

# The Barriers to Resilient Reinstatement of Flood Damaged Homes

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Welch bridge, Shrewsbury: new theatre development behind the new bridge

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## Resistant methods



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## Resilient methods




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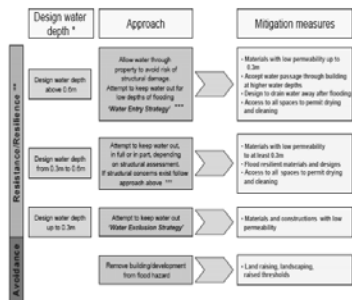
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## Technical choice of method new build



Source: BOWKER, P. (2007) Flood resistance and resilience solutions an R&D scoping study. R&D technical report. Department for Food and Rural Affairs.

\* Design water depth should be based on assessment of all flood types that can impact on the building.  
 \*\* Flood resistant materials are defined as materials with structural resistance to flood water level.  
 \*\*\* An option for water exclusion strategy can be based on flood water depths up to 0.3m.

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## Research Questions

- Why is the take up of individual flood resistant and resilient adaptation measures so low even among populations at high risk flood or previously flooded?
- Do populations prefer resistant or resilient measures and why?

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## Research Method

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- critical literature review
- The review will identify barriers to take up of individual measures from the flooding literature.
- specific resistant and resilient measures will be considered in the light of the review findings.

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## Pathway to action

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Desire to act	Awareness
	Perception
	Ownership
Ability to act	Knowledge
	Finance
	Belief

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## Financial Barriers

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- Risk assessment
- Planning solutions
- Implementing solution
- Maintaining solution
- Loans available
- Who benefits
- Who should pay

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## Information barriers

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- Information is generic
- Depth information lacking
- Uncertainty in predictions
- Conflicting advice
- Believe methods don't work
- Adequate warning systems

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## Emotional Constraints

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- Ignoring the risk reduces anxiety
- Someone else is responsible
- Feeling of powerlessness
- Adaptation is a constant reminder
- Aesthetic concerns
- Never be clean again



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## Timing sensitivity

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- People forget after a flood
- Cheaper as part of restoration or planned work
- Victims want quick repair
- Lack of skilled workers in aftermath
- Grant applications slow restoration

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## Benefits of resilient over resistant methods

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- Can be cheap to install at reinstatement
- Can be installed piecemeal
- Still effective if one element fails
- Less sensitive to flood above designed level
- Not dependant on community action
- May not need warning

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## Summary

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- Individuals can achieve peace of mind either by taking action against flood risk or by ignoring the risk of flooding.
- Resistant measures are more attractive than resilient measures to individuals at risk from flooding.
- Resistant methods not always suitable or cost effective
- Resilient measures are less sensitive to failure of information or individual elements
- The timing of installation of resistant or resilient measures is crucial but resilient measures are more time dependent than resistant ones.
- To promote resilient reinstatement information and financial assistance is needed and must be timely

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