

Flooding in communities

Moving towards flood resilience

Case studies

ACCOUNTS COMMISSION 

AUDITOR GENERAL 

Angus Council community engagement



Angus Council has supported the development and ongoing delivery of the Angus Community Resilience Forum, which is a community needs-driven initiative made up of community groups from across Angus.

The forum has raised awareness about the roles of emergency services and other organisations, clarifying the support available to communities during a crisis, including flooding. The forum connects Angus Council and community resilience groups, including sharing weather alerts and flood updates. This network allows local communities to act as the 'eyes and ears' on the ground, contributing vital information to improve emergency planning, response, and recovery efforts. An external assessment found that community groups felt they had an equal voice in discussions and were empowered to lead on emergency responses in their area where possible, and to involve and train volunteers.

For more information visit [Angus Council, Community resilience](#).

Source: Angus Council

The Conservation Volunteers Scotland



The Conservation Volunteers Scotland (TCV) is a national charity that works with people to raise awareness about the impacts of climate change and to find natural solutions to make their local communities and environment more resilient.

This can help to engage communities with their local environment while improving natural flood management and enhancing biodiversity. Activity led by TCV to support communities to build resilience to flooding includes:

- Working with schools in a range of local authorities, including Clackmannanshire and Stirling, to raise awareness of flood risk in their local area and how they can build resilience individually and within their community.
- Working with local communities, local authority flooding engineers and the Scottish Flood Forum to record information about local water courses.
- Supporting communities to plant trees or sow wildflower meadows for natural flood management.
- Between 2019 and 2023, TCV's 'I Dig Trees' programme provided 453,250 trees for community-led planting.

For more information visit: [The Conservation Volunteers in Scotland](#).

Source: The Conservation Volunteers Scotland

Dumfries and Galloway flood resilience activity



Dumfries and Galloway Council provides a number of services to support flood resilience in their local authority.

The council employs 12 Ward Officers to support local communities. Their responsibilities include supporting community engagement, community development and empowerment, and local community planning. They act as brokers between the community and the council and other organisations, such as the Scottish Environment Protection Agency. They can help communities to navigate large complex organisations to get the right support. Councils recognise that communities can be hesitant of flooding experts or become disheartened when community prepared solutions are rejected. Ward Officers work to overcome these barriers, bring communities and subject matter experts together, and provide organisations with the opportunity to explain their decisions.

The council has also developed tools to support people during emergencies, including flooding. This includes the Persons at Risk Database that helps responders to identify vulnerable people at risk during an emergency. Another tool is the Dumfries and Galloway Virtual Operations Support Team (DGVOST), which was developed in partnership with the local police force. The DGVOST gathers and provides real time information to the public during major incidents. It uses user-submitted reports of flooding, fallen trees and other dangers to the public. When authenticated, these reports are uploaded to an interactive map that provides the public with the most up-to-date information available.

For more information visit: [Dumfries and Galloway Council, Flooding](#).

Source: Dumfries and Galloway Council

Eddleston Waters



A partnership initiative led by the Tweed Forum, alongside the Scottish Government, Scottish Environment Protection Agency and Scottish Borders Council, aims to use nature-based approaches to restore the Eddleston River and help to protect communities from flooding.

Other partners in the initiative include Dundee University, NatureScot, Forestry and Land Scotland, British Geological Survey, National Farmers Union (Scotland), Scottish Land and Estates, Forest Research and Tweed Foundation. The Tweed Forum works closely with landowners and the local community so that everyone can contribute ideas and follow the project's progress.

Working with over 20 farmers, the installation of many natural flood-management measures has led to significant delays to the arrival of flood peaks, alongside reduced peak level river flows of up to 30 per cent. A cost benefit analysis estimates that the net value to society of the project is over £5 million (present value), with £950,000 from flood damages avoided and £4.2 million from other benefits such as biodiversity, water quality and carbon. If measures were extended across the catchment, the Tweed Forum estimate the value could be over £17 million.

For more information visit: [The Eddleston Water Project](#).

Source: Tweed Forum

Isle of Luing coastal erosion



The Isle of Luing is a former slate quarrying community that is vulnerable to coastal erosion and storm damage. Particularly in the village of Cullipool, where the coastline is built up in part by disused slate that is susceptible to rapid erosion.

The community council commissioned a report on the options to address coastal erosion. The preferred option was the restoration of slate material along the coastline as a medium-term solution. The project was supported by Argyll and Bute Council, which provided over £50,000 in funding. The community council aims to use the restoration to reduce damage from storm events and flooding, while at the same time restarting the islands' slate mining industry. This could provide new jobs while stimulating the local economy and reducing depopulation in the area.

For more information visit: [Dynamic Coast, Cullipool](#).

Source: Argyll and Bute Council and Dynamic Coast

Metropolitan Glasgow Surface Water Drainage Partnership (MGSDP)



The MGSDP is a partnership between Glasgow City Council, Scottish Water, Scottish Environment Protection Agency, Scottish Canals, NatureScot, Housing Associations and Glasgow City Region City Deal partners.

The group aims to reduce flood risk, improve river water quality, support economic development, and protect and improve natural environments. This remit is wide ranging, including supporting policy development, supporting the development and implementation of flood risk management planning, and enabling partners to deliver collaborative projects on the ground. The projects delivered by the MGDSP include several Surface Water Management Plan interventions and Sustainable Drainage Systems across the Glasgow area, the North Renfrew Flood Protection Scheme, investing in upgrades to Glasgow's wastewater systems, and introducing multiple 'green roofs'.

For more information visit: [MGSDP](#).

Source: Metropolitan Glasgow Surface Water Drainage Partnership

Moray Coastal Change Adaptation Plan



Moray is the first local authority in Scotland to fully develop a Coastal Change Adaptation Plan (CCAP). CCAPs are strategic documents that outline how coastal communities will adapt to the impacts of climate change. They are based on four key pillars: working with natural processes, monitoring change, communication and engagement, and placemaking.

To develop the CCAP, Moray Council:

- Carried out a number of community engagement events, which provided insight on the community's understanding of coastal change and their opinions on the future management of coastal assets. The council also provided a digital and paper survey to ensure every member of the community had the opportunity to contribute to the development of the Coastal Change Adaptation Plan.
- Identified a number of actions to address current levels of risk, including monitoring and maintenance of natural defences such as sand dunes as well as hard infrastructure such as sea walls.
- Used data provided by the [Scottish Environment Protection Agency](#) and [Dynamic Coast](#) to determine regional triggers that will prompt further action in future years. Triggers are pre-determined thresholds which signal the need to review or change planned actions. Triggers can include things like the rate of coastal erosion or sea level rise.

The council has shared its experience of developing the plans with multiple local authorities across the UK.

Source: Moray Council

Queensland Gardens community park, Glasgow



In the Cardonald area of Glasgow, partners and the local community worked together to transform underused open space around two multi-storey housing blocks into a vibrant community park, which tackles local flooding issues and has created co-benefits.

The Southside Housing Association, working in partnership with Glasgow City Council as part of the Metropolitan Glasgow Strategic Drainage Partnership City Deal programme, ensured that drainage measures to remove surface water and to store flood water were incorporated into the park design. This has helped to create drainage capacity that allows for urban development along the River Clyde's lower catchment area and reduces the risk of flooding.

As well as being an important piece of drainage infrastructure, the park has improved many outcomes for local residents, especially vulnerable and disabled people. Having high-quality local greenspaces and play areas has helped tackle social isolation and improve community cohesion and wellbeing for people living in the area. This is especially important following the Covid pandemic, when many people living in multi-storey housing had a more difficult experience.

For more information visit: [Glasgow City Council](#).

Source: Glasgow City Council and Southside Housing Association

Scottish Environment Protection Agency (SEPA) flood warning services



Public sector organisations need real time data on possible flood events as early as possible. This helps to minimise impacts on communities.

Working in partnership with the Met Office, SEPA has prioritised its flood warning service, which provides risk information up to **five days** in advance of possible flood events. Organisations can use this information to plan their resources, prepare for sudden changes in weather and check areas that are known to be vulnerable to flooding in advance of heavy rain arriving.

The Scottish Flood Forecast provides communities with a **three-day** flooding outlook. This enables communities to see, and plan for, potential flood events. Regional flood alerts are messaged to those who have registered with SEPA's Floodline service, up to 48 hours in advance of potential flood events. Notification can be sent over the telephone, SMS and email. Local flood warnings are available in areas where SEPA can monitor river and coastal levels, and can be issued three to six hours in advance of flood events. A customer satisfaction survey in 2017 showed most respondents as having high or very high levels of satisfaction with the service.

For more information visit:

- [SEPA, Flooding](#)
- [SEPA, Sign up to Floodline.](#)

Source: Scottish Environment Protection Agency

Scottish Flood Forum



The Scottish Flood Forum (SFF) is an independent charity that supports individuals and communities at risk of flooding.

Their main source of income is a grant from the Scottish Government. They facilitate discussions with communities and local agencies to find solutions to flooding issues, such as co-designing flooding infrastructure or building resilience plans. They also provide advice and support on property flood resilience (PFR) measures for people to protect their homes from flooding or how to recover if they have been impacted by flooding. They work with local authorities and other partners to raise awareness and provide education and training to communities and community groups, and help set up Community Resilience Groups.

Working in partnership with [Flood Re](#), the SFF created 'Flo' the Flood Bus. This is a mobile exhibition vehicle that travels to Scotland's flood-risk areas to provide advice and resources on flood resilience. This includes examples of PFR measures, demonstrations of home adaptations, low-cost maintenance tips, video case studies of the positive impacts of PFRs and resources to support intervention and planning against home flooding.

For more information visit: [Scottish Flood Forum](#).

Source: Scottish Flood Forum