delivery lead is The Highland Council in coordination with Scottish Water and other actions in the area.

	Flood warning maintenance (Ref: 33204)
Action	The Floodline flood warning service is to be kept operational through maintenance to the existing system and updates being undertaken as required.
Action detail	SEPA should maintain the River Nevis, River Lochy and coastal Loch Linnhe flood warning schemes.
Coordination	The action delivery lead is SEPA and coordination will be determined once the actions have been finalised.

Actions proposed after June 2028

The following actions are proposed to take place after June 2028. These will be reviewed in 2026, considering added information at that time, to ensure they are still the most appropriate actions for the community.

	Flood study (Ref: 33201)
Action	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.
Action detail	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.
Coordination	The action delivery lead is The Highland Council and coordination will be determined once the actions have been finalised.

SEPA and responsible authorities carry out actions in all areas 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. A description of these actions is included in the Local Plan District section at the start of this document.

What are the opportunities for joint working?

Working in partnership is at the heart of flood risk management, responsible authorities and SEPA regularly work together in all areas to improve the coordination of flood management. Working across organisations and groups contributes to sustainable ways of managing current and future flood risk in a community. The potential for joint working will be further explored following the consultation feedback.

02/01/21 (Ballachulish and Glencoe)

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 areas in this Potentially Vulnerable Area, which have been the focus of further assessment, further information on the proposed 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)

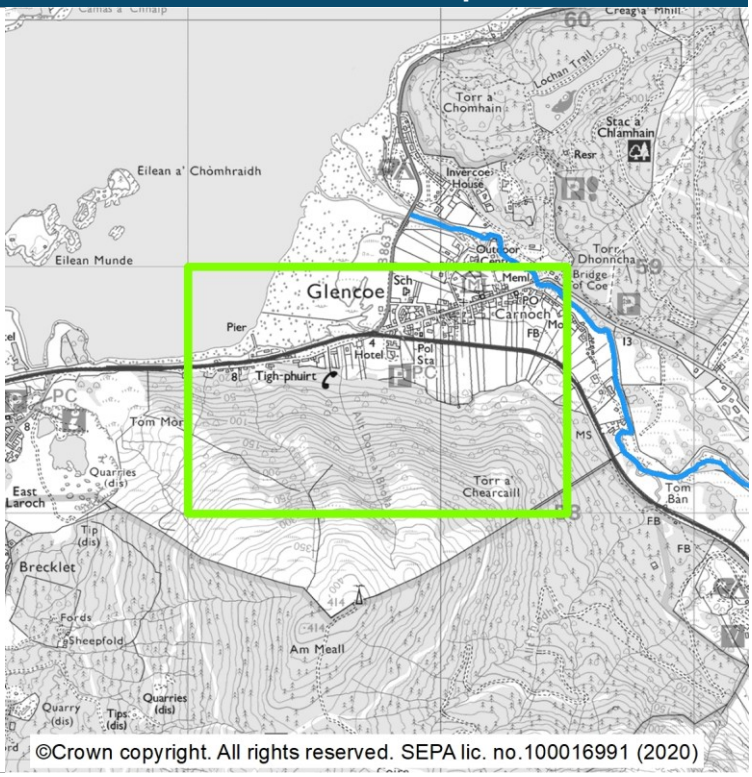
Flood risk management plan datasheet

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.

What are the objectives for the area?

In each target area, SEPA and the responsible authorities have set objectives for the management of flood risk. In some locations, the objectives provide a short-term direction that will be reviewed and updated when more information is available. In others they provide a long-term direction for the management of flooding within a community. The objectives along with the current understanding of flood risk help to identify the actions that are required in the short and long term. It may take several years or multiple 6 year cycles to achieve the identified objectives, but they set a common goal for multiple agencies. The following package of objectives have been established for this area. The objectives must be considered alongside national principles to manage flood risk. These include:

• Take a long term, risk-based approach to flood risk management decisions and one that considers the impacts of and adaptability to climate change.

• Deliver coordinated and integrated flood risk management by engaging with communities and working in partnership, sharing data, expertise, services, and resources.

• Consider whole catchments and coastlines and work with natural processes and the environment to deliver multiple outcomes.

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

What actions are proposed for this area?

This section provides information on the draft proposed actions for this target area. The proposed actions take account of the understanding of flood risk and the package of objectives set for the area. Actions will be coordinated to achieve maximum benefit; this will be determined once the actions have been finalised. The proposed actions are draft for consultation and are provided for comment. Your comments will help shape future flood risk management. The delivery of the proposed actions is subject to available funding and resources.

Actions proposed after June 2028

The following actions are proposed to take place after June 2028. These will be reviewed in 2026, considering added information at that time, to ensure they are still the most appropriate actions for the community.

	Flood study (Ref: 34801)
Action	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.
Action detail	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.
Coordination	The action delivery lead is The Highland Council and coordination will be determined once the actions have been finalised.

SEPA and responsible authorities carry out actions in all areas 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. A description of these actions is included in the Local Plan District section at the start of this document.

What are the opportunities for joint working?

Working in partnership is at the heart of flood risk management, responsible authorities and SEPA regularly work together in all areas to improve the coordination of flood management. Working across organisations and groups contributes to sustainable ways of managing current and future flood risk in a community. The potential for joint working will be further explored following the consultation feedback.

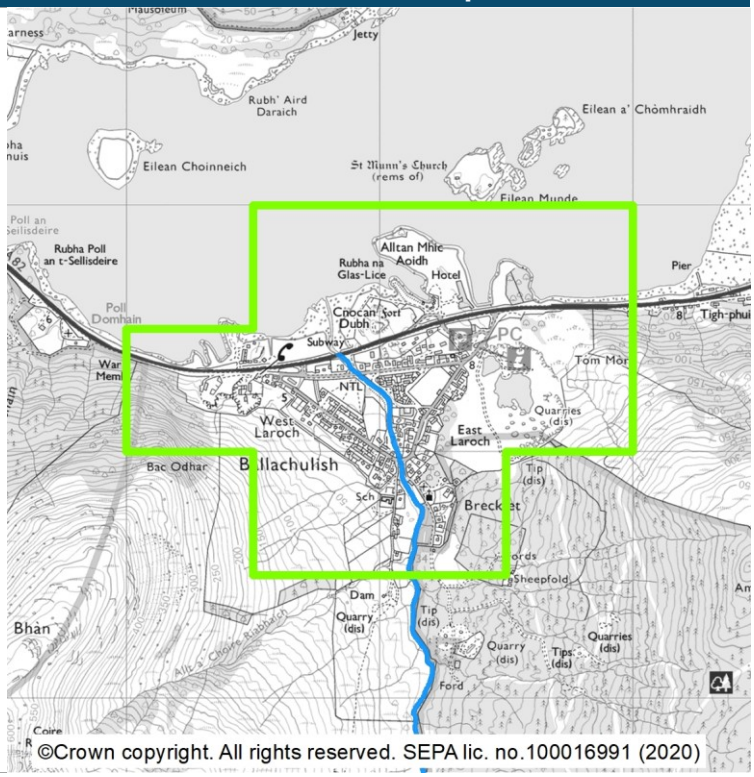
Flood risk management plan datasheet

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.

What are the objectives for the area?

In each target area, SEPA and the responsible authorities have set objectives for the management of flood risk. In some locations, the objectives provide a short-term direction that will be reviewed and updated when more information is available. In others they provide a long-term direction for the management of flooding within a community. The objectives along with the current understanding of flood risk help to identify the actions that are required in the short and long term. It may take several years or multiple 6 year cycles to achieve the identified objectives, but they set a common goal for multiple agencies. The following package of objectives have been established for this area. The objectives must be considered alongside national principles to manage flood risk. These include:

• Take a long term, risk-based approach to flood risk management decisions and one that considers the impacts of and adaptability to climate change.

• Deliver coordinated and integrated flood risk management by engaging with communities and working in partnership, sharing data, expertise, services, and resources.

• Consider whole catchments and coastlines and work with natural processes and the environment to deliver multiple outcomes.

Objective ref	Objective type	Objective description
3491	Avoid flood risk	Avoid inappropriate development that increases flood risk in Ballachulish.
3492	Improve data and understanding	Improve understanding of the risk of flooding from the River Laroch in Ballachulish.
3493	Prepare for flooding	Prepare for current flood risk and future flooding as a result of climate change in Ballachulish.

What actions are proposed for this area?

This section provides information on the draft proposed actions for this target area. The proposed actions take account of the understanding of flood risk and the package of objectives set for the area. Actions will be coordinated to achieve maximum benefit; this will be determined once the actions have been finalised. The proposed actions are draft for consultation and are provided for comment. Your comments will help shape future flood risk management. The delivery of the proposed actions is subject to available funding and resources.

Actions proposed after June 2028

The following actions are proposed to take place after June 2028. These will be reviewed in 2026, considering added information at that time, to ensure they are still the most appropriate actions for the community.

	Flood study (Ref: 34901)
Action	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.
Action detail	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.
Coordination	The action delivery lead is The Highland Council and coordination will be determined once the actions have been finalised.

SEPA and responsible authorities carry out actions in all areas 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. A description of these actions is included in the Local Plan District section at the start of this document.

What are the opportunities for joint working?

Working in partnership is at the heart of flood risk management, responsible authorities and SEPA regularly work together in all areas to improve the coordination of flood management. Working across organisations and groups contributes to sustainable ways of managing current and future flood risk in a community. The potential for joint working will be further explored following the consultation feedback.

02/01/22 (Oban)

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 area in this Potentially Vulnerable Area, which has been the focus of further assessment, further information on the proposed objectives and actions to manage flood risk within this area is provided below.

List of target areas

Oban (target area 366)

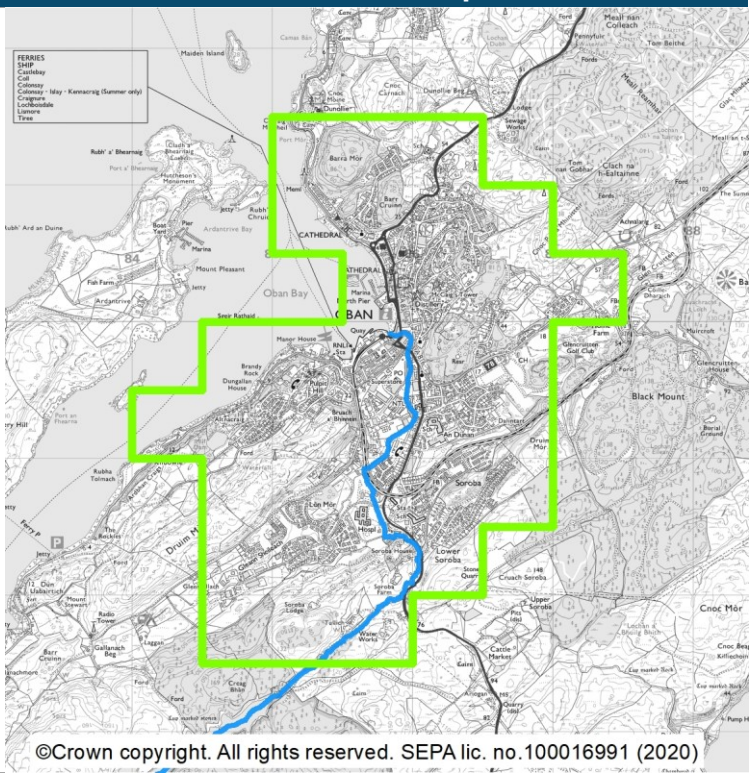
Flood risk management plan datasheet

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.

What are the objectives for the area?

In each target area, SEPA and the responsible authorities have set objectives for the management of flood risk. In some locations, the objectives provide a short-term direction that will be reviewed and updated when more information is available. In others they provide a long-term direction for the management of flooding within a community. The objectives along with the current understanding of flood risk help to identify the actions that are required in the short and long term. It may take several years or multiple 6 year cycles to achieve the identified objectives, but they set a common goal for multiple agencies. The following package of objectives have been established for this area. The objectives must be considered alongside national principles to manage flood risk. These include:

• Take a long term, risk-based approach to flood risk management decisions and one that considers the impacts of and adaptability to climate change.

• Deliver coordinated and integrated flood risk management by engaging with communities and working in partnership, sharing data, expertise, services, and resources.

• Consider whole catchments and coastlines and work with natural processes and the environment to deliver multiple outcomes.

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

What actions are proposed for this area?

This section provides information on the draft proposed actions for this target area. The proposed actions take account of the understanding of flood risk and the package of objectives set for the area. Actions will be coordinated to achieve maximum benefit; this will be determined once the actions have been finalised. The proposed actions are draft for consultation and are provided for comment. Your comments will help shape future flood risk management. The delivery of the proposed actions is subject to available funding and resources.

Actions proposed to start before June 2028

	Flood scheme or works design (Ref: 36601)
Action	The selected preferred approach for managing flood risk is to be designed following the completion of the flood study, including consideration of the long-term impacts of climate change. These can include small scale works or works to improve catchment management. This should guide adaptive planning to allow for the impacts of climate change to be monitored, understood and managed.
Action detail	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. 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.
Coordination	The action delivery lead is Argyll and Bute Council and coordinated with Scottish Water and other actions in the area.

	Flood scheme or works implementation (Ref: 36602)
Action	The flood scheme/works is to be built following agreement of the design, costs and timescales.
Action detail	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. 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.
Coordination	The action delivery lead is Argyll and Bute Council and coordinated with Scottish Water and other actions in the area.

	Community engagement (Ref: 36603)
Action	Community engagement is to continue to be carried out in the area by the responsible authorities to raise awareness of flood risk.
Action detail	The responsible authorities to continue to engage with the community, with particular focus on the detailed design of the flood protection scheme.
Coordination	The action delivery lead is Argyll and Bute Council and coordinated with Scottish Water and other actions in the area.

	Surface water management plan (Ref: 36604)
Action	Areas at risk of heavy or prolonged rainfall causing flooding due to water ponding on man-made surfaces or overwhelming the drainage system have been identified. Next steps in managing such water ponding or over-whelmed drainage systems have been identified and should be implemented. The plan is to be reviewed and updated as needed.
Action detail	Implement the surface water management plan. The plan should be reviewed and updated regularly.
Coordination	The action delivery lead is Argyll and Bute Council and coordinated with Scottish Water and other actions in the area.

	Flood warning maintenance (Ref: 36605)
Action	The Floodline flood warning service is to be kept operational through maintenance to the existing system and updates being undertaken as required.
Action detail	SEPA should maintain the Loch Linnhe coastal flood warning scheme.
Coordination	The action delivery lead is SEPA and coordination will be determined once the actions have been finalised.

SEPA and responsible authorities carry out actions in all areas 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. A description of these actions is included in the Local Plan District section at the start of this document.

What are the opportunities for joint working?

Working in partnership is at the heart of flood risk management, responsible authorities and SEPA regularly work together in all areas to improve the coordination of flood management. Working across organisations and groups contributes to sustainable ways of managing current and future flood risk in a community. The potential for joint working will be further explored following the consultation feedback.

It has been identified that there is the potential to work with Transport Scotland and Forestry and Land Scotland, in this area.

02/01/23 (Inveraray)

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 area in this Potentially Vulnerable Area, which has been the focus of further assessment, further information on the proposed objectives and actions to manage flood risk within this area is provided below.

List of target areas

Inveraray	(target area 364)

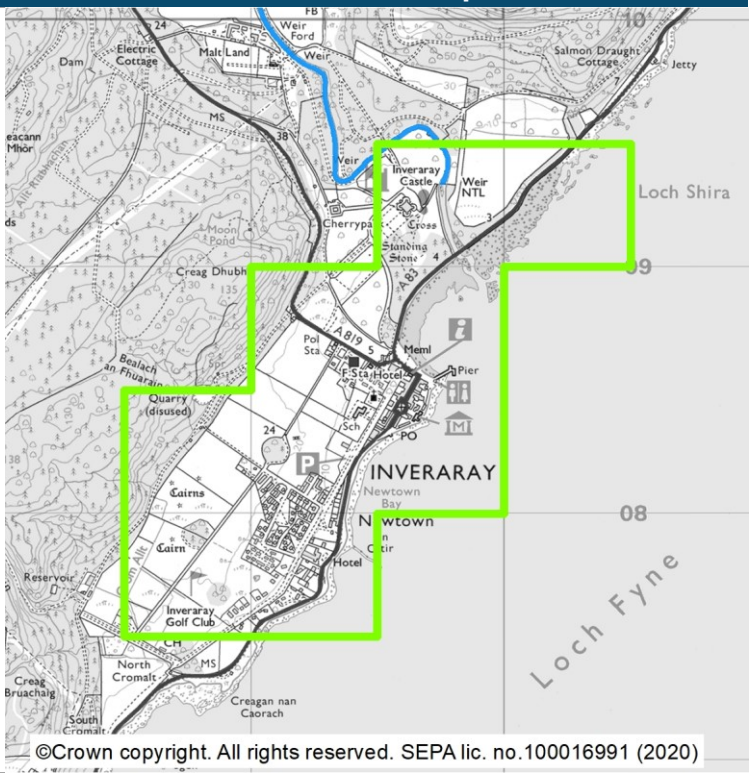
Flood risk management plan datasheet

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.

What are the objectives for the area?

In each target area, SEPA and the responsible authorities have set objectives for the management of flood risk. In some locations, the objectives provide a short-term direction that will be reviewed and updated when more information is available. In others they provide a long-term direction for the management of flooding within a community. The objectives along with the current understanding of flood risk help to identify the actions that are required in the short and long term. It may take several years or multiple 6 year cycles to achieve the identified objectives, but they set a common goal for multiple agencies. The following package of objectives have been established for this area. The objectives must be considered alongside national principles to manage flood risk. These include:

• Take a long term, risk-based approach to flood risk management decisions and one that considers the impacts of and adaptability to climate change.

• Deliver coordinated and integrated flood risk management by engaging with communities and working in partnership, sharing data, expertise, services, and resources.

• Consider whole catchments and coastlines and work with natural processes and the environment to deliver multiple outcomes.

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

What actions are proposed for this area?

This section provides information on the draft proposed actions for this target area. The proposed actions take account of the understanding of flood risk and the package of objectives set for the area. Actions will be coordinated to achieve maximum benefit; this will be determined once the actions have been finalised. The proposed actions are draft for consultation and are provided for comment. Your comments will help shape future flood risk management. The delivery of the proposed actions is subject to available funding and resources.

Actions proposed after June 2028

The following actions are proposed to take place after June 2028. These will be reviewed in 2026, considering added information at that time, to ensure they are still the most appropriate actions for the community.

	Shoreline Management Plan (Coastal Adaptive Plan) (Ref: 36401)
Action	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.
Action detail	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.
Coordination	The action delivery lead is Argyll and Bute Council and coordination will be determined once the actions have been finalised.

SEPA and responsible authorities carry out actions in all areas 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. A description of these actions is included in the Local Plan District section at the start of this document.

What are the opportunities for joint working?

Working in partnership is at the heart of flood risk management, responsible authorities and SEPA regularly work together in all areas to improve the coordination of flood management. Working across organisations and groups contributes to sustainable ways of managing current and future flood risk in a community. The potential for joint working will be further explored following the consultation feedback.

02/01/24 (Lochgilphead)

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 area in this Potentially Vulnerable Area, which has been the focus of further assessment, further information on the proposed objectives and actions to manage flood risk within this area is provided below.

List of target areas

Lochgilphead	(target area 365)

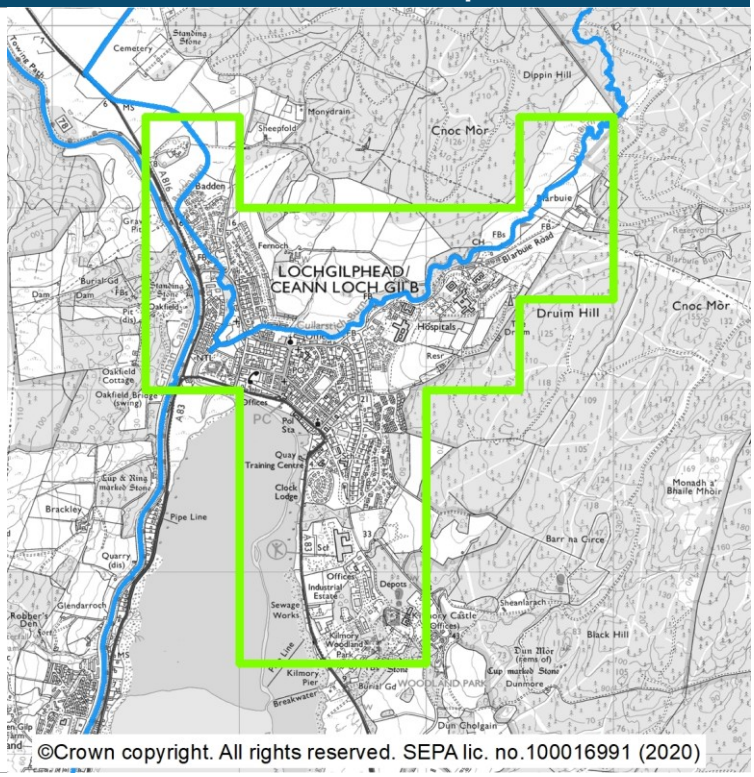
Flood risk management plan datasheet

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.

What are the objectives for the area?

In each target area, SEPA and the responsible authorities have set objectives for the management of flood risk. In some locations, the objectives provide a short-term direction that will be reviewed and updated when more information is available. In others they provide a long-term direction for the management of flooding within a community. The objectives along with the current understanding of flood risk help to identify the actions that are required in the short and long term. It may take several years or multiple 6 year cycles to achieve the identified objectives, but they set a common goal for multiple agencies. The following package of objectives have been established for this area. The objectives must be considered alongside national principles to manage flood risk. These include:

• Take a long term, risk-based approach to flood risk management decisions and one that considers the impacts of and adaptability to climate change.

• Deliver coordinated and integrated flood risk management by engaging with communities and working in partnership, sharing data, expertise, services, and resources.

• Consider whole catchments and coastlines and work with natural processes and the environment to deliver multiple outcomes.

Objective ref	Objective type	Objective description
3651	Avoid flood risk	Avoid inappropriate development that increases flood risk in Lochgilphead.
3652	Prepare for flooding	Prepare for current flood risk and future flooding as a result of climate change in Lochgilphead.
3653	Reduce flood risk	Reduce the risk of flooding from the Badden Burn and Crinan Canal in Lochgilphead.
3654	Reduce flood risk	Reduce the risk of coastal flooding from Loch Fyne in Lochgilphead.

What actions are proposed for this area?

This section provides information on the draft proposed actions for this target area. The proposed actions take account of the understanding of flood risk and the package of objectives set for the area. Actions will be coordinated to achieve maximum benefit; this will be determined once the actions have been finalised. The proposed actions are draft for consultation and are provided for comment. Your comments will help shape future flood risk management. The delivery of the proposed actions is subject to available funding and resources.

Actions proposed to start before June 2028

	Property flood resilience scheme (Ref: 36501)
Action	The proposed scheme to provide resilience measures against flooding for individual buildings is to be taken forward to help prevent water entering the property and to minimise flood damage.
Action detail	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.
Coordination	The action delivery lead is Argyll and Bute Council and coordination will be determined once the actions have been finalised.

	Flood warning maintenance (Ref: 36502)
Action	The Floodline flood warning service is to be kept operational through maintenance to the existing system and updates being undertaken as required.
Action detail	SEPA should maintain the Firth of Clyde coastal flood warning scheme.
Coordination	The action delivery lead is SEPA and coordination will be determined once the actions have been finalised.

Actions proposed after June 2028

The following actions are proposed to take place after June 2028. These will be reviewed in 2026, considering added information at that time, to ensure they are still the most appropriate actions for the community.

	Shoreline Management Plan (Coastal Adaptive Plan) (Ref: 36503)
Action	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.
Action detail	Progress the development of the shoreline management plan for the Argyll and Bute coastline.
Coordination	The action delivery lead is Argyll and Bute Council and coordination will be determined once the actions have been finalised.

	Flood study (Ref: 36504)
Action	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.
Action detail	A flood study should be carried out to further investigate the feasibility of potential options to manage river flood risk in Lochgilphead.
Coordination	The action delivery lead is Argyll and Bute Council and coordination will be determined once the actions have been finalised.

SEPA and responsible authorities carry out actions in all areas 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. A description of these actions is included in the Local Plan District section at the start of this document.

What are the opportunities for joint working?

Working in partnership is at the heart of flood risk management, responsible authorities and SEPA regularly work together in all areas to improve the coordination of flood management. Working across organisations and groups contributes to sustainable ways of managing current and future flood risk in a community. The potential for joint working will be further explored following the consultation feedback.

It has been identified that there is also the potential to work with Transport Scotland and Scottish Canals, in this area.

02/01/25 (Tarbert)

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 area in this Potentially Vulnerable Area, which has been the focus of further assessment, further information on the proposed objectives and actions to manage flood risk within this area is provided below.

List of target areas

Tarbert	(target area 361)

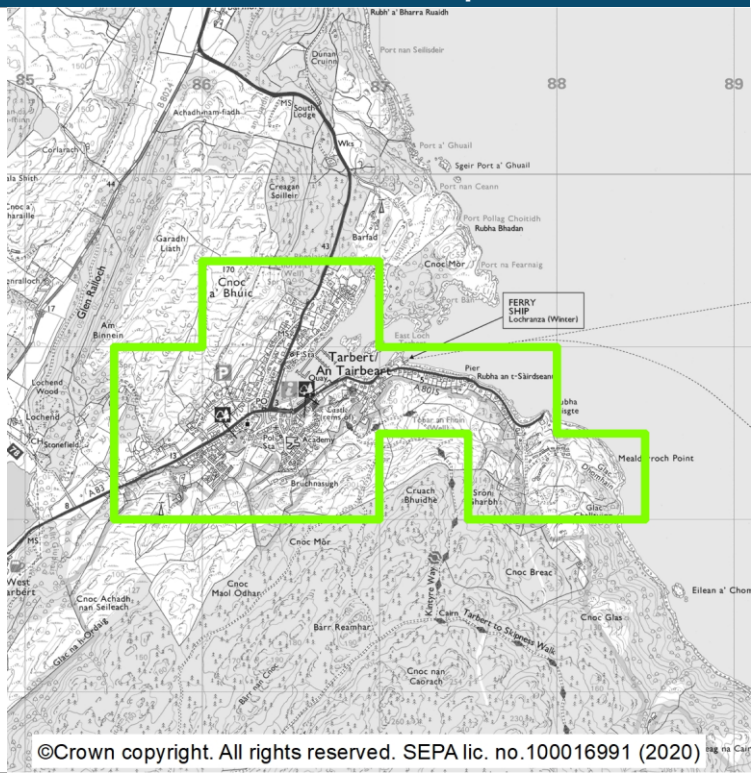
Flood risk management plan datasheet

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.

What are the objectives for the area?

In each target area, SEPA and the responsible authorities have set objectives for the management of flood risk. In some locations, the objectives provide a short-term direction that will be reviewed and updated when more information is available. In others they provide a long-term direction for the management of flooding within a community. The objectives along with the current understanding of flood risk help to identify the actions that are required in the short and long term. It may take several years or multiple 6 year cycles to achieve the identified objectives, but they set a common goal for multiple agencies. The following package of objectives have been established for this area. The objectives must be considered alongside national principles to manage flood risk. These include:

• Take a long term, risk-based approach to flood risk management decisions and one that considers the impacts of and adaptability to climate change.

• Deliver coordinated and integrated flood risk management by engaging with communities and working in partnership, sharing data, expertise, services, and resources.

• Consider whole catchments and coastlines and work with natural processes and the environment to deliver multiple outcomes.

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

What actions are proposed for this area?

This section provides information on the draft proposed actions for this target area. The proposed actions take account of the understanding of flood risk and the package of objectives set for the area. Actions will be coordinated to achieve maximum benefit; this will be determined once the actions have been finalised. The proposed actions are draft for consultation and are provided for comment. Your comments will help shape future flood risk management. The delivery of the proposed actions is subject to available funding and resources.

Actions proposed to start before June 2028

	Flood scheme or works design (Ref: 36101)
Action	The selected preferred approach for managing flood risk is to be designed following the completion of the flood study, including consideration of the long-term impacts of climate change. These can include small scale works or works to improve catchment management. This should guide adaptive planning to allow for the impacts of climate change to be monitored, understood and managed.
Action detail	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. 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.
Coordination	The action delivery lead is Argyll and Bute Council and coordination will be determined once the actions have been finalised.

	Flood scheme or works implementation (Ref: 36102)
Action	The flood scheme/works is to be built following agreement of the design, costs and timescales.
Action detail	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. 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.
Coordination	The action delivery lead is Argyll and Bute Council and coordination will be determined once the actions have been finalised.

	Community engagement (Ref: 36103)
Action	Community engagement is to continue to be carried out in the area by the responsible authorities to raise awareness of flood risk.
Action detail	The responsible authorities to continue to engage with the community, with particular focus on the detailed design of the flood protection scheme.
Coordination	The action delivery lead is Argyll and Bute Council and coordination will be determined once the actions have been finalised.

	Sewer flood risk assessment (Ref: 36104)
Action	The volume of water that would overwhelm the sewer system and cause flooding from man-holes or inside our homes is to be assessed, to support understanding of the performance of the urban drainage network
Action detail	Scottish Water will carry out an assessment of sewer flood risk within the highest priority sewer catchments, which includes Tarbert sewer catchment in this target area. This will help to improve knowledge and understanding of potential surface water flood risk. Funding for this action is secured through Scottish Water's strategic planning commitments.
Coordination	The action delivery lead is Scottish Water in coordination with the local authority and SEPA.

	Surface water management plan (Ref: 36105)
Action	Areas at risk of heavy or prolonged rainfall causing flooding due to water ponding on man-made surfaces or overwhelming the drainage system are to be identified. These priority areas will provide a baseline for the identification of next steps in managing water ponding or over-whelmed drainage systems. This should guide adaptive planning to allow for the impacts of climate change to be monitored, understood and managed.
Action detail	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.
Coordination	The action delivery lead is Argyll and Bute Council in coordination with Scottish Water and other actions in the area.

	Flood warning maintenance (Ref: 36106)
Action	The Floodline flood warning service is to be kept operational through maintenance to the existing system and updates being undertaken as required.
Action detail	SEPA should maintain the Firth of Clyde coastal flood warning scheme.
Coordination	The action delivery lead is SEPA and coordination will be determined once the actions have been finalised.

SEPA and responsible authorities carry out actions in all areas 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. A description of these actions is included in the Local Plan District section at the start of this document.

What are the opportunities for joint working?

Working in partnership is at the heart of flood risk management, responsible authorities and SEPA regularly work together in all areas to improve the coordination of flood management. Working across organisations and groups contributes to sustainable ways of managing current and future flood risk in a community. The potential for joint working will be further explored following the consultation feedback.

02/01/26 (Clachan)

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 area in this Potentially Vulnerable Area, which has been the focus of further assessment, further information on the proposed objectives and actions to manage flood risk within this area is provided below.

List of target areas

Clachan (target area 353)

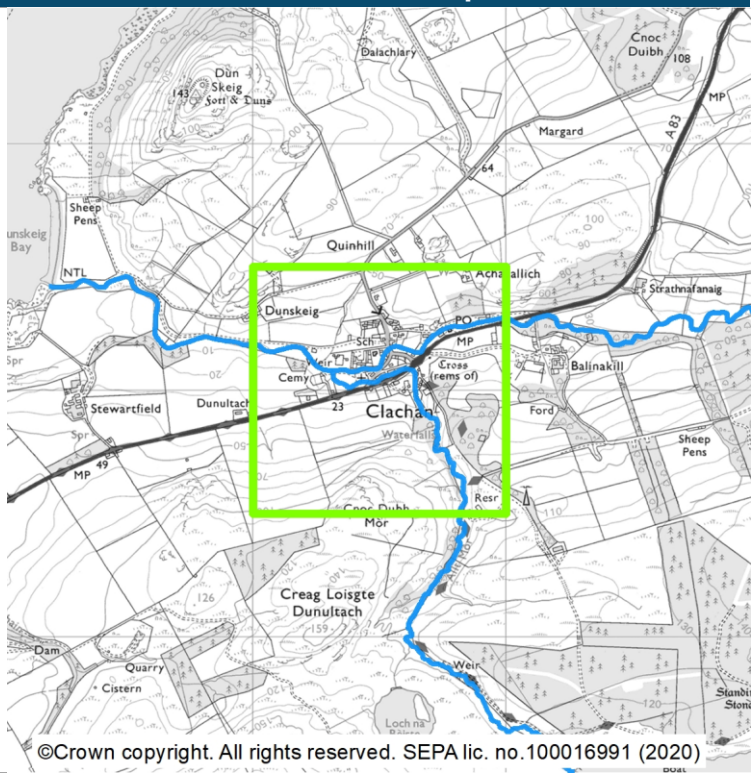
Flood risk management plan datasheet

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.

What are the objectives for the area?

In each target area, SEPA and the responsible authorities have set objectives for the management of flood risk. In some locations, the objectives provide a short-term direction that will be reviewed and updated when more information is available. In others they provide a long-term direction for the management of flooding within a community. The objectives along with the current understanding of flood risk help to identify the actions that are required in the short and long term. It may take several years or multiple 6 year cycles to achieve the identified objectives, but they set a common goal for multiple agencies. The following package of objectives have been established for this area. The objectives must be considered alongside national principles to manage flood risk. These include:

• Take a long term, risk-based approach to flood risk management decisions and one that considers the impacts of and adaptability to climate change.

• Deliver coordinated and integrated flood risk management by engaging with communities and working in partnership, sharing data, expertise, services, and resources.

• Consider whole catchments and coastlines and work with natural processes and the environment to deliver multiple outcomes.

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

What actions are proposed for this area?

This section provides information on the draft proposed actions for this target area. The proposed actions take account of the understanding of flood risk and the package of objectives set for the area. Actions will be coordinated to achieve maximum benefit; this will be determined once the actions have been finalised. The proposed actions are draft for consultation and are provided for comment. Your comments will help shape future flood risk management. The delivery of the proposed actions is subject to available funding and resources.

Actions proposed to start before June 2028

	Flood scheme or works design (Ref: 35301)
Action	The selected preferred approach for managing flood risk is to be designed following the completion of the flood study, including consideration of the long-term impacts of climate change. These can include small scale works or works to improve catchment management. This should guide adaptive planning to allow for the impacts of climate change to be monitored, understood and managed.
Action detail	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. 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.
Coordination	The action delivery lead is Argyll and Bute Council and coordination will be determined once the actions have been finalised.

	Flood scheme or works implementation (Ref: 35302)
Action	The flood scheme/works is to be built following agreement of the design, costs and timescales.
Action detail	Progress the flood protection works in Clachan 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. 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.
Coordination	The action delivery lead is Argyll and Bute Council and coordination will be determined once the actions have been finalised.

	Community engagement (Ref: 35303)
Action	Community engagement is to continue to be carried out in the area by the responsible authorities to raise awareness of flood risk.
Action detail	Argyll & 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.
Coordination	The action delivery lead is Argyll and Bute Council and coordination will be determined once the actions have been finalised.

	Community resilience group (Ref: 35304)
Action	The group of community volunteers work to prepare and put in practice their Community Resilience Plan and be supported by the local authority.
Action detail	A community flood group and flood response plans have been established in partnership with the Scottish Flood Forum.
Coordination	The action delivery lead is the community flood group in coordination with Argyll and Bute Council and the Scottish Flood Forum.

	Community flood alert (Ref: 35305)
Action	A community river level alerting system is to be installed to provide information on the potential for localised flooding.
Action detail	A river level alerting system is being installed with the help of the Scottish Flood Forum.
Coordination	The action delivery lead will be determined once the actions have been finalised. The action will be coordinated with Scottish Flood Forum, Argyll and Bute Council and the community.

SEPA and responsible authorities carry out actions in all areas 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. A description of these actions is included in the Local Plan District section at the start of this document.

What are the opportunities for joint working?

Working in partnership is at the heart of flood risk management, responsible authorities and SEPA regularly work together in all areas to improve the coordination of flood management. Working across organisations and groups contributes to sustainable ways of managing current and future flood risk in a community. The potential for joint working will be further explored following the consultation feedback.

02/01/27 (Campbeltown)

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 area in this Potentially Vulnerable Area, which has been the focus of further assessment, further information on the proposed objectives and actions to manage flood risk within this area is provided below.

List of target areas

Campbeltown (target area 346)

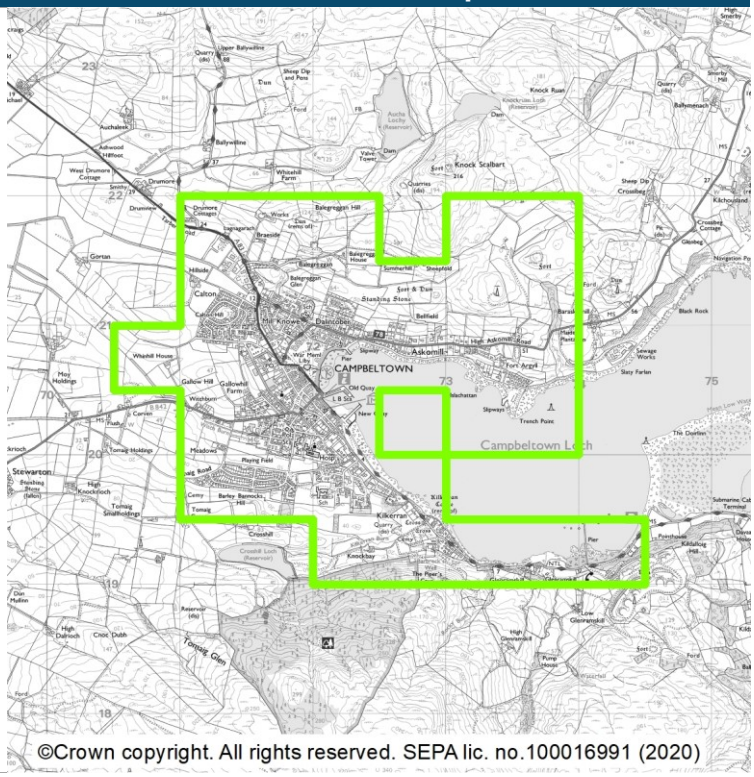
Flood risk management plan datasheet

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.

What are the objectives for the area?

In each target area, SEPA and the responsible authorities have set objectives for the management of flood risk. In some locations, the objectives provide a short-term direction that will be reviewed and updated when more information is available. In others they provide a long-term direction for the management of flooding within a community. The objectives along with the current understanding of flood risk help to identify the actions that are required in the short and long term. It may take several years or multiple 6 year cycles to achieve the identified objectives, but they set a common goal for multiple agencies. The following package of objectives have been established for this area. The objectives must be considered alongside national principles to manage flood risk. These include:

• Take a long term, risk-based approach to flood risk management decisions and one that considers the impacts of and adaptability to climate change.

• Deliver coordinated and integrated flood risk management by engaging with communities and working in partnership, sharing data, expertise, services, and resources.

• Consider whole catchments and coastlines and work with natural processes and the environment to deliver multiple outcomes.

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

What actions are proposed for this area?

This section provides information on the draft proposed actions for this target area. The proposed actions take account of the understanding of flood risk and the package of objectives set for the area. Actions will be coordinated to achieve maximum benefit; this will be determined once the actions have been finalised. The proposed actions are draft for consultation and are provided for comment. Your comments will help shape future flood risk management. The delivery of the proposed actions is subject to available funding and resources.

Actions proposed to start before June 2028

	Sewer flood risk assessment (Ref: 34601)
Action	The volume of water that would overwhelm the sewer system and cause flooding from man-holes or inside our homes is to be assessed, to support understanding of the performance of the urban drainage network
Action detail	Scottish Water will carry out an assessment of sewer flood risk within the highest priority sewer catchments, which includes Campbeltown sewer catchment in this target area. This will help to improve knowledge and understanding of potential surface water flood risk. Funding for this action is secured through Scottish Water's strategic planning commitments.
Coordination	The action delivery lead is Scottish Water in coordination with the local authority and SEPA.

	Surface water management plan (Ref: 34602)
Action	Areas at risk of heavy or prolonged rainfall causing flooding due to water ponding on man-made surfaces or overwhelming the drainage system have been identified. Next steps in managing such water ponding or over-whelmed drainage systems have been identified and should be implemented. The plan is to be reviewed and updated as needed.
Action detail	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.
Coordination	The action delivery lead is Argyll and Bute Council in coordination with Scottish Water and other actions in the area.

	Shoreline Management Plan (Coastal Adaptive Plan) (Ref: 34603)
Action	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.
Action detail	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.
Coordination	The action delivery lead is Argyll and Bute Council and coordination will be determined once the actions have been finalised.

	Flood scheme or works implementation (Ref: 34604)
Action	The flood scheme/works is to be built following agreement of the design, costs and timescales.
Action detail	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.
Coordination	The action delivery lead is Argyll and Bute Council in coordination with Scottish Water and other actions in the area.

	Flood warning maintenance (Ref: 34605)
Action	The Floodline flood warning service is to be kept operational through maintenance to the existing system and updates being undertaken as required.
Action detail	SEPA should maintain the Firth of Clyde coastal flood warning scheme.
Coordination	The action delivery lead is SEPA and coordination will be determined once the actions have been finalised.

SEPA and responsible authorities carry out actions in all areas 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. A description of these actions is included in the Local Plan District section at the start of this document.

What are the opportunities for joint working?

Working in partnership is at the heart of flood risk management, responsible authorities and SEPA regularly work together in all areas to improve the coordination of flood management. Working across organisations and groups contributes to sustainable ways of managing current and future flood risk in a community. The potential for joint working will be further explored following the consultation feedback.

02/01/28 (Taynuilt)

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 area in this Potentially Vulnerable Area, which has been the focus of further assessment, further information on the proposed objectives and actions to manage flood risk within this area is provided below.

List of target areas

Taynuilt and Brochroy (target area 347)

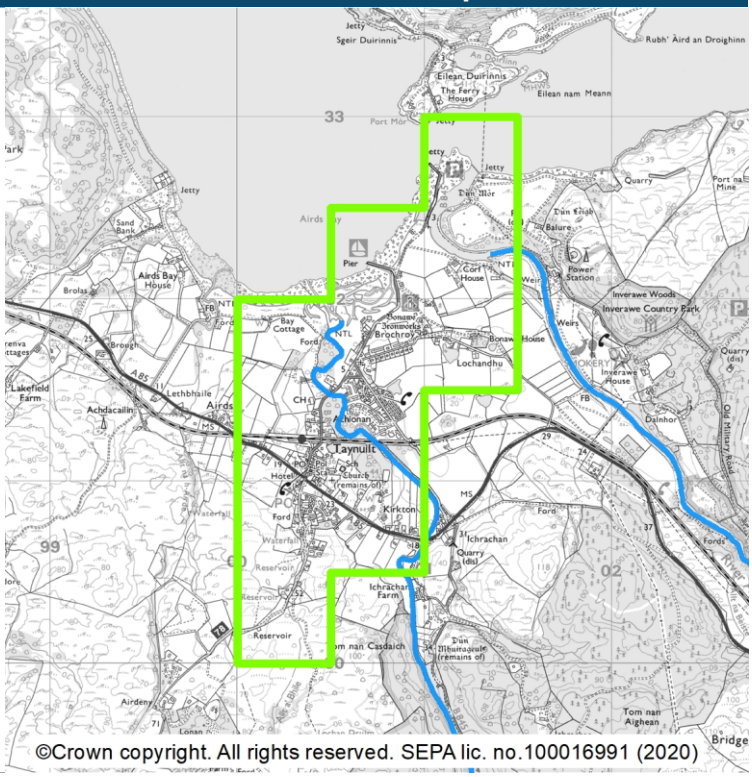
Flood risk management plan datasheet

Taynuilt and Brochroy (target area 347)

Summary

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.

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 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.

What are the objectives for the area?

In each target area, SEPA and the responsible authorities have set objectives for the management of flood risk. In some locations, the objectives provide a short-term direction that will be reviewed and updated when more information is available. In others they provide a long-term direction for the management of flooding within a community. The objectives along with the current understanding of flood risk help to identify the actions that are required in the short and long term. It may take several years or multiple 6 year cycles to achieve the identified objectives, but they set a common goal for multiple agencies. The following package of objectives have been established for this area. The objectives must be considered alongside national principles to manage flood risk. These include:

• Take a long term, risk-based approach to flood risk management decisions and one that considers the impacts of and adaptability to climate change.

• Deliver coordinated and integrated flood risk management by engaging with communities and working in partnership, sharing data, expertise, services, and resources.

• Consider whole catchments and coastlines and work with natural processes and the environment to deliver multiple outcomes.

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

What actions are proposed for this area?

This section provides information on the draft proposed actions for this target area. The proposed actions take account of the understanding of flood risk and the package of objectives set for the area. Actions will be coordinated to achieve maximum benefit; this will be determined once the actions have been finalised. The proposed actions are draft for consultation and are provided for comment. Your comments will help shape future flood risk management. The delivery of the proposed actions is subject to available funding and resources.

Actions proposed after June 2028

The following actions are proposed to take place after June 2028. These will be reviewed in 2026, considering added information at that time, to ensure they are still the most appropriate actions for the community.

	Shoreline Management Plan (Coastal Adaptive Plan) (Ref: 34701)
Action	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.
Action detail	Progress the development of the shoreline management plan for the Argyll and Bute coastline.
Coordination	The action delivery lead is Argyll and Bute Council and coordination will be determined once the actions have been finalised.

	Flood study (Ref: 34702)
Action	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.
Action detail	The results of the shoreline management plan and revised flood maps should be reviewed. The influence of high tides and surge on flooding from the River Nant should be assessed. The impacts of sea level rise and climate change on flood risk should be considered.
Coordination	The action delivery lead is Argyll and Bute Council and coordination will be determined once the actions have been finalised.

SEPA and responsible authorities carry out actions in all areas 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. A description of these actions is included in the Local Plan District section at the start of this document.

What are the opportunities for joint working?

Working in partnership is at the heart of flood risk management, responsible authorities and SEPA regularly work together in all areas to improve the coordination of flood management. Working across organisations and groups contributes to sustainable ways of managing current and future flood risk in a community. The potential for joint working will be further explored following the consultation feedback.

02/01/29 (Avoch)

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 area in this Potentially Vulnerable Area, which has been the focus of further assessment, further information on the proposed objectives and actions to manage flood risk within this area is provided below.

List of target areas

Avoch (target area 358)

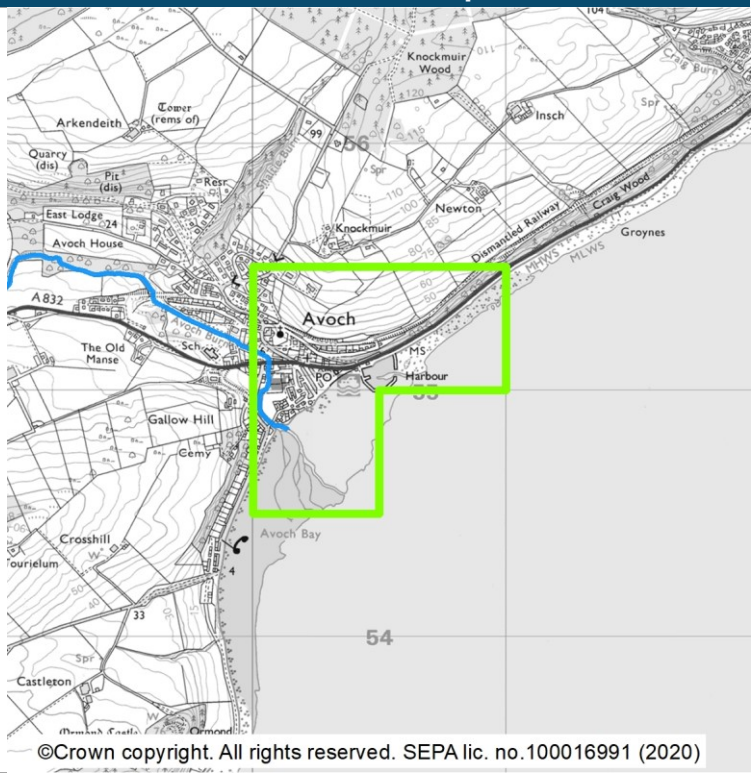
Flood risk management plan datasheet

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.

What are the objectives for the area?

In each target area, SEPA and the responsible authorities have set objectives for the management of flood risk. In some locations, the objectives provide a short-term direction that will be reviewed and updated when more information is available. In others they provide a long-term direction for the management of flooding within a community. The objectives along with the current understanding of flood risk help to identify the actions that are required in the short and long term. It may take several years or multiple 6 year cycles to achieve the identified objectives, but they set a common goal for multiple agencies. The following package of objectives have been established for this area. The objectives must be considered alongside national principles to manage flood risk. These include:

• Take a long term, risk-based approach to flood risk management decisions and one that considers the impacts of and adaptability to climate change.

• Deliver coordinated and integrated flood risk management by engaging with communities and working in partnership, sharing data, expertise, services, and resources.

• Consider whole catchments and coastlines and work with natural processes and the environment to deliver multiple outcomes.

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

What actions are proposed for this area?

This section provides information on the draft proposed actions for this target area. The proposed actions take account of the understanding of flood risk and the package of objectives set for the area. Actions will be coordinated to achieve maximum benefit; this will be determined once the actions have been finalised. The proposed actions are draft for consultation and are provided for comment. Your comments will help shape future flood risk management. The delivery of the proposed actions is subject to available funding and resources.

Actions proposed to start before June 2028

	Strategic mapping improvements (Ref: 35801)
Action	SEPA will continue to update flood maps based on new information.
Action detail	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.
Coordination	The action delivery lead is SEPA and coordination will be determined once the actions have been finalised.

	Flood study (Ref: 35802)
Action	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.
Action detail	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.
Coordination	The action delivery lead is The Highland Council and coordination will be determined once the actions have been finalised.

	Flood warning maintenance (Ref: 35803)
Action	The Floodline flood warning service is to be kept operational through maintenance to the existing system and updates being undertaken as required.
Action detail	SEPA should maintain the Moray Firth coastal flood warning scheme.
Coordination	The action delivery lead is SEPA and coordination will be determined once the actions have been finalised.

SEPA and responsible authorities carry out actions in all areas 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. A description of these actions is included in the Local Plan District section at the start of this document.

What are the opportunities for joint working?

Working in partnership is at the heart of flood risk management, responsible authorities and SEPA regularly work together in all areas to improve the coordination of flood management. Working across organisations and groups contributes to sustainable ways of managing current and future flood risk in a community. The potential for joint working will be further explored following the consultation feedback.

02/01/30 (Beauly)

Beauly is designated as a Potentially Vulnerable Area due to the risk of flooding from the River Beauly. Recent flooding was caused by surface water and river flooding.

There is 1 area in this Potentially Vulnerable Area, which has been the focus of further assessment, further information on the proposed objectives and actions to manage flood risk within this area is provided below.

List of target areas

Beauly (target area 357)

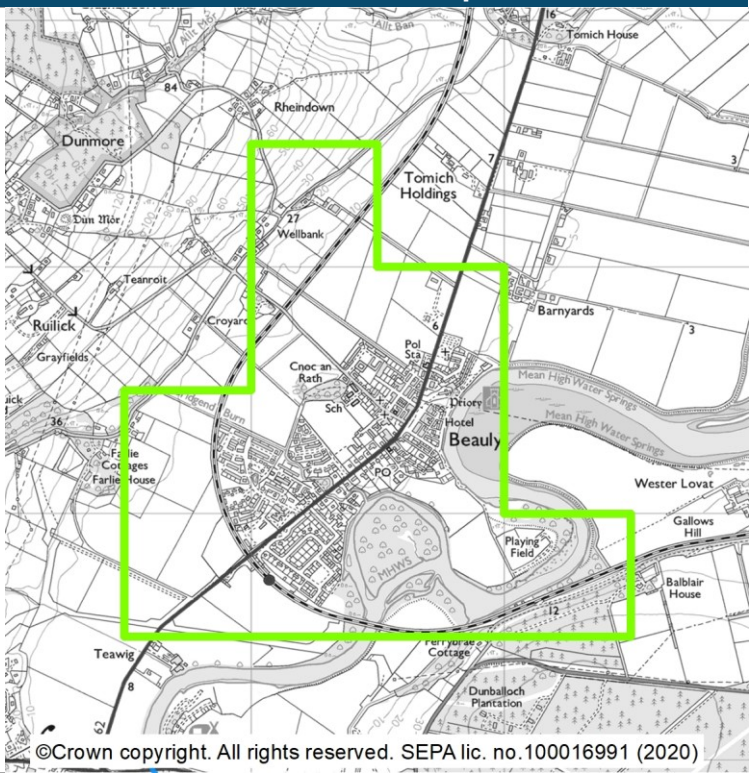
Flood risk management plan datasheet

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.

What are the objectives for the area?

In each target area, SEPA and the responsible authorities have set objectives for the management of flood risk. In some locations, the objectives provide a short-term direction that will be reviewed and updated when more information is available. In others they provide a long-term direction for the management of flooding within a community. The objectives along with the current understanding of flood risk help to identify the actions that are required in the short and long term. It may take several years or multiple 6 year cycles to achieve the identified objectives, but they set a common goal for multiple agencies. The following package of objectives have been established for this area. The objectives must be considered alongside national principles to manage flood risk. These include:

• Take a long term, risk-based approach to flood risk management decisions and one that considers the impacts of and adaptability to climate change.

• Deliver coordinated and integrated flood risk management by engaging with communities and working in partnership, sharing data, expertise, services, and resources.

• Consider whole catchments and coastlines and work with natural processes and the environment to deliver multiple outcomes.

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

What actions are proposed for this area?

This section provides information on the draft proposed actions for this target area. The proposed actions take account of the understanding of flood risk and the package of objectives set for the area. Actions will be coordinated to achieve maximum benefit; this will be determined once the actions have been finalised. The proposed actions are draft for consultation and are provided for comment. Your comments will help shape future flood risk management. The delivery of the proposed actions is subject to available funding and resources.

Actions proposed to start before June 2028

	Flood warning maintenance (Ref: 35701)
Action	The Floodline flood warning service is to be kept operational through maintenance to the existing system and updates being undertaken as required.
Action detail	SEPA should maintain the Rivers Beauly and Glass flood warning scheme.
Coordination	The action delivery lead is SEPA and coordination will be determined once the actions have been finalised.

SEPA and responsible authorities carry out actions in all areas 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. A description of these actions is included in the Local Plan District section at the start of this document.

What are the opportunities for joint working?

Working in partnership is at the heart of flood risk management, responsible authorities and SEPA regularly work together in all areas to improve the coordination of flood management. Working across organisations and groups contributes to sustainable ways of managing current and future flood risk in a community. The potential for joint working will be further explored following the consultation feedback.

Flood Risk Management Glossary

July 2021

Scottish Environment Protection Agency
Buidheann Dìon Àrainneachd na h-Alba

Term	Definition
Accretion	Accumulation of sediment.
Actions	Activities undertaken to reduce the impact of flooding. Actions describe where and how flood risk will be managed. These actions have been set by SEPA and agreed with flood risk management authorities. The actions presented in the consultation are draft and will be finalised after the consultation. Selection of actions to deliver the agreed objectives has been based on a detailed assessment and comparison of economic, social and environmental criteria.
Annual Average Damages (AAD)	Depending on its size or severity each flood will cause a different amount of damage to a given area. Annual Average Damages are the theoretical average economic damages caused by flooding when considered over a very long period of time. It does not mean that damage will occur every year: in many years there will be no damages, in some years minor damages and in a few years major damages may occur. High likelihood events, which occur more regularly, contribute proportionally more to AADs than rarer events. Within the flood risk management plans AADs incorporate economic damages to the following receptors: residential properties, non-residential properties, vehicles, emergency services, agriculture and roads. They have been calculated based on the principles set out in the Flood Hazard Research Centre Multi-Coloured Handbook (2010).
Appraisal	Appraisal is the process of defining objectives, examining options and weighing up costs, benefits, risks and uncertainties before a decision is made. The flood risk management plans appraisal method is designed to set objectives and identify the most sustainable combination of actions to tackle flooding from rivers, the sea and surface water.
Awareness raising	Public awareness, participation and community support are essential components of sustainable flood risk management. SEPA and the responsible authorities have a duty to raise public awareness of flood risk. This is undertaken both individually and collaboratively by a range of organisations. Improved awareness of flood risk and actions that prepare individuals, homes and businesses for flooding can reduce overall impact.
Bathing waters	Bathing waters are classed as protected areas under Annex IV of the Water Framework Directive (WFD). There are 84 designated bathing waters in Scotland.

Term	Definition
Benefit cost ratio (BCR)	A benefit cost ratio summarises the overall value for money of an action or project. It is expressed as the ratio of benefits to costs (both expressed as present value monetary values). A ratio of greater than 1:1 indicates that the economic benefits associated with an action are greater than the economic costs of implementation; therefore this is taken as the threshold of economic viability. It should be acknowledged that it is not always possible to accurately estimate economic values for all elements of benefit, and BCR is just one of a number of techniques used in appraisal.
Blue infrastructure	Blue infrastructure is often complementary to 'green infrastructure' and includes sustainable drainage systems, swales (shallow, broad and vegetated channels designed to store and/or convey runoff and remove pollutants), wetlands, rivers, canals (and their banks) and all watercourses.
Business and services	Properties that are not used for people to live in, such as shops or other public, commercial or industrial buildings.
Catchment	All the land drained by a river and its tributaries.
Category 1 and 2 responders (Cat 1 / 2)	Category 1 and 2 Responders are defined as part of the Civil Contingencies Act 2004 which seeks to minimise disruption in the event of an emergency. Category 1 Responders are 'core' responders: local authorities, police, fire and rescue services, ambulance service, NHS health boards, SEPA and the Maritime and Coastguard Agency. Category 2 Responders are key co-operating responders in support of Category 1 Responders. These include gas and electricity companies, rail and air transport operators, harbour authorities, telecommunications providers, Scottish Water, the Health and Safety Executive and NHS National Services Scotland.
Channel improvement	Where work has been carried out on the river's channel allowing an increase in the volume of water it can carry.
Characterisation	Provides a description of the natural characteristics of catchments, coastlines and urban areas in terms of hydrology, geomorphology, topography and land use. It also includes the characterisation of existing levels of flood risk and existing flood risk management activity.
Coastal flooding	Flooding that results from high sea levels or a combination of high sea levels and stormy conditions. The term coastal flooding is used under the Flood Risk Management (Scotland) Act 2009, but in some areas it is also referred to as tidal flooding and covers areas such as estuaries and river channels that are influenced by tidal flows.
Combined sewer	Combined sewers transport sewage from homes and industry as well as carrying surface water runoff from gutters, drains and some highways. Heavy or prolonged rainfall can rapidly increase the flow in a combined sewer until the amount of water exceeds sewer capacity.
Combined sewer (overflow) (CSO)	Combined sewer overflows are purposely designed structures to ensure any excess water from sewerage systems is discharged in a controlled way and at a specific managed location.

Term	Definition
Community facility	Within the flood risk management plans this term includes: Emergency Services (Police, Fire, Ambulance, Coastguard, and Mountain Rescue) Educational Buildings (crèche, nursery, primary, secondary, further, higher and special education premises) Healthcare facilities: hospitals, health centres and residential care homes.
Community flood action groups	Community flood action groups are community based resilience groups which, on behalf of local residents and business, help to prepare for and minimise the effects of flooding. They reflect the interests of their local communities and may differ in composition and remit. There are over 60 groups already established in Scotland. The Scottish Flood Forum provides support for both new and existing groups.
Confluence	Where two or more rivers meet.
Conveyance	Conveyance is a measure of the carrying capacity of a watercourse. Increasing conveyance enables flow to pass more rapidly and reducing conveyance slows flow down. Both actions can be effective in managing flood risk depending on local conditions.
Cross Border Advisory Group (CBAG)	The Cross Border Advisory Group is a statutory group made up of representatives from the Environment Agency, SEPA, Scottish Water and the four lead local flood authorities located within the Solway Tweed River Basin District.
Cultural heritage site	Historic Environment Scotland maintains lists of buildings of special architectural or historic interest; these buildings are referred to as 'listed buildings'. The highest level of designation is a World Heritage Site. Other designations included in this assessment are scheduled monuments, gardens and designed landscapes, and battlefields.
Culvert	A pipe, channel or tunnel used for the conveyance of a watercourse or surface drainage water under a road, railway, canal or other obstacle.
Damages	Flood damages are categorised as direct or indirect i.e. as a result of the flood water itself, or subsequent knock on effects. Damage to buildings and contents caused by flood water are an example of direct damages, whilst loss of industrial production, travel disruption or stress and anxiety are indirect. Some damages can be quantified in monetary terms, and others can only be described. The potential damages avoided by implementation of a flood risk management action are commonly referred to as the benefits of that action. When comparing the effectiveness of different actions, it is useful to consider estimated damages and damages avoided across the lifespan of the action. Within the flood risk management plans, 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'

Demountable defences	A temporary flood barrier is one that is only installed when the need arises, that is, when flooding is forecast. A demountable flood defence is a particular type of temporary defence that requires built-in parts and therefore can only be deployed in one specific location.

Term	Definition
Deposition	A natural process leading to an accumulation of sediment on a river bed, floodplain or coastline.
Economic Impact	An assessment of the economic value of the positive and negative effects of flooding and/or the actions taken to manage floods.
Embankment	Flood embankments are engineered earthfill structures designed to contain high river levels or protect against coastal flooding. They are commonly grass-covered, but may need additional protection against erosion by swiftly flowing water, waves or overtopping.
Emergency plans / response	Emergency response plans are applicable for all types of flooding. They set out the steps to be taken during flooding in order to maximise safety and minimise impacts where possible. Under the Civil Contingencies Act, Category 1 Responders have a duty to maintain emergency plans. Emergency plans may also be prepared by individuals, businesses, organisations or communities.
Environmental Impact	A change in the environment as a result of an action or activity. Impacts can be positive or negative and may vary in significance, scale and duration.
Environmental Impact Assessment (EIA)	Environmental Impact Assessment (EIA) is a process which identifies the potential environmental impacts, both negative and positive, of a proposal.
Environmental sites / environmental designated areas/ environmentally designated sites	Areas formally designated for environmental importance, such as Sites of Special Scientific Interest (SSSI) Special Protection Area (SPA) or Special Areas of Conservation (SAC).
Episodic erosion	Erosion induced by a single event, such as a storm.
Erosion	A natural process leading to the removal of sediment from a river bed, bank, floodplain or coastline.
Estuarine surge attenuation	A reduction in the wave energy caused by storm surge. Breakwaters (barriers built out into the sea to protect a coast or harbour from the force of waves) or habitats such as saltmarsh can slow down and reduce the inland impact of storm surges (the rising of the sea due to wind and atmospheric pressure changes associated with storms), thereby reducing coastal flood risk.
Estuary	A coastal body of water usually found where a river meets the sea; the part of the river that is affected by tides.
Fault (fault line)	A break or fracture in the earth's crust as a result of the displacement of one side with respect to the other. In Scotland the Great Glen Fault is a major geological fault line cutting diagonally across the Highlands from Fort William to Inverness.

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

Term	Definition
Flashy watercourse	A 'flashy' river or watercourse has a short lag time (the delay between peak rainfall intensity and peak river discharge), high peak discharge, and quickly returns to average flow. Rivers with these characteristics can be prone to flooding and leave a short time for warning or actions.
Flood	In the terms of the Flood Risk Management Act, 'flood' means a temporary covering by water, from any source, of land not normally covered by water. This does not include a flood solely from a sewerage system, as a result of normal weather or infrastructure drainage. A flood can cause significant adverse impacts on people, property and the environment.
Flood bund	A constructed retaining wall, embankment or dyke designed to protect against flooding to a specified standard of protection.
Flood defence	Infrastructure, such as flood walls and embankments, intended to protect an area against flooding, to a specified standard of protection.
Flood extent	The area that has been affected by flooding, or is at risk of flooding from one or more sources for a particular likelihood.
Flood forecasting	SEPA operates a network of over 250 rainfall, river and coastal monitoring stations throughout Scotland that generate data 24 hours a day. This hydrological information is combined with meteorological information from the Met Office. A team of experts then predict the likelihood and timing of river, coastal and surface water flooding. This joint initiative between SEPA and the Met Office forms the Scottish Flood Forecasting Service.
Flood frequency	The probability that a particular size/severity of flood will occur in a given year (see likelihood).
Flood gate	An adjustable, sometimes temporary, barrier used as a flood defence to control the flow of water within a water system or during a flood. Flood gates can also be part of operational flood defences or protect individual buildings or sites.
Flood guard	Flood guards cover a variety of types of door and window barriers that can be fitted to individual properties and operated by the owners / occupiers prior to a flood event. They act as a physical barrier to water entering the property and can provide protection against frequent and relatively shallow flooding.
Flood hazard	In terms of the Flood Risk Management Act, hazard refers to the characteristics (extent, depth, velocity) of a flood.
Flood hazard map	Flood hazard maps are required by the Flood Risk Management Act to show information that describes the nature of a flood in terms of the source, extent, water level or depth and, where appropriate, velocity of water. Flood hazard and risk maps are referred to collectively as flood maps and are available on the SEPA website.

Flood Prevention Scheme / Flood Protection Scheme (FPS)	A flood protection scheme, as defined by the Flood Risk Management 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.

Term	Definition
Flood Prevention (Scotland) Act 1961	The Flood Prevention (Scotland) Act 1961 gave local authorities discretionary powers to make and build flood prevention schemes. It was superseded by the Flood Risk Management (Scotland) Act 2009.
Flood protection study	Flood protection studies aim to refine understanding of the hazard and risk associated with flooding in a particular area, catchment or coastline. They will involve detailed assessment of flood hazard and / or risk and may develop options for managing flood risk.
Flood protection works	Flood protection works can include the same flood defence measures that would make up a formal Flood Protection Scheme but without the legal process, protections and requirements that would come by delivering the works as a scheme.
Flood risk	A measure of the combination of the likelihood of flooding occurring and the associated impacts on people, the economy and the environment.
Flood Risk Assessment	Flood Risk Assessments are detailed studies of an area where flood risk may be present. These are often used to inform planning decisions, may help to develop flood schemes and have also contributed to the National Flood Risk Assessment.
Flood Risk Management (Scotland) Act 2009 (FRM Act)	The flood risk management legislation for Scotland. It transposes the EC Floods Directive into Scots Law and aims to reduce the adverse consequences of flooding on communities, the environment, cultural heritage and economic activity.
Flood risk management cycle	Under the Flood Risk Management Act, flood risk management planning is undertaken in six year cycles. The first planning cycle is 2015 – 2021. The first delivery cycle is lagged by approximately 6 months and is from 2016-2022.
Flood Risk Management Local Advisory Groups	Flood risk management local advisory groups are stakeholder groups convened to advise SEPA and lead local authorities in the preparation of flood risk management plans. SEPA and lead local authorities must have regard to the advice they provide.
Flood Risk Management Plan (FRM Plans)	A term used in the Flood Risk Management Act. Flood risk management plans set out a long-term vision for the overall management 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 within Potentially Vulnerable Areas.
Flood Risk Management Strategy (FRM Strategy)	The term used for the first set of flood risk management plans, which were published in December 2015. These are now referred to as the flood risk management plans to keep consistency with the Flood Risk Management Act and other areas of the UK.

Flood risk map	Complements the flood hazard maps published on the SEPA website providing detail on the impacts of flooding on people, the economy and the environment. Flood hazard and risk maps are referred to collectively as flood maps and are available on the SEPA website.
Flood wall	A flood defence feature used to defend an area from flood water to a specified standard of protection.
Flood Warning Target Area (FWTA)	A Flood Warning target area is where SEPA operates a formal Flood Monitoring Scheme to issue targeted flood warning messages for properties located in the area.

Term	Definition
Flood warning scheme	A flood warning scheme is the network of monitoring on a coastal stretch or river, which provides SEPA with the ability to issue flood warnings.
Floods directive	European Directive 2007/60/EC on the Assessment and Management of Flood Risks builds on and is closely related to the Water Framework Directive (see river basin management planning). It was transposed into Scots Law by the Flood Risk Management (Scotland) Act 2009. The Directive requires Member States to assess if all watercourses and coastlines are at risk from flooding, to map the flood extent, assets and humans at risk in these areas and to take adequate and coordinated measures to reduce this flood risk.
Floodplain	Area of land that borders a watercourse, an estuary or the sea, over which water flows in time of flood, or would flow but for the presence of flood defences and other structures where they exist.
Floodplain storage	Floodplains naturally store water during high flows. Storage can be increased through natural or man-made features to increase flood depth or slow flows in order to reduce flooding elsewhere.
Fluvial flooding	Flooding from a river or other watercourse.
Gabion	A metal cage filled with rocks often used in river bank protection.
Green infrastructure	The European Commission defines green infrastructure as “the use of ecosystems, green spaces and water in strategic land use planning to deliver environmental and quality of life benefits. It includes parks, open spaces, playing fields, woodlands, wetlands, road verges, allotments and private gardens. Green infrastructure can contribute to climate change mitigation and adaptation, natural disaster risk mitigation, protection against flooding and erosion as well as biodiversity conservation.” See also ‘blue infrastructure’.
Groundwater flooding	This type of flooding is caused by water rising up from underlying rocks or flowing from springs. In Scotland groundwater is generally a contributing factor to flooding rather than the primary source.
Integrated catchment study (ICS)	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.

Land use planning (LUP)	The process undertaken by public authorities to identify, evaluate and decide on different options for the use of land, including consideration of long term economic, social and environmental objectives and the implications for different communities and interest groups.
Lead local authority	A local authority responsible for leading the production, consultation, publication and review of a Local flood risk management plan.

Term	Definition
Likelihood of flooding	The chance of flooding occurring. **High likelihood**: A flood event is likely in the defined area on average once in every ten years (1:10). Or a 10% chance of happening in any one year. **Medium likelihood**: A flood event is likely in the defined area on average once in every two hundred years (1:200). Or a 0.5% chance of happening in any one year. **Low likelihood**: A flood event is likely in the defined area on average once in every thousand years (1:1000). Or a 0.1% chance of happening in any one year.
Local Flood Risk Management Plans (Local FRM Plan)	Local flood risk management plans, produced by lead local authorities, will take forward the objectives and actions set out in flood risk management plans. They will provide detail on the funding, timeline of delivery, arrangements and co-ordination of actions at the local level during each six year, flood risk management planning cycle.
Local Nature Reserve (LNR)	A Local Nature Reserve is a protected area of land designated by a local authority because of its local special natural interest and / or educational value. Local authorities select and designate local nature reserves using their powers under the National Parks and Access to the Countryside Act 1949.
Local Plan District	Geographical areas for the purposes of flood risk management planning. There are 14 Local Plan Districts (LPDs) in Scotland.
Local Plan District Partnerships	Each LPD has established a local partnership comprised of local authorities, SEPA and Scottish Water and others as appropriate. These partnerships are distinct from the flood risk management plans local advisory groups and they retain clear responsibility for delivery of the flood risk management actions set out in the Local flood risk management plans. It is the local partnership that makes decisions and supports the delivery of these plans.
Maintenance	Sections 18 and 59 of the Flood Risk Management (Scotland) Act 2009 put duties of watercourse inspection, clearance and repair on local authorities. In addition, local authorities may also be responsible for maintenance of existing flood protection schemes or defences.
Montane habitat	This habitat encompasses a range of natural or near-natural vegetation occurring in the montane zone, lying above or beyond the natural tree-line.

National Flood Management Advisory Group (NFMAG)	The National Flood Management Advisory Group provides advice and support to SEPA and, where required, Scottish Water, local authorities and other responsible authorities on the production of flood risk management plans and Local flood risk management plans.
National Flood Risk Assessment (NFRA)	A national analysis of flood risk from all sources of flooding which also considers climate change impacts. First published 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 was reviewed and updated for the second cycle of flood risk management planning in 2018.

Term	Definition
Natural flood management (NFM)	A set of flood management techniques that aim to work with natural processes (or nature) to manage flood risk.
Non-residential properties	Properties that are not used for people to live in, such as shops or other public, commercial or industrial buildings.
Objectives	Objectives provide a common goal and shared ambition for managing floods. These objectives have been set by SEPA and agreed with flood risk management authorities following consultation. They were identified through an assessment of the underlying evidence of the causes and impacts of flooding.
One in 200 year flood	See 'likelihood of flooding' and 'return period'.
Options appraisal study	An options appraisal study looks to identify and assess a range of options that achieve flood risk management objectives whilst delivering other economic, social and environmental benefits. This helps to inform the decision-making process and identify how options work together to identify a preferred option for managing flooding within an area.
Planning policies	Current national planning policies, Scottish Planning Policy and accompanying Planning Advice notes restrict development within the floodplain and limit exposure of new receptors to flood risk. In addition to national policies, local planning policies may place further requirements within their area of operation to restrict inappropriate development and prevent unacceptable risk.
Potentially Vulnerable Areas (PVA)	Catchments identified as being at risk of flooding and where the impact of flooding is sufficient to justify further assessment and appraisal. There were 243 PVAs identified by SEPA in the 2011 National Flood Risk Assessment and were the focus of the first flood risk management planning cycle. There are 233 PVAs identified for the 2018 National Flood Risk Assessment.
Preferred option	A preferred option identifies the collection of flood management options which combined offer the most suitable way of managing flooding within an area. Based on the economic, social and environmental benefits of the options.

Property level protection	Property level protection includes flood gates, sandbags and other temporary barriers that can be used to prevent water from entering individual properties during a flood.
Property level protection scheme	Some responsible authorities may have a formal scheme to provide, install and maintain property level protection for properties.
Ramsar sites	Ramsar sites are wetlands of international importance designated under the Ramsar Convention.
Receptor	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.
Residual risk	The risk which remains after risk management and mitigation. This may include risk due to very severe (above design standard) storms or risks from unforeseen hazards.
Resilience	The ability of an individual, community or system to recover from flooding.
Responsible authority	Designated under the Flood Risk Management (Scotland) Act 2009 and associated legislation as local authorities, Scottish Water and, from 21 December 2013, the National Park Authorities and Forestry Commission Scotland. Responsible authorities, along with SEPA and Scottish Ministers, have specific duties in relation to their flood risk related functions.
Return period	A measure of the rarity of a flood event. It is the statistical average length of time separating flood events of a similar size. (See Likelihood).

Term	Definition
Revetment	Sloping structures placed on banks or at the foot of cliffs in such a way as to deflect the energy of incoming water.
Riparian	The riparian area is the interface between land and a river or stream. For the purposes of flood risk management plans this commonly refers to the riparian owner, which denotes ownership of the land area beside a river or stream.
River basin management planning (RBMP)	The Water Environment and Water Services (Scotland) Act 2003 transposed the European Water Framework Directive into Scots law. The Act created the River Basin Management Planning process to achieve environmental improvements to protect and improve our water environment. It also provided the framework for regulations to control the negative impacts of all activities likely to have an impact on the water environment.
Runoff reduction	Actions within a catchment or sub-catchment to reduce the amount of runoff during rainfall events. This can include intercepting rainfall, storing water, diverting flows or encouraging infiltration.
Scottish Advisory and Implementation Forum for Flooding (SAIFF)	The stakeholder forum on flooding set up by the Scottish Government to ensure legislative and policy aims are met and to provide a platform for sharing expertise and developing common aspirations and approaches to reducing the impact of flooding on Scotland's communities, environment, cultural heritage and economy.

Sediment balance	Within a river where erosion and deposition processes are equal over the medium to long-term resulting in channel dimensions (width, depth, slope) that are relatively stable.
Sediment management	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.
Self help	Self help actions can be undertaken by any individuals, businesses, organisations or communities at risk of flooding. They are applicable to all sources, frequency and scales of flooding. They focus on awareness raising and understanding of flood risk.
Sewer flooding (and other artificial drainage system flooding)	Flooding as a result of the sewer or other artificial drainage system (e.g. road drainage) capacity being exceeded by rainfall runoff or when the drainage system cannot discharge water at the outfall due to high water levels (river and sea levels) in receiving waters.
Site protection plans	Site protection plans are developed to identify whether normal operation of a facility can be maintained during a flood. This may be due to existing protection or resilience of the facility or the network.
Shoreline Management Plan (SMP)	A Shoreline Management Plan is a large scale assessment of the coastal flood and erosion risks to people and the developed, historic and natural environment. It sets out a long-term framework for the management of these risks in a sustainable manner.
Site of Special Scientific Interest (SSSI)	Sites of Special Scientific Interest are protected by law under the Nature Conservation (Scotland) Act 2004 to conserve their plants, animals and habitats, rocks and landforms.

Term	Definition
Source of flooding	The type of flooding. This can be coastal, river, surface water or groundwater.
Special Area of Conservation (SAC)	Special Areas of Conservation are strictly protected sites designated under the European Habitats Directive. The Directive requires the establishment of a European network of protected areas which are internationally important for threatened habitats and species.
Special Protection Areas (SPA)	Special Protection Areas are strictly protected sites classified in accordance with the European Birds Directive. They are classified for rare and vulnerable birds (as listed in the Directive), and for regularly occurring migratory species.
Standard of protection (SoP)	All flood protection structures are designed to be effective up to a specified flood likelihood (Standard of Protection). For events beyond this standard, flooding will occur. The chosen Standard of Protection will determine the required defence height and / or capacity.
Storage area	A feature that can be used to store floodwater, this can be natural in the form of low lying land or manmade such as a reservoir or modified landform.

Strategic Environmental Assessment (SEA)	A process for the early identification and assessment of the likely significant environmental effects, positive and negative, of activities. Often considered before actions are approved or adopted.
Strategic Flood Risk Assessment (SFRA)	A Strategic Flood Risk Assessment is designed for the purposes of specifically informing the Development Plan Process. A SFRA involves the collection, analysis and presentation of all existing and readily available flood risk information (from any source) for the area of interest. It constitutes a strategic overview of flood risk.
Strategic mapping improvements	Strategic mapping improvement actions have been identified in locations where SEPA is planning to undertake additional modelling or analysis of catchments and coastlines, working collaboratively with local authorities where appropriate, to improve the national understanding of flood risk.
Surcharge	Watercourses and culverts can carry a limited amount of water. When they can no longer cope, they overflow, or 'surcharge'.
Surface water flooding	Flooding that occurs when rainwater does not drain away through the normal drainage systems or soak into the ground, but lies on or flows over the ground instead.
Surface Water Management Plan (SWMP)	A plan that takes an integrated approach to drainage accounting for all aspects of urban drainage systems and produces long term and sustainable actions. The aim is to ensure that during a flood the flows created can be managed in a way that will cause minimum harm to people, buildings, the environment and business.
Surface water plan / study	The management of flooding from surface water sewers, drains, small watercourses and ditches that occurs, primarily in urban areas, during heavy rainfall. Flood risk management plan actions in this category include: Surface Water Management Plans, Integrated Catchment Studies and assessment of flood risk from sewerage systems (Flood Risk Management Act, Section 16) by Scottish Water. These have been selected as appropriate for each Potentially Vulnerable Area.
Term	**Definition**
Sustainable flood risk management	The sustainable flood risk management approach aims to meet human needs, whilst preserving the environment so that these needs can be met not only in the present, but also for future generations. The delivery of sustainable development is generally recognised to reconcile three pillars of sustainability – environmental, social and economic.
Sustainable drainage systems (SuDS)	A set of techniques designed to slow the flow of water. They can contribute to reducing flood risk by absorbing some of the initial rainfall and then releasing it gradually, thereby reducing the flood peak and helping to mitigate downstream problems. SuDS encourage us to take account of quality, quantity and amenity / biodiversity.
Target area	Target areas are based on communities at risk of flooding. These are situated within Potentially Vulnerable Areas and should benefit from actions to reduce flood risk. To benefit the community, actions may apply to outside the target area. National flood risk management efforts and funding should be targeted to benefit these target areas.

UK Climate Change Projections (UKCP18)	The leading source of climate change information for the UK. It can help users to assess their climate risks and plan how to adapt to a changing climate. The high emissions scenario refers to the RCP8.5 emission scenario. See the UKCP18 climate change projections report for details.
Utility assets	Within the flood risk management plans this refers to electricity sub stations, mineral and fuel extraction sites, telephone assets, television and radio assets.
Voe	A dialect term, common in place names and used to refer to a small bay or creek in Orkney or Shetland.
Vulnerability	A measure of how likely someone or something is to suffer long-term damage as a result of flooding. It is a combination of the likelihood of suffering harm or damage during a flood (susceptibility) and the ability to recover following a flood (resilience).
Wave energy dissipation	Process by which a wave loses its energy.
Wave overtopping	Wave overtopping occurs when water passes over a flood wall or other structure as a result of wave action. Wave overtopping may lead to flooding particularly in exposed coastal locations.