



Project Groundwater
Are you flood resilient?



**RESILIENCE
& FLOOD RISK**

Community Insights Report

What Communities Told Us About Groundwater Flooding:

Flood Experience Questionnaire Community Summary

September 2026



Project Groundwater

Project Groundwater is one of the Department for Environment, Food and Rural Affairs (DEFRA) £200 million Flood and Coastal Innovation programmes, which are managed by the Environment Agency. The programmes will drive innovation in flood and coastal resilience and adaptation to a changing climate.

Project Groundwater supports communities to be more resilient to groundwater flooding. The six-year programme is working with communities in nine high-risk flood areas of the Chiltern Hills and Berkshire Downs. It is led by Buckinghamshire Council in partnership with five other local authorities and Flood Community Groups.

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Thank you – We Listened

Thank you to everyone who took the time to share their experiences. Your contribution is helping to improve understanding of groundwater flooding and support future resilience work.

Flooding affects people, homes, businesses and communities in different ways. To better understand these experiences and help shape future flood resilience work, Project Groundwater invited residents, businesses and landlords across nine pilot communities to complete a Flood Experience Questionnaire (FEQ). A total of 248 responses from the pilot communities were received, providing valuable insight into how flooding is experienced, understood and managed at a local level.

The full findings are available in the **FEQ Summary Report**. This **Community Insights Report** serves as a companion document, providing a shorter, more accessible overview of the key findings and themes. It is designed to share the most important insights in plain English, without the technical detail contained in the full report.

This summary highlights what people told us about flood risk, the impacts of flooding, awareness of warning services, and interest in measures that can help reduce disruption and improve resilience.

One of the strongest messages is that flooding affects communities in many different ways. For some people, water entered their property. For others, the biggest impacts were flooded roads, disruption to services, difficulties travelling, or concern about future flooding.

The information will help Project Groundwater and its partners better understand local challenges, improve awareness and target future flood resilience support where it can provide the greatest benefit. Local knowledge and lived experience are central to building more resilient communities.

Read the full FEQ Summary Report [here](#).



At a Glance

The questionnaire in numbers:

9

Pilot communities

248

Responses analysed

53

Respondents reported
property flooding

150

Reported indirect flood
impacts

126

Gave permission to be contacted
about PFR

A note about the figures

Some questions were optional, so the number of people answering each question varied. Percentages in this summary state clearly when they relate only to those who answered a particular question.

Five Things We Learned

1. Groundwater	Groundwater was frequently identified as a source of flooding, either on its own or alongside other sources.
2. Awareness	Many people were unsure about their property flood risk and the warning services available.
3. Wider impacts	Road closures, sewer problems and disruption to services affected people beyond directly flooded properties.
4. Preparedness	Flood plans and existing Property Flood Resilience measures were not widespread among respondents.
5. Interest in support	Many people wanted to learn more about measures that could improve their property flood resilience.



Groundwater Flooding Matters

40

People reporting property flooding linked it to groundwater

18

Identified groundwater as the sole source

22

Combined-source flooding included groundwater

Groundwater flooding happens when water stored underground rises towards or above the ground surface. It can affect gardens, cellars, basements, roads and buildings. It may also occur in combination with river, surface water or sewer flooding.

Understanding Flood Risk

52%

of those answering were unaware of flood risk when they moved in

43%

of those answering did not know whether an alert or warning was available

20%

of all FEQ respondents reported signing up to the EA Flood Warning service

Awareness of risk supports earlier preparation. It can help people find relevant warning services, create a personal flood plan, and identify practical steps to protect their property or business from flooding.

Flooding Affects Whole Communities

Impacts extend beyond water entering a home or business

150

Respondents reported indirect impacts

60%

of all analysed responses

136

Selected flooded roads or road closures

- Flooded roads and road closures
- Blocked sewers leading to potential loss of bathroom, kitchen or appliance use
- Closure of local schools or businesses
- Loss of access, utility disruption and safety concerns



Community Voices

“Just fear as the water rose.”

Resident response

“House took six months to dry out, two ground rooms unusable for this time.”

Resident response

“We have to raise cellar contents above flood line and the cellar becomes inaccessible except with boots.”

Resident response

“Lost all carpets, white goods, some furniture... Had to vacate to a hotel for two weeks. Took six months to remedy.”

Resident response

Property Flood Resilience

Measures can help reduce impacts and support faster recovery

36

Respondents reported having existing PFR measures

15%

of all analysed responses

126

Gave permission to be contacted about a PFR survey

Property Flood Resilience, or PFR, means measures that help a building resist water entry, reduce damage or recover more quickly after flooding. The right combination depends on the property and the way it floods.

- Flood barriers and flood doors
- Airbrick covers and non-return valves in drainage systems
- Sump pumps and deployable pumps
- Flood-recoverable flooring, walls and kitchens
- Raised electrical sockets and drainage improvements



Health and Wellbeing

Flooding can affect people long after the water has gone

49

Reported a health or wellbeing impact

44

Had not received medical support

3

Reported receiving medical support

Respondents described stress, anxiety, disruption, and concern about future flooding. The report found no simple relationship between impact and whether water entered a property. Individual circumstances, flood duration, disruption, and perceived future risk can all matter.

Building a Lasting Legacy

Using community evidence to support resilience

1. Improve awareness	Providing clearer information about flood risk, alert and warning services, and practical preparedness.
2. Target support	Using FEQ insights to help focus Property Flood Resilience surveys and advice.
3. Broaden engagement	Reaching tenants, shorter-term residents and communities with lower response rates.
4. Improve future surveys	Simplifying key questions where appropriate, so findings are clearer and more complete.
5. Share learning	Using evidence to support Project Groundwater legacy work and wider learning about groundwater flooding.

Appendix: Glossary of Terms and Acronyms



Term	Definition
Aquifer	Underground layer of rock, sand, gravel or chalk that stores and transmits groundwater.
Build Back Better (BBB)	Government-backed scheme that can fund flood resilience improvements during repairs after flooding.
Chalk Aquifer	Underground chalk layer that stores and transmits groundwater.
Climate Resilience	Ability to prepare for, withstand and adapt to climate-related hazards.
Community Resilience	Ability of a community to respond to and recover from flooding.
Curtilage	Land immediately surrounding a property.
DEFRA	Department for Environment, Food and Rural Affairs.
Direct Flood Impacts	Impacts caused by floodwater directly affecting a property, such as damage to buildings, possessions or infrastructure.
Drainage Infrastructure	Network of drains, pipes, culverts and sewers used to collect and transport water.
Environment Agency (EA)	Public body responsible for flood risk management in England.
FEQ	Flood Experience Questionnaire.
Flood Alert	Notification that flooding is possible and preparation is required.
Flood Frequency	How often flooding occurs at a particular location.
Flood Hazard Mapping	Maps used to identify areas potentially affected by flooding and the likely extent or severity of impacts.
Flood Resilience	Ability to anticipate, withstand and recover from flooding.
Flood Risk	The likelihood of flooding occurring and the potential consequences if it does.
Flood Warning	Notification that flooding is expected and immediate action is required.
Fluvial Flooding	Flooding caused when rivers, streams or watercourses overflow their banks.



Term	Definition
Groundwater	Water stored beneath the ground in soil, rock and aquifers.
Groundwater Alert	Warning service that notifies residents when groundwater conditions indicate an increased risk of flooding.
Groundwater Emergence	When groundwater rises to or above ground level and becomes visible at the surface.
Groundwater Flooding	Flooding caused by rising groundwater levels.
Hydrogeology	Study of groundwater and its movement.
Hydrostatic Pressure	Pressure exerted by water against walls, floors and foundations, which can force water into buildings.
Indirect Flood Impacts	Impacts experienced without water entering a property, such as road closures, utility disruption, blocked sewers and restricted access.
Ingress	The entry of water into a building through floors, walls, doors, foundations or drainage systems.
Jacobs	Engineering and environmental consultancy that developed groundwater flood mapping for Project Groundwater.
Lead Local Flood Authority (LLFA)	Local authority responsible for managing local flood risks.
Permeable Superficial Deposits (PSD)	Shallow geological materials, such as sand and gravel, that allow water to pass through easily and can influence groundwater flooding.
Pilot Communities	The nine communities participating in Project Groundwater's flood resilience programme.
Property Flood Resilience (PFR)	Measures that reduce flood damage to individual properties.
Property Flood Resilience (PFR) Survey	Professional assessment of a property to identify flood risks and recommend resilience measures.
Qualitative Data	Information collected through written comments, opinions and experiences rather than numerical measurements.
Quantitative Data	Information expressed through numbers, percentages and statistics.
RAB Consultants	Consultancy leading the Resilience Workstream for Project Groundwater.



Term	Definition
Recoverability	Ability of a property to recover quickly after flooding.
Recoverability Measures	Measures that help a property recover more quickly after flooding, such as water-resistant materials and raised electrical sockets.
Resilience Measures	Actions or products designed to reduce flood impacts and improve recovery after flooding.
Resistance Measures	Measures that reduce water entering a building.
Sewer Flooding	Flooding caused when sewers or drains become overwhelmed and water backs up through the drainage network.
Source of Flooding	The origin of floodwater, such as groundwater, rivers, surface water or sewers.
Surface Water Flooding	Flooding caused by rainfall accumulating on the ground.
Sump Pump	Pump used to remove groundwater or floodwater from basements, cellars or below-ground spaces.
Sustainable Drainage Systems (SuDS)	Drainage features designed to slow, store and manage rainfall naturally before it enters drainage networks.
Tenure	Type of property occupation, such as owner-occupied, privately rented or socially rented.
Thematic Analysis	Method used to identify recurring themes in qualitative responses.
Vulnerability	The extent to which people, properties or infrastructure may be affected by flooding.
Water Table	The upper level of groundwater beneath the ground surface.
Watercourse	Any channel through which water flows, including rivers, streams, ditches and brooks.
Winterbourne	Seasonal stream flowing when groundwater levels are high.
Workstream	A specific area of activity within Project Groundwater, such as resilience, engagement, communications or technical research.