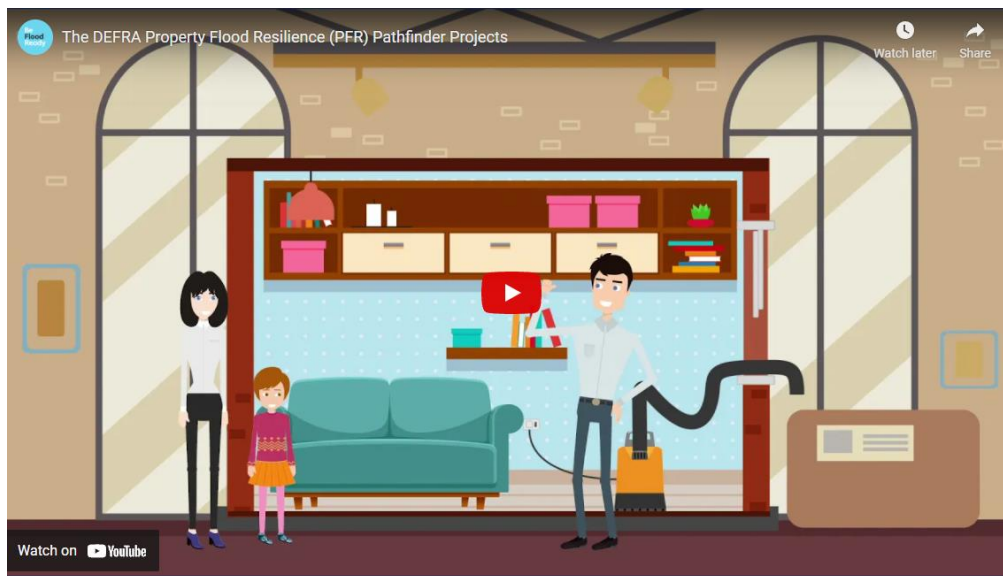


Since September 2019, we have supported City of York Council along with JBA Consulting as a key project partner on the Defra-funded Yorkshire Flood Resilience Property Flood Resilience (PFR) Pathfinder.

This project forms part of the Government's plan to create a nation ready for and resilient to climate change by helping communities to understand and manage their flood risk.



One of three DEFRA-commissioned pathfinder projects in England, the [Yorkshire Flood Resilience PFR Pathfinder project](#) is led by City of York Council on behalf of the 14 Lead Local Flood Authorities in the Yorkshire.

Reaching its conclusion at the end of September 2021, the project focused throughout on identifying what barriers exist to the uptake of PFR, raising awareness of the benefits and levels of take-up of PFR, and developing tools and undertaking an awareness campaign designed to help individuals, businesses and communities to understand their flood risk.

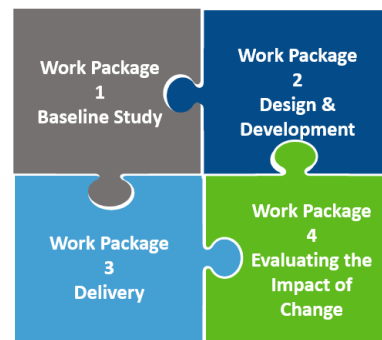
It was originally hoped that there would be plenty of opportunity for face-to-face engagement with Yorkshire communities, but a rethink was necessary when the Covid-19 pandemic struck. The development of a website, social media channels and a host of online resources became key to ensuring a long-term legacy for all.

*The pathfinder was split in 4 distinct work packages, with the JBA/iCASP Project Team delivering the following elements:*

## Work Package 1 - Baseline Study

The iCASP/JBA Team completed a qualitative and quantitative data collection study to help understand what barriers exist to the uptake of PFR across all stakeholder groups throughout the Yorkshire Regional Flood and Coastal Committee (RFCC) area. The stakeholder groups involved in this study consisted of:

1. Households, businesses and community groups (landlords, residents and flood groups)
2. Property, trade, building suppliers and outlets (developers, maintenance contractors)
3. Financial influencers (insurance, mortgage lenders, investors)
4. Flood risk management authorities (Environment Agency, Lead Local Flood Authority, water company)



The questions within the baseline study align to key indicators and a Theory of Change (TOC), developed to capture the framework of the project, identify key stakeholders, monitor the geographic reach, track progress and aid adjustment where needed. The TOC also depicts feedback loops connecting objectives, activities, outputs, and impacts/outcomes of the project.

The results from Work Package 1 (Baseline Study) were used to inform innovative activities during Work Package 2 (Design & Development) and Work Package 3 (Delivery), with the aim to help overcome barriers to the uptake of PFR, encourage future uptake and mainstream the delivery of this type of flood risk management action.

## Work Package 4 – Evaluating the Impact of Change

The project was funded until 30 September 2021, and iCASP with JBA as local evaluators, will spend the next three months evaluating its success.

To do this, an updated questionnaire will be circulated to all stakeholder groups within the Yorkshire RFCC area to assess the impact of change using social media platforms, flood groups, industry partners and press releases.

Through this evaluation, the impact of change and any useful lessons and insights will be shared with Defra, the Environment Agency, local authorities across the country and a host of other partners. This will help shape future work aimed at supporting the Environment Agency's FCERM Strategy ambition to mainstream PFR; and help encourage wider take-up of PFR by property owners at flood risk.

*If you live, work or operate in Yorkshire please take part in the evaluation of this important study by clicking on the link and completing our short survey*

<https://leeds.onlinesurveys.ac.uk/yorkshirefloodresiliencesurvey>

## Local Choice: PFR Assured - In-person PFR effectiveness household study

PFR Assured is the Local Choice project associated with Yorkshire Flood Resilience programme.



PFR Assured, a prototype online GIS database, has been developed to map existing PFR installations across the Yorkshire RFCC region. Although used for this project in Yorkshire, this tool can be used by all Risk Management Authorities (RMA) to help keep a record of where PFR measures have been installed and where further investment maybe needed, either in new schemes, maintenance checks or remediation works.

The flood maps within the database include surface water flood risk maps with climate change uplift allowances as context layers, which allow the tool to be used to help identify/ forecast flood risk areas and the need for future PFR schemes.

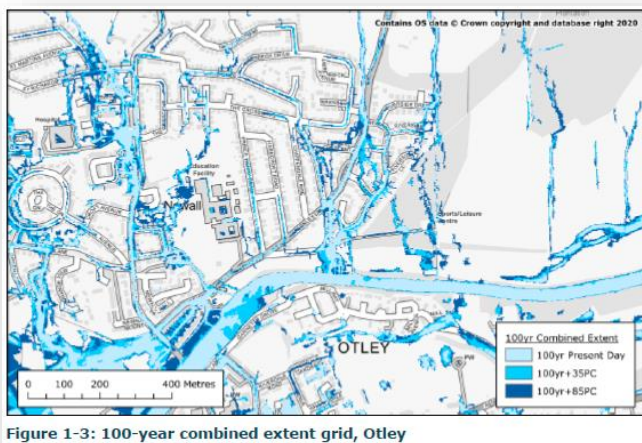
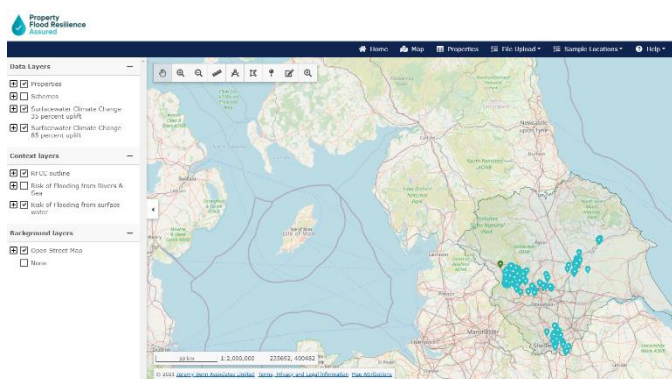


Figure 1-3: 100-year combined extent grid, Otley

An in-depth PFR ‘effectiveness’ survey study to assess the past performance and current state of repair of existing PFR installations is currently taking place as part of this initiative in the areas of Leeds and Bradford in partnership with the RMAs, including Yorkshire Water.

The data collected within PFR Assured from the surveys in Leeds will provide Leeds City Council with an overview of the current health/ condition of the flood measures and any issues associated with the products past usage, maintenance and storage, and help form an evidence base in support of a future potential PFR maintenance programme within the city.



**Shelley Evans, iCASP Impact Translation Fellow and Project Manager for the programme and JBA's Northern Flood Resilience Hub Lead looks back at the highlights of the Yorkshire Flood Resilience PFR Pathfinder and tells us about some of the key initiatives the project team has designed and delivered.**

## **Yorkshire Flood Resilience Website e.g. articles, features and blogs**

Among the many resources created for the website are animations explaining in simple terms what property flood resilience is, how it works and what the benefits are. Features of the animations including real life case studies featuring home and business owners from across Yorkshire; a fun but educational game for children; downloadable information packs for homeowners and businesses; and a series of online introductory training modules.

Between December 2020 and September 2021, Yorkshire Flood Resilience reached around two million people across Yorkshire with its messaging which included a bus campaign, a dedicated social media presence, animations, and flood awareness postcards.

All of the resources and information contained within the Yorkshire Flood Resilience website will continue to be available for people to refer to and download after the project ends.

[Click here to visit the website](#)

## **Flood Alert (online interactive game)**



Flood Alert, one of the many activities available on the website, is a game that the team designed to help children and young people aged 7-11 years understand the importance of preparing for flooding. After the game, players will know more about property flood resilience measures and the benefits of installing them, and how they can resist flooding and help in the recovery afterwards. [Click here to play](#)

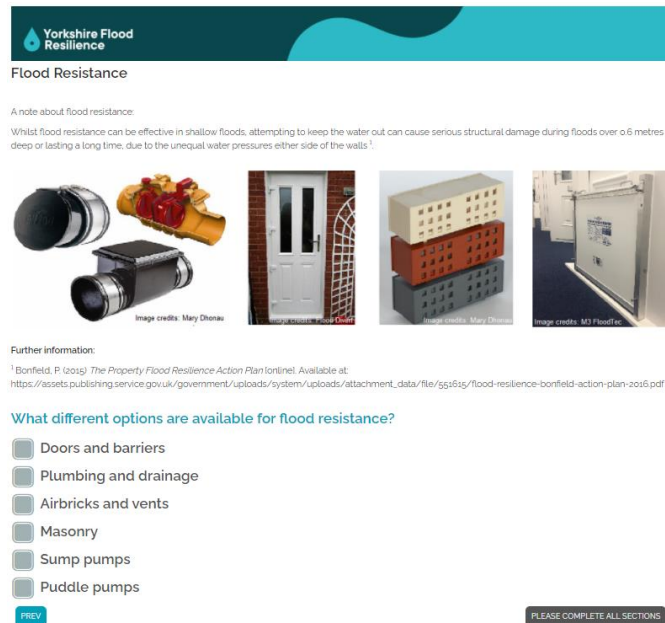
## Introductory online PFR training

Through the introductory online PFR training, people can learn about property flood resilience including the different approaches and how the measures work, the methods that can be used to make a property more resilient to flooding and what to consider when installing property flood resilience measures.

Learn about how to assess flood risk, its importance in the planning process for new developments, and who's responsible for what in flood risk management.

The training is suitable for homeowners, landlords and businesses and for people working within the flood and property sectors

[Click here for more information](#)



**Yorkshire Flood Resilience**  
Flood Resistance

A note about flood resistance:  
Whilst flood resistance can be effective in shallow floods, attempting to keep the water out can cause serious structural damage during floods over 0.6 metres deep or lasting a long time, due to the unequal water pressures either side of the walls<sup>1</sup>.

Further information:  
<sup>1</sup> Bonfield, P. (2015) *The Property Flood Resilience Action Plan* (online). Available at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/554515/flood-resilience-bonfield-action-plan-2015.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/554515/flood-resilience-bonfield-action-plan-2015.pdf)

What different options are available for flood resistance?

- Doors and barriers
- Plumbing and drainage
- Airbricks and vents
- Masonry
- Sump pumps
- Puddle pumps

PREV

PLEASE COMPLETE ALL SECTIONS

## Hazard and Hope YouTube series

The Hazard + Hope series of short films are created by The Environmental Design Studio (TEDS) that focus on how we can adapt and become resilient to a changing climate. These particular 11 episodes have been sponsored by the Yorkshire Flood Resilience project and cover a variety of useful tips and advice to help make a property more flood resilient.



In Episode 2 of Our Flood Resilient Business, Dave Watkins, based in Ripponden, Calderdale, explains how flooding affected their business, a key local employer in the area. He outlines the step by step process the company took through the PFR survey process, undertaken by JBA Consulting, and the range of different ways they have adapted their working practices and large commercial property to be more resilient to future flooding. [Click here to view the full library of episodes](#)

## Presentations at conferences and events e.g. The Great Yorkshire Show and Climate Cafes

The project team attended the great Yorkshire Show in July 2021 and were delighted to have George Eustice MP, Secretary of State for Environment, Food and Rural Affairs, visit the stand. During the course of the two-day event, the team spoke to countless visitors to the show about property flood resilience and distributed hundreds of items of Yorkshire Flood Resilience branded merchandise to help raise awareness of the project and encourage people to visit our website for more information.

In September, the project team along with industry and academic partners hosted free climate café events in Hull and York, offering information to local residents and businesses about practical ways to prepare for flooding and advice on how to physically adapt and prepare their homes for increased flood risk and more frequent extreme weather.

[Click here to view news updates](#)

### Yorkshire 'climate cafes' help communities prepare homes to withstand future floods

Phil Foxley, 2 September 2021 - Flood



## Living with Water Community Hub at Wilberforce College, Hull - Flood resilient model house

The [Living with Water Community Hub](#), which is located at Wilberforce Sixth Form College, Saltshouse Road, East Hull, is a one-of-a-kind facility providing an inspiring and interactive space for schools, students and the wider community.

It has been created by Yorkshire Water and Living with Water, in partnership with Yorkshire Flood Resilience and Wilberforce Sixth Form College.

The facility showcases the innovative water management work being carried out locally and provides an opportunity for residents to learn how to protect their homes with property flood resilience (PFR). The hub has two key spaces:

- **The Yorkshire Room** - The Yorkshire Room displays property flood resilience (PFR) measures to help people protect their homes from flooding. Installed by flood technology manufacturer M3 Floodtec, these PFR examples include automatically closing airbricks, flood doors and gates.

- **Yorkshire Water Learning Lab** - This 'wet lab' is a hands-on space designed to raise awareness to water cycles and flood risk in our area. Within the lab, there is a 3D model to showcase sustainable drainage solutions (SuDS) and how they work, as well as an interactive LED wall screen to be used as a teaching tool on the topic of flooding. The Yorkshire Flood Resilience flood model house is also housed within this learning lab.



[Click here to see how the flood-resilient model house works](#)

## Want to know more?

Email [Shelley Evans](#) (iCASP Project Manager/ Project Local Evaluator) or [Dr Ben Rabb](#) (Impact Translation Fellow/ Project Local Evaluator) for more information about the Yorkshire Flood Resilience PFR Pathfinder – or head over to the [yorkshirefloodresilience](http://yorkshirefloodresilience) website.