

science summary



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SCHO0407BMMJ-E-P

Public response to flood warnings

Science Summary SC020116

This report provides a detailed understanding of the ways in which the 'at flood risk' public understand, interpret and respond to flood warnings. The researchers worked with different groups in flood risk areas to understand their priorities on receipt of a flood warning from the Environment Agency. This work will help the Environment Agency ensure that the issue more effective flood warnings.

The methodology for the project was divided into three distinct stages:

- Stage one involved a review of relevant literature and a secondary analysis of post event survey data collected by BMRB for the Environment Agency.
- Stage Two comprised qualitative work with different groups in several flood risk areas in order to reach a detailed understanding of participants' priorities on receipt of a flood warning from the Environment Agency.
- Stage Three took the form of a survey to provide quantitative data on how residents of at risk areas intend to act in response to the three levels of flood warning and to explore what factors inform differences in warning response.

The results show that most of the at-risk population intend to act when they receive flood warnings and that the majority of those flooded consider their actions to have been 'effective'. The percentage of those taking action increases steadily with the severity of warning, and the actions most likely to be taken at each warning stage are broadly appropriate. These are encouraging results for the Environment Agency.

However, the research also shows that people who do not act at the earliest stage of flood warning tend not to do anything at subsequent levels. A small proportion of the at-risk population (6%) say they would take no action at all, even if they received the most severe flood warning. It is therefore very important that we work to understand the characteristics of this group of people and consider how best to target them.

The qualitative work found that the public have a different idea of what constitutes 'effective' action in

response to flood warnings than the Environment Agency. Whereas the Environment Agency links effectiveness with avoiding material damage and loss of life, the public are often more realistic and concerned more with limiting than preventing damage. The public's actions are often aimed at alleviating psychological as well as physical or material discomfort. In addition, the report found that what might be considered appropriate action in one set of circumstances or for one household, may not be considered appropriate in another.

The report makes several recommendations. Firstly it should be a priority for the Environment Agency to understand the reasons why certain people do not act in response to flood warnings. This will help them consider how best to tailor information and support to these groups.

Secondly, if the content of flood warnings, or the way in which they are disseminated is altered in any way, it is vital to ensure that the warning content is still clear, the different levels of warning are sufficiently differentiated and convey a suitable sense of urgency and that the methods of dissemination are clearly and widely understood by the at-risk public.

The report also suggests that in future research into how the public respond to flood warnings, unprompted rather than prompted responses are sought. It is also important to adopt a uniform age stratification in all Environment Agency research in order to ensure comparability between studies

This summary relates to information from Science Project SC020116 reported in detail in the following output:-

Science Report: SC020116

Title: Public Response to Flood Warnings

ISBN: 978-1-84432-742-3

April 2007

Report Product Code: SCHO0407BMMI-E-P

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Research Contractor: University of Surrey

This project was funded by the Environment Agency's Science Group, which provides scientific knowledge, tools and techniques to enable us to protect and manage the environment as effectively as possible.

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