

SEPA helped Scotland prepare for weekend of severe weather

Communities, businesses and travel networks across the north and east of Scotland benefitted from an early warning of flooding as record-breaking rainfall hit parts of Aberdeenshire.

- SEPA Flood Forecasting and Warning gave four days' notice of flood risk to public partners, communities and businesses
- Key infrastructure protected through early action
- 32 local Flood Warnings issued from Aberdeenshire to Fife between Friday 2 and Sunday 4 October
- Over 15,000 direct flood messages were delivered to the public over three days
- Over 34,000 visits to sepa.org.uk/floodupdates over the weekend
- Public urged to ensure they will receive Flood Warnings for their area as only 31% of properties in Aberdeen and Aberdeenshire, Dundee and Angus, Tayside and Fife signed up.

Early information from the Scottish Environment Protection Agency (SEPA), Scotland's flood warning and informing authority, was crucial in enabling organisations and individuals to plan and prepare – including a partial shutdown of the North East rail network before it flooded.

Vincent Fitzsimons, SEPA's Head of Hydrology and Flooding Services, said:

“Helping Scotland plan for flooding is crucial and thanks to the co-ordination of SEPA and the Met Office, through the Scottish Flood Forecasting Service, the significant flood disruption was forecast four days prior to the flood event – and information was issued to over 540 emergency responders in 135 organisations.

“That enabled local authorities, the emergency services and Network Rail to take pre-emptive actions across the north east, which reduced the impacts of the flooding. It also allowed us to reach thousands of people directly through our Floodline service, sending Flood Alert and Warning messages directly to their phones, meaning they could take action to protect their homes and businesses.”

The worst of the recorded rain fell across a wide area from Fife to Aberdeenshire. The worst of the recorded rain fell across a wide area from Fife to Aberdeenshire with the local daily rainfall for Mongour near Stonehaven showing a record-breaking 115 mm in 24 hours – previous highest rainfall recorded for this area was 86.6 mm in 2009. That's well over one month's average rainfall in one day.

The importance of being prepared

SEPA's North East coastal flood warning scheme went live in 2018 to 2,029

properties at risk of flooding and covered 125km of coastline from Inverallochy to Montrose. This improvement for coastal communities between Firth of Forth and Tay and the Moray Firth, means the whole of the east coast of Scotland is now covered by flood warnings.

SEPA issued 32 local Flood Warnings between Friday 2 and Sunday 4 October across Aberdeen, Aberdeenshire, Dundee, Angus, Perthshire and Fife. In addition, 12 regional Flood Alerts were issued in areas across the North and East as well as across Ross and Great Glen, Caithness and Sutherland, Orkney, West Central Scotland, Findhorn Nairn Moray and Speyside, Central, Edinburgh and Lothians and Scottish Borders.

These flood messages, alongside early forecasting and information sharing enabled a number of key actions to be taken to reduce the impact:

- Local authorities were able to clear culverts, making sure water didn't build up.
- The contractor working on Stonehaven's flood scheme had time to ensure flood water could pass through the work area – resulting in minimum impact on the community.
- Residents were able to secure property level resilience measures including door barriers, seals and covers.
- A controlled shutdown of Scotland's train network.

With the Inverness to Aberdeen train line flooded in several places Network Rail's decision to do a controlled shut down of their train network avoided major disruption and danger if trains had continued to run.

A vital service for Scotland

Floodline will send an automated message to your landline or mobile phone when flooding is likely in your area – for free. You can sign up multiple phone numbers to one account so anyone in your family can get the message, and you can sign up for more than one area if you travel regularly, if your business is in a different area, or if you want information on the possibility of flooding near relatives.

Vincent Fitzsimons explains:

“It's really important that people are prepared ahead of the winter, when we often see more flooding. While you can sign up for Floodline at any time, and 349 people did just that over the weekend, it's important you have time to understand what those messages mean – and what you can do in advance of rainfall. Across Aberdeen and Aberdeenshire, Dundee and Angus, Tayside and Fife there are currently 5,506 properties signed up out of the 18,032 covered by Flood Warnings – so we want to encourage people to make the time to visit sepa.org.uk/signup and get registered. If you're not online you can also call Floodline on 0345 988 1188.

“There's a wealth of information available at floodlinescotland.org.uk to help you prepare, including what to do before, during or after a flood. There's advice for your homes, your business and you travel, with links to

key sources of information. Don't wait until flooding's at your door, sign up to Floodline now and make sure you're ready before you need to be."

Across Scotland over 32,000 people have already signed up for Floodline. Flood Alerts and Warnings are also posted to SEPA's website at sepa.org.uk/floodupdates – with 34,000 visits over the weekend as people checked for live updates.

SEPA's 24/7 service

More than 25 members of SEPA's hydrology, resilience, communications and information services teams were on call over the weekend to provide the vital 24 hour service. The specialist team uses hydrological information from over 250 rainfall, river and coastal monitoring stations throughout Scotland, that operate 24 hours a day, and combine this with meteorological information from the Met Office, to predict the likelihood and timing of river, coastal and surface water flooding.

What are Flood Alerts and Flood Warnings?

SEPA uses forecast weather information provided by the Met Office combined with observations of rainfall and river levels and advanced hydrological modelling to provide advance warning of flooding.

Regional Flood Alerts are early advice that flooding is possible across a wider geographical area. The purpose of the Alerts is to make people aware of the risk of flooding and be prepared. Some areas are not covered by a SEPA Flood Warning scheme and therefore an Alert is the only advanced warning of flooding they will receive. In addition, during thunderstorm events, that are difficult to predict, flooding may occur anywhere within a Flood Alert area. SEPA normally issues Flood Alerts 12 to 24 hours in advance of the possibility of flooding.

Flood Warnings are more locally specific and are issued for areas where SEPA has gauges on rivers to measure the exact river height. They are issued at shorter notice when SEPA is more certain that a specific area will be affected.