

# Community Resilience Case Study: Kingsbridge, Devon

*“The most effective response to flooding can often be taken by local communities, if they are aware, prepared, trained and can respond.”* (Dorothee Fitzsimmons, Pathfinder Project Manager, Devon County Council).

## Background

Kingsbridge is a small estuary town on the south Devon coast, with a population of 5,887. About 460 properties are at risk of flooding, from several small watercourses that meet in the town, as well as surface water and coastal flooding.



Kingsbridge's watercourses are susceptible to flash flooding. Flash flooding is caused by intense rainfall and can happen suddenly, often before emergency services can arrive at the scene. It can be very destructive: flooding homes, moving rocks, tearing out trees, sweeping away vehicles and damaging buildings, walls and bridges.

Homes and businesses, such as pubs, restaurants, shops, and the local fire station, are vulnerable. The town's population increases during holiday periods and visitors may be vulnerable too, because they are unfamiliar with the local flood risk and may not speak English.

Kingsbridge has a long history of flooding, including regular tidal flooding of the quay and surrounding buildings. Regular tidal flooding had almost become part of Kingsbridge's life, with pub regulars reported by the local media in 2009 to enjoy a pint in the middle of flood water.

More recently, heavy rainfall caused widespread flooding in December 2012, which affected 28 properties. With this came the recognition that business as usual was no longer an option.

## Developing Kingsbridge's flood resilience

Kingsbridge was included in the Defra funded Devon Community Resilience Pathfinder project. This partnership project, between Devon County Council, Torbay Council, Plymouth City Council and the Environment Agency, worked with 24 communities of different sizes in Devon, to help them build local flood resilience. The five project aims for Kingsbridge were to:

1. raise flood awareness,
2. help the community to develop an emergency plan,



3. help train emergency response volunteers,
4. supply community resilience equipment, and
5. establish a local flood warning system that would alert the community to the possibility of flooding.

In the wake of the 2012 floods, Kingsbridge Town Council immediately saw the advantages of the project's funding and specialist assistance and accepted the project's offer to assist. They set up a Flood Resilience Committee to get things started. This meant that flood resilience became a standing item for the town council's meetings and remains an ongoing priority.

The Flood Resilience Committee is made up of local councillors, the Town Clerk and Town Mayor. South Hams District Council, Devon County Council, Environment Agency, Police and Fire and Rescue regularly attended these meetings. Benefits of this approach include:

- **Transparency:** Minutes from the meetings are published on the town council's website
- **Accountability:** The town council can flag flood risk management issues to the appropriate authorities for investigation. The town council records the issues on an action schedule and uses the committee meetings to identify which organisation can help address those issues. In the committee's words, this helped them to pull all of the flood risk management strands together, which is beneficial when lots of different organisations have a role to play in flood resilience and flood risk management. The town council feels that the Flood Resilience Committee has given them leverage to successfully lobby for flood risk management solutions for the town

## Raising flood awareness

Following Kingsbridge's 2012 flood event, Devon County Council organised a flood recovery drop-in event for the community, as part of their Lead Local Flood Authority duty to investigate flooding. The town council, South Hams District Council, South West Water and Environment Agency helped them to facilitate the event, to support the development of community flood resilience. This partnership formed the foundation for future team work for the Pathfinder project.

The event provided the opportunity for affected homeowners and businesses to share their story, ask questions and find information to support their recovery. These conversations enabled the Community Response Team to better understand Kingsbridge's flood risk and identify vulnerable people. This evidence proved invaluable when they created Kingsbridge's Community Emergency Plan.

After the event, the Community Response Team displayed posters and issued local press releases, in collaboration with Devon Council and the Environment Agency, to raise awareness about local flood risk and share advice on how to prepare. They organised a flood awareness event at Kingsbridge Library, alongside the Environment Agency, using materials from their national campaign '[floods destroy, be prepared.](#)'

## Writing the Community Emergency Plan

Devon County Council appointed an emergency planning specialist, to help the Community Response Team draft their Community Emergency Plan. They provided a template and guided the Community Response Team through the process.

The Environment Agency provided advice to the Community Response Team, including:

- [flood warnings](#), [flood forecasting](#) and how these 'triggers' could be incorporated into the Community Emergency Plan,
- what actions could be taken [before, during and after a flood](#) to help the community stay safe and minimise damage.

Police and Fire and Rescue teams also advised the Community Response Team on emergency response. This has strengthened their relationships and all parties know they can call on and support one another to deal with local flood incidents. For example, the Community Response Team use their local knowledge to advise the Police about which roads to close during a flood.

The project helped Kingsbridge Community Response Team to test their plan. The Community Response Team was given a number of mock flood scenarios, which they were asked to respond to using their Community Emergency Plan. It helped the Community Response Team to familiarise themselves with the plan and identify what already worked well and what needed improvement.



3 January 2014, Kingsbridge town square with volunteers and "slow flood" and "road closed" signs

The plan was put into practice during the coastal storms of winter 2014. The Community Response Team assisted emergency responders with road closures and diversions, which stopped traffic driving through floodwater and prevented vehicle's bow waves from flooding properties. Afterwards, the Community Response Team undertook a debrief to learn from the event. For example, they developed coastal flooding forecasting techniques, reflecting on their log of predicted tide levels, weather conditions and the associated flooding impacts.

Writing the plan helped Kingsbridge Community Response Team understand the [roles and responsibilities](#) of all the organisations that can help with managing flood risk and emergencies. The process also highlighted the importance of recording and reporting flood events, because this evidence can build a case for flood risk management solutions.

Kingsbridge Community Response Team feel that although they and their Community Emergency Plan will help organise any relief effort in the future, the work is not finished as ongoing awareness raising is required for people to become more self-reliant and prepared. It is essential for people who live in



the flooding areas to have their own measures in place to protect themselves, their belongings and their properties.

## Training

Devon County Council organised flood warden training, to build confidence and help the Community Response Team to understand flood risk, how it's managed, how to stay safe during flood incidents and how to work alongside Emergency Responders. It was delivered by the Environment Agency, Devon and Somerset Fire and Rescue Service and Charles Richards from Cornwall Community Flood Forum. Charles is also part of a Community Response Team and helped to develop the training.



## Community Resilience Equipment

The project funded the provision of community resilience equipment, which includes personal protective equipment such as high visibility jackets, as well as road signs, electronic signage on the quay, walkie-talkie radios, sandbags and sandbag hoppers. The equipment list was drawn up as a consequence of writing the Community Emergency Plan.

## Community flood warning system

The Community Response Team worked with Devon County Council and the Environment Agency to install private flood warning systems in Kingsbridge, to help them decide when to activate their Community Emergency Plan for flooding.

The Environment Agency provided expert advice on where to site the gauges. Devon County Council appointed Hydro-Logic Services to install a rain gauge and river level gauge within the town. The project paid for the installation of the gauges and the first three years' maintenance costs. Hydro-Logic Services trained the Community Response Team on how to access the data from the gauges and how to receive flood warning alarms. Kingsbridge Town Council owns the gauges and has agreed to fund the ongoing maintenance costs.

## Peer to peer support

Through the life of the project it became apparent that peer to peer support was beneficial for the communities involved. Kingsbridge's Community Response Team had the opportunity to observe the nearby community of Yealmpton, when they tested their Community Emergency Plan. This opened the doors for networking, mutual support and sharing of good practice. It also validated the decision for Kingsbridge to work on building community flood resilience locally.

Kingsbridge's Community Response Team in turn offered support to Brixham. Cllr Keith Wingate from Kingsbridge Town Council kindly attended Brixham Community Response Team's meeting to share his experience of developing Kingsbridge's Community Emergency Plan and its key features.