# Flood Risk Management (Scotland) Act 2009

## Local Flood Risk Management Plan 2022 – 2028

**Abstract**

*This is the second Local Flood Risk Management Plan for the North East Local Plan District, describing the actions which will contribute to managing the risk of flooding and recovering from any future flood events. The task for local authorities, Scottish Water, the Scottish Environment Protection Agency (SEPA), the Scottish Government and all other responsible authorities and public bodies is to deliver this plan.*

**Published by Aberdeenshire Council, December 2022**

## Foreword

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

The publication of this Plan is an important milestone in implementing the Flood Risk Management (Scotland) Act 2009 and improving how we cope with and manage floods in the North East Local Plan District. The Plan translates this legislation into actions over the second planning cycle from 2022 to 2028 to reduce the risk of damage and distress caused by flooding.

The North East Local Plan District is led and is published by Aberdeenshire Council on behalf of a partnership comprising three local authorities: Aberdeenshire Council, Aberdeen City Council and The Moray Council, together with the following Responsible Authorities: Scottish Water; SEPA; Forestry Scotland; and the Cairngorms National Park Authority.

This Plan presents actions to avoid and reduce the risk of flooding and prepare and protect ourselves and our communities within the Potentially Vulnerable Areas (PVAs) and across the Local Plan District (LPD). The delivery of many of these actions may be dependent on the availability of funding. However, we can all play our part in managing flood risk.

Individuals are the first line of defence against flooding and have responsibilities to protect themselves from flooding.

The publication of this Plan shows that the coordinated and collaborative efforts of public bodies can be brought together to deliver sustainable outcomes. However, the actions in this Plan can only be delivered with the support of all the public bodies, The Scottish Government, and most importantly you and your community.

This Plan, therefore, provides the blueprint upon which Local Authorities, SEPA, and Scottish Water and any other responsible authorities will deliver their flood risk management duties under the Flood Risk Management (Scotland) Act 2009.

# Acknowledgements

With thanks to the following who contributed to the development of this Plan which will help shape the way in which floods and their impacts are managed across the North East Local Plan District:

| | |
|---|---|
| Ben Bickle | Scottish Water |
| Claire Royce | Aberdeen City Council |
| Claire Wheeler | SEPA |
| Debbie Gogou | Aberdeen City Council |
| Gavin Penman | Aberdeenshire Council |
| Iris Krammer | SEPA |
| Jonathan Duncan | Aberdeenshire Council (LFRMP Project Manager) |
| Lee Watson | Aberdeenshire Council |
| Will Burnish | The Moray Council |

# List of Acronyms and Abbreviations

| | |
|---|---|
| CoSLA | Convention of Scottish Local Authorities |
| FRM | Flood Risk Management |
| ICS | Integrated Catchment Study |
| LA | Local Authority |
| LFRMP | Local Flood Risk Management Plan |
| LLA | Lead Local Authority |
| LPD | Local Plan District |
| NFRA | National Flood Risk Assessment |
| NFM | Natural Flood Management |
| PVA | Potentially Vulnerable Area |
| RBMP | River Basin Management Plan |
| SAC | Special Area of Conservation |
| SSSI | Site of Special Scientific Interest |
| SEPA | Scottish Environmental Protection Agency |
| SEA | Strategic Environmental Assessment |
| SFRA | Strategic Flood Risk Assessment |
| SPA | Special Protection Area |
| SuDS | Sustainable Drainage Systems |
| SWMP | Surface Water Management Plan |

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# Flood Risk Management in The North East Local Plan District

## What is a local flood risk management plan?

Local Flood Risk Management Plans are required under the Flood Risk Management (Scotland) Act 2009 and are updated every 6 years.

Flood Risk Management Plans are Scotland's route map for reducing the effects of flooding on our communities. This is key to health, well-being and economic success. They are also important in our response to the climate emergency as flooding is increasing due to climate change.

The Local Flood Risk Management Plan (the Plan) for the North East Local Plan District has been designed to ensure effort to reduce flood risk in this catchment area is coordinated. This is achieved by working in partnership with all organisations responsible for flood risk management and the plan focuses the work of these organisations to where the risk of flooding and benefits of action are greatest. The roles and responsibilities of some of the key organisations involved are set out later in the plan.

This Plan sets out how and when actions to reduce the impact of flooding in the North East Local Plan District (LPD) identified in the National Flood Risk Management Plan will be delivered. The Plan identifies where the risk of flooding and benefit of investment is greatest and says how and when actions will be delivered. Flood Risk Management Plans are delivered over six-year cycles. This plan is for Cycle 2 and will be delivered between 2022 and 2028.

The content of the local Plan has been produced by Aberdeenshire Council as the Lead Local Authority for this LPD, in agreement with the designated Responsible Authorities, that are listed below.

- Aberdeenshire Council
- Aberdeen City Council
- The Moray Council
- Scottish Water
- SEPA
- Forestry Scotland; and
- Cairngorms National Park Authority

This plan replaces the flood risk management plan for Cycle 1, published in 2016.

## Managing flooding in North East Local Plan District

Flooding needs to be managed sustainably so that flood risk is reduced without moving the problem elsewhere. It must be done in a way that contributes to the health and wellbeing of communities, supports the protection and regeneration of the environment, improves resilience to climate change and enables a sustainable economy. Actions are needed on all sources of flooding – including from rivers, the sea, surface water and groundwater – to meet the needs of present and future generations while also protecting and enhancing the environment.

Using a 6 year planning cycle enables new data, improved techniques and developing knowledge and understanding to be incorporated regularly into the Flood Risk Management approach. Using all the latest information to regularly review our assessment of flood risk forms the foundation of a risk-based, plan-led approach to managing flooding sustainably. We have outlined below the key stages of the flood risk management process.

**Progress in cycle 1: 2016-2022**

The 2016 local flood risk management plan outlined the long term objectives to tackle flooding in the areas at highest risk within the North East Local Plan District.
The objectives for each area were agreed and actions were developed to meet these objectives. Actions to reduce flood risk included developing flood studies and flood protection schemes and providing public flood warnings and alerts. Actions to avoid flooding included maintenance of flood defences and storage areas and producing strong planning policies, which prevent development from taking place in flood risk areas.
In 2019 Aberdeenshire Council published the interim report for the North East Local Plan District LPD.

This report gave the status of each action at that time and reported them as red, amber or green:

- Red: The action is running late or over budget and is unlikely to meet its aims.
- Amber: The action is running late or over budget but is still likely to meet its aims.
- Green: The action is complete or is on track to meet its aims.

Actions with a green or amber status can be expected to succeed in working towards their objectives.

The final report was published December 2022. These reports are published here.
https://www.aberdeenshire.gov.uk/environment/flooding/flood-risk-management-scotland-act-2009/

## How the flood risk management plans were developed

### Partnership working

Many organisations and individuals are involved in flood risk management in Scotland. The causes and effects of flooding are complex, and issues cross the boundaries of neighbouring authorities as well as the responsibilities of different organisations. To be successful, flood risk management needs coordination, as set out in the flood risk management plans. Collaboration by those responsible for flood management is essential along with a commitment to work in partnership with the other organisations and stakeholders who can contribute to the sustainable management of flooding. Partnership working is at the heart of the Plan and will be central to delivery of the objectives and actions out.

Strong relationships between these organisations were developed through the first cycle of The Plan. Working with these organisations has allowed us to gather local knowledge, expertise and experience from the actions delivered in the first cycle, to inform development of the new plans. The roles and responsibilities of some of the organisations with formal flood risk management responsibilities are set out below. There are a wide range of other stakeholders involved in flood risk management. Some work directly with Responsible Authorities through the local partnerships and advisory groups. Others, by virtue of their interests and activities, deliver direct action which can benefit flood risk management. Through the lifetime of the Plan, we will seek to strengthen existing partnerships and establish new ones to achieve the best outcomes for flood risk management.

### Roles and responsibilities for flood risk management

Individuals have a personal responsibility to protect themselves and their property from flooding. However, public bodies have responsibilities too and are working together to reduce the impacts of flooding in Scotland. Some of the key roles are outlined below and more information is available from the Aberdeenshire Council website.

### Your responsibilities

It is your responsibility to manage your own flood risk and protect yourself, your family, property or business. There are steps you can take now to be flood prepared and reduce the damage and disruption flooding can have on your life.

- View SEPA's flood maps to check if your area is affected by flooding https://map.sepa.org.uk/floodmaps
- Sign up to Floodline to receive messages when flooding is forecast in your area https://www.floodlinescotland.org.uk/

- Know who to contact if flooding happens https://www.sepa.org.uk/media/28952/who_to_contact_2014.pdf

Other useful tools and advice on how to be prepared are available on SEPA's Floodline website and on the Scottish Flood Forum website.

**Local authorities and Lead Local Authorities**

Local authorities are responsible for working together to produce Scotland's local flood risk management plans and work in partnership with SEPA, Scottish Water and other responsible authorities to develop these.

It is the responsibility of local authorities to implement action to manage flooding and maintain flood defences. Local authorities also inspect, clear and repair watercourses to reduce flood risk and routinely maintain road gullies on public roads and highways. During severe flooding, local authorities will work with the emergency services and co-ordinate shelter for people evacuated from their homes.

**SEPA**

SEPA is Scotland's national flood forecasting, flood warning and strategic flood risk management authority. SEPA works in partnership with the Met Office to forecast flooding and operate Floodline to warn the public and emergency responders when flooding is likely. SEPA produces Scotland's flood risk management plans, working closely with other organisations responsible for managing flood risk to ensure that a nationally consistent approach to flood risk management is adopted. SEPA also provides flood risk advice on land use planning when requested and raises awareness of flooding at a national level through education initiatives, community engagement and campaigns.

**Scottish Water**

Scottish Water is a responsible authority for flood risk management and is working closely with SEPA, local authorities and others to coordinate plans to manage flood risk. Scottish Water has the public drainage duty and is responsible for draining wastewater from properties and businesses, and rainwater run-off from roofs and paved areas within the boundary of properties. Pipework and guttering within the boundary, are the responsibility of the property owner.

Scottish Water helps to protect homes from flooding caused by sewers either overflowing or becoming blocked. This is done in a way that is fair and consistent to customers across the country, with sewer flooding investment prioritised to provide the biggest benefit for customers and the environment first. Currently investment to reduce the risk of sewer

flooding is prioritised towards properties that have experienced internal sewer flooding and are at the highest risk of repeat occurrence of sewer flooding during frequent rainfall events.

**National parks**

The National Park Authorities, Loch Lomond & Trossachs National Park and Cairngorms National Park, work with SEPA and other responsible authorities to develop the flood risk management plans and local flood risk management plans. They also fulfil a key role in land use planning, carrying out and permitting activities that can help manage and reduce flood risk.

**Other organisations**

The **Scottish Government** oversees the implementation of the Flood Risk Management (Scotland) Act 2009, which requires the production of flood risk management plans and local flood risk management plans. Scottish Ministers are responsible for setting the policy framework for how organisations collectively manage flooding in Scotland.

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

The **Met Office** provides a wide range of forecasts and weather warnings. SEPA and the Met Office work together through the Scottish Flood Forecasting Service, combining SEPA's hydrological expertise with the Met Office's meteorological data to predict the likelihood and timing of river, coastal and surface water flooding.

The **emergency services** provide emergency relief when flooding occurs and can coordinate evacuations. You should call the emergency services on 999 if you are concerned about your safety or the safety of others and act immediately on any advice provided.

The **Scottish Flood Forum** aims to reduce the impacts of flooding by providing immediate support and by establishing a network of community resilience groups in flood risk areas, to equip communities to cope with flooding.

**Consultation, engagement and advice**

Further to the strong partnership approach to flood risk management planning in Scotland, it is essential to work with the people and communities that experience and live with the threat of flooding. This ensures that our assessment of the risk is accurate. How flooding is managed should support the communities at risk and effort needs to be targeted to where most can be achieved. Public consultations have been held, jointly with SEPA, during the development of the Plan.

The most recent consultation ran from July 2021 to October 2021 and covered information on the objectives and actions planned for each target area within the North East LPD. The consultation was advertised widely by both Aberdeenshire Council and SEPA.

Aberdeenshire Council submitted a Strategic Environmental Assessment (SEA) Screening Report to the SEA Gateway. The SEA Gateway advised that a Strategic Environmental Assessment was not required for the Plan.

A Habitats Regulations Appraisal (HRA) has been undertaken for the Suite of National Flood Risk Management Plan that has informed the Plan. Where the HRA identified mitigation measures to protect the nature interests, these have been incorporated into the Plan, this only includes actions identified in the Suite of National Flood Risk Management Plan. Studies included in the Suite of National Flood Risk Management Plan and the Plan may recommend schemes or works that will be the subject of future plans and full assessment would be undertaken as part of the development process. Where studies identify actions likely to have significant effects on qualifying interests of nature sites an appropriate assessment will be required. Where it cannot be shown that there will be no adverse effect on site integrity, proposals will be refused.

**Consultation Report**

A joint consultation was undertaken for both the National and Local Flood Risk Management Plans between 31 July and 31 October 2021. A total of 194 replies were received for the North East LPD area. The responses received were split across the following representatives:-

| | Aberdeenshire Council | Aberdeen City Council | The Moray Council |
|---|---|---|---|
| **Community group** | 11 | - | - |
| **Local Authority** | 1 | 2 | 2 |
| **Local business** | 12 | - | - |
| **Member of the public** | 151 | 5 | 1 |
| **Not Answered** | 1 | 1 | - |
| **Other organisation** | 5 | 1 | - |

## Links with other plans and policies

### River basin management planning

River basin management aims to protect and improve the condition of Scotland's rivers, lochs, estuaries, coastal waters and groundwater. Taking action to reduce flood risk in Scotland provides opportunities to deliver joint objectives for restoration and flood risk management. Coordination between river basin management and flood risk management can reduce flood risk, while also improving water quality and biodiversity. SEPA is leading the delivery of both the river basin management plan and the flood risk management plans so has worked to ensure that there is integration and coordination between them. This coordination, particularly in regard to consultation and engagement, is important for stakeholders who have an interest in the objectives of both plans.

### Land use and spatial planning

Land use planning decisions are pivotal to achieving sustainable flood risk management. Flood risk management can have significant implications for the location of development and similarly the location of development can have an impact on flood risk.
There are four planning authorities within the North East LPD: Aberdeenshire Council, Aberdeen City Council, Moray Council and Cairngorms National Park Authority. Each produces a Local Development Plan for their area.

Aberdeenshire Council develops and adopts a new Local Development Plan currently every five years. It sets out the Council's strategy for delivering appropriate development in Aberdeenshire, considering a number of potential constraints, including flooding. The current plan was adopted in December 2022.

Periodically Planning Authorities will review and update their Local Development Plans. These plans set out the strategy for delivering appropriate development within each area and take into account a number of constraints, including taking account of the flood risk and the actions proposed in this Plan.

### Emergency planning and response

Emergency planning and response is undertaken by Category 1 and 2 responders including Police Scotland, the Scottish Fire and Rescue Service, the Scottish Ambulance Service, both local authorities, the NHS, the Met Office and SEPA. Emergency plans are prepared under the Civil Contingencies Act 2004. Aberdeenshire Council produces its own Community Resilience Strategy whilst Local Resilience Partnerships coordinate the emergency response to flood events, such as road closures, evacuations and temporary accommodation.

**Scottish Water investment plans**

There is a close relationship between Local Flood Risk Management Plans and Scottish Water's 25 year strategic plan. Sewer flooding is not considered in detail in the Flood Risk Management Plans as it remains a high priority for Scottish Water and its customers. Scottish Water's close involvement in flood risk management planning aims to ensure that there is strong coordination between the management of sewer flooding and wider surface water flood risk, and the actions to be taken forward by local authorities and others.

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

The duty to assess bodies of water and schedule clearance and repair works lies with Aberdeenshire Council, Aberdeen City Council and The Moray Council.
Each Council has a risk-based approach to assessing bodies of water that may give rise to flooding. Where potential flood risk has been identified the relevant water body has been included in the relevant Council's routine inspection schedule. The frequency of inspection is dependent on the assessed risk, any works identified during these inspections are included in the Council's schedule of clearance and repair. Each schedule of clearance and repair works are made available for public inspection.

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

| Local Authority | Method of access | Hyperlink or web access |
|---|---|---|
| Aberdeenshire Council | Website | https://www.aberdeenshire.gov.uk/environment/flooding/ |
| Aberdeen City Council | On request | https://www.aberdeencity.gov.uk |
| The Moray Council | Website | www.moray.gov.uk/flooding |

## Next steps and monitoring progress

Aberdeenshire Council and the other responsible authorities are committed to continue to work together, improving the understanding and response to flooding and managing flood risk for the good of Scotland through this and subsequent planning cycles.

Progress will be monitored throughout the years covered by this plan through ongoing joint working arrangements under the Local Plan District partnerships. Lead local authorities will provide an interim report on the progress of delivering all actions in the local flood risk management plans not earlier than 2 years and not later than 3 years from its publication. A final report will also be prepared at the end of the second planning cycle. A third set of flood risk management plans and local flood risk management plans will be published in 2027/2028.

### Funding review for future Local flood risk management actions

The distribution of Scottish Government grant funding for actions in the plan for the period 2022 – 2028 is currently being considered by a flood risk management working group[1]. This group will put forward options and recommendations to Scottish Ministers and COSLA, through the Settlement and Distribution Group, for consideration. A decision will not be made in time for the publication of this plan. As such it should be noted that it may not be possible for all actions identified in the Plan to be grant funded. Inclusion of an action in this plan does not formally commit a Council to implement it, if reasons arise which make any actions undeliverable, including inability to secure adequate funding.

This plan remains the best understanding of the objectives and actions required over the long term to manage flood risk in the identified high risk areas within this LPD. The delivery of the Plan, particularly the ambitions on how quickly actions can be delivered, may have to be adapted to reflect wider developments in public funding, the ability of responsible authorities to access funding from other sources, pandemic recovery, and other national priorities.

[1] Membership of the group includes representatives from Scottish Government, the Convention of Scottish Local Authorities (COSLA), local authorities, Society of Chief Officers of Transportation in Scotland (SCOTS) flood risk management group and SEPA.

# North East Local Plan District (LPD 6)

## Local flood risk management plans 2022-2028

The North East Local Plan District covers an area of around 6,500km² and has a population of approximately 500,000 people. It covers part of the northeast of Scotland from the central and eastern Grampians, north to the Outer Moray Firth and east to the Aberdeenshire coastline.

Within the Cairngorms National Park, heather and montane habitats dominate. Elsewhere, land use is typically arable, horticultural farmland and improved grasslands. The main urban area is around Aberdeen City. The River Dee, River Don, River Deveron and the River Ythan are the main rivers in the area. There are a few large lochs in the area including Loch Muick, Loch of Strathbeg, Loch of Skene and Loch Kinord. The coastline is approximately 220km in length with variable extents of beach and hard rock.

There is river, surface water and coastal flood risk in the Local Plan District, with the main risk coming from river and surface water flooding. The area has been affected by several large floods, including in December 2015 when Storm Frank caused considerable damage throughout Deeside, most notably in Ballater. Subsequent storms in January 2016 caused significant damage throughout the area including in Inverurie, Port Elphinstone, Kemnay, Kintore and Ellon. Significant flooding from the sea and from smaller watercourses and surface water has also occurred, most notably in Aberdeen and Stonehaven, with many towns and villages also affected by flooding.

Currently it is estimated that there are 51,000 people and 30,000 homes and businesses at risk from flooding. This is estimated to increase to 64,000 people and 38,000 homes and businesses by the 2080s due to climate change. The annual cost of flooding is approximately £26 million. Note however that flooding from wave overtopping is not fully represented in the assessment of flood risk and the impact of coastal flooding may be underestimated.

Local flood risk management planning is led by Aberdeenshire Council who are the lead authority. Other responsible authorities include Aberdeen City Council, Moray Council, Cairngorms National Park Authority and Scottish Water. 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 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

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

| | **Awareness raising** |
|---|---|
| **Action** | SEPA, the responsible authorities and other organisations such as the Scottish Flood Forum work together through national and local initiatives to help communities understand the risk of flooding and what actions individuals can take. Improved awareness of flood risk and actions that prepare individuals, homes and businesses for flooding can reduce the overall impact of flooding.<br><br>Local authorities undertake additional awareness raising activities when developing any specific project proposals and will engage with community resilience groups and local communities.<br><br>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. |
| **Funding** | This will be funded via relevant Local Authorities revenue budgets. SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. |
| **Co-ordination** | Aberdeenshire, Aberdeen City and Moray Councils will work with local partners and responsible authorities to ensure that the most appropriate approach is undertaken. |
| **Timing** | 2022-2028 |

| | **Data to support climate resilience** |
|---|---|
| **Action** | As Scotland's hydrometric authority, SEPA operates a network of stations to measure river level, flow, rainfall, sea level, loch and groundwater level. The data goes into a long term data archive and is critical to underpin all flood risk management activities including |

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|---|---|
| | flood warning, flood mapping, design of flood protection and sustainable development as well as supporting a range of regulatory and recreational uses.<br><br>SEPA will continue to maintain and develop its hydrometric network, contribute to UK and international data archives, and improve and update the datasets used for flood frequency analysis.<br><br>SEPA will support research and development of data, methods and guidance to improve the evidence on which decisions can be made, and to enable the impact of climate change to be included in all flood risk management activities. |
| **Funding** | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. |
| **Co-ordination** | SEPA will coordinate with a range of other parties as required to deliver better and more accessible data, and ongoing improvements to the use of the data to underpin flood risk management activities and decisions. |
| **Timing** | 2022-2028 |

| | **Emergency 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. |
| **Funding** | Aberdeenshire, Aberdeen City and Moray Councils provide emergency planning and response through their respective annual revenue budget. |
| **Co-ordination** | Local Resilience Partnership |
| **Timing** | 2022-2028 |

| | **Flood forecasting** |
|---|---|
| **Action** | The Scottish Flood Forecasting Service is a partnership between SEPA and the Met Office. The service continues to produce a |

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|---|---|
| | 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. |
| **Funding** | SEPA work in partnership with the Met Office and will work closely with all other authorities involved in emergency response to flooding. |
| **Co-ordination** | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. |
| **Timing** | 2022-2028 |

| | **Flood warning development framework** |
|---|---|
| **Action** | SEPA published a new flood warning development framework in 2022, which details the ambition and strategic actions to maintain and improve the flood warning service across Scotland.<br><br>SEPA will further develop phase 1 of the Scottish Flood Forecast based on feedback gathered during public beta release before fully launching the service to the public formally in early 2023. Phase 1 is the national 3-day flood forecast and the starting point of our journey in providing the public with earlier and improved flood information.<br><br>SEPA will continue to follow the service design approach for phase 2 of the Scottish Flood Forecast, which will provide the public with more localised flood forecast information. User research will determine what information will be displayed on the regional flood forecast webpages. It is anticipated that the final service will bring together all live information such as flood warnings, river levels and rainfall data into a central hub that is easily accessible for the public.<br><br>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 |

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|---|---|
| | accurate forecasting with improved lead time. |
| **Funding** | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. |
| **Co-ordination** | SEPA work in partnership with the Met Office. Appropriate engagement with the other authorities involved in emergency response will happen as the flood warning developments are progressed. |
| **Timing** | 2022 - 2028 |

| | **Future flood risk management planning** |
|---|---|
| **Action** | The years covered by the lifetime of this plan are crucial. Radical progress is needed in how we reduce our impact on the climate and respond to the effects of climate change. How we plan to manage flooding to our communities is on the front line of the challenges of this decade. The 2027 flood risk management plans will be more ambitious than ever before. The plans will look to develop long term plans for more flood resilient communities prepared for the impacts of climate change.<br><br>The priority areas which will be the focus points of the next flood risk management plans will be identified in 2024 with the designation of PVAs. A 3-month public consultation will be held to inform the PVA designation.<br><br>We will plan for a better future by publishing our flooding services strategy in 2023 with a clear and measurable delivery plan. We will put greener, fairer communities at the heart of our ambitions.<br><br>SEPA has set its own target to be a regenerative organisation by 2030 and the next set of plans will further this ambition.<br><br>During this plan cycle, SEPA will work to develop new partnerships with a wider range of stakeholders, including businesses and commercial sectors. We will investigate alternative sources of finance to tackle flooding and drive forward practical options for adaptation. |
| **Funding** | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. |
| **Co-ordination** | SEPA will lead the work, in partnership with the Scottish Government and other responsible authorities. A wider range of partners and stakeholders will be developed to support the action. SEPA will carry out a full consultation on the next draft flood risk management plans in |

| | |
|---|---|
| | 2026. |
| **Timing** | Ongoing / 2022-2028<br>Flooding services strategy 2023<br>Next flood risk management plans 2027 |

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

| | **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: https://www.sepa.org.uk/environment/water/flooding/flood-maps/. 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. SEPA will also review how modelling and mapping updates are undertaken to develop a more effective method of regional and national updates for the hazard maps. |
| **Funding** | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. |
| **Co-ordination** | SEPA will work with other relevant parties - including authorities who have ownership of data used in flood mapping - to develop the quality and accessibility of flood hazard mapping. |
| **Timing** | 2022-2028 |

| | **Land use planning** |
|---|---|
| **Action** | Local authorities, SEPA and Scottish Water all have a responsibility under the Flood Risk Management (Scotland) Act 2009 to support sustainable flood risk management through the land use planning process. National planning policies set out the Scottish Ministers' priorities for the development and use of land. Under this approach, new development in areas with medium to high likelihood of flooding should generally be avoided. Current national planning policies aim to restrict development within the floodplain and limit exposure of new receptors to flood risk, promote flood reduction via natural and structural flood management measures and restoration of natural features, and avoid increased surface water flooding through sustainable drainage and the minimisation of impermeable surfaces. Locally determined planning policies may place further requirements within their area of operation to restrict inappropriate development and prevent unacceptable risk. |
| **Funding** | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. |
| **Co-ordination** | SEPA will work with other relevant parties - including authorities who have ownership of data used in flood mapping - to develop the quality and accessibility of flood hazard mapping. |
| **Timing** | 2022-2028 |

| | **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.<br><br>Scottish Water will continue to undertake risk-based inspection, maintenance and repair on the public sewer network.<br><br>Asset owners and riparian landowners are responsible for the maintenance and management of their own assets including those which help to reduce flood risk. |
| **Funding** | The assessment of watercourses, clearance and repair works and maintenance of all council assets are funded through the Council's annual revenue budget |
| **Co-ordination** | Scottish Water will keep responsible authorities informed of large scale capital maintenance work to identify opportunities for co-ordination. |
| **Timing** | 2022-2028 |

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

| | **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 (NFRA) 2024. This assessment will be used to identify future potentially vulnerable areas. |
| **Funding** | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. |
| **Co-ordination** | SEPA will work with others as the NFRA is updated, including to keep other responsible authorities informed through the Local Plan District Partnerships. |
| **Timing** | December 2024 |

| | **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 6 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. |
| **Funding** | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. |
| **Co-ordination** | SEPA will work with others as the NFRA is updated, including to keep other responsible authorities informed through the Local Plan District Partnerships. |
| **Timing** | December 2024 |

| | **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. |
| **Funding** | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. |
| **Co-ordination** | SEPA will work with others as the NFRA is updated, including to keep other responsible authorities informed through the Local Plan District Partnerships. |
| **Timing** | December 2024 |

| | Scottish Flood Defence Asset Database |
|---|---|
| **Action** | The Scottish Flood Defence Asset Database provides information on existing flood protection schemes. National data on flood protection infrastructure is needed to understand flood risk and to develop adaptation planning for Scotland. SEPA will continue to host SFDAD and look for opportunities to support the development of our understanding of how and when Scotland's flood defence assets should be adapted to continue to maintain protection from flooding in the future. |
| **Funding** | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. |
| **Co-ordination** | SEPA will work with others as the NFRA is updated, including to keep other responsible authorities informed through the Local Plan District Partnerships. |
| **Timing** | December 2024 |

| | Self help |
|---|---|
| **Action** | Everyone is responsible for protecting themselves and their property from flooding. People can take steps to reduce damage and disruption to their homes and businesses should flooding happen. This includes preparing a flood plan and flood kit, installing property flood resilience measures, signing up to Floodline, engaging with their local flood group, and ensuring that properties and businesses are insured against flood damage. The following places offer help with taking steps to protect yourself:<br>https://www.floodre.co.uk/<br>https://www.biba.org.uk/current-issues/flood-insurance/<br>https://floodlinescotland.org.uk/<br>https://scottishfloodforum.org/<br>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. |
| **Funding** | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. |
| **Co-ordination** | SEPA will work with others as the NFRA is updated, including to keep other responsible authorities informed through the Local Plan District Partnerships. |
| **Timing** | December 2024 |

More specific local actions to manage flood risk in target areas are detailed in the potentially vulnerable areas (PVAs) sections below.

# Potentially vulnerable areas

Potentially vulnerable areas (PVAs) were designated in 2018 based on the potential current or future risk from all sources of flooding.
This designation was informed by the national flood risk assessment (available to view at: https://www.sepa.org.uk/data-visualisation/nfra2018/).

As part of continued analysis of flood risk, the national flood risk assessment and potentially vulnerable areas (PVAs) will be reviewed every 6 years to take on board any new information.

There are 26 potentially vulnerable areas (PVAs) in this Local Plan District.

The following sections provide more information on these areas.

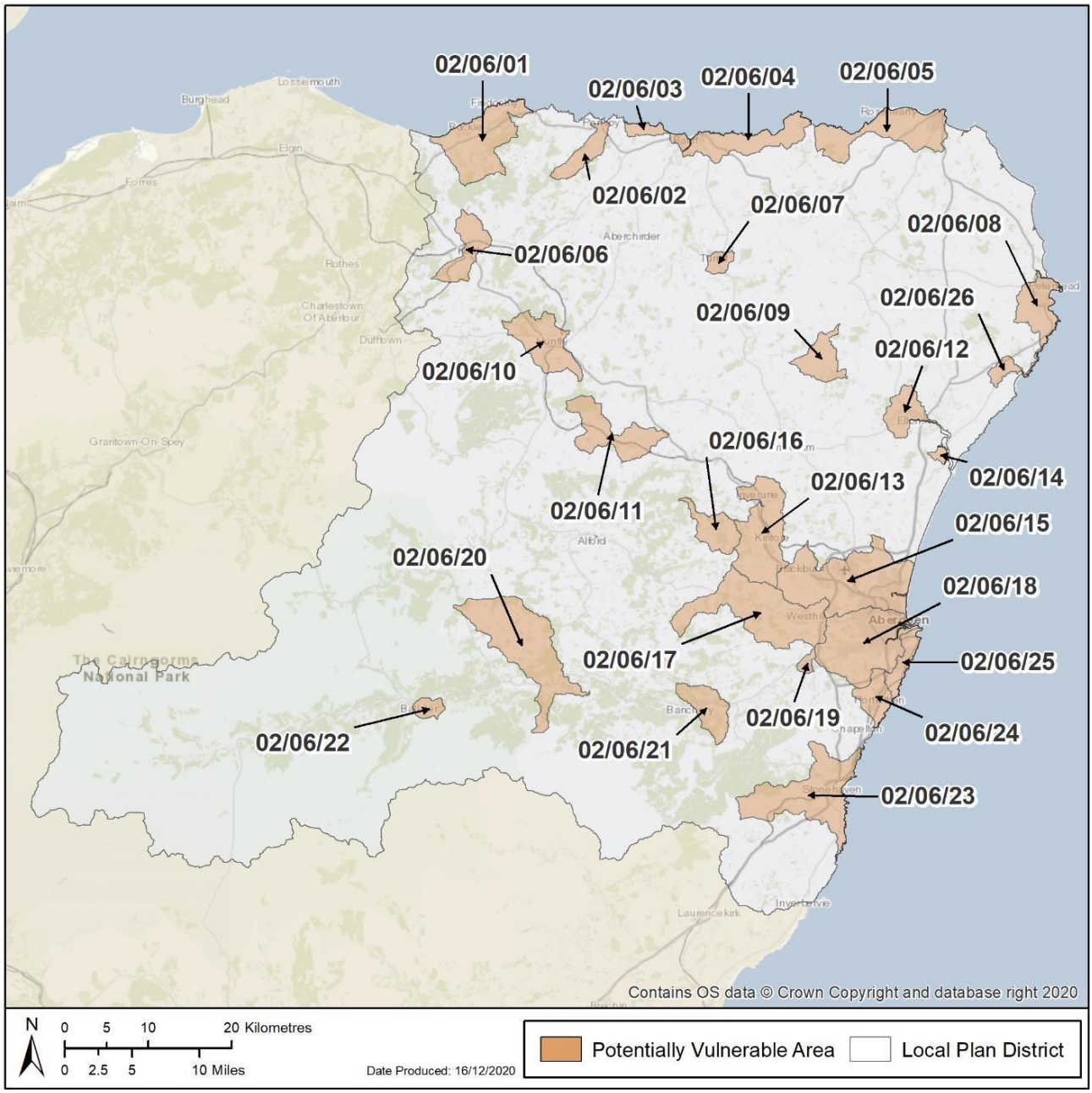


**Figure 1. Potentially vulnerable areas in the North East Local Plan District**

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# LPD 6 North East – List of PVAs

*Click the blue text to select your area of interest*

| PVA Ref | PVA Name | Local authority area | Page number |
|---|---|---|---|
| 02/06/01 | Portgordon and Buckie | Moray | |
| 02/06/02 | Portsoy | Aberdeenshire | |
| 02/06/03 | Banff and Whitehills | Aberdeenshire | |
| 02/06/04 | Macduff | Aberdeenshire | |
| 02/06/05 | Fraserburgh and Rosehearty | Aberdeenshire | |
| 02/06/06 | Keith and Newmill | Moray | |
| 02/06/07 | Turriff | Aberdeenshire | |
| 02/06/08 | Peterhead | Aberdeenshire | |
| 02/06/09 | Methlick | Aberdeenshire | |
| 02/06/10 | Huntly | Aberdeenshire | |
| 02/06/11 | Insch | Aberdeenshire | |
| 02/06/12 | Ellon | Aberdeenshire | |
| 02/06/13 | Inverurie and Kintore | Aberdeenshire | |
| 02/06/14 | Newburgh | Aberdeenshire | |
| 02/06/15 | Aberdeen City - North | Aberdeen City | |
| 02/06/16 | Kemnay | Aberdeenshire | |
| 02/06/17 | Westhill | Aberdeenshire | |

| PVA Ref | PVA Name | Local authority | Page number |
|---|---|---|---|
| 02/06/18 | Aberdeen City - South | Aberdeen City | |
| 02/06/19 | Peterculter | Aberdeen City | |
| 02/06/20 | Aboyne | Aberdeenshire | |
| 02/06/21 | Banchory | Aberdeenshire | |
| 02/06/22 | Ballater | Aberdeenshire | |
| 02/06/23 | Stonehaven | Aberdeenshire | |
| 02/06/24 | Portlethen | Aberdeenshire | |
| 02/06/25 | Cove and Nigg Bay | Aberdeen City | |
| 02/06/26 | Cruden Bay | Aberdeenshire | |

# 02/06/01 (Portgordon and Buckie)

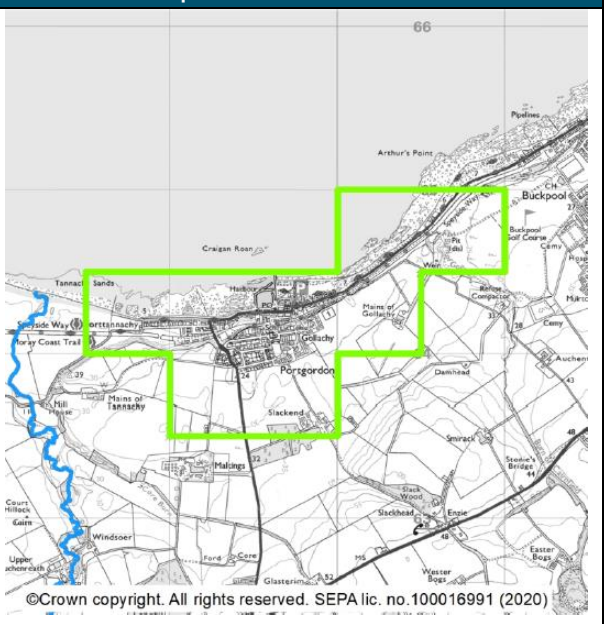
This area is designated as a potentially vulnerable area due to Buckie and Portgordon being at risk of coastal and surface water flooding. Due to climate change induced sea-level rise, this flood risk is expected to increase. Recent flooding has occurred due to coastal, river and surface water flooding.

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

**List of target areas**

| | |
|---|---|
| Portgordon | (target area 398) |
| Buckie and Portessie | (target area 455) |

| North East Local Flood Risk Management Plan datasheet | | | |
|---|---|---|---|
| Target Area name | Portgordon | Target Area ID | 398 |

| Summary | Location Map |
|---|---|
| Portgordon lies 2km south west of Buckie, in the Moray Council area. The main source of flooding in Portgordon is surface water flooding, however there is also risk of coastal flooding. The risk of coastal flooding is underestimated as wave overtopping is not currently accounted for in the SEPA strategic mapping. There are approximately 100 people and 50 homes and businesses currently at risk from flooding. This is likely to increase to 120 people and 70 homes and businesses by the 2080s due to climate change. |   © Crown copyright and database rights 2022. All rights reserved. Ordnance Survey Licence number 01000020767 |

## 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 Portgordon Flood Study (2019). The understanding of surface water flooding is improved by the Moray Surface Water Management Plan. There is a long history of coastal flooding in the Portgordon target area including notable flooding during the North Sea flood of January 1953. There are also periodic records of surface water flooding.

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

| Objective | ID | Description |
|---|---|---|
| Avoid flood risk | 3981 | Avoid inappropriate development that increases flood risk in Portgordon |
| Prepare for flooding | 3982 | Prepare for current flood risk and future flooding as a result of climate change in Portgordon |
| Reduce flood risk | 3983 | Reduce the risk of surface water flooding in Portgordon |
| Reduce flood risk | 3984 | Reduce the risk of coastal flooding in Portgordon |

| Target Area | Portgordon | Action ID | 39801 |
|---|---|---|---|
| Action Type | Strategic mapping improvements | | |
| Delivery Lead | SEPA | | |
| Indicative Delivery | 2023-2024 | | |
| Description | SEPA has undertaken improved coastal modelling in this target area including taking account of the impact of waves on coastal flooding. We will complete and publish the outcomes of this modelling work to inform decision making with respect to flooding at the coast. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will work with the local authority on the potential to coordinate the flood map update with any other actions being carried out to understand or reduce coastal flooding. | | |

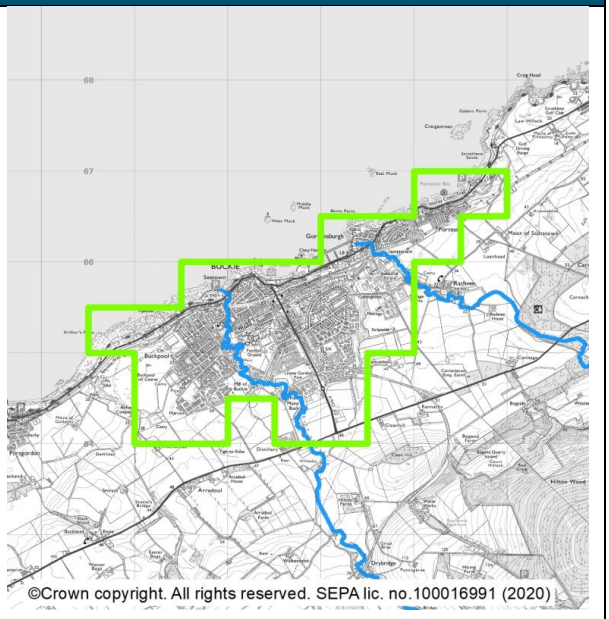
| Target Area | Portgordon | Action ID | 39802 |
|---|---|---|---|
| Action Type | Sewer flood risk assessment | | |
| Delivery Lead | Scottish Water | | |
| Indicative Delivery | 2023-2025 | | |
| Description | Scottish Water will undertake a modelling assessment in the Buckie (Moray East) sewer catchment to improve knowledge and understanding of flood risk in this area as required under Section 16 of the Flood Risk Management (Scotland) Act 2009 | | |
| Funding | Funding for this action is secured within Scottish Water's business plan | | |

| | |
|---|---|
| Coordination | Outputs of this modelling assessment will be shared with local authorities and SEPA |

| | | | |
|---|---|---|---|
| Target Area | Portgordon | Action ID | 39803 |
| Action Type | Flood defence maintenance | | |
| Delivery Lead | Moray Council | | |
| Indicative Delivery | Ongoing | | |
| Description | Maintenance of the existing coastal defences should continue and updates to the maintenance regime be made based on the findings of the flood study. The surface water management plan did not make any recommendations for improvement works in Portgordon. | | |
| Funding | Moray Council Revenue | | |
| Coordination | Moray Council will continue to maintain the scheme liaising with responsible authority and the community on issues that may arise | | |

| | | | |
|---|---|---|---|
| Target Area | Portgordon | Action ID | 39804 |
| Action Type | Flood warning maintenance | | |
| Delivery Lead | SEPA | | |
| Indicative Delivery | Ongoing | | |
| Description | SEPA should maintain the Moray Firth coastal flood warning scheme. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will work with the local authorities on the potential to use information from any flood studies around the Moray Firth coast to inform ongoing flood warning. SEPA will continue to raise awareness of flood warning and engage with communities about the service when required. | | |

| North East Local Flood Risk Management Plan datasheet | | | |
|---|---|---|---|
| Target Area name | Buckie and Portessie | Target Area ID | 455 |

| Summary | Location Map |
|---|---|
| Buckie and Portessie front onto Spey Bay on the south coast of the Moray Firth in the Moray Council area. The main sources of flooding are coastal and surface water flooding. The flood maps currently don't include the impact of waves. As a result, the assessment of coastal flood risk is considered to be an underestimate. There are approximately 520 people and 300 homes and businesses currently at risk from flooding. This is likely to increase to 810 people and 460 homes and businesses by the 2080s due to climate change. |   © Crown copyright and database rights 2022. All rights reserved. Ordnance Survey Licence number 01000020767 |

## 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 surface water by the Moray Surface Water Management Plan which includes Buckie as a priority area. The understanding of coastal flooding is improved in Portessie by the coastal flood risk assessment completed in 2016 and is improved across the target area by the development and operation of the Moray Firth flood warning scheme. There is a long history of flooding in the Buckie and Portessie area including notable coastal flooding during the North Sea flood of January 1953. There are also frequent records of surface water flooding in Buckie.

The Dynamic Coast project has shown that parts of the shoreline in or adjacent to this target area are subject to erosion at present or are considered likely to erode in the future. Consideration should be given to how erosion might impact flood risk.

| |
|---|
| Any actions taken should aim to support building natural resilience to flooding and not lead to an increase in erosion. |

| Objective | ID | Description |
|---|---|---|
| Avoid flood risk | 4551 | Avoid inappropriate development that increases flood risk in Buckie and Portessie |
| Prepare for flooding | 4552 | Prepare for current flood risk and future flooding as a result of climate change in Buckie and Portessie |
| Reduce flood risk | 4553 | Reduce the risk of coastal flooding in Portessie |
| Reduce flood risk | 4554 | Reduce the risk of surface water flooding in Buckie and Portessie |

| | | | |
|---|---|---|---|
| Target Area | Buckie and Portessie | Action ID | 45501 |
| Action Type | Flood scheme or works design | | |
| Delivery Lead | Moray Council | Indicative Delivery | 2025-27 |
| Description | The detailed design for the coastal flood works identified in the Portessie Options Appraisal Report (2016) should be progressed. It is proposed that the existing setback wall is rebuilt to a greater height. This option would provide a 200yr (0.5% annual exceedance probability) event plus climate change standard of protection.<br><br>The responsible authority proposes this action as the best viable option for managing flood risk in this community. The delivery of this action is subject to capital funding being made available. | | |
| Funding | This works is subject to funding via the Scottish Government flood capital monies. This monies have not been allocated at the time of the production of this report. | | |
| Coordination | The action delivery lead is The Moray Council in coordination with other responsible authority including community engagement | | |

| | | | |
|---|---|---|---|
| Target Area | Buckie and Portessie | Action ID | 45502 |
| Action Type | Flood scheme or works implementation | | |
| Delivery Lead | Moray Council | Indicative Delivery | 2027-28 |
| Description | Progress the coastal Portessie 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.<br>The responsible authority proposes this action as the best viable option for managing flood risk in this community. The delivery of this action is subject to capital funding being made available. |
| Funding | This works is subject to funding via the Scottish Government flood capital monies. This monies have not been allocated at the time of the production of this report. |
| Coordination | The action delivery lead is The Moray Council in coordination with other responsible authority including community engagement |

| | | | |
|---|---|---|---|
| Target Area | Buckie and Portessie | Action ID | 45503 |
| Action Type | Flood scheme or works design | | |
| Delivery Lead | Moray Council | Indicative Delivery | 2026-27 |
| Description | Further work may be required to determine business case prior to progressing to detailed design. The detailed design for the flood works identified in the surface water management plan should be progressed. The preferred options for surface water management in Buckie provides a 30 year (3.33% annual exceedance probability) event standard of protection and consists of drainage improvements, including a new combined sewer overflow, flap valves and an interception trench.<br><br>The responsible authority proposes this action as the best viable option for managing flood risk in this community. The delivery of this action is subject to capital funding being made available. | | |
| Funding | This works is subject to funding via the Scottish Government flood capital monies. This monies have not been allocated at the time of the production of this report. | | |
| Coordination | The action delivery lead is The Moray Council in coordination with other responsible authority including community engagement | | |

| | | | |
|---|---|---|---|
| Target Area | Buckie and Portessie | Action ID | 45504 |
| Action Type | Flood scheme or works implementation | | |
| Delivery Lead | Moray Council | Indicative Delivery | 2027-28 |
| Description | Progress the flood works identified in the surface water management plan 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. |
| Funding | This works is subject to funding via the Scottish Government flood capital monies. This monies have not been allocated at the time of the production of this report. |
| Coordination | The action delivery lead is The Moray Council in coordination with other responsible authority including community engagement |

| | | | |
|---|---|---|---|
| Target Area | Buckie and Portessie | Action ID | 45505 |
| Action Type | Community engagement | | |
| Delivery Lead | Moray Council | Indicative Delivery | Ongoing |
| Description | The responsible authorities to continue to engage with the community, with particular focus on the detailed design of the Portessie Flood Protection Scheme and the works identified in the surface water management plan for Buckie, and building community resilience | | |
| Funding | Moray Council Revenue | | |
| Coordination | Moray will coordinate with responsible authority to ensure that communities are aware of the risk and resilient to the risk of flooding | | |

| | | | |
|---|---|---|---|
| Target Area | Buckie and Portessie | Action ID | 45506 |
| Action Type | Sewer flood risk assessment | | |
| Delivery Lead | Scottish Water | Indicative Delivery | 2023-2025 |
| Description | Scottish Water will undertake a modelling assessment in the Buckie (Moray East) sewer catchment to improve knowledge and understanding of flood risk in this area as required under Section 16 of the Flood Risk Management (Scotland) Act 2009 | | |
| Funding | Funding for this action is secured within Scottish Water's business plan | | |
| Coordination | Outputs of this modelling assessment will be shared with local authorities and SEPA | | |

| | | | |
|---|---|---|---|
| Target Area | Buckie and Portessie | Action ID | 45507 |
| Action Type | Surface water management plan | | |
| Delivery Lead | Moray Council | Indicative Delivery | Ongoing |

| | |
|---|---|
| Description | The surface water management plan will be implemented. It should regularly be updated and reviewed. |
| Funding | Moray Council Revenue Funds |
| Coordination | The action delivery lead is The Moray Council in coordination with Scottish Water. |

| | | | |
|---|---|---|---|
| Target Area | Buckie and Portessie | Action ID | 45508 |
| Action Type | Strategic mapping improvements | | |
| Delivery Lead | SEPA | Indicative Delivery | 2023-2024 |
| Description | SEPA has undertaken improved coastal modelling in this target area including taking account of the impact of waves on coastal flooding. We will complete and publish the outcomes of this modelling work to inform decision making with respect to flooding at the coast. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will work with the local authority on the potential to coordinate the flood map update with any other actions being carried out to understand or reduce coastal flooding. | | |

| | | | |
|---|---|---|---|
| Target Area | Buckie and Portessie | Action ID | 45509 |
| Action Type | Flood warning maintenance | | |
| Delivery Lead | SEPA | Indicative Delivery | Ongoing |
| Description | SEPA should maintain the Moray Firth coastal flood warning scheme. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will work with the local authorities on the potential to use information from any flood studies around the Moray Firth coast to inform ongoing flood warning. SEPA will continue to raise awareness of flood warning and engage with communities about the service when required. | | |

## 02/06/02 (Portsoy)

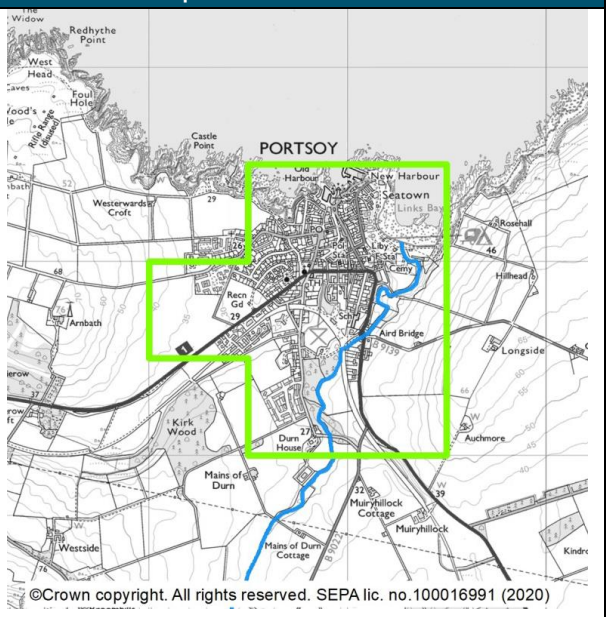
This area is designated as a potentially vulnerable area due to a risk of river flooding in Portsoy from the Soy Burn and the Burn of Durn, and surface water flooding. Recent flooding was caused by rivers.

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

**List of target areas**

| | |
|---|---|
| Portsoy | (target area 399) |

| North East Local Flood Risk Management Plan datasheet | | | |
|---|---|---|---|
| Target Area name | Portsoy | Target Area ID | 399 |

| Summary | Location Map |
|---|---|
| Portsoy is located on the Moray Firth coast within the Aberdeenshire Council area. The main source of flooding in Portsoy is from river flooding, however there is also risk of both surface water and coastal flooding. There are approximately 140 people and 70 properties at risk of flooding. This is unlikely to be affected by climate change. |  <br>© Crown copyright and database rights 2022. All rights reserved. Ordnance Survey Licence number 01000020767 |

| 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.<br>Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources. The national level assessment is underpinned for flood risk from the Soy Burn and Loch Soy by a flood study completed in 2010. The understanding of surface water flooding is improved by a sewer flood risk assessment. There are records of frequent flooding from the Soy Burn in Portsoy including notable flooding in September 2010 and June 2017 following persistent rainfall. There are also records of past flooding from the Burn of Durn. |

| Objective | ID | Description |
|---|---|---|
| Avoid flood risk | 3991 | Avoid inappropriate development that increases flood risk in Portsoy |
| Prepare for flooding | 3992 | Prepare for current flood risk and future |

| | | |
|---|---|---|
| | | flooding as a result of climate change in Portsoy |
| Reduce flood risk | 3993 | Reduce the risk of flooding from the Soy Burn, Loch Soy and surface water in Portsoy |

| | | | |
|---|---|---|---|
| Target Area | Portsoy | Action ID | 39901 |
| Action Type | Flood warning maintenance | | |
| Delivery Lead | SEPA | Indicative Delivery | Ongoing |
| Description | SEPA should maintain the Moray Firth coastal flood warning scheme. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will maintain the Moray Firth coastal flood warning scheme. SEPA will continue to raise awareness of flood warning and engage with communities about the service when required. | | |

# 02/06/03 (Banff and Whitehills)

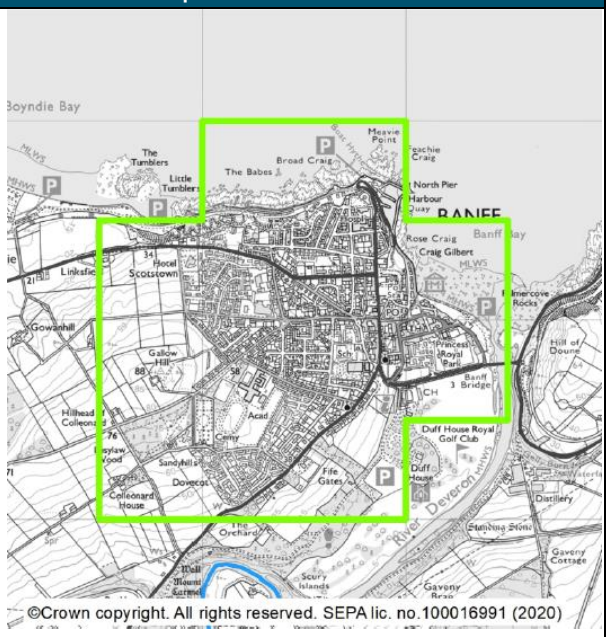
This area is designated as a potentially vulnerable area due to the risk of flooding to Banff and Whitehills. Banff has been affected by river, coastal and surface water flooding, while Whitehills has been affected by surface water and coastal flooding. Coastal flood risk is likely to increase due to sea level rise caused by climate change. Recent flooding has occurred due to surface water.

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

**List of target areas**

| | |
|---|---|
| Banff | (target area 400) |
| Whitehills | (target area 401) |

| North East Local Flood Risk Management Plan datasheet | | | |
|---|---|---|---|
| Target Area name | Banff | Target Area ID | 400 |

| Summary | Location Map |
|---|---|
| The town of Banff is located in the north east of Scotland and faces onto Banff Bay. It is in the Aberdeenshire Council area. The main source of flooding to Banff is coastal flooding which is underestimated in SEPA's flood maps as they do not currently include the impact of waves. There is also a risk from river and surface water flooding. Approximately 230 people and 130 homes and businesses currently are at risk from flooding. This is estimated to increase to 350 people and 210 homes and businesses by the 2080s due to climate change. |   © Crown copyright and database rights 2022. All rights reserved. Ordnance Survey Licence number 01000020767 |

## 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 coastal flood risk by the development and operation of the Moray Firth and River Deveron flood warning schemes. There is a long history of flooding in Banff which includes recent flash flooding in September 2019.

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

| Objective | ID | Description |
|---|---|---|
| Avoid flood risk | 4001 | Avoid inappropriate development that increases flood risk in Banff |
| Prepare for flooding | 4002 | Prepare for current flood risk and future flooding as a result of climate change in Banff |
| Reduce flood risk | 4003 | Reduce the risk of coastal flooding and flooding from the River Deveron in Banff |

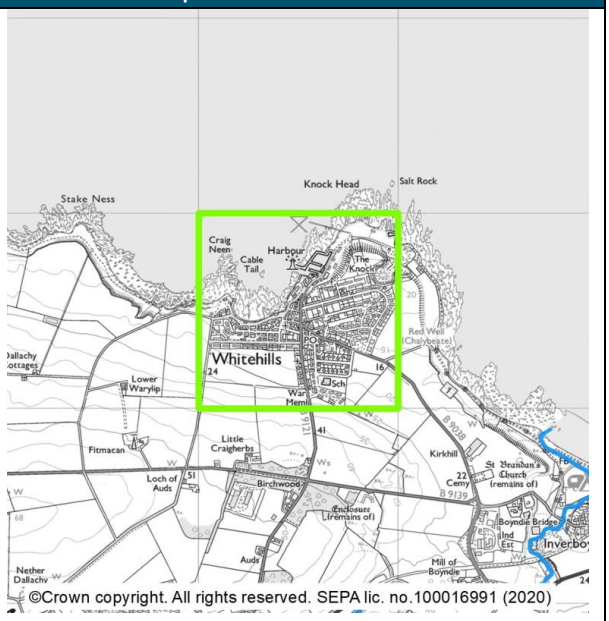
| | | | |
|---|---|---|---|
| Target Area | Banff | Action ID | 40001 |
| Action Type | Strategic mapping improvements | | |
| Delivery Lead | SEPA | Indicative Delivery | 2023-2024 |
| Description | SEPA has undertaken improved coastal modelling in this target area including taking account of the impact of waves on coastal flooding. We will complete and publish the outcomes of this modelling work to inform decision making with respect to flooding at the coast. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will work with the local authority on the potential to coordinate the flood map update with any other actions being carried out to understand or reduce coastal flooding. | | |

| | | | |
|---|---|---|---|
| Target Area | Banff | Action ID | 40002 |
| Action Type | Flood warning maintenance | | |
| Delivery Lead | SEPA | Indicative Delivery | 2026-28 |
| Description | SEPA should maintain the River Deveron flood warning scheme. The scheme should be investigated for improvement and/or recalibration. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will maintain the River Deveron flood warning scheme. SEPA will continue to raise awareness of flood warning and engage with communities about the service when required. | | |

| | | | |
|---|---|---|---|
| Target Area | Banff | Action ID | 40003 |
| Action Type | Flood warning maintenance | | |
| Delivery Lead | SEPA | Indicative Delivery | Ongoing |
| Description | SEPA should maintain the Moray Firth coastal flood warning scheme. | | |

| | |
|---|---|
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. |
| Coordination | SEPA will work with the local authorities on the potential to use information from any flood studies around the Moray Firth coast to inform ongoing flood warning. SEPA will continue to raise awareness of flood warning and engage with communities about the service when required. |

| North East Local Flood Risk Management Plan datasheet | | | |
|---|---|---|---|
| Target Area name | Whitehills | Target Area ID | 401 |

| Summary | Location Map |
|---|---|
| Whitehills is located on the Moray Firth coast in the Aberdeenshire Council area. There are known surface water flooding issues. There is also a risk of coastal flooding, which may increase with sea level risk due to climate change. There are approximately 120 people and 70 homes and businesses currently at risk of flooding. This is likely to increase to 140 people and 80 homes and businesses by the 2080s due to climate change. |   © Crown copyright and database rights 2022. All rights reserved. Ordnance Survey Licence number 01000020767 |

## 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 surface water and coastal flooding in this target area. Whitehills 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 the development of works designed to reduce flooding. A sewer flood risk assessment has also been completed. The understanding of coastal flood risk is improved by the development and operation of the Moray Firth flood warning scheme. There are frequent records of surface water flooding in Whitehills including notable flooding in September 2019. The outflow of surface water to the sea can be restricted by single build-up. There are limited records of coastal flooding.

The Dynamic Coast project has shown that parts of the shoreline in or adjacent to this target area are subject to erosion at present or are considered likely to erode in the future. Consideration should be given to how erosion might impact flood risk.

| |
|---|
| Any actions taken should aim to support building natural resilience to flooding and not lead to an increase in erosion. |

| Objective | ID | Description |
|---|---|---|
| Avoid flood risk | 4011 | Avoid inappropriate development that increases flood risk in Whitehills |
| Prepare for flooding | 4012 | Prepare for current flood risk and future flooding as a result of climate change in Whitehills |
| Reduce flood risk | 4013 | Reduce the risk of coastal and surface water flooding in Whitehills |

| | | | |
|---|---|---|---|
| Target Area | Whitehills | Action ID | 40101 |
| Action Type | Strategic mapping improvements | | |
| Delivery Lead | SEPA | Indicative Delivery | 2023-2024 |
| Description | SEPA has undertaken improved coastal modelling in this target area including taking account of the impact of waves on coastal flooding. We will complete and publish the outcomes of this modelling work to inform decision making with respect to flooding at the coast. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will work with the local authority on the potential to coordinate the flood map update with any other actions being carried out to understand or reduce coastal flooding. | | |

| | | | |
|---|---|---|---|
| Target Area | Whitehills | Action ID | 40102 |
| Action Type | Flood warning maintenance | | |
| Delivery Lead | SEPA | Indicative Delivery | Ongoing |
| Description | SEPA should maintain the Moray Firth coastal flood warning scheme. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will work with the local authorities on the potential to use information from any flood studies around the Moray Firth coast to inform ongoing flood warning. SEPA will continue to raise awareness of flood warning and engage with communities about the service when required. | | |

# 02/06/04 (Macduff)

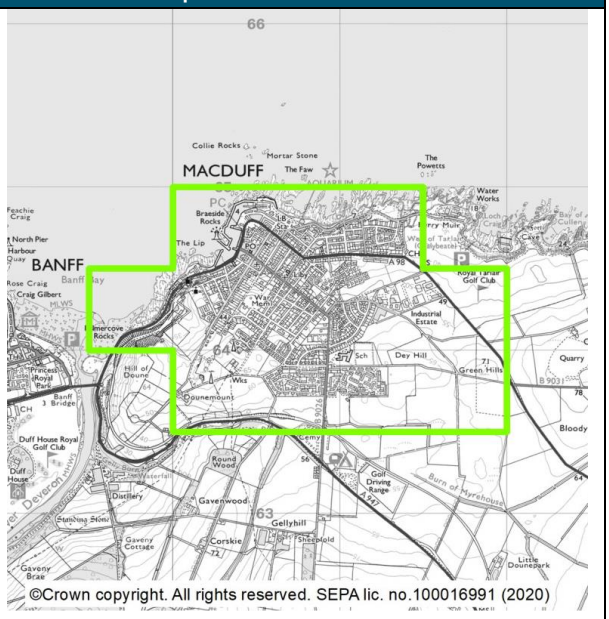
This area is designated as a potentially vulnerable area as Crovie, Gardenstown and Macduff are at coastal flood risk.

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

**List of target areas**

| | |
|---|---|
| Macduff | (target area 402) |
| Gardenstown | (target area 458) |
| Crovie | (target area 459) |

| North East Local Flood Risk Management Plan datasheet | | | |
|---|---|---|---|
| Target Area name | Macduff | Target Area ID | 402 |

| Summary | Location Map |
|---|---|
| Macduff is located in the Moray Firth in the Aberdeenshire Council area. The main sources of flooding in Macduff are coastal and surface water flooding. Coastal flooding is underestimated in our current assessment as the impact of waves is not accounted for. There are approximately 160 people and 80 homes and businesses currently at risk of flooding. This is likely to increase to 170 people and 90 homes and businesses by the 2080s due to climate change. |   © Crown copyright and database rights 2022. All rights reserved. Ordnance Survey Licence number 01000020767 |

## 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 development and operation of the Moray Firth flood warning scheme. The understanding of surface water flooding is improved by a sewer flood risk assessment. There is a long history of flooding recorded in Macduff which includes recent flooding in September 2019 following persistent rain. Spring tides prevented surface water from draining into the sea.

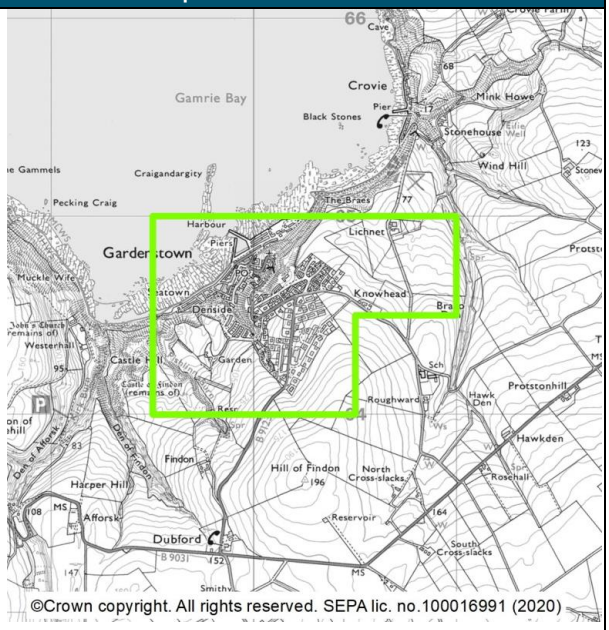
The Dynamic Coast project has shown that parts of the shoreline in or adjacent to this target area are subject to erosion at present or are considered likely to erode in the future. Consideration should be given to how erosion might impact flood risk. Any actions taken should aim to support building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

| Objective | ID | Description |
|---|---|---|
| Avoid flood risk | 4021 | Avoid inappropriate development that increases flood risk in Macduff |
| Improve data and understanding | 4022 | Improve data and understanding of the risk of coastal flooding in Macduff |
| Prepare for flooding | 4023 | Prepare for current flood risk and future flooding as a result of climate change in Macduff |
| Reduce flood risk | 4024 | Reduce the risk of surface water flooding in Macduff |

| Target Area | Macduff | Action ID | 40201 |
|---|---|---|---|
| Action Type | Strategic mapping improvements | | |
| Delivery Lead | SEPA | Indicative Delivery | 2023-2024 |
| Description | SEPA has undertaken improved coastal modelling in this target area including taking account of the impact of waves on coastal flooding. We will complete and publish the outcomes of this modelling work to inform decision making with respect to flooding at the coast. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will work with the local authority on the potential to coordinate the flood map update with any other actions being carried out to understand or reduce coastal flooding. | | |

| Target Area | Macduff | Action ID | 40202 |
|---|---|---|---|
| Action Type | Flood warning maintenance | | |
| Delivery Lead | SEPA | Indicative Delivery | Ongoing |
| Description | SEPA should maintain the Moray Firth coastal flood warning scheme. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will work with the local authorities on the potential to use information from any flood studies around the Moray Firth coast to inform ongoing flood warning. SEPA will continue to raise awareness of flood warning and engage with communities about the service when required. | | |

| North East Local Flood Risk Management Plan datasheet | | | |
|---|---|---|---|
| Target Area name | Gardenstown | Target Area ID | 458 |

| Summary | Location Map |
|---|---|
| Gardenstown, locally referred to as Gamrie, faces north onto Gamrie Bay and the Moray Firth in the Aberdeenshire Council area. The main source of flooding in Gardenstown is coastal flooding, however this is not reflected currently in our understanding as wave overtopping is not accounted for in the SEPA strategic mapping. The target area is likely to be very sensitive to climate change, in particular sea level rise. |  <br>© Crown copyright and database rights 2022. All rights reserved. Ordnance Survey Licence number 01000020767 |

## 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 coastal flooding (particularly associated with climate change) in this target area. Gardenstown has therefore been identified as a new target area for the 2021 flood risk management plans. The national assessment is improved for coastal flood risk by the development and operation of the Moray Firth flood warning scheme. There is a long history of coastal flooding in Gardenstown.

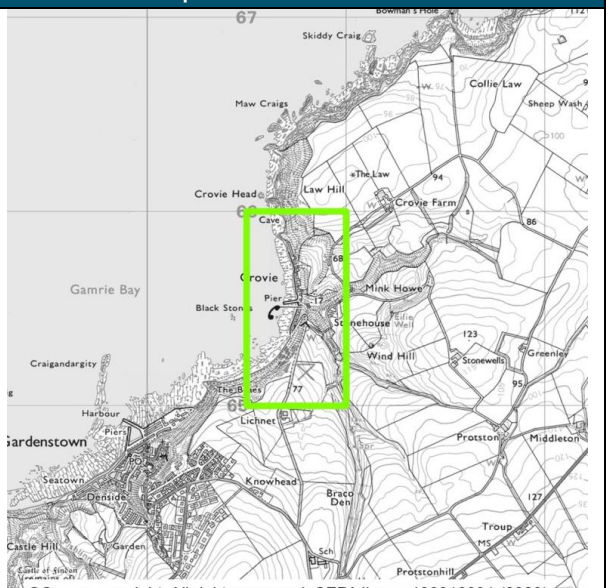
The Dynamic Coast project has shown that parts of the shoreline in or adjacent to this target area are subject to erosion at present or are considered likely to erode in the future. Consideration should be given to how erosion might impact flood risk. Any actions taken should aim to support building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

| Objective | ID | Description |
|---|---|---|
| Avoid flood risk | 4581 | Avoid inappropriate development that increases flood risk in Gardenstown / Gamrie |
| Improve data and understanding | 4582 | Improve data and understanding of the risk of coastal flooding including the impacts of climate change in Gardenstown / Gamrie |
| Prepare for flooding | 4583 | Prepare for current flood risk and future flooding as a result of climate change in Gardenstown / Gamrie |

| | | | |
|---|---|---|---|
| Target Area | Gardenstown | Action ID | 45801 |
| Action Type | Strategic mapping improvements | | |
| Delivery Lead | SEPA | Indicative Delivery | 2023-2024 |
| Description | SEPA has undertaken improved coastal modelling in this target area including taking account of the impact of waves on coastal flooding. We will complete and publish the outcomes of this modelling work to inform decision making with respect to flooding at the coast. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will work with the local authority on the potential to coordinate the flood map update with any other actions being carried out to understand or reduce coastal flooding. | | |

| | | | |
|---|---|---|---|
| Target Area | Gardenstown | Action ID | 45802 |
| Action Type | Flood warning maintenance | | |
| Delivery Lead | SEPA | Indicative Delivery | Ongoing |
| Description | SEPA should maintain the Moray Firth coastal flood warning scheme. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will work with the local authorities on the potential to use information from any flood studies around the Moray Firth coast to inform ongoing flood warning. SEPA will continue to raise awareness of flood warning and engage with communities about the service when required. | | |

| North East Local Flood Risk Management Plan datasheet | | | |
|---|---|---|---|
| Target Area name | Crovie | Target Area ID | 459 |

| Summary | Location Map |
|---|---|
| Crovie faces west onto Gamrie Bay and the Moray Firth, in the Aberdeenshire Council area. The main flooding concern is from coastal flooding, however this is not reflected currently in our understanding as wave overtopping is not accounted for in the SEPA strategic mapping. There are less than 10 people, homes and businesses at risk from flooding. |   © Crown copyright and database rights 2022. All rights reserved. Ordnance Survey Licence number 01000020767 |

## 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 coastal flooding in the target area. This risk could increase as a result of climate change. Crovie has therefore been identified as a new target area for the 2021 flood risk management plans. The national assessment is improved for coastal flood risk by the development and operation of the Moray Firth flood warning scheme. There is a long history of coastal flooding in Crovie including notable flooding in 1953 and 1957.

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

| Objective | ID | Description |
|---|---|---|
| Avoid flood risk | 4591 | Avoid inappropriate development that increases flood risk in Crovie |
| Prepare for flooding | 4592 | Prepare for current flood risk and future flooding as a result of climate change in Crovie |
| Reduce flood risk | 4593 | Reduce the risk of coastal flooding in Crovie |

| | | | |
|---|---|---|---|
| Target Area | Crovie | Action ID | 45901 |
| Action Type | Strategic mapping improvements | | |
| Delivery Lead | SEPA | Indicative Delivery | 2023-2024 |
| Description | SEPA has undertaken improved coastal modelling in this target area including taking account of the impact of waves on coastal flooding. We will complete and publish the outcomes of this modelling work to inform decision making with respect to flooding at the coast. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will work with the local authority on the potential to coordinate the flood map update with any other actions being carried out to understand or reduce coastal flooding. | | |

| | | | |
|---|---|---|---|
| Target Area | Crovie | Action ID | 45902 |
| Action Type | Flood warning maintenance | | |
| Delivery Lead | SEPA | Indicative Delivery | Ongoing |
| Description | SEPA should maintain the Moray Firth coastal flood warning scheme. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will work with the local authorities on the potential to use information from any flood studies around the Moray Firth coast to inform ongoing flood warning. SEPA will continue to raise awareness of flood warning and engage with communities about the service when required. | | |

# 02/06/05 (Fraserburgh and Rosehearty)

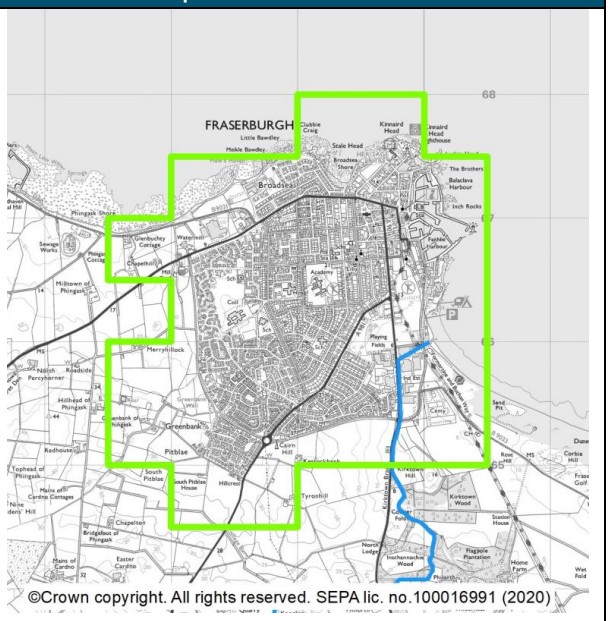
This area is designated as a potentially vulnerable area due to river, coastal and surface water flood risk. Fraserburgh is at risk from coastal, river and surface water flooding. Pennan and Sandhaven are at coastal flood risk. Rosehearty is at risk of river and surface water flooding. Recent surface water flooding affected parts of the potentially vulnerable area in September 2019.

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

**List of target areas**

| | |
|---|---|
| Fraserburgh | (target area 408) |
| Pennan | (target area 460) |
| Sandhaven | (target area 461) |
| Rosehearty | (target area 462) |

| North East Local Flood Risk Management Plan datasheet | | | |
|---|---|---|---|
| Target Area name | Fraserburgh | Target Area ID | 408 |

| Summary | Location Map |
|---|---|
| Fraserburgh is located on the shoreline of the Moray Firth in Aberdeenshire. The main sources of flooding in Fraserburgh are surface water and coastal flooding. Flooding is also reported from the Kessock Burn. There are approximately 680 people and 410 homes and businesses currently at risk from flooding. This is likely to increase to 880 people and 540 homes and businesses by the 2080s due to climate change. |   © Crown copyright and database rights 2022. All rights reserved. Ordnance Survey Licence number 01000020767 |

## 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 flood risk by the operation and development of the Moray Firth flood warning scheme. Understanding of surface water flood risk is improving by the development of a surface water management plan. A sewer flood risk assessment has also been completed. There is a long history of coastal flooding in the Fraserburgh target area. There are records of surface water flooding and flooding from the Kessock Burn after heavy rainfall. This can be exacerbated when the burn cannot drain into the sea at high tide as happened in September 2019.

The Dynamic Coast project has shown that parts of the shoreline in or adjacent to this target area are subject to erosion at present or are considered likely to erode in the future. Consideration should be given to how erosion might impact flood risk.

| |
|---|
| Any actions taken should aim to support building natural resilience to flooding and not lead to an increase in erosion. |

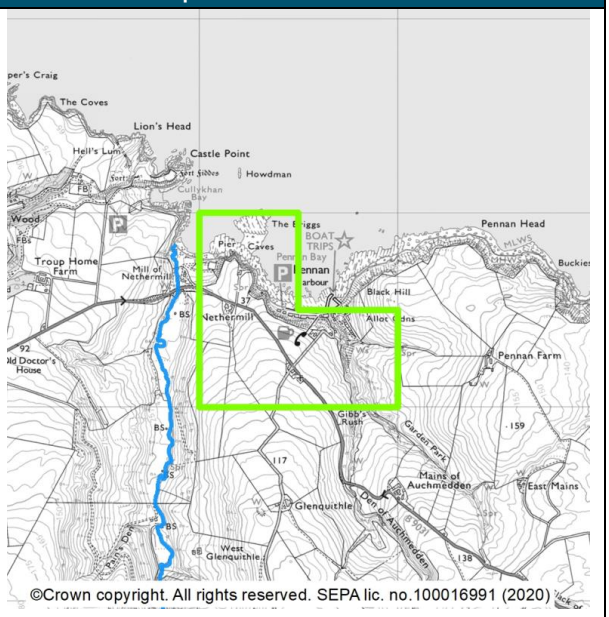
| Objective | ID | Description |
|---|---|---|
| Avoid flood risk | 4081 | Avoid inappropriate development that increases flood risk in Fraserburgh |
| Prepare for flooding | 4082 | Prepare for current flood risk and future flood risk in Fraserburgh |
| Reduce flood risk | 4083 | Reduce the risk of flooding from the Kessock Burn, surface water and coastal flooding in Fraserburgh |

| | | | |
|---|---|---|---|
| Target Area | Fraserburgh | Action ID | 40801 |
| Action Type | Strategic mapping improvements | | |
| Delivery Lead | SEPA | Indicative Delivery | 2023-2024 |
| Description | SEPA has undertaken improved coastal modelling in this target area including taking account of the impact of waves on coastal flooding. We will complete and publish the outcomes of this modelling work to inform decision making with respect to flooding at the coast. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will work with the local authority on the potential to coordinate the flood map update with any other actions being carried out to understand or reduce coastal flooding. | | |

| | | | |
|---|---|---|---|
| Target Area | Fraserburgh | Action ID | 40802 |
| Action Type | Surface water management plan | | |
| Delivery Lead | Aberdeenshire Council | Indicative Delivery | Ongoing |
| Description | The surface water management plan will be implemented. It should regularly be updated and reviewed. The impacts of climate change on flood risk are to be considered | | |
| Funding | Funding for this action will be subject to Scottish Government's block grant and capital support,<br>and budget allocations over the six years of the Plan, 2022-2028. | | |
| Coordination | The action delivery lead is Aberdeenshire Council in coordination with Scottish Water and will consider other actions in the area. | | |

| | | | |
|---|---|---|---|
| Target Area | Fraserburgh | Action ID | 40803 |
| Action Type | Flood warning maintenance | | |
| Delivery Lead | SEPA | Indicative Delivery | Ongoing |
| Description | SEPA should maintain the Moray Firth coastal flood warning scheme. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will maintain the Moray Firth coastal flood warning scheme. SEPA will continue to raise awareness of flood warning and engage with communities about the service when required. | | |

| North East Local Flood Risk Management Plan datasheet | | | |
|---|---|---|---|
| Target Area name | Pennan | Target Area ID | 460 |

| Summary | Location Map |
|---|---|
| Pennan faces north onto Pennan Bay and the Moray Firth in the Aberdeenshire Council area. The main source of flooding is from coastal flooding, however this is not reflected currently in our understanding as wave overtopping is not accounted for in the SEPA strategic mapping. The target area is likely to be very sensitive to climate change, in particular sea level rise. |   © Crown copyright and database rights 2022. All rights reserved. Ordnance Survey Licence number 01000020767 |

## 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 coastal flooding in the target area. This risk could increase as a result of climate change. Pennan has therefore been identified as a new target area for the 2021 flood risk management plans. The national assessment is improved for coastal flood risk by the development and operation of the Moray Firth flood warning scheme. There is a long history of coastal flooding in Pennan including notable flooding in January 1953.

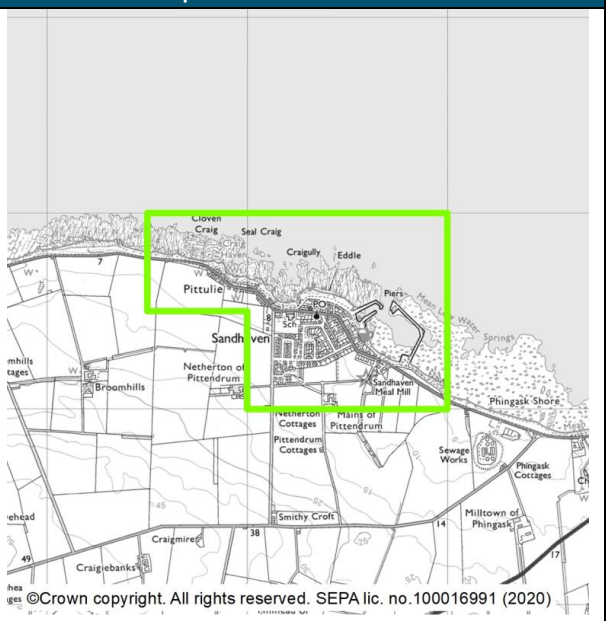
The Dynamic Coast project has shown that parts of the shoreline in or adjacent to this target area are subject to erosion at present or are considered likely to erode in the future. Consideration should be given to how erosion might impact flood risk. Any actions taken should aim to support building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

| Objective | ID | Description |
|---|---|---|
| Avoid flood risk | 4601 | Avoid inappropriate development that increases flood risk in Pennan |
| Improve data and understanding | 4602 | Improve data and understanding of the risk of coastal flooding including the impacts of climate change in Pennan |
| Prepare for flooding | 4603 | Prepare for current flood risk and future flooding as a result of climate change in Pennan |

| Target Area | Pennan | Action ID | 46001 |
|---|---|---|---|
| Action Type | Strategic mapping improvements | | |
| Delivery Lead | SEPA | Indicative Delivery | 2023-2024 |
| Description | SEPA has undertaken improved coastal modelling in this target area including taking account of the impact of waves on coastal flooding. We will complete and publish the outcomes of this modelling work to inform decision making with respect to flooding at the coast. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will work with the local authority on the potential to coordinate the flood map update with any other actions being carried out to understand or reduce coastal flooding. | | |

| Target Area | Pennan | Action ID | 46002 |
|---|---|---|---|
| Action Type | Flood warning maintenance | | |
| Delivery Lead | SEPA | Indicative Delivery | Ongoing |
| Description | SEPA should maintain the Moray Firth coastal flood warning scheme. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will work with the local authorities on the potential to use information from any flood studies around the Moray Firth coast to inform ongoing flood warning. SEPA will continue to raise awareness of flood warning and engage with communities about the service when required. | | |

| North East Local Flood Risk Management Plan datasheet | | | |
|---|---|---|---|
| Target Area name | Sandhaven | Target Area ID | 461 |

| Summary | Location Map |
|---|---|
| Sandhaven is located on the Moray Firth coast between Fraserburgh and Rosehearty. It is in the Aberdeenshire Council area. The main flooding concern in Sandhaven is coastal flooding. Sea level rise caused by climate change is expected to increase flood risk significantly. However, coastal flood risk is likely to be underestimated due to the impact of waves not being included in current SEPA flood maps. There are approximately 20 people and 20 homes and businesses currently at risk from flooding. |  <br>© Crown copyright and database rights 2022. All rights reserved. Ordnance Survey Licence number 01000020767 |

## 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 coastal flooding (particularly associated with climate change) in the target area. Sandhaven has therefore been identified as a new target area for the 2021 flood risk management plans. The national 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 Sandhaven target area.

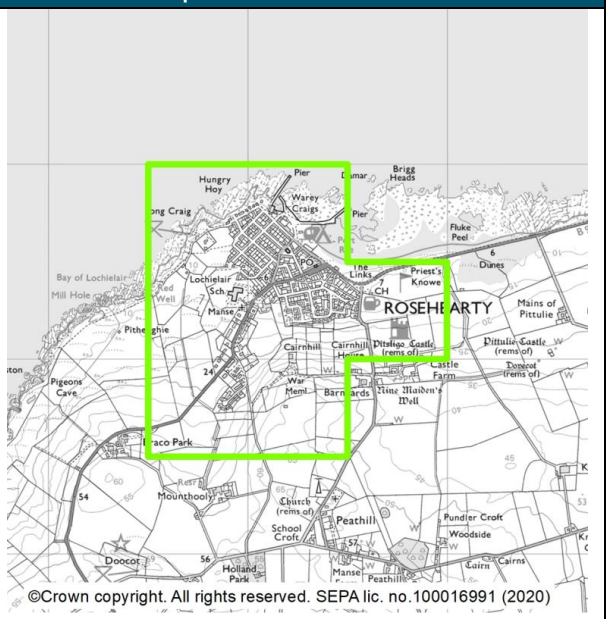
The Dynamic Coast project has shown that parts of the shoreline in or adjacent to this target area are subject to erosion at present or are considered likely to erode in the future. Consideration should be given to how erosion might impact flood risk. Any actions taken should aim to support building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

| Objective | ID | Description |
|---|---|---|
| Avoid flood risk | 4611 | Avoid inappropriate development that increases flood risk in Sandhaven |
| Improve data and understanding | 4612 | Improve data and understanding of the risk of coastal flooding including the impacts of climate change in Sandhaven |
| Prepare for flooding | 4613 | Prepare for current flood risk and future flooding as a result of climate change in Sandhaven |

| | | | |
|---|---|---|---|
| Target Area | Sandhaven | Action ID | 46101 |
| Action Type | Strategic mapping improvements | | |
| Delivery Lead | SEPA | Indicative Delivery | 2023-2024 |
| Description | SEPA has undertaken improved coastal modelling in this target area including taking account of the impact of waves on coastal flooding. We will complete and publish the outcomes of this modelling work to inform decision making with respect to flooding at the coast. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will work with the local authority on the potential to coordinate the flood map update with any other actions being carried out to understand or reduce coastal flooding. | | |

| | | | |
|---|---|---|---|
| Target Area | Sandhaven | Action ID | 46102 |
| Action Type | Flood warning maintenance | | |
| Delivery Lead | SEPA | Indicative Delivery | Ongoing |
| Description | SEPA should maintain the Moray Firth coastal flood warning scheme. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will work with the local authorities on the potential to use information from any flood studies around the Moray Firth coast to inform ongoing flood warning. SEPA will continue to raise awareness of flood warning and engage with communities about the service when required. | | |

| North East Local Flood Risk Management Plan datasheet | | | |
|---|---|---|---|
| Target Area name | Rosehearty | Target Area ID | 462 |

| Summary | Location Map |
|---|---|
| Rosehearty is located on the southern shore of the Moray Firth in the Aberdeenshire Council area. The main source of flood risk in Rosehearty is from surface water flooding. However, there is also a risk from coastal flooding, which is not reflected in SEPA's flood maps. There are approximately 90 people and 50 homes and businesses currently at risk from flooding. This is likely to increase to 60 homes and businesses by the 2080s due to climate change. |   © Crown copyright and database rights 2022. All rights reserved. Ordnance Survey Licence number 01000020767 |

## 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 flood risk through the development and operation of the Moray Firth flood warning scheme. Understanding of surface water flooding is improving through the development of a surface water management plan for Rosehearty and Fraserburgh. A sewer flood risk assessment has also been completed. There are periodic records of coastal and surface water flooding in Rosehearty.

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

| Objective | ID | Description |
|---|---|---|
| Avoid flood risk | 4621 | Avoid inappropriate development that increases flood risk in Rosehearty |
| Improve data and understanding | 4622 | Improve data and understanding of the risk of coastal flooding including the impacts of climate change in Rosehearty |
| Prepare for flooding | 4623 | Prepare for current flood risk and future flooding as a result of climate change in Rosehearty |
| Reduce flood risk | 4624 | Reduce the risk of surface water flooding in Rosehearty |
| | | |

| | | | |
|---|---|---|---|
| Target Area | Rosehearty | Action ID | 46201 |
| Action Type | Strategic mapping improvements | | |
| Delivery Lead | SEPA | Indicative Delivery | 2023-2024 |
| Description | SEPA has undertaken improved coastal modelling in this target area including taking account of the impact of waves on coastal flooding. We will complete and publish the outcomes of this modelling work to inform decision making with respect to flooding at the coast. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will work with the local authority on the potential to coordinate the flood map update with any other actions being carried out to understand or reduce coastal flooding. | | |

| | | | |
|---|---|---|---|
| Target Area | Rosehearty | Action ID | 46202 |
| Action Type | Surface water management plan | | |
| Delivery Lead | Aberdeenshire Council | Indicative Delivery | Ongoing |
| Description | Progress the surface water management plan. The results from Scottish Water's sewer flood risk assessment should be incorporated. The impacts of climate change on flood risk should be considered. Interactions with coastal flooding should be noted. | | |
| Funding | Funding for this action will be subject to Scottish Government's block grant and capital support,<br>and budget allocations over the six years of the Plan, 2022-2028. | | |

| | |
|---|---|
| Coordination | The action delivery lead is Aberdeenshire Council in coordination with Scottish Water and will consider other actions in the area. |

| | | | |
|---|---|---|---|
| Target Area | Rosehearty | Action ID | 46203 |
| Action Type | Flood warning maintenance | | |
| Delivery Lead | SEPA | Indicative Delivery | Ongoing |
| Description | SEPA should maintain the Moray Firth coastal flood warning scheme. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will work with the local authorities on the potential to use information from any flood studies around the Moray Firth coast to inform ongoing flood warning. SEPA will continue to raise awareness of flood warning and engage with communities about the service when required. | | |

# 02/06/06 (Keith and Newmill)

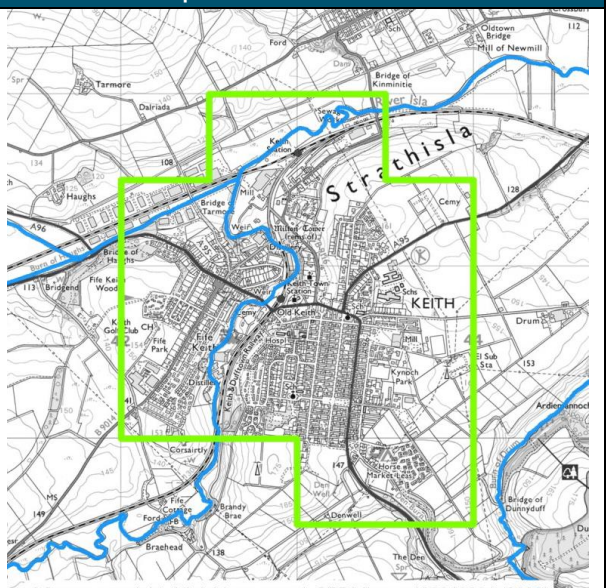
This area is designated as a potentially vulnerable area due to surface water flood risk in Keith and Newmill. Newmill benefits from a flood scheme, which reduces the risk of flooding from surface water and the Burn of Kimminitie at Low Road.

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

**List of target areas**

| | |
|---|---|
| Keith | (target area 404) |
| Newmill (Keith) | (target area 444) |

| North East Local Flood Risk Management Plan datasheet | | | |
|---|---|---|---|
| Target Area name | Keith | Target Area ID | 404 |

| Summary | Location Map |
|---|---|
| Keith is located in north east Scotland within the Moray Council area. The main source of flooding in Keith is from surface water flooding. There are approximately 60 people and 70 homes and businesses currently at risk from flooding. This is likely to remain the same by the 2080s due to climate change. |   © Crown copyright and database rights 2022. All rights reserved. Ordnance Survey Licence number 01000020767 |

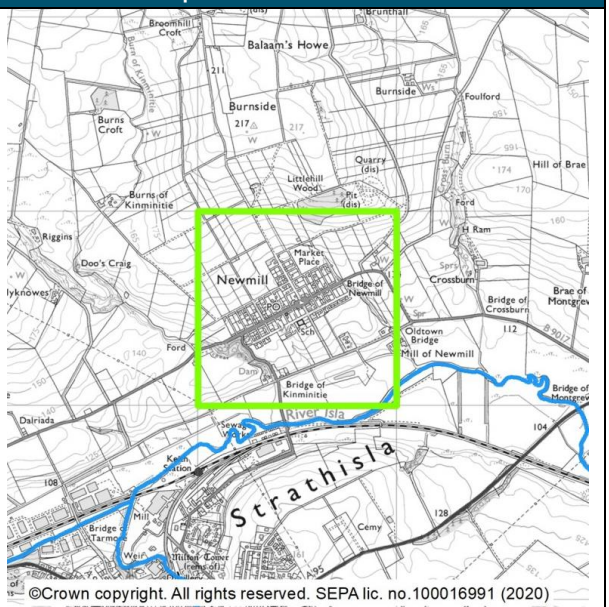
| What is the current understanding of Flood Risk |
|---|
| This section provides a summary of information, which has helped to develop an understanding of flood risk in the area.<br>Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources, and this national assessment has highlighted the risk of surface water flooding. Keith has therefore been identified as a new target area for the 2021 flood risk management plans. The national assessment is improved for surface water by the Moray Surface Water Management Plan. The understanding of river flooding is improved by the operation of the River Deveron flood warning scheme. There are records of surface water flooding in the Keith target area. |

| Objective | ID | Description |
|---|---|---|
| Avoid flood risk | 4041 | Avoid inappropriate development that increases flood risk in Keith |
| Prepare for flooding | 4042 | Prepare for current flood risk and future flooding as a result of climate change in Keith |

| | | |
|---|---|---|
| Reduce flood risk | 4043 | Reduce the risk of surface water flooding in Keith |

| | | | |
|---|---|---|---|
| Target Area | Keith | Action ID | 40401 |
| Action Type | Flood warning maintenance | | |
| Delivery Lead | SEPA | Indicative Delivery | 2026-28 |
| Description | SEPA should maintain the River Deveron flood warning scheme. The scheme should be investigated for improvement and/or recalibration. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will maintain the River Deveron flood warning scheme. SEPA will continue to raise awareness of flood warning and engage with communities about the service when required. | | |

| North East Local Flood Risk Management Plan datasheet | | | |
|---|---|---|---|
| Target Area name | Newmill (Keith) | Target Area ID | 444 |

| Summary | Location Map |
|---|---|
| Newmill lies just north of the town of Keith and is within the Moray Council area. The main source of flooding in Newmill is from surface water flooding. There are approximately 40 people and 20 homes and businesses at risk of flooding. This is expected to remain the same by the 2080s, despite the impact of climate change. |   ©Crown copyright. All rights reserved. SEPA lic. no.100016991 (2020) |

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## 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 surface water by the studies to develop the Newmill Flood Protection Scheme (2016) and the development of the Moray Surface Water Management Plan. Prior to the construction of the flood protection scheme there are records of periodic flooding from surface water including notable flooding in September 2009 and September 2013. Flooding was also recorded in June 2017 when surface water flooding damaged flood defences.

| Objective | ID | Description |
|---|---|---|
| Avoid flood risk | 4441 | Avoid inappropriate development that increases flood risk in Newmill |
| Avoid flood risk | 4442 | Avoid an increase in flood risk by the appropriate management and maintenance of the Newmill flood protection scheme |
| Improve data and understanding | 4443 | Improve data and understanding of the performance of the Newmill flood protection scheme |
| Prepare for flooding | 4444 | Prepare for current flood risk and future flooding as a result of climate change in Newmill |

| Target Area | Newmill (Keith) | Action ID | 44401 |
|---|---|---|---|
| Action Type | Flood defence maintenance | | |
| Delivery Lead | Moray Council | Indicative Delivery | Ongoing |
| Description | Continue to maintain the Newmill Flood Protection Scheme. | | |
| Funding | Moray Council Revenue | | |
| Coordination | Moray Council will continue to maintain the scheme liaising with responsible authority and the community on issues that may arise | | |

| Target Area | Newmill (Keith) | Action ID | 44402 |
|---|---|---|---|
| Action Type | Flood warning maintenance | | |
| Delivery Lead | SEPA | Indicative Delivery | 2026-28 |
| Description | SEPA should maintain the River Deveron flood warning scheme. The scheme should be investigated for improvement and/or recalibration. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will maintain the River Deveron flood warning scheme. SEPA will continue to raise awareness of flood warning and engage with communities about the service when required. | | |

## 02/06/07 (Turriff)

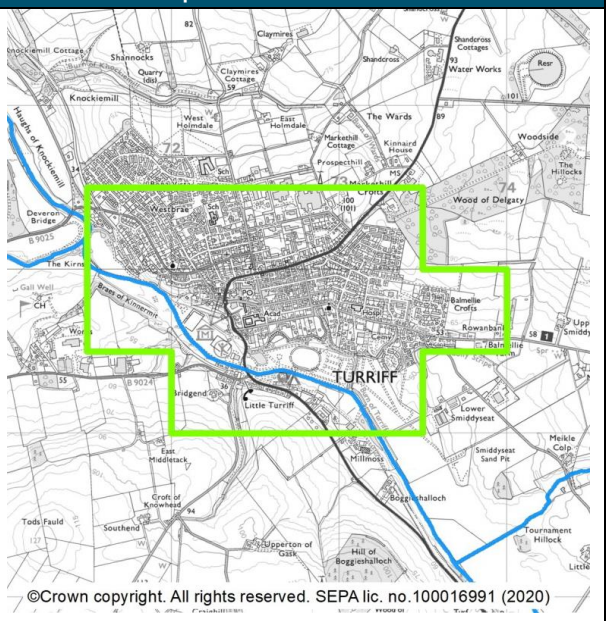
This area is designated as a potentially vulnerable area due to river and surface water flood risk in Turriff. Recently flooding was caused by surface water.

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

**List of target areas**

| | |
|---|---|
| Turriff | (target area 449) |

| North East Local Flood Risk Management Plan datasheet | | | |
|---|---|---|---|
| Target Area name | Turriff | Target Area ID | 449 |

| Summary | Location Map |
|---|---|
| Turriff is located on the banks of the River Deveron in the Aberdeenshire Council area. The main source of flooding in Turriff is surface water flooding, however there is also risk from river flooding. There are approximately 230 people and 150 homes and businesses currently at risk from flooding. This is estimated to increase to 350 people and 210 homes and businesses by the 2080s due to climate change. |   © Crown copyright and database rights 2022. All rights reserved. Ordnance Survey Licence number 01000020767 |

| 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.<br>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 surface water flooding by the sewer flood risk assessment. There is a long history of flooding in Turriff, including notable flooding in December 2015. There are also periodic records of surface water flooding. |

| Objective | ID | Description |
|---|---|---|
| Avoid flood risk | 4491 | Avoid inappropriate development that increases flood risk in Turriff |
| Prepare for flooding | 4492 | Prepare for current flood risk and future flooding as a result of climate change in Turriff |
| Reduce flood risk | 4493 | Reduce the risk of flooding from surface water and small water courses in Turriff |

| | | | |
|---|---|---|---|
| Target Area | Turriff | Action ID | 44901 |
| Action Type | Flood warning maintenance | | |
| Delivery Lead | SEPA | Indicative Delivery | 2026-28 |
| Description | SEPA should maintain the River Deveron flood warning scheme. The scheme should be investigated for improvement and/or recalibration. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will maintain the River Deveron flood warning scheme. SEPA will continue to raise awareness of flood warning and engage with communities about the service when required. | | |

## 02/06/08 (Peterhead)

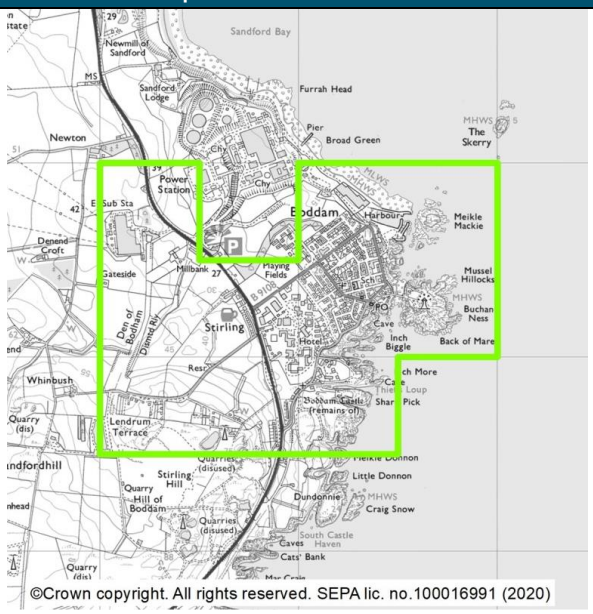
This area is designated as a potentially vulnerable area due to the risk of surface water and coastal flooding to Boddam and Peterhead. Coastal flood risk is likely to increase due to sea level rise caused by climate change. Recent flooding was caused by surface water.

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

**List of target areas**

| | |
|---|---|
| Boddam | (target area 406) |
| Peterhead | (target area 407) |

| North East Local Flood Risk Management Plan datasheet | | | |
|---|---|---|---|
| Target Area name | Boddam | Target Area ID | 406 |

| Summary | Location Map |
|---|---|
| Boddam is located just south of Peterhead in the Aberdeenshire Council area. The main source of flooding in Boddam is surface water flooding. There are approximately 70 people and 50 homes and businesses currently at risk from flooding. This is likely to increase to 80 people and 60 homes and businesses by the 2080s due to climate change. |   © Crown copyright and database rights 2022. All rights reserved. Ordnance Survey Licence number 01000020767 |

| 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.<br>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 surface water flooding in this target area. Boddam 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 through the sewer assessment and the development of a surface water management plan for Peterhead and the surrounding area, including Boddam. There are limited records of flooding in the Boddam target area. |

| Objective | ID | Description |
|---|---|---|
| Avoid flood risk | 4061 | Avoid inappropriate development that increases flood risk in Boddam |
| Prepare for flooding | 4062 | Prepare for current flood risk and future flooding as a result of climate change in Boddam |

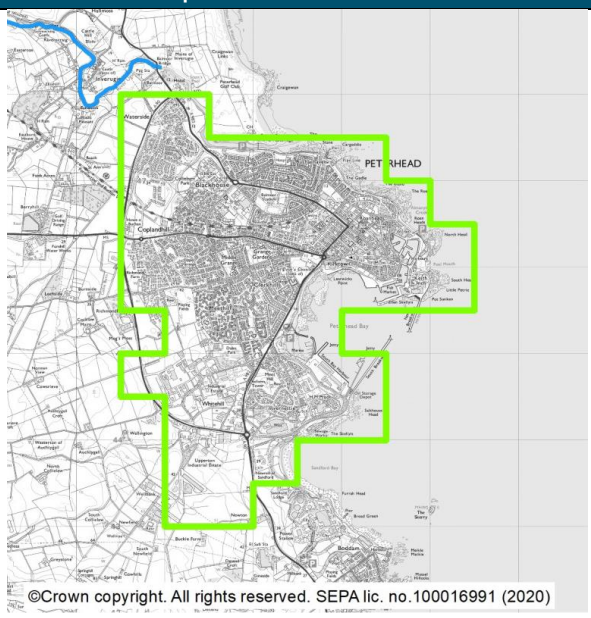
| | | |
|---|---|---|
| Reduce flood risk | 4063 | Reduce the risk of surface water flooding in Boddam |

| | | | |
|---|---|---|---|
| Target Area | Boddam | Action ID | 40601 |
| Action Type | Sewer flood risk assessment | | |
| Delivery Lead | Scottish Water | Indicative Delivery | 2024-2026 |
| Description | Scottish Water will undertake a modelling assessment in the Peterhead sewer catchment to improve knowledge and understanding of flood risk in this area as required under Section 16 of the Flood Risk Management (Scotland) Act 2009 | | |
| Funding | Funding for this action is secured within Scottish Water's business plan | | |
| Coordination | Outputs of this modelling assessment will be shared with local authorities and SEPA | | |

| | | | |
|---|---|---|---|
| Target Area | Boddam | Action ID | 40602 |
| Action Type | Surface water management plan | | |
| Delivery Lead | Aberdeenshire Council | Indicative Delivery | Ongoing |
| Description | The surface water management plan will be implemented. It should regularly be updated and reviewed. The impacts of climate change on flood risk are to be considered | | |
| Funding | Funding for this action will be subject to Scottish Government's block grant and capital support,<br>and budget allocations over the six years of the Plan, 2022-2028. | | |
| Coordination | The action delivery lead is Aberdeenshire Council in coordination with Scottish Water and will consider other actions in the area. | | |

| | | | |
|---|---|---|---|
| Target Area | Boddam | Action ID | 40603 |
| Action Type | Flood warning maintenance | | |
| Delivery Lead | SEPA | Indicative Delivery | Ongoing |
| Description | SEPA should maintain the Aberdeenshire and Angus coastal flood warning scheme. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will maintain the Aberdeenshire and Angus coastal flood warning scheme. SEPA will continue to raise awareness of flood warning and engage with communities about the service when required. | | |

| North East Local Flood Risk Management Plan datasheet | | | |
|---|---|---|---|
| Target Area name | Peterhead | Target Area ID | 407 |

| Summary | Location Map |
|---|---|
| Peterhead is located on the north east coast of Scotland in the Aberdeenshire Council area. The main sources of flooding in Peterhead are surface water and coastal however there is also a risk from river flooding. There are approximately 800 people and 520 homes and businesses currently at risk from flooding. This is likely to increase to 1,000 people and 670 homes and businesses by the 2080s due to climate change. |   © Crown copyright and database rights 2022. All rights reserved. Ordnance Survey Licence number 01000020767 |

| 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.<br>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 development and operation of the North East flood warning scheme. The understanding of surface water flood risk is improving through the sewer assessment and the development of a surface water management plan for Peterhead. There is a long history of flooding recorded in the Peterhead target area including notable flooding in August 2012 when high tides and a storm surge led to flooding.<br><br>The Dynamic Coast project has shown that parts of the shoreline in or adjacent to this target area are subject to erosion at present or are considered likely to erode in the future. Consideration should be given to how erosion might impact flood risk. Any actions taken should aim to support building natural resilience to flooding and not lead to an increase in erosion. |

| Objective | ID | Description |
|---|---|---|
| Avoid flood risk | 4071 | Avoid inappropriate development that increases flood risk in Peterhead |
| Prepare for flooding | 4072 | Prepare for current flood risk and future flooding as a result of climate change in Peterhead |
| Reduce flood risk | 4073 | Reduce the risk of surface water and coastal flooding in Peterhead |

| | | | |
|---|---|---|---|
| Target Area | Peterhead | Action ID | 40701 |
| Action Type | Strategic mapping improvements | | |
| Delivery Lead | SEPA | Indicative Delivery | 2023-2024 |
| Description | SEPA has undertaken improved coastal modelling in this target area including taking account of the impact of waves on coastal flooding. We will complete and publish the outcomes of this modelling work to inform decision making with respect to flooding at the coast. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will work with the local authority on the potential to coordinate the flood map update with any other actions being carried out to understand or reduce coastal flooding. | | |

| | | | |
|---|---|---|---|
| Target Area | Peterhead | Action ID | 40702 |
| Action Type | Flood warning maintenance | | |
| Delivery Lead | SEPA | Indicative Delivery | Ongoing |
| Description | SEPA should maintain the Aberdeenshire and Angus coastal flood warning scheme. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will work with the local authorities on the potential to use information from the flood schemes and studies along the north east coast to inform ongoing flood warning. SEPA will continue to raise awareness of flood warning and engage with communities about the service when required. | | |

| | | | |
|---|---|---|---|
| Target Area | Peterhead | Action ID | 40703 |
| Action Type | Sewer flood risk assessment | | |
| Delivery Lead | Scottish Water | Indicative Delivery | 2024-2026 |
| Description | Scottish Water will undertake a modelling assessment in the Peterhead sewer catchment to improve knowledge and understanding of flood risk in this area as required under Section 16 of the Flood Risk Management (Scotland) Act 2009 | | |
| Funding | Funding for this action is secured within Scottish Water's business plan | | |
| Coordination | Outputs of this modelling assessment will be shared with local authorities and SEPA | | |

| | | | |
|---|---|---|---|
| Target Area | Peterhead | Action ID | 40704 |
| Action Type | Surface water management plan | | |
| Delivery Lead | Aberdeenshire Council | Indicative Delivery | Ongoing |
| Description | The surface water management plan will be implemented. It should regularly be updated and reviewed. The impacts of climate change on flood risk are to be considered | | |
| Funding | Funding for this action will be subject to Scottish Government's block grant and capital support,<br>and budget allocations over the six years of the Plan, 2022-2028. | | |
| Coordination | The action delivery lead is Aberdeenshire Council in coordination with Scottish Water and will consider other actions in the area. | | |

# 02/06/09 (Methlick)

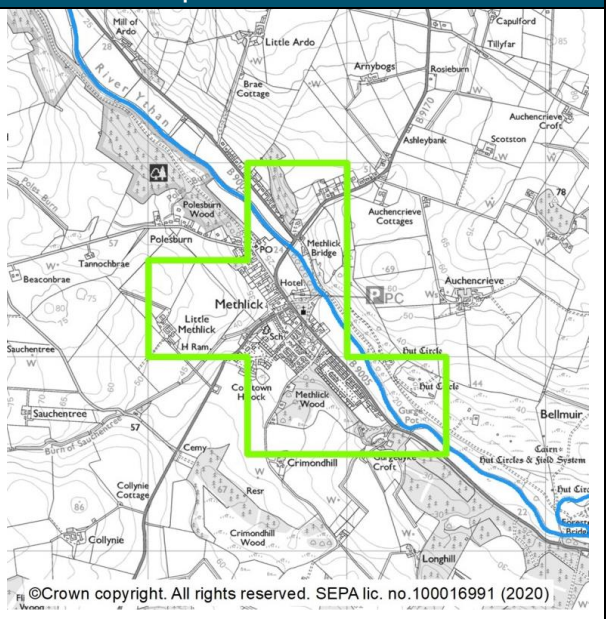
Methlick is designated as a potentially vulnerable area due to river and surface water flood risk. Recently flooding was caused by rivers.

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

**List of target areas**

| | |
|---|---|
| Methlick | (target area 450) |

| North East Local Flood Risk Management Plan datasheet | | | |
|---|---|---|---|
| Target Area name | Methlick | Target Area ID | 450 |

| Summary | Location Map |
|---|---|
| Methlick is located to the north west of Aberdeen on the River Ythan. It is in the Aberdeenshire Council area. The main sources of flooding in Methlick are from surface water and the River Ythan. There are approximately 100 people and 50 homes and businesses currently at risk from flooding. This is likely to increase to 110 people and 60 homes and businesses by the 2080s due to climate change. |   © Crown copyright and database rights 2022. All rights reserved. Ordnance Survey Licence number 01000020767 |

| 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.<br>Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources, and this national level assessment has highlighted the risk of flooding in this target area. There are records of periodic flooding in the Methlick target area from the River Ythan, including the notable flooding of January 2016. |

| Objective | ID | Description |
|---|---|---|
| Avoid flood risk | 4501 | Avoid inappropriate development that increases flood risk in Methlick |
| Prepare for flooding | 4502 | Prepare for current flood risk and future flooding in Methlick as a result of climate change |

| | | | |
|---|---|---|---|
| Target Area | Methlick | Action ID | 45001 |
| Action Type | Flood risk management review | | |
| Delivery Lead | SEPA | Indicative Delivery | 2022-2028 |
| Description | No local actions specific to this target area have been identified yet. However, there are national actions to be taken forward which will help identify future needs in this area. SEPA are updating surface water mapping to enhance the understanding of current and future surface water flood risks. Scotland's most vulnerable areas will be reviewed to take account of any new information, which will be published in 2024. Long term flood management actions will be reviewed in 2026. SEPA will continue to collect information on any flooding that occurs in the area, to inform the review process. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will work with the other responsible authorities to review flood risk management for this area, through the Local Plan District Partnerships. A public consultation on priority areas will be held in 2024 by SEPA, which will be open for three months. A public consultation on future flood management actions will be held in December 2026 and will be open for at least three months. | | |

## 02/06/10 (Huntly)

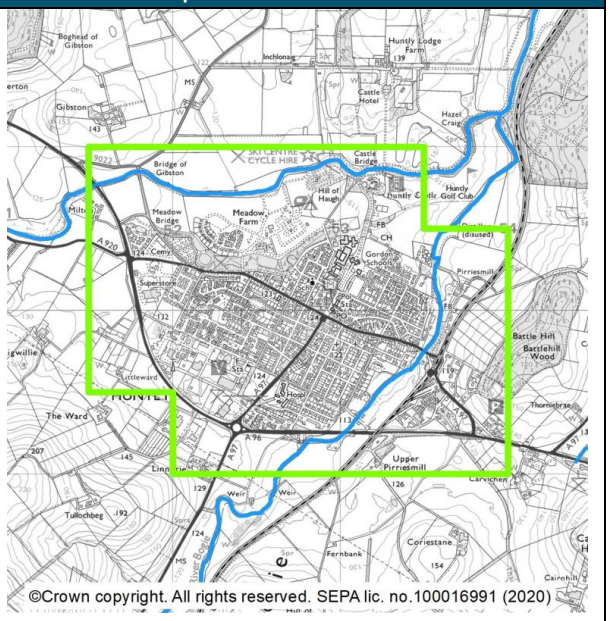
This area is designated as a potentially vulnerable area due to flood risk from the River Deveron, River Bogie, and the Ittingstone and Meadows Burns. River flood risk to the Meadows area of Huntly is managed by a flood protection scheme. There is also a risk of surface water flooding. There is a history of flooding, with recent flooding being caused by river and surface water.

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

**List of target areas**

| | |
|---|---|
| Huntly | (target area 403) |

| North East Local Flood Risk Management Plan datasheet | | | |
|---|---|---|---|
| Target Area name | Huntly | Target Area ID | 403 |

| Summary | Location Map |
|---|---|
| Huntly is located on the banks of the River Deveron in Aberdeenshire Council area. Huntly is at risk from surface water and river flooding. There are approximately 950 people and 500 homes and businesses at risk from flooding. This is likely to increase to 1,100 people and 560 homes and businesses by the 2080s due to climate change. The values may be overestimated as they do not take account of the Huntly Flood Protection Scheme. |   © Crown copyright and database rights 2022. All rights reserved. Ordnance Survey Licence number 01000020767 |

| 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.<br>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 flooding from the River Deveron and the Meadows Burn by the studies to develop the Huntly Flood Protection Scheme (2017). The understanding of surface water flood risk is improving by the development of a surface water management plan. There were frequent records of river flooding in Huntly prior to the completion of the flood scheme including notable floods in November 2009 when the River Deveron and Meadow Burn flooded the Meadows area of the town. Surface water flooding has been recorded in several areas of Huntly. |

| Objective | ID | Description |
|---|---|---|
| Avoid flood risk | 4031 | Avoid an increase in river flood risk by the appropriate management and maintenance of the Huntly Flood Protection Scheme |
| Avoid flood risk | 4032 | Avoid inappropriate development that increases flood risk in Huntly |
| Prepare for flooding | 4033 | Prepare for current flood risk and future flooding as a result of climate change in Huntly |
| Reduce flood risk | 4034 | Reduce the risk of surface water flooding in Huntly |

| | | | |
|---|---|---|---|
| Target Area | Huntly | Action ID | 40301 |
| Action Type | Surface water management plan | | |
| Delivery Lead | Aberdeenshire Council | Indicative Delivery | Ongoing |
| Description | The surface water management plan will be implemented. It should regularly be updated and reviewed. The impacts of climate change on flood risk are to be considered | | |
| Funding | "Funding for this action will be subject to Scottish Government's block grant and capital support,<br>and budget allocations over the six years of the Plan, 2022-2028." | | |
| Coordination | The action delivery lead is Aberdeenshire Council in coordination with Scottish Water and will consider other actions in the area. | | |

| | | | |
|---|---|---|---|
| Target Area | Huntly | Action ID | 40302 |
| Action Type | Flood defence maintenance | | |
| Delivery Lead | Aberdeenshire Council | Indicative Delivery | Ongoing |
| Description | Continue to maintain the Huntly Flood Protection Scheme. | | |
| Funding | Aberdeenshire Council Revenue | | |
| Coordination | Aberdeenshire Council will continue to maintain the scheme liaising with responsible authorities and the community on issues that may arise | | |

| | | | |
|---|---|---|---|
| Target Area | Huntly | Action ID | 40303 |
| Action Type | Flood warning maintenance | | |
| Delivery Lead | SEPA | Indicative Delivery | 2026-28 |
| Description | SEPA should maintain the River Deveron and the Bogie flood warning schemes. The schemes should be investigated for improvement and/or recalibration. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will work with Aberdeenshire Council on the potential to coordinate flood warning improvements with the Huntly flood scheme works. SEPA will continue to raise awareness of flood warning and engage with communities about the service when required. | | |

# 02/06/11 (Insch)

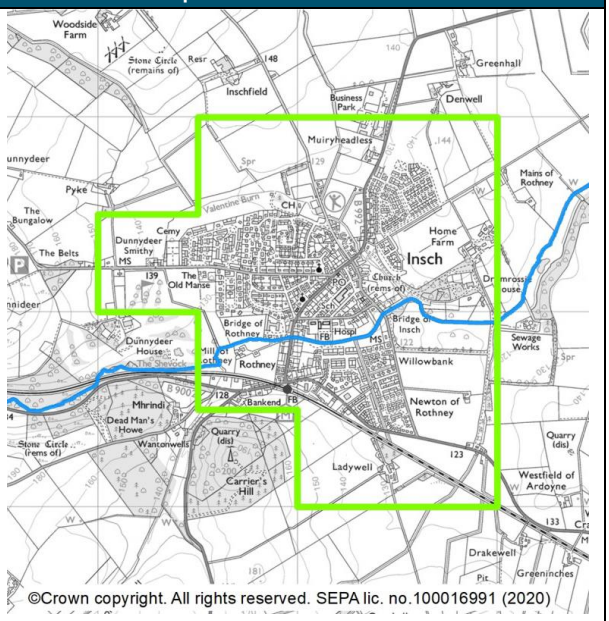
Insch is designated as a potentially vulnerable area due to the risk of flooding from surface water, the Valentine Burn and The Shevock. There is a history of flooding, with floods recorded as a result of river and surface water flooding.

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

**List of target areas**

| | |
|---|---|
| Insch | (target area 411) |

| North East Local Flood Risk Management Plan datasheet | | | |
|---|---|---|---|
| Target Area name | Insch | Target Area ID | 411 |

| Summary | Location Map |
|---|---|
| Insch is 45km north west of Aberdeen in Aberdeenshire Council area. The main source of flooding in Insch is river flooding from The Shevock and Valentine Burns, however there is also risk of surface water flooding. There are approximately 290 people and 160 homes and businesses currently at risk from flooding. This is likely to remain the same by the 2080s due to climate change. The recent flood study indicates these figures may be overestimated. |  <br>© Crown copyright and database rights 2022. All rights reserved. Ordnance Survey Licence number 01000020767 |

| 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.<br>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 by the Insch Flood Study (2019). The study focuses on flood risk from The Shevock, Mill of Rothney Burn and Newton of Rothney Burn. The understanding of surface water flooding is improved by a sewer flood risk assessment. There is a long history of river flooding in Insch with frequent records of flooding from The Shevock. Notable flooding was recorded in November 2002 and in January 2016. There are also records of surface water flooding. |

| Objective | ID | Description |
|---|---|---|
| Avoid flood risk | 4111 | Avoid inappropriate development that increases flood risk in Insch |
| Prepare for flooding | 4112 | Prepare for current flood risk and future flooding as a result of climate change in Insch |
| Reduce flood risk | 4113 | Reduce the risk of flooding from The Shevock |

| | | | |
|---|---|---|---|
| | | and the Valentine Burn in Insch | |
| Target Area | Insch | Action ID | 41101 |
| Action Type | Community engagement | | |
| Delivery Lead | Aberdeenshire Council | Indicative Delivery | Ongoing |
| Description | The responsible authorities to continue to engage with the community, with particular focus on improving community resilience to flood risk. | | |
| Funding | Funding for this action will be subject to Scottish Government's block grant and capital support,<br>and budget allocations over the six years of the Plan, 2022-2028. | | |
| Coordination | Aberdeenshire Council will coordinate with other responsible authorities to ensure that communities are aware of the risk and assist with becoming more resilient to the risk of flooding | | |

# 02/06/12 (Ellon)

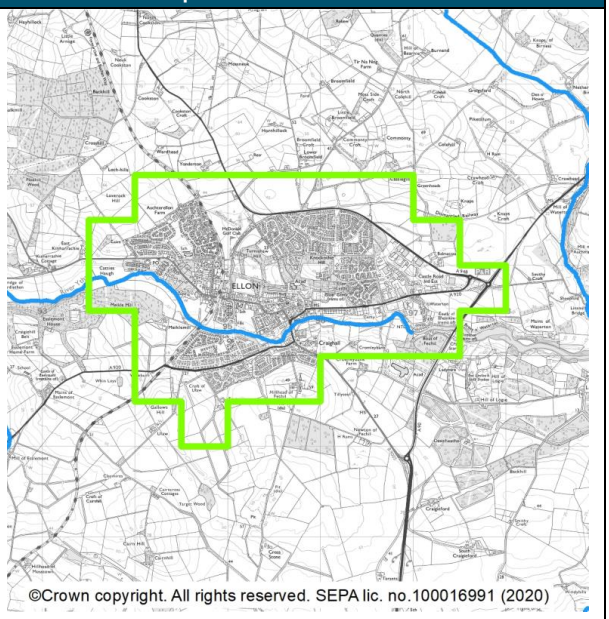
This area is designated as a potentially vulnerable area due to river and surface water flood risk to Ellon. Recent flooding has been river and surface water flooding.

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

**List of target areas**

| | |
|---|---|
| Ellon | (target area 405) |

| North East Local Flood Risk Management Plan datasheet | | | |
|---|---|---|---|
| Target Area name | Ellon | Target Area ID | 405 |

| Summary | Location Map |
|---|---|
| Ellon lies on the River Ythan in the Aberdeenshire Council area. The main sources of flooding in Ellon are surface water and river flooding from the Ythan and small water courses. There are approximately 820 people and 440 homes and businesses at risk from flooding. This is likely to increase to 1,000 people and 540 homes and businesses by the 2080s due to climate change. The recent flood study indicates these figures may be overestimated. |   ©Crown copyright. All rights reserved. SEPA lic. no.100016991 (2020) © Crown copyright and database rights 2022. All rights reserved. Ordnance Survey Licence number 01000020767 |

| 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.<br>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 flood risk by the Ellon Flood Study (2019) which focuses on the River Ythan and its tributaries. The understanding of surface water flooding is improved by a sewer flood risk assessment. There is a long history of flooding in the Ellon target area including notable flooding in January 2016 when the River Ythan flooded. There are more frequent records of flooding from the smaller watercourses. |

| Objective | ID | Description |
|---|---|---|
| Avoid flood risk | 4051 | Avoid inappropriate development that increases flood risk in Ellon |
| Prepare for flooding | 4052 | Prepare for current flood risk and future flooding as a result of climate change in Ellon |
| Reduce flood risk | 4053 | Reduce the risk of flooding from the River Ythan and small water courses in Ellon |
| Reduce flood risk | 4054 | Reduce the risk of surface water flooding in Ellon |

| | | | |
|---|---|---|---|
| Target Area | Ellon | Action ID | 40501 |
| Action Type | New flood warning area | | |
| Delivery Lead | SEPA | Indicative Delivery | 2026-28 |
| Description | SEPA will investigate the potential to develop and implement a new flood warning scheme for the River Ythan catchment | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will work with Aberdeenshire Council on the potential to coordinate flood warning development with the flood study investigation. | | |

| | | | |
|---|---|---|---|
| Target Area | Ellon | Action ID | 40502 |
| Action Type | Sewer flood risk assessment | | |
| Delivery Lead | Scottish Water | Indicative Delivery | 2024-2026 |
| Description | Scottish Water will undertake a modelling assessment in the Ellon sewer catchment to improve knowledge and understanding of flood risk in this area as required under Section 16 of the Flood Risk Management (Scotland) Act 2009 | | |
| Funding | Funding for this action is secured within Scottish Water's business plan | | |
| Coordination | Outputs of this modelling assessment will be shared with local authorities and SEPA | | |

| | | | |
|---|---|---|---|
| Target Area | Ellon | Action ID | 40503 |
| Action Type | Surface water management plan | | |
| Delivery Lead | Aberdeenshire Council | Indicative Delivery | Ongoing |
| Description | The Ellon Flood Study recommended further assessment of drainage in Ellon. The drainage study should be progressed as part of this surface water management plan. This should consider risk from surface water and small water courses with a particular focus on the Meadows and Hillhead areas of Ellon. The results of Scottish Water's sewer flood risk assessment should be considered. The impacts of climate change on flood risk should be assessed. Opportunities to disconnect surface water from the sewerage system should be identified. Opportunities for natural flood management should also be identified. | | |
| Funding | Funding for this action will be subject to Scottish Government's block grant and capital support,<br>and budget allocations over the six years of the Plan, 2022-2028. | | |
| Coordination | The action delivery lead is Aberdeenshire Council in coordination with Scottish Water and will consider other actions in the area. | | |

# 02/06/13 (Inverurie and Kintore)

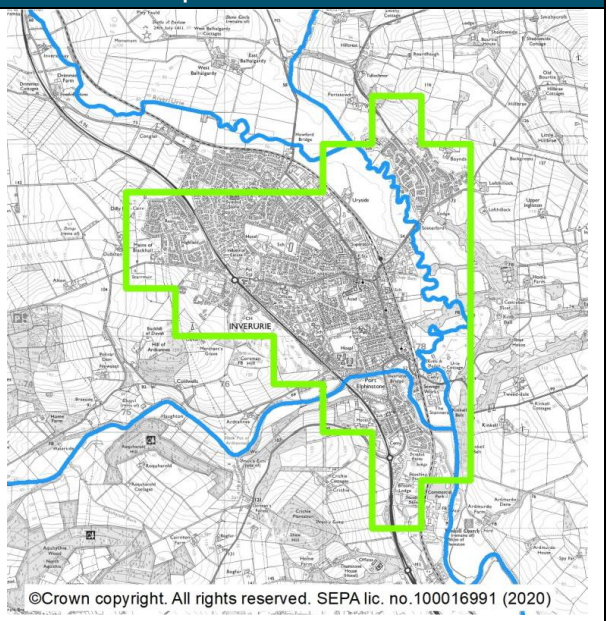
This area is designated as a potentially vulnerable area due to the recent occurrence of surface water and river flooding in Inverurie and Kintore.

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

**List of target areas**

| | |
|---|---|
| Inverurie | (target area 409) |
| Kintore | (target area 410) |

| North East Local Flood Risk Management Plan datasheet | | | |
|---|---|---|---|
| Target Area name | Inverurie | Target Area ID | 409 |

| Summary | Location Map |
|---|---|
| Inverurie and Port Elphinstone are at the confluence of the River Urie and River Don in the Aberdeenshire Council area. The main sources of flooding in Inverurie and Port Elphinstone are river and surface water. There are approximately 1,100 people and 700 homes and businesses at risk from flooding. This is likely to increase to 1,300 people and 810 homes and businesses by the 2080s due to climate change. The recent flood study indicates these figures may be overestimated. |   © Crown copyright and database rights 2022. All rights reserved. Ordnance Survey Licence number 01000020767 |

| 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.<br>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 by the by the Inverurie and Port Elphinstone Flood Study (2019). The understanding of surface water flood risk is improving through the development of a surface water management plan. A sewer flood risk assessment has also been completed. There is a long history of flooding recorded in the target area, including notable flooding from the River Don and the River Urie throughout Inverurie and Port Elphinstone in November 2002 and in January 2016. |

| Objective | ID | Description |
|---|---|---|
| Avoid flood risk | 4091 | Avoid an increase in flood risk by the appropriate management and maintenance of Strathburn and Overburn Flood Prevention Scheme 1978 and the Overburn culvert 2001 |
| Avoid flood risk | 4092 | Avoid inappropriate development that increases flood risk in Inverurie |
| Improve data and understanding | 4093 | Improve data and understanding of the performance of the Strathburn and Overburn Flood Prevention Scheme 1978 and the Overburn Culvert 2001 |
| Prepare for flooding | 4094 | Prepare for current flood risk and future flooding as a result of climate change in Inverurie |
| Reduce flood risk | 4095 | Reduce the risk of flooding from the River Don and River Urie in Inverurie and Port Elphinstone |
| Reduce flood risk | 4096 | Reduce the risk of surface water flooding in Inverurie |

| Target Area | Inverurie | Action ID | 40901 |
|---|---|---|---|
| Action Type | Flood scheme or works design | | |
| Delivery Lead | Aberdeenshire Council | Indicative Delivery | 2025-27 |
| Description | The detailed design for the Inverurie Flood Protection Scheme should be progressed based on the preferred option identified from the Inverurie and Port Elphinstone Flood Protection Scheme Appraisal Report - December 2019.<br><br>The responsible authority proposes this action as the best viable option for managing flood risk in this community. The delivery of this action is subject to capital funding being made available. | | |
| Funding | This works is subject to funding via the Scottish Government flood capital monies. This monies has not been allocated at the time of the production of this report. | | |
| Coordination | The action delivery lead is Aberdeenshire Council in coordination with other responsible authorities and including community engagement | | |

| | | | |
|---|---|---|---|
| Target Area | Inverurie | Action ID | 40902 |
| Action Type | Community engagement | | |
| Delivery Lead | Aberdeenshire Council | Indicative Delivery | Ongoing |
| Description | The responsible authorities to continue to engage with the community on the detailed design of the Inverurie Flood Scheme. | | |
| Funding | Funding for this action will be subject to Scottish Government's block grant and capital support,<br>and budget allocations over the six years of the Plan, 2022-2028. | | |
| Coordination | Aberdeenshire Council will coordinate with other responsible authorities to ensure that communities are aware of the risk and assist with becoming more resilient to the risk of flooding | | |

| | | | |
|---|---|---|---|
| Target Area | Inverurie | Action ID | 40903 |
| Action Type | Flood scheme or works implementation | | |
| Delivery Lead | Aberdeenshire Council | Indicative Delivery | 2027-28 |
| Description | Progress the Inverurie 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.<br><br>The responsible authority proposes this action as the best viable option for managing flood risk in this community. The delivery of this action is subject to capital funding being made available. | | |
| Funding | This works is subject to funding via the Scottish Government flood capital monies. This monies has not been allocated at the time of the production of this report. | | |
| Coordination | The action delivery lead is Aberdeenshire Council in coordination with other responsible authorities and including community engagement | | |

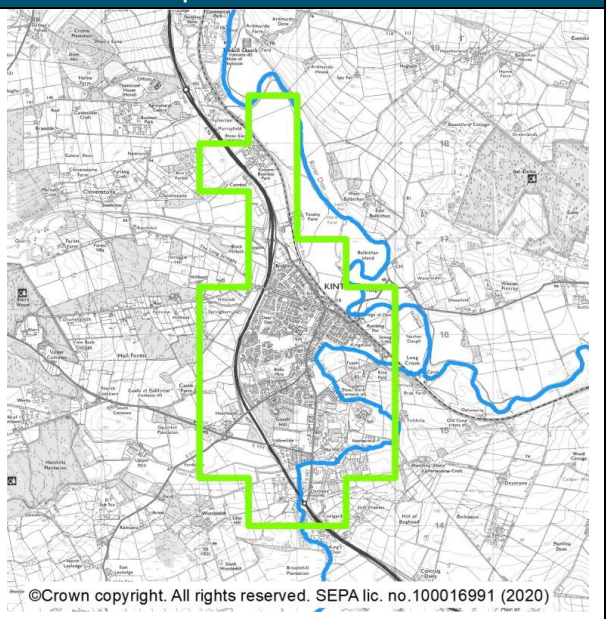
| | | | |
|---|---|---|---|
| Target Area | Inverurie | Action ID | 40904 |
| Action Type | Flood defence maintenance | | |
| Delivery Lead | Aberdeenshire Council | Indicative Delivery | Ongoing |
| Description | Continue to maintain the Inverurie (Strathburn and Overburn) Flood Prevention Scheme (1978) and the Overburn Culvert (2001). | | |
| Funding | Aberdeenshire Council Revenue | | |
| Coordination | Aberdeenshire Council will continue to maintain the scheme liaising with responsible authorities and the community on issues that may arise | | |

| | | | |
|---|---|---|---|
| Target Area | Inverurie | Action ID | 40905 |
| Action Type | Sewer flood risk assessment | | |
| Delivery Lead | Scottish Water | Indicative Delivery | 2025-2027 |
| Description | Scottish Water will undertake a modelling assessment in the Inverurie sewer catchment to improve knowledge and understanding of flood risk in this area as required under Section 16 of the Flood Risk Management (Scotland) Act 2009 | | |
| Funding | Funding for this action is secured within Scottish Water's business plan | | |
| Coordination | Outputs of this modelling assessment will be shared with local authorities and SEPA | | |

| | | | |
|---|---|---|---|
| Target Area | Inverurie | Action ID | 40906 |
| Action Type | Surface water management plan | | |
| Delivery Lead | Aberdeenshire Council | Indicative Delivery | Ongoing |
| Description | The surface water management plan will be implemented. It should regularly be updated and reviewed. The impacts of climate change on flood risk are to be considered | | |
| Funding | Funding for this action will be subject to Scottish Government's block grant and capital support and budget allocations over the six years of the Plan, 2022-2028. | | |
| Coordination | The action delivery lead is Aberdeenshire Council in coordination with Scottish Water and will consider other actions in the area. | | |

| | | | |
|---|---|---|---|
| Target Area | Inverurie | Action ID | 40907 |
| Action Type | Flood warning maintenance | | |
| Delivery Lead | SEPA | Indicative Delivery | Ongoing |
| Description | SEPA should maintain the River Don flood warning scheme. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will work with the local authorities on the potential to use information from flood studies in the River Don catchment to inform ongoing flood warning. SEPA will continue to raise awareness of flood warning and engage with communities about the service when required. | | |

| North East Local Flood Risk Management Plan datasheet | | | |
|---|---|---|---|
| Target Area name | Kintore | Target Area ID | 410 |

| Summary | Location Map |
|---|---|
| Kintore is located to the north west of Aberdeen on the River Don. It is within the Aberdeenshire Council area. The main source of flooding in Kintore is river flooding, however there is also risk of surface water flooding. There are approximately 370 people and 200 homes and businesses currently at risk from flooding. This is likely to increase to 440 people and 240 homes and businesses by the 2080s due to climate change. |   © Crown copyright and database rights 2022. All rights reserved. Ordnance Survey Licence number 01000020767 |

| 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.<br>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 flooding from the River Don through the development and operation of the flood warning scheme. The modelling of the River Urie between Pitcaple and Kintore has also been revised, informing an update to SEPA flood maps. The understanding of surface water flooding is improving through the sewer flood risk assessment and development of a surface water management plan. There is a long history of flooding in the Kintore target area, including notable flooding in January 2016. |

| Objective | ID | Description |
|---|---|---|
| Avoid flood risk | 4101 | Avoid inappropriate development that increases flood risk in Kintore |
| Prepare for flooding | 4102 | Prepare for current flood risk and future flooding as a result of climate change in Kintore |
| Reduce flood risk | 4103 | Reduce the risk of flooding from the River Don, Torry Burn, Tuach Burn, Loch Burn and surface water flooding in Kintore |

| | | | |
|---|---|---|---|
| Target Area | Kintore | Action ID | 41001 |
| Action Type | Flood study | | |
| Delivery Lead | Aberdeenshire Council | Indicative Delivery | 2023-25 |
| Description | A flood study should be carried out to improve understanding of flooding from the River Don, Torry Burn, Tuach Burn and Loch Burn. Interaction with surface water should be considered. The impacts of climate change on flood risk should be assessed. | | |
| Funding | Funding for the study will be subject to Scottish Government's block grant and capital support,<br>and budget allocations over the six years of the Plan, 2022-2028. | | |
| Coordination | The action delivery lead is Aberdeenshire Council and require coordination with other responsibilities (SEPA, Scottish Water, Transport Scotland and Network Rail) and will also include community engagement. | | |

| | | | |
|---|---|---|---|
| Target Area | Kintore | Action ID | 41002 |
| Action Type | Sewer flood risk assessment | | |
| Delivery Lead | Scottish Water | Indicative Delivery | 2025-2027 |
| Description | Scottish Water will undertake a modelling assessment in the Inverurie sewer catchment to improve knowledge and understanding of flood risk in this area as required under Section 16 of the Flood Risk Management (Scotland) Act 2009 | | |
| Funding | Funding for this action is secured within Scottish Water's business plan | | |
| Coordination | Outputs of this modelling assessment will be shared with local authorities and SEPA | | |

| | | | |
|---|---|---|---|
| Target Area | Kintore | Action ID | 41003 |
| Action Type | Surface water management plan | | |
| Delivery Lead | Aberdeenshire Council | Indicative Delivery | Ongoing |
| Description | The surface water management plan will be implemented. It should regularly be updated and reviewed. The impacts of climate change on flood risk are to be considered | | |
| Funding | Funding for this action will be subject to Scottish Government's block grant and capital support,<br>and budget allocations over the six years of the Plan, 2022-2028. | | |
| Coordination | The action delivery lead is Aberdeenshire Council in coordination with Scottish Water and will consider other actions in the area. | | |

| | | | |
|---|---|---|---|
| Target Area | Kintore | Action ID | 41004 |
| Action Type | Flood warning maintenance | | |
| Delivery Lead | SEPA | Indicative Delivery | Ongoing |
| Description | SEPA should maintain the River Don flood warning scheme. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will work with the local authorities on the potential to use information from flood studies in the River Don catchment to inform ongoing flood warning. SEPA will continue to raise awareness of flood warning and engage with communities about the service when required. | | |

## 02/06/14 (Newburgh)

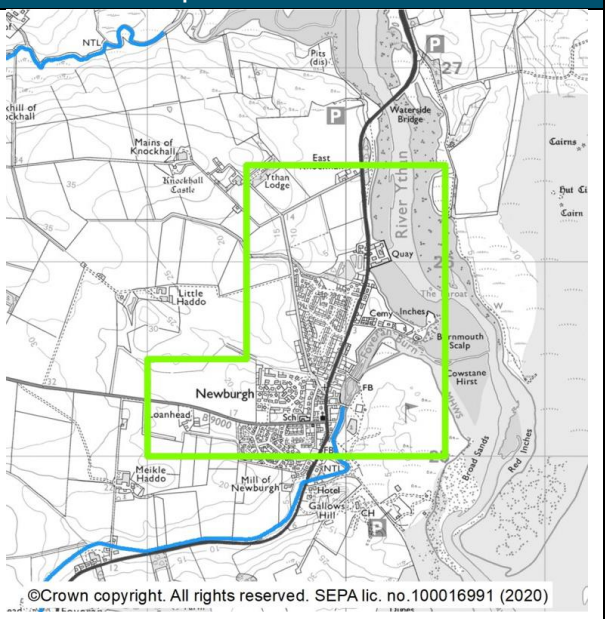
This area is designated as a potentially vulnerable area due to coastal flood risk to Newburgh. There is potential for a significant increase in flood risk as a result of sea level rise due to climate change.

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

**List of target areas**

Newburgh (Aberdeenshire) (target area 423)

| North East Local Flood Risk Management Plan datasheet | | | |
|---|---|---|---|
| Target Area name | Newburgh (Aberdeenshire) | Target Area ID | 423 |

| Summary | Location Map |
|---|---|
| Newburgh is near the mouth of the River Ythan and the Foveran Burn in the Aberdeenshire Council area. The main source of flooding in Newburgh is coastal flooding. There are approximately 140 people and 70 homes and businesses currently at risk of flooding. This is likely to increase to 240 people and 120 homes and businesses by the 2080s due to climate change. |   © Crown copyright and database rights 2022. All rights reserved. Ordnance Survey Licence number 01000020767 |

## 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 coastal flooding (particularly associated with climate change) in this target area. Newburgh has therefore been identified as a new target area for the 2021 flood risk management plans. The national assessment is underpinned by a coastal flood study completed in 2008. The understanding is also improved by the development and operation of the North East flood warning scheme. There are limited records of flooding in the Newburgh area.

The Dynamic Coast project has shown that parts of the shoreline in or adjacent to this target area are subject to erosion at present or are considered likely to erode in the future. Consideration should be given to how erosion might impact flood risk.

| |
|---|
| Any actions taken should aim to support building natural resilience to flooding and not lead to an increase in erosion. |

| Objective | ID | Description |
|---|---|---|
| Avoid flood risk | 4231 | Avoid inappropriate development that increases flood risk in Newburgh |
| Improve data and understanding | 4232 | Improve data and understanding of the risk of coastal flooding including the impacts of climate change in Newburgh |
| Prepare for flooding | 4233 | Prepare for current flood risk and future flooding as a result of climate change in Newburgh |

| | | | |
|---|---|---|---|
| Target Area | Newburgh (Aberdeenshire) | Action ID | 42301 |
| Action Type | Strategic mapping improvements | | |
| Delivery Lead | SEPA | Indicative Delivery | 2023-2024 |
| Description | SEPA has undertaken improved coastal modelling in this target area including taking account of the impact of waves on coastal flooding. We will complete and publish the outcomes of this modelling work to inform decision making with respect to flooding at the coast. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will work with the local authority on the potential to coordinate the flood map update with any other actions being carried out to understand or reduce coastal flooding. | | |

| | | | |
|---|---|---|---|
| Target Area | Newburgh (Aberdeenshire) | Action ID | 42302 |
| Action Type | Flood warning maintenance | | |
| Delivery Lead | SEPA | Indicative Delivery | Ongoing |
| Description | SEPA should maintain the Aberdeenshire and Angus coastal flood warning scheme. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will work with the local authorities on the potential to use information from the flood schemes and studies along the north east coast to inform ongoing flood warning. SEPA will continue to raise awareness of flood warning and engage with communities about the service when required. | | |

# 02/06/15 (Aberdeen City – North)

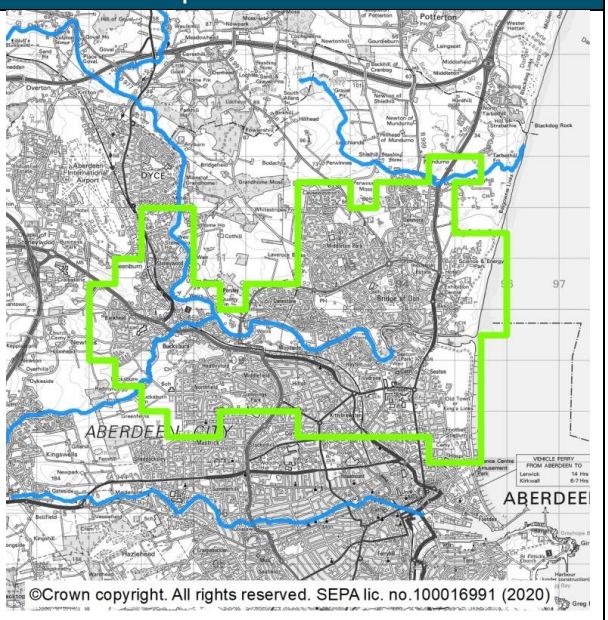
This area is designated as a potentially vulnerable area due to the risk of flooding from surface water, small watercourses and the River Don to Bridge of Don, Dyce and Kingswells (north). There is a history of flooding to parts of the potentially vulnerable area from these sources, including recent flooding from surface water and small watercourses.

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

**List of target areas**

| | |
|---|---|
| Bridge of Don | (target area 412) |
| Dyce | (target area 430) |
| Kingswells (north) | (target area 445) |

| North East Local Flood Risk Management Plan datasheet | | | |
|---|---|---|---|
| Target Area name | Bridge of Don | Target Area ID | 412 |

| Summary | Location Map |
|---|---|
| Bridge of Don covers the northern section of Aberdeen, including Old Aberdeen, Hilton and Bucksburn. It is in the Aberdeen City Council area. The main source of flooding in Bridge of Don is from surface water flooding, however there is also a risk of river flooding from the River Don and small water courses. There are approximately 7,600 people and 4,200 homes and businesses currently at risk from flooding. This is likely to increase to 11,000 people and 6,200 homes and businesses by the 2080s due to climate change. |   © Crown copyright and database rights 2022. All rights reserved. Ordnance Survey Licence number 01000020767 |

| 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.<br>Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources. The national level assessment is improving for surface water flood risk by the development of a flood study for Jesmond Drive and a surface water management plan which addresses flood risk from smaller water courses including the Glashie Burn. An integrated catchment study has also improved understanding of surface water flood risk and its interactions with other flood sources. There is a long history of river flooding and surface water in the Bridge of Don target area. Recent flooding from surface water was recorded in August 2020 following persistent rain during thunderstorms. |

| Objective | ID | Description |
|---|---|---|
| Avoid flood risk | 4121 | Avoid an increase in flood risk by the appropriate management and maintenance of the Glashieburn Flood Prevention scheme |
| Avoid flood risk | 4122 | Avoid inappropriate development that increases flood risk in Bridge of Don |
| Prepare for flooding | 4123 | Prepare for current flood risk and future flooding as a result of climate change in Bridge of Don |
| Reduce flood risk | 4124 | Reduce the risk of flooding from surface water, small water courses and the River Don in Bridge of Don |

| | | | |
|---|---|---|---|
| Target Area | Bridge of Don | Action ID | 41201 |
| Action Type | Flood study (options appraisal) | | |
| Delivery Lead | Scottish Water and Aberdeen City Council | Indicative Delivery | Complete |
| Description | The joint Jesmond Drive Flood Study to identify potential options to reduce surface water and sewer flooding is ongoing through the integrated catchment study optioneering project. The study includes the Glashieburn and the Silver Burn. Since Cycle 2 FRMPs published, further progress has been made on this action. The Joint Flood study has been completed. The ICS optioneering flood study did not identify any cost-beneficial options to reduce flood risk in this area. The Glashie Burn and local watercourses were identified to be the most significant influence to flood risk in the area along with network incapacity in the surface water sewers. The study recommended that further investigation into the catchment scale strategy is carried out, with the inclusion of the option developed through the study in the strategy. Scottish Water and Aberdeen City Council will use information from the ICS Optioneering study to inform future strategic planning. | | |
| Funding | Progress on this action will be dependent on securing funding from all relevant agencies to carry out and support this work | | |

| | |
|---|---|
| Coordination | The action delivery leads are Scottish Water and Aberdeen City Council and coordination will be determined once the actions have been finalised. |

| | | | |
|---|---|---|---|
| Target Area | Bridge of Don | Action ID | 41202 |
| Action Type | Flood scheme or works design | | |
| Delivery Lead | Scottish Water and Aberdeen City Council | Indicative Delivery | 2022-2028 |
| Description | The Jesmond Drive Flood Study in conjunction with Scottish Water is underway. Identified flood risk and actions will advise further investigations for detailed design to be undertaken to address surface water flood risk. Since Cycle 2 FRMPs published, further progress have been made on this action. The Joint Flood study has been completed. The ICS optioneering flood study did not identify any cost-beneficial options to reduce flood risk in this area. The Glashie Burn and local watercourses were identified to be the most significant influence to flood risk in the area along with network incapacity in the surface water sewers. The study recommended that further investigation into the catchment scale strategy is carried out, with the inclusion of the option developed through the study in the strategy. Scottish Water and Aberdeen City Council will use information from the ICS Optioneering study to inform future strategic planning. | | |
| Funding | Progress on this action will be dependent on securing funding from all relevant agencies to carry out and support this work | | |
| Coordination | The action delivery lead is Scottish Water in coordination with Aberdeen City Council. | | |

| | | | |
|---|---|---|---|
| Target Area | Bridge of Don | Action ID | 41203 |
| Action Type | Community engagement | | |
| Delivery Lead | Scottish Water and Aberdeen City Council | Indicative Delivery | Ongoing |
| Description | Community engagement should continue during the development of detailed design of works identified in the Jesmond Drive Flood Study. | | |
| Funding | Progress on this action will be dependent on securing funding from all relevant agencies to carry out and support this work. | | |

| | |
|---|---|
| Coordination | The action delivery lead is Scottish Water in coordination with Aberdeen City Council. |

| | | | |
|---|---|---|---|
| Target Area | Bridge of Don | Action ID | 41204 |
| Action Type | Flood scheme or works implementation | | |
| Delivery Lead | Scottish Water and Aberdeen City Council | Indicative Delivery | 2028-2034 |
| Description | Following the Jesmond Drive Flood Study and detailed design in conjunction with Scottish Water, an appropriate scheme may be developed to address surface water flood risk. Since Cycle 2 FRMPs published, further progress has been made on this action. The Joint Flood study has been completed. The ICS optioneering flood study did not identify any cost-beneficial options to reduce flood risk in this area. The Glashie Burn and local watercourses were identified to be the most significant influence to flood risk in the area along with network incapacity in the surface water sewers. The study recommended that further investigation into the catchment scale strategy is carried out, with the inclusion of the option developed through the study in the strategy. Scottish Water and Aberdeen City Council will use information from the ICS Optioneering study to inform future strategic planning.<br><br>The responsible authority proposes this action as the best viable option for managing flood risk in this community. The delivery of this action is subject to capital funding being made available. | | |
| Funding | Progress on this action will be dependent on securing funding from all relevant agencies to carry out and support this work | | |
| Coordination | The action delivery lead is Scottish Water in coordination with Aberdeen City Council. | | |

| | | | |
|---|---|---|---|
| Target Area | Bridge of Don | Action ID | 41206 |
| Action Type | Sewer flood risk assessment | | |
| Delivery Lead | Scottish Water | Indicative Delivery | 2024-2026 |
| Description | Scottish Water will undertake a modelling assessment in the Nigg and Persley sewer catchments to improve knowledge and understanding of flood risk in this area as required under Section 16 of the Flood Risk Management (Scotland) Act 2009 | | |
| Funding | Funding for this action is secured within Scottish Water's business plan | | |
| Coordination | Outputs of this modelling assessment will be shared with local authorities and SEPA | | |

| | | | |
|---|---|---|---|
| Target Area | Bridge of Don | Action ID | 41207 |
| Action Type | Surface water management plan | | |
| Delivery Lead | Aberdeen City Council in coordination with Scottish Water. | Indicative Delivery | Ongoing |
| Description | Aberdeen City Council should finalise and implement the surface water management plan for the Bridge of Don area. This also includes the Bucksburn and Northfield to Seaton areas. A surface water management plan should focus on areas at high risk of surface water flooding. This should incorporate the results of the integrated catchment study and sewer flood risk assessment. The impacts of climate change on flood risk should be considered. Opportunities to disconnect surface water drainage from the sewerage system should be identified. | | |
| Funding | Progress on this action will be dependent on securing funding from all relevant agencies to carry out and support this work. | | |
| Coordination | The action delivery lead is Aberdeen City Council in coordination with Scottish Water. | | |

| | | | |
|---|---|---|---|
| Target Area | Bridge of Don | Action ID | 41208 |
| Action Type | Flood study | | |
| Delivery Lead | Aberdeen City Council | Indicative Delivery | 2022-2034 |
| Description | A flood study should be carried out for the River Don from Dyce to the sea. This should build on the work done by SEPA and Aberdeenshire Council. Aberdeen City Council and SEPA should work jointly to build an agreed hydrology for the River Don and to review the need to extend the River Don flood warning scheme. Interactions with surface water and coastal flooding should be considered. | | |
| Funding | Progress on this action will be dependent on securing funding from all relevant agencies to carry out and support this work. | | |
| Coordination | The action delivery lead is Aberdeen City Council in coordination with<br>SEPA. | | |

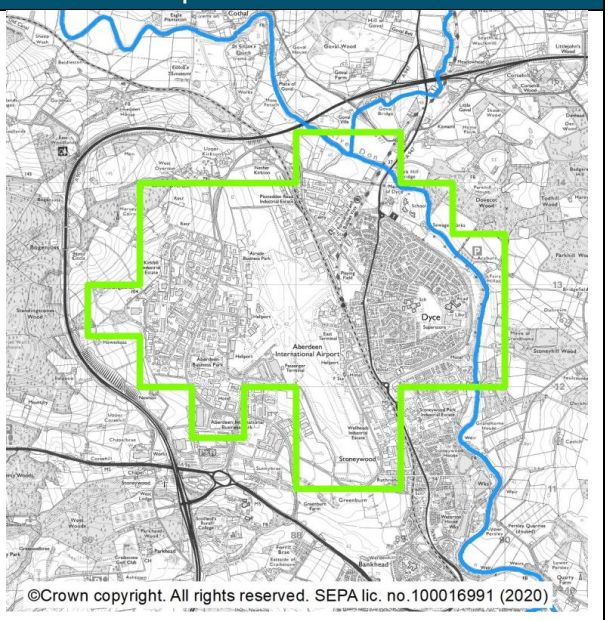
| | | | |
|---|---|---|---|
| Target Area | Bridge of Don | Action ID | 41209 |
| Action Type | Shoreline management plan (coastal adaptive plan) | | |
| Delivery Lead | Aberdeen City Council | Indicative Delivery | 2022-2034 |
| Description | Aberdeen City Council commissioned a preliminary study to undertake a strategic overview of the coastal protection being undertaken by the Council along the frontage of Aberdeen between Footdee and Blackdog. The aim was to improve understanding of how the shoreline may develop in the future and identify any management needs. A detailed flood study may be required. In line with recommendations of the flood study, a shoreline management plan should be developed for Aberdeen City. There may be opportunities to develop this with Aberdeenshire Council as part of a wider east coast plan. The impacts of climate change on coastal flood risk should be considered. Coastal erosion should also be considered. Linkages with the North East Grampian Marine Plan should be considered. The need for an adaptation plan should be identified. | | |
| Funding | Funding to come from existing ACC flooding capital budget | | |

| | |
|---|---|
| Coordination | The action delivery lead is Aberdeen City Council and any coordination will be determined once the actions have been finalised. |

| | | | |
|---|---|---|---|
| Target Area | Bridge of Don | Action ID | 41210 |
| Action Type | Flood defence maintenance | | |
| Delivery Lead | Aberdeen City Council | Indicative Delivery | Ongoing |
| Description | The Glashieburn Flood Prevention Scheme should be maintained. Consideration should be given to review the performance of the scheme, given that new climate change data and hydraulic data has been developed since the scheme was built in the late 2000s. | | |
| Funding | Funding to come from existing ACC Flood revenue budget. | | |
| Coordination | The action delivery lead is Aberdeen City Council. | | |

| | | | |
|---|---|---|---|
| Target Area | Bridge of Don | Action ID | 41211 |
| Action Type | Flood warning maintenance | | |
| Delivery Lead | SEPA | Indicative Delivery | Ongoing |
| Description | SEPA should maintain the River Don and the Aberdeenshire and Angus coastal flood warning schemes. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will work with the local authorities on the potential to use information from flood studies in the River Don catchment to inform ongoing flood warning. SEPA will continue to raise awareness of flood warning and engage with communities about the service when required. | | |

| North East Local Flood Risk Management Plan datasheet | | | |
|---|---|---|---|
| Target Area name | Dyce | Target Area ID | 430 |

| Summary | Location Map |
|---|---|
| Dyce is in the north west of Aberdeen City and includes Dyce Airport. The area is within the Aberdeen City Council area. The main source of flooding in Dyce is from surface water and small water courses, and there is also some risk from the River Don. There are approximately 670 people and 610 homes and businesses currently at risk from flooding. This is likely to increase to 1,100 people and 870 homes and businesses by the 2080s due to climate change. |   © Crown copyright and database rights 2022. All rights reserved. Ordnance Survey Licence number 01000020767 |

| 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.<br>Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources. For Dyce, the national level assessment is improving for surface water by the development of a surface water management plan. This incorporates the results of the integrated catchment study and sewer flood risk assessment. There is a long history of flooding in Dyce. Notable flooding was recorded in January 2016 and August 2020 when persistent rainfall caused flooding from surface water, the Far Burn and the River Don. |

| Objective | ID | Description |
|---|---|---|
| Avoid flood risk | 4301 | Avoid inappropriate development that increases flood risk in Dyce |
| Prepare for flooding | 4302 | Prepare for current flood risk and future flooding as a result of climate change in Dyce |

| | | |
|---|---|---|
| Reduce flood risk | 4303 | Reduce the risk of flooding from surface water, small water courses and River Don in Dyce |

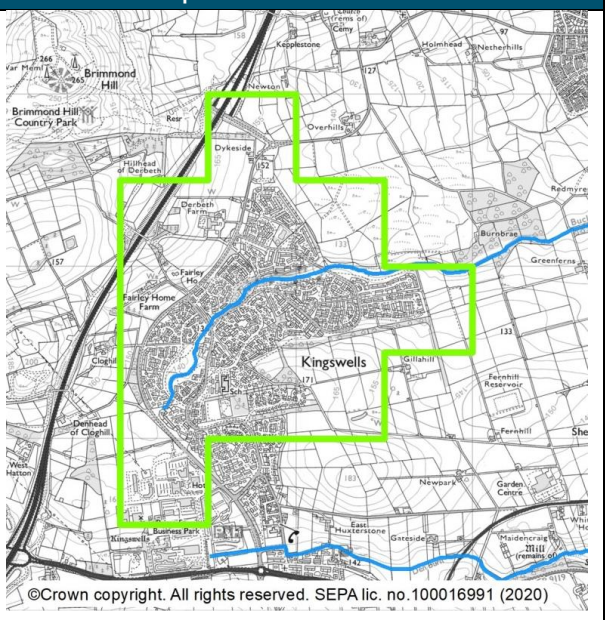
| | | | |
|---|---|---|---|
| Target Area | Dyce | Action ID | 43001 |
| Action Type | Flood study | | |
| Delivery Lead | Aberdeen City Council | Indicative Delivery | 2022-2028 |
| Description | A flood study should be carried out for the Green Burn and Far Burn. The flood studies should look at the flood risk from small watercourses and surface water in this area and define the type of solutions that may be applicable in these areas to prevent or reduce flood risk. The need for further studies may be identified during the preparation of the surface water management plans. | | |
| Funding | Progress on this action will be dependent on securing funding from all relevant agencies to carry out and support this work. | | |
| Coordination | The action delivery lead is Aberdeen City Council and any coordination will be determined once the actions have been finalised. | | |

| | | | |
|---|---|---|---|
| Target Area | Dyce | Action ID | 43002 |
| Action Type | Flood study | | |
| Delivery Lead | Aberdeen City Council | Indicative Delivery | 2022-2036 |
| Description | A flood study should be carried out for the River Don from Dyce to the sea. This should build on the work done by SEPA and Aberdeenshire Council. Aberdeen City Council and SEPA should work jointly to build an agreed hydrology for the River Don and to review the need to extend the River Don flood warning scheme. Interactions with surface water and coastal flooding should be considered. | | |
| Funding | Progress on this action will be dependent on securing funding from all relevant agencies to carry out and support this work. | | |
| Coordination | The action delivery lead is Aberdeen City Council in coordination with<br>SEPA. | | |

| | | | |
|---|---|---|---|
| Target Area | Dyce | Action ID | 43003 |
| Action Type | Sewer flood risk assessment | | |
| Delivery Lead | Scottish Water | Indicative Delivery | 2023-2025 |
| Description | Scottish Water will undertake a modelling assessment in the Persley sewer catchment to improve knowledge and understanding of flood risk in this area as required under Section 16 of the Flood Risk Management (Scotland) Act 2009 | | |
| Funding | Funding for this action is secured within Scottish Water's business plan | | |
| Coordination | Outputs of this modelling assessment will be shared with local authorities and SEPA | | |

| | | | |
|---|---|---|---|
| Target Area | Dyce | Action ID | 43004 |
| Action Type | Surface water management plan | | |
| Delivery Lead | Aberdeen City Council & Scottish Water | Indicative Delivery | Ongoing |
| Description | Aberdeen City Council should finalise and implement the Dyce Surface Water Management Plan. A surface water management plan should focus on areas at high risk of surface water flooding. This should incorporate the results of the integrated catchment study and sewer flood risk assessment. The impacts of climate change on flood risk should be considered. Opportunities to disconnect surface water drainage from the sewerage system should be identified. | | |
| Funding | Progress on this action will be dependent on securing funding from all relevant agencies to carry out and support this work. | | |
| Coordination | The action delivery lead is Aberdeen City Council in coordination with Scottish Water. | | |

| North East Local Flood Risk Management Plan datasheet | | | |
|---|---|---|---|
| Target Area name | Kingswell (North) | Target Area ID | 445 |

| Summary | Location Map |
|---|---|
| Kingswells (north) is a suburb located to the west of Aberdeen City. It is within the Aberdeen City Council area. The only significant source of flooding in Kingswells (north) is surface water. There are approximately 100 people and 50 homes and businesses at risk from flooding. This is estimated to increase to 130 people and 70 homes and businesses by the 2080s due to climate change. |   © Crown copyright and database rights 2022. All rights reserved. Ordnance Survey Licence number 01000020767 |

| 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.<br>Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources. The national level assessment is improving for surface water by the development of a surface water management plan. This incorporates the results of the integrated catchment study and sewer flood risk assessment. There are no records of flooding in the Kingswell (north) target area, but this does not confirm that there is no flood risk. |

| Objective | ID | Description |
|---|---|---|
| Avoid flood risk | 4451 | Avoid inappropriate development that increases flood risk in Kingswells |
| Prepare for flooding | 4452 | Prepare for current flood risk and future flooding as a result of climate change in Kingswells as a result of climate change |

| | | |
|---|---|---|
| Reduce flood risk | 4453 | Reduce the risk of surface water flooding in Kingswells |

| | | | |
|---|---|---|---|
| Target Area | Kingswells (north) | Action ID | 44501 |
| Action Type | Sewer flood risk assessment | | |
| Delivery Lead | Scottish Water | Indicative Delivery | 2023-2025 |
| Description | Scottish Water will undertake a modelling assessment in the Nigg sewer catchment to improve knowledge and understanding of flood risk in this area as required under Section 16 of the Flood Risk Management (Scotland) Act 2009 | | |
| Funding | Funding for this action is secured within Scottish Water's business plan | | |
| Coordination | Outputs of this modelling assessment will be shared with local authorities and SEPA | | |

| | | | |
|---|---|---|---|
| Target Area | Kingswells (north) | Action ID | 44502 |
| Action Type | Surface water management plan | | |
| Delivery Lead | Aberdeen City Council & Scottish Water. | Indicative Delivery | Ongoing |
| Description | Aberdeen City Council should finalise and implement the Kingswells Surface Water Management Plan. A surface water management plan should focus on areas at high risk of surface water flooding. This should incorporate the results of the integrated catchment study and sewer flood risk assessment. The impacts of climate change on flood risk should be considered. Opportunities to disconnect surface water drainage from the sewerage system should be identified. | | |
| Funding | Progress on this action will be dependent on securing funding from all relevant agencies to carry out and support this work. | | |
| Coordination | The action delivery lead is Aberdeen City Council in coordination with Scottish Water. | | |

## 02/06/16 (Kemnay)

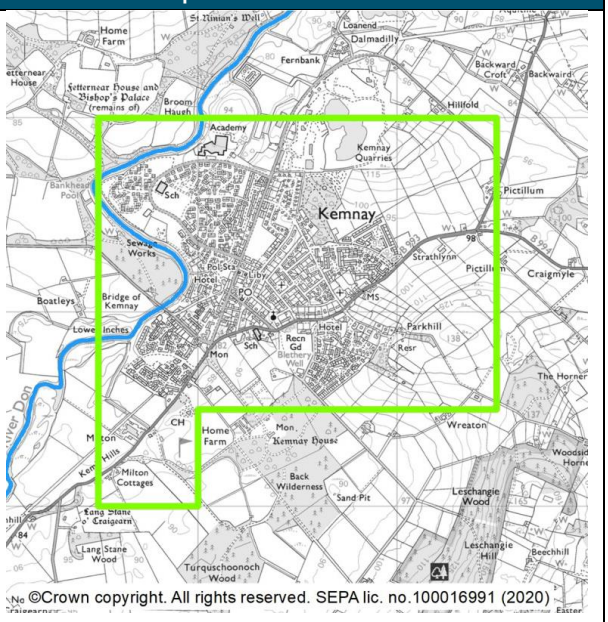
Kemnay is designated as a potentially vulnerable area due to river and surface water flooding. Recent flooding occurred due to river flooding.

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

**List of target areas**

| | |
|---|---|
| Kemnay | (target area 422) |

| North East Local Flood Risk Management Plan datasheet | | | |
|---|---|---|---|
| Target Area name | Kemnay | Target Area ID | 422 |

| Summary | Location Map |
|---|---|
| Kemnay is located north west of Aberdeen and on the banks of the River Don. It is within the Aberdeenshire Council area. The main sources of flooding in Kemnay are river and surface water flooding. There are approximately 260 people and 130 homes and businesses currently at risk from flooding. This is likely to increase to 340 people and 170 homes and businesses by the 2080s due to climate change. |   © Crown copyright and database rights 2022. All rights reserved. Ordnance Survey Licence number 01000020767 |

| 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.<br>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 river and surface water flooding in this target area. Kemnay has therefore been identified as a new target area for the 2021 flood risk management plans. The national level assessment is improved for river flooding by the development and operation of the River Don flood warning scheme. There are records of periodic flooding in the Kemnay target area including notable flooding in January 2016 when persistent rain caused the River Don to burst its banks. |

| Objective | ID | Description |
|---|---|---|
| Avoid flood risk | 4221 | Avoid inappropriate development that increases flood risk in Kemnay |
| Prepare for flooding | 4222 | Prepare for current flood risk and future flooding as a result of climate change in Kemnay |
| Reduce flood risk | 4223 | Reduce the risk of flooding from the River Don and surface water in Kemnay |

| | | | |
|---|---|---|---|
| Target Area | Kemnay | Action ID | 42201 |
| Action Type | Flood study | | |
| Delivery Lead | Aberdeenshire Council | Indicative Delivery | 2023-25 |
| Description | Aberdeenshire Council to develop a flood study for Kemnay, addressing flood risk from the River Don. The council should work closely with the SEPA to agree the hydrology, so that improvements to the flood warning and flood maps can be considered. | | |
| Funding | Funding for the study will be subject to Scottish Government's block grant and capital support,<br>and budget allocations over the six years of the Plan, 2022-2028. | | |
| Coordination | The action delivery lead is Aberdeenshire Council and require coordination with other responsibilities (including SEPA and Scottish Water) and will also include community engagement. | | |

| | | | |
|---|---|---|---|
| Target Area | Kemnay | Action ID | 42202 |
| Action Type | Sewer flood risk assessment | | |
| Delivery Lead | Scottish Water | Indicative Delivery | 2025-2027 |
| Description | Scottish Water will undertake a modelling assessment in the Inverurie sewer catchment to improve knowledge and understanding of flood risk in this area as required under Section 16 of the Flood Risk Management (Scotland) Act 2009 | | |
| Funding | Funding for this action is secured within Scottish Water's business plan | | |
| Coordination | Outputs of this modelling assessment will be shared with local authorities and SEPA | | |

| | | | |
|---|---|---|---|
| Target Area | Kemnay | Action ID | 42203 |
| Action Type | Surface water management plan | | |
| Delivery Lead | Aberdeenshire Council | Indicative Delivery | 2025-2027 |
| Description | A surface water management plan for Kemnay will be developed. The impacts of climate change on flood risk are to be considered. | | |
| Funding | Funding for this action will be subject to Scottish Government's block grant and capital support,<br>and budget allocations over the six years of the Plan, 2022-2028. | | |
| Coordination | The action delivery lead is Aberdeenshire Council in coordination with Scottish Water and other actions in the area. | | |

| | | | |
|---|---|---|---|
| Target Area | Kemnay | Action ID | 42204 |
| Action Type | Community flood alert | | |
| Delivery Lead | Aberdeenshire Council | Indicative Delivery | Ongoing |
| Description | Milton Meadows has its own community flood warning system on a small unnamed watercourse at Milton Drive. | | |
| Funding | Aberdeenshire Council Revenue | | |
| Coordination | The action delivery lead is the community in coordination with Aberdeenshire Council and SEPA. | | |

| | | | |
|---|---|---|---|
| Target Area | Kemnay | Action ID | 42205 |
| Action Type | Flood warning maintenance | | |
| Delivery Lead | SEPA | Indicative Delivery | Ongoing |
| Description | SEPA should maintain the River Don flood warning scheme. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will work with the local authorities on the potential to use information from flood studies in the River Don catchment to inform ongoing flood warning. SEPA will continue to raise awareness of flood warning and engage with communities about the service when required. | | |

# 02/06/17 (Westhill)

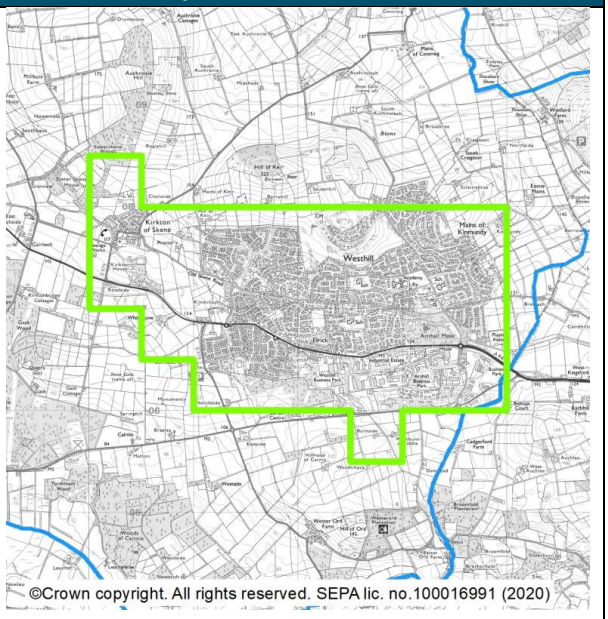
This area is designated as a potentially vulnerable area due to the risk of surface water flooding to Westhill. There are some records of surface water and small water courses flooding roads.

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

**List of target areas**

| | |
|---|---|
| Westhill | (target area 416) |

| North East Local Flood Risk Management Plan datasheet | | | |
|---|---|---|---|
| Target Area name | Westhill | Target Area ID | 416 |

| Summary | Location Map |
|---|---|
| Westhill lies approximately 10km west of Aberdeen and includes Kirkton of Skene. It is within the Aberdeenshire Council area. The main source of flooding in Westhill is surface water flooding. There are approximately 870 people and 440 homes and businesses currently at risk of flooding. This is likely to increase to 1,200 people and 600 homes and businesses by the 2080s due to climate change. Westhill is sensitive to the effect of climate change, particularly in Elrick, Kirkton on Skene and in areas surrounding the Westhill Golf Course. |   © Crown copyright and database rights 2022. All rights reserved. Ordnance Survey Licence number 01000020767 |

| 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.<br>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 through the integrated catchment study and sewer flood risk assessment. Understanding is improving further through the development of a surface water management plan. There are limited records of flooding in the Westhill target area. These records relate to flooding from surface water and smaller water courses and include notable flooding during January 2016. |

| Objective | ID | Description |
|---|---|---|
| Avoid flood risk | 4161 | Avoid inappropriate development that increases flood risk in Westhill |
| Prepare for flooding | 4162 | Prepare for current flood risk and future flooding as a result of climate change in Westhill |
| Reduce flood risk | 4163 | Reduce the risk of surface water flooding in |

| | | |
|---|---|---|
| | | Westhill |

| | | | |
|---|---|---|---|
| Target Area | Westhill | Action ID | 41601 |
| Action Type | Sewer flood risk assessment | | |
| Delivery Lead | Scottish Water | Indicative Delivery | 2023-2025 |
| Description | Scottish Water will undertake a modelling assessment in the Nigg sewer catchment to improve knowledge and understanding of flood risk in this area as required under Section 16 of the Flood Risk Management (Scotland) Act 2009 | | |
| Funding | Funding for this action is secured within Scottish Water's business plan | | |
| Coordination | Outputs of this modelling assessment will be shared with local authorities and SEPA | | |

| | | | |
|---|---|---|---|
| Target Area | Westhill | Action ID | 41602 |
| Action Type | Surface water management plan | | |
| Delivery Lead | Aberdeenshire Council | Indicative Delivery | Ongoing |
| Description | The surface water management plan will be implemented. It should regularly be updated and reviewed. The impacts of climate change on flood risk are to be considered | | |
| Funding | Funding for this action will be subject to Scottish Government's block grant and capital support,<br>and budget allocations over the six years of the Plan, 2022-2028. | | |
| Coordination | The action delivery lead is Aberdeenshire Council in coordination with Scottish Water and will consider other actions in the area. | | |

## 02/06/18 (Aberdeen City – South)

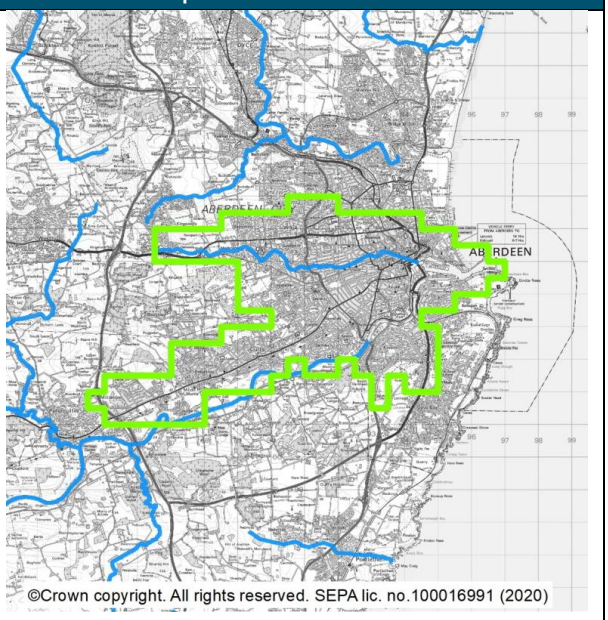
This area is designated as a potentially vulnerable area due to the risk of river, coastal and surface water flooding to Aberdeen. Coastal flood risk is likely to increase due to sea level rise caused by climate change. Riverside Drive floods from the River Dee due to high tides. Surface water flooding affected Aberdeen on a number of occasions, causing roads to flood. The Merchant Quarter was particularly affected in the past.

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

**List of target areas**

| | |
|---|---|
| Aberdeen Central | (target area 413) |

| North East Local Flood Risk Management Plan datasheet | | | |
|---|---|---|---|
| Target Area name | Aberdeen Central | Target Area ID | 413 |

| Summary | Location Map |
|---|---|
| The Aberdeen Central area is on the River Dee and is mainly within the Aberdeen City Council area. The main sources of flooding to Aberdeen Central are river, surface water and small watercourses, however there is also a risk from coastal flooding, which is likely underestimated. There are approximately 23,000 people and 14,000 homes and businesses at risk from flooding. This is likely to increase to 28,000 people and 16,000 homes and businesses by the 2080s due to climate change. |   © Crown copyright and database rights 2022. All rights reserved. Ordnance Survey Licence number 01000020767 |

| 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.<br><br>Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources. The national level understanding of flood risk for surface water flood risk is improving through the development of a surface water management plan which focuses on addressing flood risk in 10 areas across the city considered to be at high risk of surface water flooding. This incorporates the results of the integrated catchment study and the sewer flood risk assessment. The understanding of coastal flood risk is improved by the Footdee Coastal Flood Study (2018) and the Aberdeen Strategic Overview of Coast Protection (2019). The understanding of river flooding is improved by the development and operation of the River Dee flood warning scheme and the development of the existing flood protection. There is a long history of flooding from all sources in the Aberdeen Central target area. Affected areas include known hot |

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| spots, such as Merchant Quarter, Duthie Park's car park, Golf Road near Pittodrie, Riverside Drive, Holburn Street, Hutcheon Street and Fraser Road.<br>The Dynamic Coast project has shown that parts of the shoreline in or adjacent to this target area are subject to erosion at present or are considered likely to erode in the future. Consideration should be given to how erosion might impact flood risk. Any actions taken should aim to support building natural resilience to flooding and not lead to an increase in erosion. |

| Objective | ID | Description |
|---|---|---|
| Avoid flood risk | 4131 | Avoid an increase in flood risk by the appropriate management and maintenance of the Aberdeen coastal flood protection scheme |
| Avoid flood risk | 4132 | Avoid an increase in flood risk by the appropriate management and maintenance of the Fraser Road, Maidencraig and Stronsay Park flood protection schemes and the Dee flood gates |
| Avoid flood risk | 4133 | Avoid inappropriate development that increases flood risk in Aberdeen |
| Improve data and understanding | 4134 | Improve data and understanding of the performance of the flood protection assets in Aberdeen |
| Improve data and understanding | 4135 | Improve data and understanding of coastal erosion, flooding and the impacts of climate change related to coastal flooding in Aberdeen |
| Prepare for flooding | 4136 | Prepare for current flood risk and/or future flooding in Aberdeen as a result of climate change |
| Reduce flood risk | 4137 | Reduce the risk of surface water flooding in Aberdeen |
| Reduce flood risk | 4138 | Reduce the risk of flooding from the River Dee and small water courses in Aberdeen |

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|---|---|---|---|
| Target Area | Aberdeen Central | Action ID | 41301 |
| Action Type | Flood defence maintenance | | |
| Delivery Lead | Aberdeen City Council | Indicative Delivery | Ongoing |
| Description | Aberdeen City Council should maintain the Fraser Road, Maidencraig and Stronsay Park Flood Protection Schemes and the Dee flood gates. The existing coastal defences should also be maintained. | | |
| Funding | Funding to come from existing ACC Flood revenue budget. | | |
| Coordination | The action delivery lead is Aberdeen City Council. | | |

| | | | |
|---|---|---|---|
| Target Area | Aberdeen Central | Action ID | 41302 |
| Action Type | Flood scheme or works design | | |
| Delivery Lead | Scottish Water in coordination with Aberdeen City Council | Indicative Delivery | This action will likely cover multiple FRM cycles given the scale of intervention required. |
| Description | Aberdeen City Council and Scottish Water should continue working together towards identifying flood risk mitigation measures for the Merchant Quarter.<br>In accordance with the flood risk management plan, as part of the scheme or works, the responsible authority should aim to ensure the action will not have an adverse effect on the integrity of the River Dee Special Area of Conservation.<br>The ICS Optioneering study in Cycle 1 identified a range of potential options to reduce the risk of surface water and sewer flooding in the Merchants Quarter area of Aberdeen. Due to the scale and cost of opportunities, these options were recommended to be developed in further detail in phases.<br>In FRM Cycle 1, Scottish Water have developed detailed design of an option to reduce sewer flooding (see related Action 41304), however this did not address the residual surface water flooding.<br>In Cycle 2, Scottish Water and Aberdeen City Council will work together to seek opportunities to manage surface water, in order to reduce the risk of flooding at Merchant Quarter. Due to the significant scale of this work, it is likely to require any | | |

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|---|---|
| | improvements to be delivered in a phased manner over a number of FRM cycles. |
| Funding | Progress on this action will be dependent on securing funding from all relevant agencies to carry out and support this work. |
| Coordination | The action delivery lead is Scottish Water in coordination with Aberdeen City Council. |

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|---|---|---|---|
| Target Area | Aberdeen Central | Action ID | 41303 |
| Action Type | Community engagement | | |
| Delivery Lead | Scottish Water & Aberdeen City | Indicative Delivery | Ongoing |
| Description | Community engagement should continue during the development of the detailed design of works for Merchant Quarter. | | |
| Funding | Progress on this action will be dependent on securing funding from all relevant agencies to carry out and support this work. | | |
| Coordination | The action delivery lead is Scottish Water in coordination with Aberdeen City Council. | | |

| | | | |
|---|---|---|---|
| Target Area | Aberdeen Central | Action ID | 41304 |
| Action Type | Flood scheme or works implementation | | |
| Delivery Lead | Scottish Water in coordination with Aberdeen City Council | Indicative Delivery | This action will likely cover multiple FRM cycles given the scale of intervention required. |
| Description | Aberdeen City Council and Scottish Water should construct flood schemes or works for Merchant Quarter. 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.<br>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. Scottish Water approved a £5m project to reduce the risk of sewer flooding in the Merchant Quarter area in FRM Cycle 1, however detailed site investigation work in 2022 has found this planned work is not currently feasible due to existing site constraints. Project designs will need to be re-evaluated based | | |

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| | on the improved site specific knowledge. It is expected that the required re-design activities will be linked in with Action 41302<br><br>Scottish Water will continue to seek opportunities to manage the risk of flooding from the sewerage system in the shorter term. There is no developed scheme to address surface water flooding. ACC and Scottish Water will work together to identify a scheme to manage surface water flooding. This will be linked with action 41302. |
| Funding | Progress on this action will be dependent on securing funding from all relevant agencies to carry out and support this work. |
| Coordination | Scottish Water in coordination with Aberdeen City Council |

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|---|---|---|---|
| Target Area | Aberdeen Central | Action ID | 41305 |
| Action Type | Flood study | | |
| Delivery Lead | Aberdeen City Council in coordination with SEPA | Indicative Delivery | Completed |
| Description | A flood study has been commissioned to understand flood risk in the valley of Denburn. The study should continue to be progressed. Since Cycle 2 FRMPs published, further progress has been made on this action. The Flood study has been completed along with a geomorphology appraisal study to reduce flood risk. The geomorphology study did not identify any significant flooding reduction benefits, however identifies environmental and socioeconomic impacts and benefits. Currently, the results are being reviewed and a decision will be made to further progress/action. | | |
| Funding | If this project is taken forward to the next stage, progress on this action will be dependent on securing funding from all relevant agencies to carry out and support this work. | | |
| Coordination | The action delivery lead is Aberdeen City Council and will be delivered in coordination with SEPA. Once the actions have been finalised further coordination requirements will be considered. | | |

| | | | |
|---|---|---|---|
| Target Area | Aberdeen Central | Action ID | 41306 |
| Action Type | Flood warning maintenance | | |
| Delivery Lead | SEPA | Indicative Delivery | 2026-28 |

| | |
|---|---|
| Description | SEPA should maintain the River Dee flood warning scheme. The performance of the scheme at Riverside Drive should be investigated. |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. |
| Coordination | SEPA will maintain the River Dee flood warning scheme. SEPA will continue to raise awareness of flood warning and engage with communities about the service when required. |

| | | | |
|---|---|---|---|
| Target Area | Aberdeen Central | Action ID | 41307 |
| Action Type | Flood warning maintenance | | |
| Delivery Lead | SEPA | Indicative Delivery | Ongoing |
| Description | SEPA should maintain the Aberdeenshire and Angus coastal flood warning scheme. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will work with the local authorities on the potential to use information from the flood schemes and studies along the north east coast to inform ongoing flood warning. SEPA will continue to raise awareness of flood warning and engage with communities about the service when required. | | |

| | | | |
|---|---|---|---|
| Target Area | Aberdeen Central | Action ID | 41308 |
| Action Type | Strategic mapping improvements | | |
| Delivery Lead | SEPA | Indicative Delivery | 2023-2024 |
| Description | SEPA has undertaken improved coastal modelling in this target area including taking account of the impact of waves on coastal flooding. We will complete and publish the outcomes of this modelling work to inform decision making with respect to flooding at the coast. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will work with the local authority on the potential to coordinate the flood map update with any other actions being carried out to understand or reduce coastal flooding. | | |

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|---|---|---|---|
| Target Area | Aberdeen Central | Action ID | 41309 |
| Action Type | Shoreline management plan (coastal adaptive plan) | | |
| Delivery Lead | Aberdeen City Council | Indicative Delivery | 2022-2036 |
| Description | Aberdeen City Council commissioned a preliminary study to undertake a strategic overview of the coastal protection being undertaken by the Council along the frontage of Aberdeen between Footdee and Blackdog. The aim was to improve understanding of how the shoreline may develop in the future and identify any management needs. A detailed flood study may be required. In line with recommendations of the flood study, a shoreline management plan should be developed for Aberdeen City. There may be opportunities to develop this with Aberdeenshire Council as part of a wider east coast plan. The impacts of climate change on coastal flood risk should be considered. Coastal erosion should also be considered. Linkages with the North East Grampian Marine Plan should be considered. The need for an adaptation plan should be identified. | | |
| Funding | Funding to come from existing ACC Flood capital budget. | | |
| Coordination | The action delivery lead is Aberdeen City Council and any coordination will be determined once the actions have been finalised. | | |

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|---|---|---|---|
| Target Area | Aberdeen Central | Action ID | 41310 |
| Action Type | Sewer flood risk assessment | | |
| Delivery Lead | Scottish Water | Indicative Delivery | 2023-2025 |
| Description | Scottish Water will undertake a modelling assessment in the Nigg sewer catchment to improve knowledge and understanding of flood risk in this area as required under Section 16 of the Flood Risk Management (Scotland) Act 2009 | | |
| Funding | Funding for this action is secured within Scottish Water's business plan | | |
| Coordination | Outputs of this modelling assessment will be shared with local authorities and SEPA | | |

| | | | |
|---|---|---|---|
| Target Area | Aberdeen Central | Action ID | 41311 |
| Action Type | Surface water management plan | | |
| Delivery Lead | Aberdeen City Council in coordination with Scottish Water. | Indicative Delivery | Ongoing |
| Description | Aberdeen City Council should finalise and implement the surface water management plans for the Aberdeen Central area. This includes the Denburn Valley, Millside and Cults, Garthdee to Ferryhill, and part of Northfield to Seaton areas. A surface water management plan should focus on areas at high risk of surface water flooding. This should incorporate the results of the integrated catchment study and sewer flood risk assessment. The impacts of climate change on flood risk should be considered. Opportunities to disconnect surface water drainage from the sewerage system should be identified. | | |
| Funding | Progress on this action will be dependent on securing funding from all relevant agencies to carry out and support this work. | | |
| Coordination | The action delivery lead is Aberdeen City Council in coordination with Scottish Water. | | |

## 02/06/19 (Peterculter)

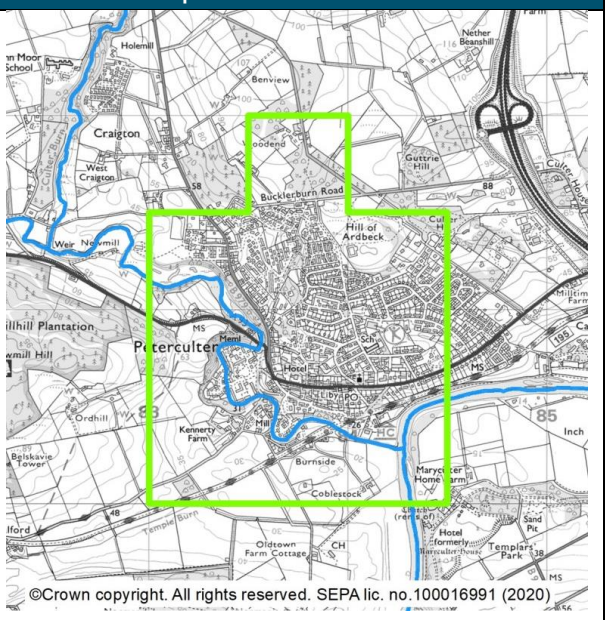
Peterculter is designated as a potentially vulnerable area due to river flooding from the Culter Burn, and surface water flooding. Recent flooding occurred due to river and surface water flooding.

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

**List of target areas**

| | |
|---|---|
| Peterculter | (target area 415) |

| North East Local Flood Risk Management Plan datasheet | | | |
|---|---|---|---|
| Target Area name | Peterculter | Target Area ID | 415 |

| Summary | Location Map |
|---|---|
| Peterculter is in Deeside, west of Aberdeen in the Aberdeen City Council area. The main source of flooding in Peterculter is river flooding from the Culter Burn. There is also a risk from surface water flooding. There are approximately 790 people and 430 homes and businesses at risk from flooding. This is likely to increase to 910 people and 510 homes and businesses by the 2080s due to climate change. |   © Crown copyright and database rights 2022. All rights reserved. Ordnance Survey Licence number 01000020767 |

| 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.<br>Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources. The national level understanding of flood risk for river flooding is improved by a flood study of the Culter Burn which was completed in 2019. The understanding of surface water flood risk is improving through the development of a surface water management plan for Peterculter. This incorporates the results of the integrated catchment study and the sewer flood risk assessment. There is a long history of flooding from the Culter Burn including the notable flood in January 2016. |

| Objective | ID | Description |
|---|---|---|
| Avoid flood risk | 4151 | Avoid inappropriate development that increases flood risk in Peterculter |
| Prepare for flooding | 4152 | Prepare for current flood risk and future flooding as a result of climate change in Peterculter |
| Reduce flood risk | 4153 | Reduce the risk of flooding from the Culter Burn in Peterculter |
| Reduce flood risk | 4154 | Reduce the risk of surface water flooding in Peterculter |

| | | | |
|---|---|---|---|
| Target Area | Peterculter | Action ID | 41501 |
| Action Type | Data collection | | |
| Delivery Lead | Aberdeen City Council | Indicative Delivery | Ongoing |
| Description | Based on the results of the Peterculter Flood Study, a monitoring scheme is being developed. This includes the installation of river and rain gauges to improve understanding of the catchment dynamics. An app is being developed which will allow local residents to engage with the monitoring. | | |
| Funding | Funding to come from existing ACC Flood capital budget and external resources (SCORE Interregg European project) | | |
| Coordination | The action delivery lead is Aberdeen City Council and any coordination will be determined once the actions have been finalised. | | |

| | | | |
|---|---|---|---|
| Target Area | Peterculter | Action ID | 41502 |
| Action Type | Community flood alert | | |
| Delivery Lead | Aberdeen City Council | Indicative Delivery | Ongoing |
| Description | A community river level alerting system for the Culter Burn should be implemented and maintained based on the monitoring scheme which is being developed. | | |
| Funding | Funding to come from existing ACC Flood capital budget and external resources (SCORE Interregg European project) | | |
| Coordination | The action delivery lead is Aberdeen City Council in coordination with the Community Council. | | |

| | | | |
|---|---|---|---|
| Target Area | Peterculter | Action ID | 41503 |
| Action Type | Sewer flood risk assessment | | |
| Delivery Lead | Scottish Water | Indicative Delivery | 2023-2025 |
| Description | Scottish Water will undertake a modelling assessment in the Nigg sewer catchment to improve knowledge and understanding of flood risk in this area as required under Section 16 of the Flood Risk Management (Scotland) Act 2009 | | |
| Funding | Funding for this action is secured within Scottish Water's business plan | | |
| Coordination | Outputs of this modelling assessment will be shared with local authorities and SEPA | | |

| | | | |
|---|---|---|---|
| Target Area | Peterculter | Action ID | 41504 |
| Action Type | Surface water management plan | | |
| Delivery Lead | Aberdeen City Council in coordination with Scottish Water. | Indicative Delivery | Ongoing |
| Description | Aberdeen City Council should finalise and implement the Peterculter Surface Water Management Plan. A surface water management plan should focus on areas at high risk of surface water flooding. This should incorporate the outputs of the integrated catchment study and sewer flood risk assessment. The impacts of climate change on future flood risk should be considered. Opportunities to disconnect surface water drainage from the sewerage system should be identified. | | |
| Funding | Progress on this action will be dependent on securing funding from all relevant agencies to carry out and support this work. | | |
| Coordination | Aberdeen City Council in coordination with Scottish Water. | | |

| | | | |
|---|---|---|---|
| Target Area | Peterculter | Action ID | 41505 |
| Action Type | Flood warning maintenance | | |
| Delivery Lead | SEPA | Indicative Delivery | Ongoing |
| Description | SEPA should maintain the River Dee flood warning scheme. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |

| | |
|---|---|
| Coordination | SEPA will maintain the River Dee flood warning scheme. SEPA will continue to raise awareness of flood warning and engage with communities about the service when required. |

# 02/06/20 (Aboyne)

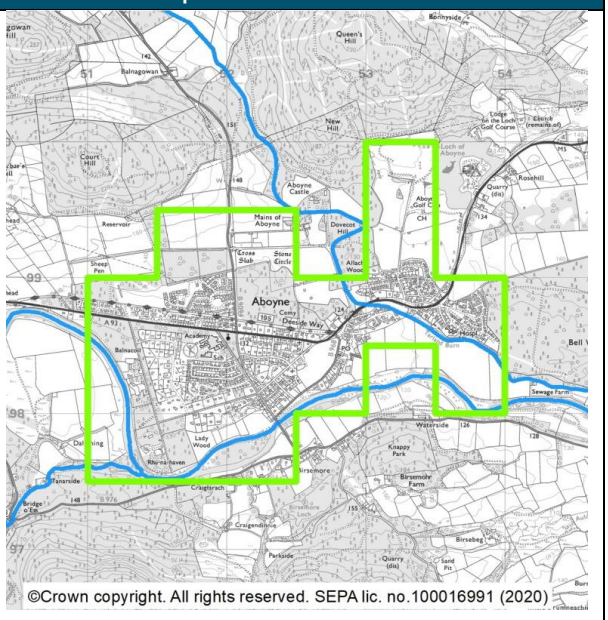
This area is designated as a potentially vulnerable area due to past flooding in Aboyne and Tarland from the Tarland Burn. Surface water flooding has also occurred in Aboyne. Recent flooding was caused by both river and surface water flooding.

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

**List of target areas**

| | |
|---|---|
| Aboyne | (target area 417) |
| Tarland | (target area 418) |

| North East Local Flood Risk Management Plan datasheet | | | |
|---|---|---|---|
| Target Area name | Aboyne | Target Area ID | 417 |

| Summary | Location Map |
|---|---|
| Aboyne is located on the eastern edge of the Cairngorms National Park on the River Dee. It is within the Aberdeenshire Council area. The main source of flooding in Aboyne is river flooding from the River Dee and Tarland Burn. However, there is also risk from surface water flooding. There are approximately 240 people and 140 homes and businesses currently at risk from flooding. This is likely to increase to 340 people and 190 homes and businesses by the 2080s due to climate change. |   © Crown copyright and database rights 2022. All rights reserved. Ordnance Survey Licence number 01000020767 |

| 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.<br>Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources. The national level assessment is improving for surface water by the development of a surface water management plan for Aboyne. A sewer flood risk assessment has also been completed. The understanding of river flooding is improved through the development and operation of the River Dee flood warning scheme. There is a long history of flooding in Aboyne including notable flooding during Storm Frank in December 2015 and into January 2016 when the River Dee and Tarland Burn burst their banks. |

| Objective | ID | Description |
|---|---|---|
| Avoid flood risk | 4171 | Avoid inappropriate development that increases flood risk in Aboyne |
| Prepare for flooding | 4172 | Prepare for current flood risk and future flooding as a result of climate change in Aboyne |
| Reduce flood risk | 4173 | Reduce the risk of flooding from the River Dee, Tarland Burn and surface water in Aboyne |

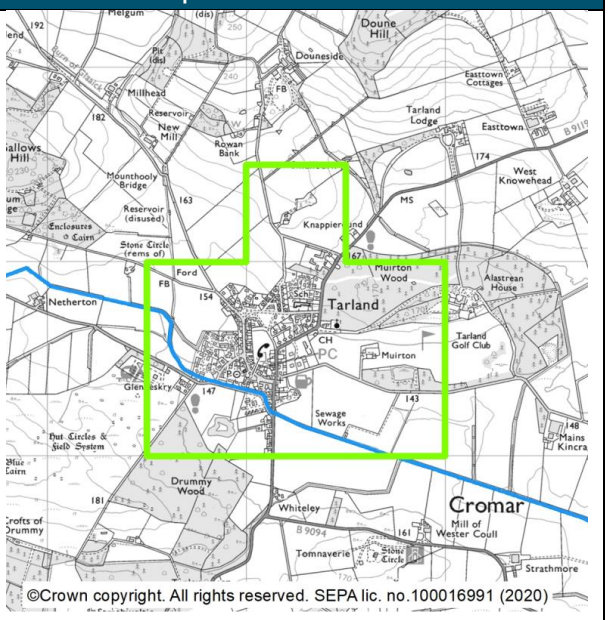
| | | | |
|---|---|---|---|
| Target Area | Aboyne | Action ID | 41701 |
| Action Type | Flood study | | |
| Delivery Lead | Aberdeenshire Council | Indicative Delivery | 2023-25 |
| Description | A flood study should be undertaken for the River Dee and Tarland Burn at Aboyne. SEPA should be consulted early to agree the hydrology, as it may affect the River Dee flood warning scheme. There may be opportunities for collaboration. The impacts of climate change on flood risk should be assessed. | | |
| Funding | Funding for the study will be subject to Scottish Government's block grant and capital support,<br>and budget allocations over the six years of the Plan, 2022-2028. | | |
| Coordination | The action delivery lead is Aberdeenshire Council and require coordination with other responsibilities (including SEPA and Scottish Water) and will also include community engagement. | | |

| | | | |
|---|---|---|---|
| Target Area | Aboyne | Action ID | 41701 |
| Action Type | Surface water management plan | | |
| Delivery Lead | Aberdeenshire Council | Indicative Delivery | Ongoing |
| Description | The surface water management plan will be implemented. It should regularly be updated and reviewed. The impacts of climate change on flood risk are to be considered | | |
| Funding | Funding for this action will be subject to Scottish Government's block grant and capital support,<br>and budget allocations over the six years of the Plan, 2022-2028. | | |

| | |
|---|---|
| Coordination | The action delivery lead is Aberdeenshire Council in coordination with Scottish Water and will consider other actions in the area. |

| | | | |
|---|---|---|---|
| Target Area | Aboyne | Action ID | 41701 |
| Action Type | Flood warning maintenance | | |
| Delivery Lead | SEPA | Indicative Delivery | Ongoing |
| Description | SEPA should maintain the River Dee flood warning scheme. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will work with Aberdeenshire Council on the potential to use the findings of flood studies in the River Dee catchment to inform ongoing flood warning. SEPA will continue to raise awareness of flood warning and engage with communities about the service when required. | | |

| North East Local Flood Risk Management Plan datasheet | | | |
|---|---|---|---|
| Target Area name | Tarland | Target Area ID | 418 |

| Summary | Location Map |
|---|---|
| The village of Tarland is located around 50km west of Aberdeen, on the Tarland Burn, a tributary of the River Dee. The area is within the Aberdeenshire Council area. The main source of flooding is river flooding. There are approximately 190 people and 100 homes and businesses at risk from flooding. This is not estimated to increase significantly by the 2080s, due to climate change. |  <br>© Crown copyright and database rights 2022. All rights reserved. Ordnance Survey Licence number 01000020767 |

| 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.<br>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 river flooding in this target area. Tarland has therefore been identified as a new target area for the 2021 flood risk management plans. The national level assessment is improved for river flooding due to the previous studies investigating options to reduce flood risk in the target area. There are frequent records of flooding in Tarland. |

| Objective | ID | Description |
|---|---|---|
| Avoid flood risk | 4181 | Avoid inappropriate development that increases flood risk in Tarland |
| Prepare for flooding | 4182 | Prepare for current flood risk and future flooding as a result of climate change in Tarland |

| | | |
|---|---|---|
| Reduce flood risk | 4183 | Reduce the risk of flooding from the Tarland Burn in Tarland |

| | | | |
|---|---|---|---|
| Target Area | Tarland | Action ID | 41801 |
| Action Type | Flood study | | |
| Delivery Lead | Aberdeenshire Council | Indicative Delivery | 2023-25 |
| Description | A flood study should be carried out for the Tarland Burn. This should be based on existing flood studies. Any existing models should be reviewed and updated to take account of new climate change data. | | |
| Funding | Funding for the study will be subject to Scottish Government's block grant and capital support,<br>and budget allocations over the six years of the Plan, 2022-2028. | | |
| Coordination | The action delivery lead is Aberdeenshire Council and require coordination with other responsibilities (including SEPA and Scottish Water) and will also include community engagement. | | |

## 02/06/21 (Banchory)

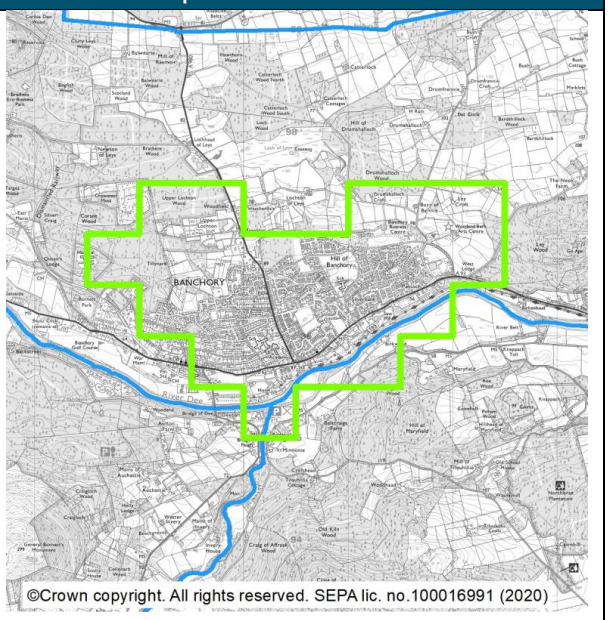
This area is designated as a potentially vulnerable area as Banchory is at risk of surface water flooding. There is a history of flooding, with recent flooding due to surface water.

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

**List of target areas**

| | |
|---|---|
| Banchory | (target area 433) |

| North East Local Flood Risk Management Plan datasheet | | | |
|---|---|---|---|
| Target Area name | Banchory | Target Area ID | 433 |

| Summary | Location Map |
|---|---|
| Banchory is located approximately 30km west of Aberdeen, on the banks of the River Dee. It is within the Aberdeenshire Council area. The main source of flooding in Banchory is surface water flooding. There are approximately 340 people and 200 homes and businesses currently at risk of flooding. This is likely to increase to 470 people and 260 homes and businesses by the 2080s due to climate change. |   © Crown copyright and database rights 2022. All rights reserved. Ordnance Survey Licence number 01000020767 |

| 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.<br>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 surface water by a sewer flood risk assessment. There are limited records of flooding in Banchory. |

| Objective | ID | Description |
|---|---|---|
| Avoid flood risk | 4331 | Avoid inappropriate development that increases flood risk in Banchory |
| Prepare for flooding | 4332 | Prepare for current flood risk and future flooding as a result of climate change in Banchory as a result of climate change |
| Reduce flood risk | 4333 | Reduce the risk of surface water flooding in Banchory |

| | | | |
|---|---|---|---|
| Target Area | Banchory | Action ID | 43301 |
| Action Type | Flood warning maintenance | | |
| Delivery Lead | SEPA | Indicative Delivery | Ongoing |
| Description | SEPA should maintain the River Dee flood warning scheme. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will maintain the River Dee flood warning scheme. SEPA will continue to raise awareness of flood warning and engage with communities about the service when required. | | |

# 02/06/22 (Ballater)

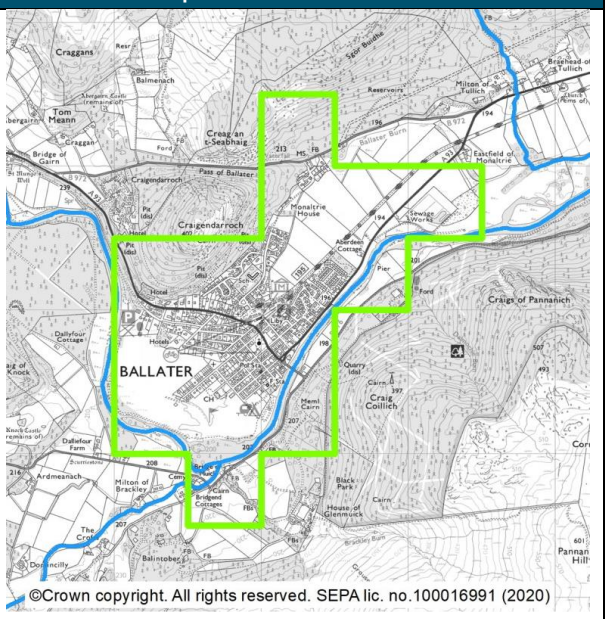
This area is designated as a potentially vulnerable area due to flood risk from the River Dee and surface water flooding to Ballater. Recent floods have occurred in the area from both surface water and river flooding.

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

**List of target areas**

| | |
|---|---|
| Ballater | (target area 414) |

| North East Local Flood Risk Management Plan datasheet | | | |
|---|---|---|---|
| Target Area name | Ballater | Target Area ID | 414 |

| Summary | Location Map |
|---|---|
| Ballater is on the banks of the River Dee within the Cairngorms National Park and the Aberdeenshire Council area. The main source of flooding is the River Dee, however there is also a risk of surface water flooding. There are approximately 670 people and 370 homes and businesses currently at risk from flooding. This is estimated to increase to 1,300 people and 720 homes and businesses by the 2080s due to climate change. |   © Crown copyright and database rights 2022. All rights reserved. Ordnance Survey Licence number 01000020767 |

## 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 by the Ballater Flood Study (2019). The study focuses on flood risk from the River Dee and its tributaries the River Gairn and the River Muick. Understanding of surface water flood risk is improved by a sewer flood risk assessment. There is a long history of occasional flooding recorded in the Ballater target area, including severe flooding from the River Dee in December 2015.

| Objective | ID | Description |
|---|---|---|
| Avoid flood risk | 4141 | Avoid inappropriate development that increases flood risk in Ballater |
| Prepare for flooding | 4142 | Prepare for current flood risk and/or future flooding in Ballater as a result of climate change |

| | | |
|---|---|---|
| Reduce flood risk | 4143 | Reduce the risk of flooding from the River Dee in Ballater |

| | | | |
|---|---|---|---|
| Target Area | Ballater | Action ID | 41401 |
| Action Type | Flood scheme or works design | | |
| Delivery Lead | Aberdeenshire Council | Indicative Delivery | 2025-27 |
| Description | The detailed design for the Ballater Flood Protection Scheme should be progressed based on the preferred option identified from the Ballater Flood Protection Study - Feasibility Report - December 2019.<br><br>Further development of the preferred option will be required prior to commencing with the detailed design. Aberdeenshire Council to work closely with Cairngorms National Park Authority to identify any planning constraints and opportunities associated with the proposals.<br><br>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.<br><br>In accordance with the flood risk management plan, as part of the scheme or works, the responsible authority will aim to ensure the action will not have an adverse effect on the integrity of the River Dee Special Area of Conservation. | | |
| Funding | This works is subject to funding via the Scottish Government flood capital monies. This monies has not been allocated at the time of the production of this report. | | |
| Coordination | The action delivery lead is Aberdeenshire Council in coordination with other responsible authorities and including community engagement | | |

| | | | |
|---|---|---|---|
| Target Area | Ballater | Action ID | 41402 |
| Action Type | Community engagement | | |
| Delivery Lead | Aberdeenshire Council | Indicative Delivery | Ongoing |
| Description | The responsible authorities to continue to engage with the community (including the Community Council's Flood Issues Group), with particular focus on the detailed design of the flood scheme in order to balance the requirements for flood management with wider social, economic and environmental considerations. | | |
| Funding | Funding for this action will be subject to Scottish Government's block grant and capital support,<br>and budget allocations over the six years of the Plan, 2022-2028. | | |
| Coordination | Aberdeenshire Council will coordinate with other responsible authorities to ensure that communities are aware of the risk and assist with becoming more resilient to the risk of flooding | | |

| | | | |
|---|---|---|---|
| Target Area | Ballater | Action ID | 41403 |
| Action Type | Flood scheme or works implementation | | |
| Delivery Lead | Aberdeenshire Council | Indicative Delivery | 2027-28 |
| Description | Progress the Ballater 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.<br><br>The responsible authority proposes this action as the best viable option for managing flood risk in this community. The delivery of this action is subject to capital funding being made available. | | |
| Funding | This works is subject to funding via the Scottish Government flood capital monies. This monies has not been allocated at the time of the production of this report. | | |
| Coordination | The action delivery lead is Aberdeenshire Council in coordination with other responsible authorities and including community engagement | | |

| | | | |
|---|---|---|---|
| Target Area | Ballater | Action ID | 41404 |
| Action Type | Community resilience group | | |
| Delivery Lead | Aberdeenshire Council | Indicative Delivery | 2022-28 |
| Description | Aberdeenshire Council to support Community Council's Flood Issues Group in promoting actions in their Community Resilience Plan. | | |
| Funding | Funding for this action will be subject to Scottish Government's block grant and capital support, | | |
| Coordination | Aberdeenshire Council to support Community Council's Flood Issues Group including coordination with other responsible authorities. | | |

| | | | |
|---|---|---|---|
| Target Area | Ballater | Action ID | 41405 |
| Action Type | Flood warning maintenance | | |
| Delivery Lead | SEPA | Indicative Delivery | Ongoing |
| Description | SEPA should maintain the River Dee flood warning scheme. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will maintain the River Dee flood warning scheme. SEPA will continue to raise awareness of flood warning and engage with communities about the service when required. | | |

## 02/06/23 (Stonehaven)

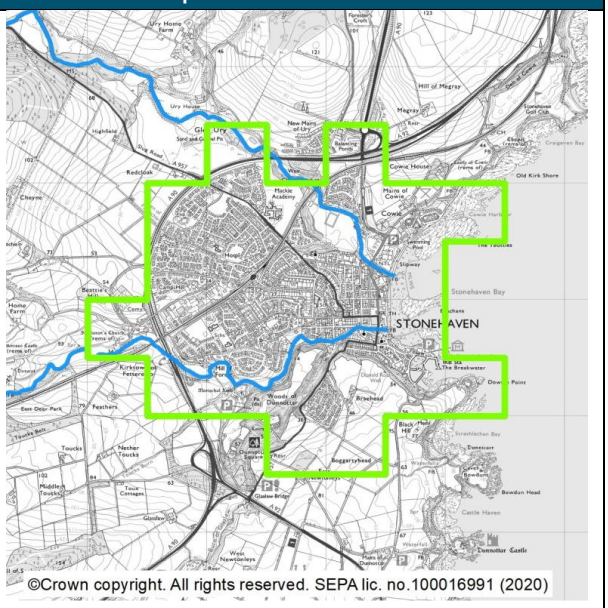
This area is designated as a potentially vulnerable area due to river, coastal and surface water flood risk. Coastal flood risk is likely to increase due to sea level rise caused by climate change. Recent floods have occurred as a result of all flood sources.

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

**List of target areas**

| | |
|---|---|
| Stonehaven | (target area 419) |

| North East Local Flood Risk Management Plan datasheet | | | |
|---|---|---|---|
| Target Area name | Stonehaven | Target Area ID | 419 |

| Summary | Location Map |
|---|---|
| Stonehaven and Cowie are located south of Aberdeen in the Aberdeenshire Council area. Flooding is from river, coastal and surface water sources. The River Carron Flood Protection Scheme is under construction and will help address the river flood risk identified. There are approximately 3,100 people and 1,600 homes and businesses currently at risk from flooding. This is likely to increase to 3,600 people and 1,800 homes and businesses by the 2080s due to climate change. |   © Crown copyright and database rights 2022. All rights reserved. Ordnance Survey Licence number 01000020767 |

| 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.<br>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 flood risk by the studies to develop the River Carron Flood Protection Scheme.<br>Understanding of coastal flood risk is improved by the Stonehaven Bay coastal flood study (2019) which includes wave action. The study confirms there is a significant risk of coastal flooding in the target area.<br>Understanding of surface water flood risk is improving through the Aberdeen Integrated Catchment Study, which also covers Stonehaven. It is also improving through the ongoing development of a surface water management plan for Stonehaven.<br>There is a long history of flooding in Stonehaven. This includes notable river flooding from the River Carron in November 2009 and from the River Carron and its tributary, the Glaslaw Burn in December 2012. There was also notable coastal flooding in December 2012 in Stonehaven and Covie and wave overtopping occurs |

several times a year. There are also records of surface water which includes recent flooding during August 2020.

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

| Objective | ID | Description |
|---|---|---|
| Avoid flood risk | 4191 | Avoid inappropriate development that increases flood risk in Stonehaven |
| Avoid flood risk | 4192 | Avoid an increase in flood risk by the appropriate management and maintenance of the River Carron flood protection scheme |
| Reduce flood risk | 4193 | Reduce the risk of flooding from the River Carron in Stonehaven |
| Prepare for flooding | 4194 | Prepare for current flood risk and future flooding as a result of climate change in Stonehaven as a result of climate change |
| Reduce flood risk | 4195 | Reduce the risk of coastal flooding in Stonehaven |
| Reduce flood risk | 4196 | Reduce the risk of surface water flooding in Stonehaven |

| | | | |
|---|---|---|---|
| Target Area | Stonehaven | Action ID | 41901 |
| Action Type | Flood scheme or works implementation | | |
| Delivery Lead | Aberdeenshire Council | Indicative Delivery | Ongoing |
| Description | The River Carron Flood Protection Scheme started in cycle 1 to be completed. 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. | | |
| Funding | The Stonehaven Flood Protection Scheme is funded by the 80% funding from the Scottish Government's Flooding Component of the general Capital Grant. The remaining funding is met from the Harbours, Coast & Flooding line from Aberdeenshire Council's Capital Plan 2022-2037. | | |
| Coordination | The action delivery lead is Aberdeenshire Council and coordination will be determined once the actions have been finalised. | | |

| | | | |
|---|---|---|---|
| Target Area | Stonehaven | Action ID | 41902 |
| Action Type | Flood defence maintenance | | |
| Delivery Lead | Aberdeenshire Council | Indicative Delivery | Ongoing |
| Description | Once completed, the River Carron Flood Protection Scheme should be maintained. | | |
| Funding | Aberdeenshire Council Revenue | | |
| Coordination | The action delivery lead is Aberdeenshire Council and coordination will be determined once the actions have been finalised. | | |

| | | | |
|---|---|---|---|
| Target Area | Stonehaven | Action ID | 41903 |
| Action Type | Sewer flood risk assessment | | |
| Delivery Lead | Scottish Water | Indicative Delivery | 2023-2025 |
| Description | Scottish Water will undertake a modelling assessment in the Nigg sewer catchment to improve knowledge and understanding of flood risk in this area as required under Section 16 of the Flood Risk Management (Scotland) Act 2009 | | |
| Funding | Funding for this action is secured within Scottish Water's business plan | | |
| Coordination | Outputs of this modelling assessment will be shared with local authorities and SEPA | | |

| | | | |
|---|---|---|---|
| Target Area | Stonehaven | Action ID | 41904 |
| Action Type | Surface water management plan | | |
| Delivery Lead | Aberdeenshire Council | Indicative Delivery | Ongoing |
| Description | The surface water management plan will be implemented. It should regularly be updated and reviewed. The impacts of climate change on flood risk are to be considered | | |
| Funding | Funding for this action will be subject to Scottish Government's block grant and capital support,<br>and budget allocations over the six years of the Plan, 2022-2028. | | |
| Coordination | The action delivery lead is Aberdeenshire Council in coordination with Scottish Water and will consider other actions in the area. | | |

| | | | |
|---|---|---|---|
| Target Area | Stonehaven | Action ID | 41905 |
| Action Type | Flood scheme or works design | | |
| Delivery Lead | Aberdeenshire Council | Indicative Delivery | 2025-27 |
| Description | The detailed design for the Stonehaven Bay Coastal Flood Protection Scheme should be progressed based on the preferred option identified from the Stonehaven Bay Coastal Flood Protection Study - December 2019. This involves taking an adaptive approach and implementing further changes to defences after 30 years.<br><br>The responsible authority proposes this action as the best viable option for managing flood risk in this community. The delivery of this action is subject to capital funding being made available. | | |
| Funding | This works is subject to funding via the Scottish Government flood capital monies. This monies has not been allocated at the time of the production of this report. | | |
| Coordination | The action delivery lead is Aberdeenshire Council in coordination with other responsible authorities and including community engagement | | |

| | | | |
|---|---|---|---|
| Target Area | Stonehaven | Action ID | 41906 |
| Action Type | Flood scheme or works implementation | | |
| Delivery Lead | Aberdeenshire Council | Indicative Delivery | 2027-28 |

| | |
|---|---|
| Description | Progress the Stonehaven Bay Coastal 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.<br><br>The responsible authority proposes this action as the best viable option for managing flood risk in this community. The delivery of this action is subject to capital funding being made available. |
| Funding | This works is subject to funding via the Scottish Government flood capital monies. This monies has not been allocated at the time of the production of this report. |
| Coordination | The action delivery lead is Aberdeenshire Council in coordination with other responsible authorities and including community engagement |

| | | | |
|---|---|---|---|
| Target Area | Stonehaven | Action ID | 41907 |
| Action Type | Community engagement | | |
| Delivery Lead | Aberdeenshire Council | Indicative Delivery | Ongoing |
| Description | The responsible authorities to continue to engage with the community, with particular focus on the design of the Coastal and Farrochie Burn flood schemes. | | |
| Funding | Funding for this action will be subject to Scottish Government's block grant and capital support,<br>and budget allocations over the six years of the Plan, 2022-2028. | | |
| Coordination | Aberdeenshire Council will coordinate with other responsible authorities to ensure that communities are aware of the risk and assist with becoming more resilient to the risk of flooding | | |

| | | | |
|---|---|---|---|
| Target Area | Stonehaven | Action ID | 41908 |
| Action Type | Strategic mapping improvements | | |
| Delivery Lead | SEPA | Indicative Delivery | 2023-2024 |
| Description | SEPA has undertaken improved coastal modelling in this target area including taking account of the impact of waves on coastal flooding. We will complete and publish the outcomes of this modelling work to inform decision making with respect to flooding at the coast | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will work with the local authority on the potential to coordinate the flood map update with any other actions being carried out to understand or reduce coastal flooding. | | |

| | | | |
|---|---|---|---|
| Target Area | Stonehaven | Action ID | 41909 |
| Action Type | Flood warning maintenance | | |
| Delivery Lead | SEPA | Indicative Delivery | Ongoing |
| Description | SEPA should maintain the Aberdeenshire and Angus coastal flood warning scheme and the River Carron flood warning scheme. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will work with Aberdeenshire Council on the potential to use information on the Stonehaven flood scheme to inform ongoing flood warning. SEPA will continue to raise awareness of flood warning and engage with communities about the service when required. | | |

| | | | |
|---|---|---|---|
| Target Area | Stonehaven | Action ID | 41910 |
| Action Type | Flood study (options appraisal) | | |
| Delivery Lead | Scottish Water and Aberdeenshire Council | Indicative Delivery | Completed |
| Description | The Cycle 1 ICS Optioneering study identified options to reduce the risk of surface water and sewer flooding which were dependent on managing flows in the Farrochie Burn which also has a historical risk of flooding. Therefore, there is a need to expand on the scope of the previous study to widen the exploration of opportunities to reduce flood risk across the extent of the Farrochie Burn catchment. This will allow for partners to fully understand the interactions between the watercourse, surface flows and the sewer network and for a holistic plan for flood risk management to be developed across the catchment. | | |
| Funding | This phase of the study was fully funded and completed in Cycle 1. Funding to take the study forward to the next stage is yet to be confirmed | | |
| Coordination | The action will be co-ordinated through the collaboration between Scottish Water and Aberdeenshire Council and is linked to Actions 41911 and 41912 | | |

| | | | |
|---|---|---|---|
| Target Area | Stonehaven | Action ID | 41911 |
| Action Type | Flood scheme or works design | | |
| Delivery Lead | Aberdeenshire Council | Indicative Delivery | 2025-27 |
| Description | The detailed design for the Farrochie Burn Flood Protection Scheme should be progressed based on the preferred option identified from the Integrated Catchment Study - Optioneering Development Study - July 2021.<br>Aberdeenshire Council and Scottish Water propose this action as the best viable option for managing surface water flood risk in this community. The delivery of this action is subject to capital funding being made available. | | |
| Funding | This works is subject to funding via the Scottish Government flood capital monies. This monies has not been allocated at the time of the production of this report. | | |
| Coordination | The action delivery lead is Aberdeenshire Council in coordination with Scottish Water and other actions in the area. | | |

| | | | |
|---|---|---|---|
| Target Area | Stonehaven | Action ID | 41912 |
| Action Type | Flood scheme or works implementation | | |
| Delivery Lead | Aberdeenshire Council and Scottish Water | Indicative Delivery | 2027-28 |
| Description | Progress the Farrochie Burn 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.<br><br>The responsible authorities propose this action as the best viable option for managing flood risk in this community. The delivery of this action is subject to capital funding being made available. | | |
| Funding | This works is subject to funding via the Scottish Government flood capital monies. This monies has not been allocated at the time of the production of this report. | | |
| Coordination | The action delivery lead is Aberdeenshire Council in coordination with Scottish Water and other responsible authorities and including community engagement | | |

## 02/06/24 (Portlethen)

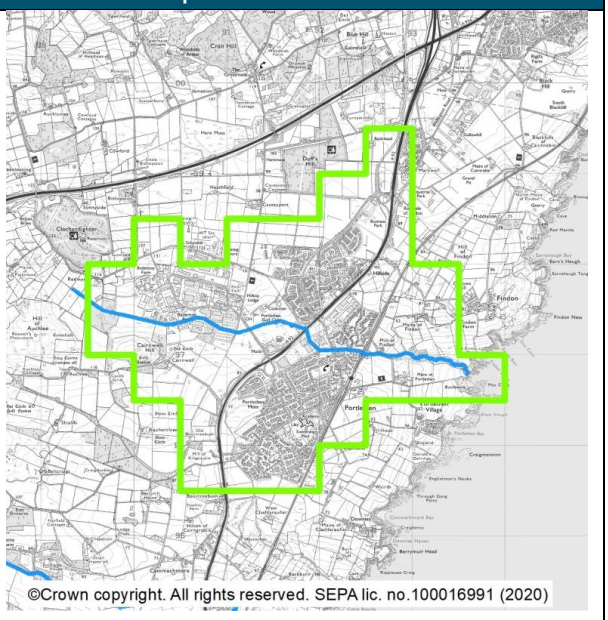
Portlethen is designated as a potentially vulnerable area due to the risk of river and surface water flooding. Recent flooding occurred due to surface water flooding.

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

**List of target areas**

| | |
|---|---|
| Portlethen | (target area 425) |

| North East Local Flood Risk Management Plan datasheet | | | |
|---|---|---|---|
| Target Area name | Portlethen | Target Area ID | 425 |

| Summary | Location Map |
|---|---|
| Portlethen is located south of Aberdeen in the Aberdeenshire Council area. The main sources of flooding in Portlethen are surface water and river flooding from the Burn of Findon. There are approximately 630 people and 310 homes and businesses currently at risk from flooding. This is likely to increase to 810 people and 400 homes and businesses by the 2080s due to climate change. |   © Crown copyright and database rights 2022. All rights reserved. Ordnance Survey Licence number 01000020767 |

| 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.<br>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 surface water and river flooding in this target area. Portlethen has therefore been identified as a new target area for the 2021 flood risk management plans. The national level understanding of flooding is improved by the Aberdeen Integrated Catchment Study which covers Portlethen. The understanding of surface water flooding is also improving through the development of a surface water management plan. There are records of periodic flooding in Portlethen including recent flooding in August 2020 from the Burn of Findon. |

| Objective | ID | Description |
|---|---|---|
| Avoid flood risk | 4251 | Avoid inappropriate development that increases flood risk in Portlethen |
| Prepare for flooding | 4252 | Prepare for current flood risk and future flooding as a result of climate change in Portlethen |
| Reduce flood risk | 4253 | Reduce the risk of flooding from surface water and small water courses in Portlethen |

| | | | |
|---|---|---|---|
| Target Area | Portlethen | Action ID | 42501 |
| Action Type | Sewer flood risk assessment | | |
| Delivery Lead | Scottish Water | Indicative Delivery | 2023-2025 |
| Description | Scottish Water will undertake a modelling assessment in the Nigg sewer catchment to improve knowledge and understanding of flood risk in this area as required under Section 16 of the Flood Risk Management (Scotland) Act 2009 | | |
| Funding | Funding for this action is secured within Scottish Water's business plan | | |
| Coordination | Outputs of this modelling assessment will be shared with local authorities and SEPA | | |

| | | | |
|---|---|---|---|
| Target Area | Portlethen | Action ID | 42502 |
| Action Type | Surface water management plan | | |
| Delivery Lead | Aberdeenshire Council | Indicative Delivery | Ongoing |
| Description | The surface water management plan will be implemented. It should regularly be updated and reviewed. The impacts of climate change on flood risk are to be considered | | |
| Funding | Funding for this action will be subject to Scottish Government's block grant and capital support,<br>and budget allocations over the six years of the Plan, 2022-2028. | | |
| Coordination | The action delivery lead is Aberdeenshire Council in coordination with Scottish Water and will consider other actions in the area. | | |

## 02/06/25 (Cove and Nigg Bay)

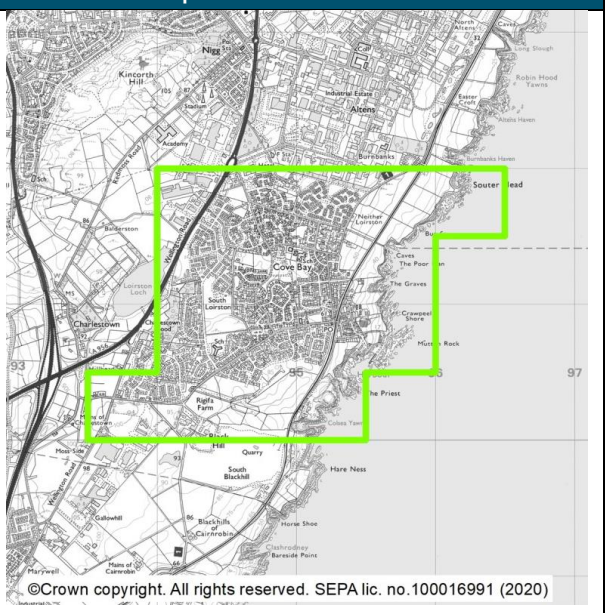
This area is designated as a potentially vulnerable area due to the risk of surface water flooding in the Cove Bay and Nigg Bay areas of Aberdeen.

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

**List of target areas**

| | |
|---|---|
| Cove Bay | (target area 424) |
| Nigg Bay | (target area 426) |

| North East Local Flood Risk Management Plan datasheet | | | |
|---|---|---|---|
| Target Area name | Cove Bay | Target Area ID | 424 |

| Summary | Location Map |
|---|---|
| The area of Cove Bay covers the southern suburb of Aberdeen and is within the Aberdeen City Council area. The main source of flooding is surface water. There are approximately 260 people and 150 homes and businesses currently at risk of flooding. This is likely to increase to 340 people and 190 homes and businesses by the 2080s due to climate change. |   © Crown copyright and database rights 2022. All rights reserved. Ordnance Survey Licence number 01000020767 |

## 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.

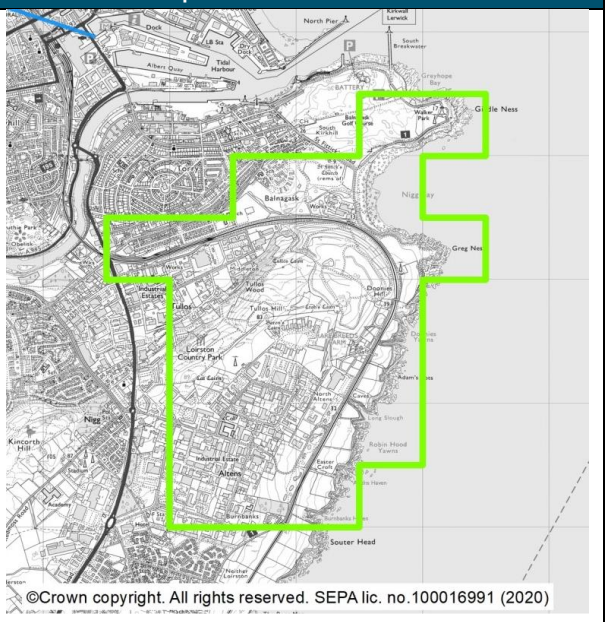
Since 2011 SEPA has developed and updated national level assessments of flooding from rivers, surface water and coastal sources. This national level assessment has highlighted the risk of flooding, (principally associated with surface water) in this target area. Cove Bay has therefore been identified as a new target area for the 2021 flood risk management plans. The national level assessment is improving for surface water by the development of a surface water management plan for Torry and Cove. This incorporates the results of the integrated catchment study and sewer flood risk assessment. There are limited records of flooding in the Cove Bay target area.

| Objective | ID | Description |
|---|---|---|
| Avoid flood risk | 4241 | Avoid inappropriate development that increases flood risk in Cove |
| Prepare for flooding | 4242 | Prepare for current flood risk and future flooding as a result of climate change in Cove |
| Reduce flood risk | 4243 | Reduce the risk of surface water flooding in Cove |

| | | | |
|---|---|---|---|
| Target Area | Cove Bay | Action ID | 42401 |
| Action Type | Sewer flood risk assessment | | |
| Delivery Lead | Scottish Water | Indicative Delivery | 2023-2025 |
| Description | Scottish Water will undertake a modelling assessment in the Nigg sewer catchment to improve knowledge and understanding of flood risk in this area as required under Section 16 of the Flood Risk Management (Scotland) Act 2009 | | |
| Funding | Funding for this action is secured within Scottish Water's business plan | | |
| Coordination | Outputs of this modelling assessment will be shared with local authorities and SEPA | | |

| | | | |
|---|---|---|---|
| Target Area | Cove Bay | Action ID | 42402 |
| Action Type | Surface water management plan | | |
| Delivery Lead | Aberdeen City Council in coordination with Scottish Water. | Indicative Delivery | Ongoing |
| Description | Aberdeen City Council should finalise and implement the Torry and Cove Surface Water Management Plan. A surface water management plan should focus on areas at high risk of surface water flooding. This should incorporate the results of the integrated catchment study and sewer flood risk assessment. The impacts of climate change on flood risk should be considered. Opportunities to disconnect surface water drainage from the sewerage system should be identified. | | |
| Funding | Progress on this action will be dependent on securing funding from all relevant agencies to carry out and support this work. | | |
| Coordination | The action delivery lead is Aberdeen City Council in coordination with Scottish Water. | | |

| North East Local Flood Risk Management Plan datasheet | | | |
|---|---|---|---|
| Target Area name | Nigg Bay | Target Area ID | 426 |

| Summary | Location Map |
|---|---|
| Nigg Bay is in the south east of Aberdeen within the Aberdeen City Council area. The main source of flooding is surface water. There are approximately 90 people and 90 homes and businesses currently at risk from flooding. This is likely to increase to approximately 120 people and 110 homes and businesses by the 2080s due to climate change. |   © Crown copyright and database rights 2022. All rights reserved. Ordnance Survey Licence number 01000020767 |

| 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.<br>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) in this target area. Nigg Bay has therefore been identified as a new target area for the 2021 flood risk management plans. The national level assessment is improving for surface water by the development of a surface water management plan for Torry and Cove, which includes Nigg Bay. This incorporates the results of the integrated catchment study and sewer flood risk assessment. There are limited records of flooding in the Nigg Bay target area. |

| Objective | ID | Description |
|---|---|---|
| Avoid flood risk | 4261 | Avoid inappropriate development that increases flood risk in the Nigg Bay area of Aberdeen |
| Reduce flood risk | 4262 | Reduce the risk of surface water flooding in Nigg |

| | | | |
|---|---|---|---|
| Target Area | Nigg Bay | Action ID | 42601 |
| Action Type | Sewer flood risk assessment | | |
| Delivery Lead | Scottish Water | Indicative Delivery | 2023-2025 |
| Description | Scottish Water will undertake a modelling assessment in the Nigg sewer catchment to improve knowledge and understanding of flood risk in this area as required under Section 16 of the Flood Risk Management (Scotland) Act 2009 | | |
| Funding | Funding for this action is secured within Scottish Water's business plan | | |
| Coordination | Outputs of this modelling assessment will be shared with local authorities and SEPA | | |

| | | | |
|---|---|---|---|
| Target Area | Nigg Bay | Action ID | 42602 |
| Action Type | Surface water management plan | | |
| Delivery Lead | Aberdeen City Council in coordination with Scottish Water. | Indicative Delivery | Ongoing |
| Description | Aberdeen City Council should finalise and implement the Torry and Cove Surface Water Management Plan, which covers Nigg Bay. A surface water management plan should focus on areas at high risk of surface water flooding. This should incorporate the outputs of the integrated catchment study and sewer flood risk assessment. The impacts of climate change on future flood risk should be considered. Opportunities to disconnect surface water drainage from the sewerage system should be identified. | | |
| Funding | Progress on this action will be dependent on securing funding from all relevant agencies to carry out and support this work. | | |

| | |
|---|---|
| Coordination | The action delivery lead is Aberdeen City Council in coordination with Scottish Water. |

# 02/06/26 (Cruden Bay)

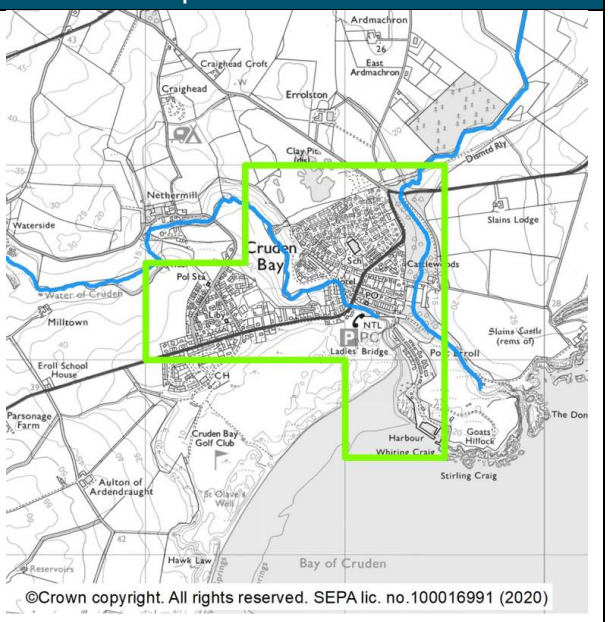
Cruden Bay is designated as a potentially vulnerable area due to river flooding. There is a history of flooding, with recent flooding due to river flooding.

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

**List of target areas**

| | |
|---|---|
| Cruden Bay | (target area 447) |

| North East Local Flood Risk Management Plan datasheet | | | |
|---|---|---|---|
| Target Area name | Cruden Bay | Target Area ID | 447 |

| Summary | Location Map |
|---|---|
| Cruden Bay is located approximately 40km north of Aberdeen on the east coast of Scotland and within the Aberdeenshire Council area. The main source of flooding in Cruden Bay is river flooding. There are approximately 100 people and 50 homes and businesses currently at risk from flooding. This is estimated to increase a little to 60 homes and businesses by the 2080s due to climate change. |   © Crown copyright and database rights 2022. All rights reserved. Ordnance Survey Licence number 01000020767 |

| 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.<br>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 from the Slains Burn (Back Burn) and the Water of Cruden. Cruden Bay has therefore been identified as a new target area for the 2021 flood risk management plans. There are limited records of flooding in Cruden Bay. |

| Objective | ID | Description |
|---|---|---|
| Avoid flood risk | 4471 | Avoid inappropriate development that increases flood risk in Cruden Bay |
| Improve data and understanding | 4472 | Improve data and understanding of the risk of flooding from the Water of Cruden in Cruden Bay |
| Prepare for flooding | 4473 | Prepare for current flood risk and future flooding as a result of climate change in Cruden Bay |

| | | | |
|---|---|---|---|
| Target Area | Cruden Bay | Action ID | 44701 |
| Action Type | Data collection | | |
| Delivery Lead | Aberdeenshire Council | Indicative Delivery | 2023-24 |
| Description | This may include data collection and monitoring to improve the confidence in flood sources, mechanisms and risk for the Water of Cruden. A review may be required to assess the need for rain and/or river gauges. Post flood event surveys may be required to collect data on flooding mechanisms, risk and damage caused. | | |
| Funding | Aberdeenshire Council Revenue | | |
| Coordination | The action delivery lead is Aberdeenshire Council and coordination will be determined once the actions have been finalised. | | |

| | | | |
|---|---|---|---|
| Target Area | Cruden Bay | Action ID | 44702 |
| Action Type | Sewer flood risk assessment | | |
| Delivery Lead | Scottish Water | Indicative Delivery | 2024-2026 |
| Description | Scottish Water will undertake a modelling assessment in the Peterhead sewer catchment to improve knowledge and understanding of flood risk in this area as required under Section 16 of the Flood Risk Management (Scotland) Act 2009 | | |
| Funding | Funding for this action is secured within Scottish Water's business plan | | |
| Coordination | Outputs of this modelling assessment will be shared with local authorities and SEPA | | |

| | | | |
|---|---|---|---|
| Target Area | Cruden Bay | Action ID | 44703 |
| Action Type | Flood warning maintenance | | |
| Delivery Lead | SEPA | Indicative Delivery | Ongoing |
| Description | SEPA should maintain the Aberdeenshire and Angus coastal flood warning scheme. | | |
| Funding | SEPA's role in this action is funded by Scottish Government through SEPA's grant in aid settlement. | | |
| Coordination | SEPA will work with the local authorities on the potential to use information from the flood schemes and studies along the north east coast to inform ongoing flood warning. SEPA will continue to raise awareness of flood warning and engage with communities about the service when required. | | |

## Next Steps and Monitoring Progress

This Plan will run for six years from 2022. Over this period, the North East partnership will meet from time to time to monitor progress on implementing the actions detailed in Section two of the Plan.

Each partner organisation will receive reports through its governance processes and actions arising will be considered by the Steering Group.

Between years two and three of the cycle (i.e., before December 2025), Aberdeenshire Council, as lead local authority, will publish a report on the conclusions of a review of the Plan, including information on the progress that has been made towards delivering the actions identified in the Plan.

Between years five and six of the cycle (i.e., before June 2028), Aberdeenshire Council as lead local authority will publish a report on the Plan containing an assessment of the progress made towards delivering the “current actions”, a summary of the actions not implemented, with reasons why, and a description of any other actions undertaken since the plan was finalised, which the lead local authority considers have contributed to the achievement of the objectives in the Plan.

Aberdeenshire Council will make these reports available for public inspection.

## Land Use Planning

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

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

# Supporting Information

## 1. Sources of flooding described in this Plan

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

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

The following aspects of flooding have not been incorporated:

- **Groundwater** is generally a contributing factor to flooding rather than the primary source. It is caused by water rising up from underlying rocks or flowing from springs.

- **Reservoir breaches** have been assessed under separate legislation. Further information and maps can be found on SEPA's website.

- The Act does not include powers for SEPA or responsible authorities to assess or manage **coastal erosion**. Consideration of erosion has identified areas that are likely to be vulnerable to erosion and therefore where erosion can exacerbate flood risk.
As part of considering where actions might deliver multiple benefits, SEPA has looked to see where the focus of coastal flood risk management studies coincides with areas of high susceptibility to coastal erosion. Subsequent detailed studies and scheme design will need to consider how coastal flood risk management actions interact with coastal erosion.

Aberdeenshire Council has a policy in relation to erosion whereby it may take action if erosion may place its own assets are at risk.

## 2. Understanding commonly used terms in flood risk management

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

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

| Likelihood of flooding | Return Period |
|---|---|
| High | 10 year |
| Medium | 200 year |
| Low | 1000 year |

- **Annual Average Damages** have been used to assess the potential economic impact of flooding within an area. 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 Annual Average Damages than rarer events.

Within the Flood Risk Management Plans Annual Average Damages 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).

## 3. Flood Risk Management Planning Process

Flood risk management in Scotland aims to manage flooding in a sustainable way. Sustainable flood risk management considers where floods are likely to occur in the future and takes action to reduce their impact without moving the problem elsewhere. It considers all sources of flooding, whether from rivers, the sea or from surface water. It delivers actions that will meet the needs of present and future generations whilst also protecting and enhancing the environment.

The sustainable approach to managing flood risk works on a six-year planning cycle, progressing through the key stages outlined below.

### Identifying priority areas at significant flood risk

The first step to delivering a risk-based, sustainable and plan-led approach to flood risk management was SEPA's **National Flood Risk Assessment**. The assessment considered the likelihood of flooding from rivers, groundwater and the sea, as well as flooding caused when heavy rainfall is unable to enter drainage systems or the river network. The likelihood of flooding was examined alongside the estimated impact on people, the economy, cultural heritage and the environment. It significantly improved our understanding of the causes and consequences of flooding and identified areas most vulnerable to floods.
Based on the National Flood Risk Assessment, SEPA identified areas where flooding was considered to be nationally significant. These areas are based on catchment units as it is within the context of the wider catchment that flooding can be best understood and managed.
These nationally significant catchments are referred to as **Potentially Vulnerable Areas**. In Scotland they are estimated to contain 92% of the total number of properties at risk.
A small number of Candidate Potentially Vulnerable Areas were identified after the National Flood Risk Assessment in light of new information that warranted further assessment and appraisal. They are included in the flood risk management planning process. The National Flood Risk Assessment will be updated to inform each subsequent planning cycle.

### Improving the understanding of flooding

SEPA develop **flood hazard and flood risk maps** and these maps improved our understanding of flooding and helped inform the subsequent selection of actions to manage flood risk in Potentially Vulnerable Areas.
The flood hazard maps show information such as the extent of flooding, water level, as well as depth and velocity where appropriate. The flood risk maps provide detail on the impacts on people, the economy, cultural heritage and the environment.

SEPA also developed an assessment of the potential for natural flood management. The assessment produced the first national source of information on where natural flood management actions would be most effective within Scotland. Flood hazard and flood risk maps and the assessment of the potential for natural flood management can be viewed on the SEPA website www.sepa.org.uk.

## Identifying objectives and selecting actions

The objectives and actions to manage flooding provide the long-term vision and practical steps for delivering flood risk management in Scotland.
Working collaboratively with local partnerships, we have agreed the objectives for addressing the main flooding impacts.
Actions that could deliver these agreed objectives have been appraised for their costs and benefits to ensure the right combinations are identified and prioritised. The actions considered in the development of this Plan include structural actions (such as building floodwalls, restoring flood plains, or clearance and repair works to rivers) and non-structural actions (such as flood warning, land use planning or improving our emergency response). Structural and non-structural actions should be used together to manage flood risk effectively.
An assessment of the potential for natural flood management was used to help identify opportunities for using the land and coast to slow down and store water. Natural flood management actions were recommended in areas where they could contribute to the management of flood risk.
In such instances these actions were put forward as part of flood protection or natural flood management studies.

## Acknowledgements

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

**SEPA**
The North East LPD acknowledge the inclusion of text generated by SEPA in preparation of the Plan.

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**Local authorities**
Lead authorities acknowledge the provision of flood models and other supporting data and information from local authorities in Scotland and their collaboration in the production of flood risk management information.

**Scottish Water**
The North East Local Plan District acknowledge the inclusion of surface water flooding data generated by Scottish Water in preparation of flood risk information.