

## Public dialogue at the British Science Festival in Newcastle

Our Risk Communications project had a two hour slot at the British Science Festival for public dialogue on flooding and extreme rainfall.

We had 20 members of the public attend the event which we used to:

- Hold a discussion over the new flood hazard maps to ascertain how meaningful they are to people
- Begin a conversation about flooding information and how people make sense of it
- Test our public dialogue approach to learn lessons for the Risk Communications project



The dialogue was set up in a large room with four tables. We put posters and fact sheets on the walls and tables to instigate conversations about rainfall and flooding (examples shown below). Each table comprised public participants, a facilitator and flood risk expert.

### What was the feedback from the public on the event?

The feedback from the public was overwhelmingly positive. Attendees said that the event was well run and that the resources and presentations were good. The only criticism was that many felt that they needed more time for discussion. Participants were just 'getting going' after two hours and felt that it could have gone on for longer.

People felt positive about having the opportunity to contribute to the project. Participants also enjoyed hearing views from other members of the public which demonstrated the importance of giving time for everyone and for the facilitators to allow that to happen.

### What did we learn about the public perception of flooding and flood maps?

The session comprised two activities. The first was to discuss perceptions and ideas about flooding; the second was to discuss maps and annotate the new flood maps.

There was a broad range of perceptions and experiences about flooding. Most people had not flooded, although many knew people who had. There were many discussions about why floods happen and the impact on people's lives. A key area highlighted was how stressful flooding was for people and how important it was to understand the mental health impacts as well as affects on property.

People were very engaged in the activity of discussing, understanding and annotating the new flood hazard maps. There were many ideas about how to improve them including:

- Changes to the colour and clarity of the underlying base maps
- Information about what the velocity and depth data mean to people
- Details of locations of flood defences and structures

- The ability to toggle flood defences on and off so that the impact on risk and inundation extent could be seen and appreciated
- Embedding pictures of previous floods
- Guidance on what people should do with the information in the maps

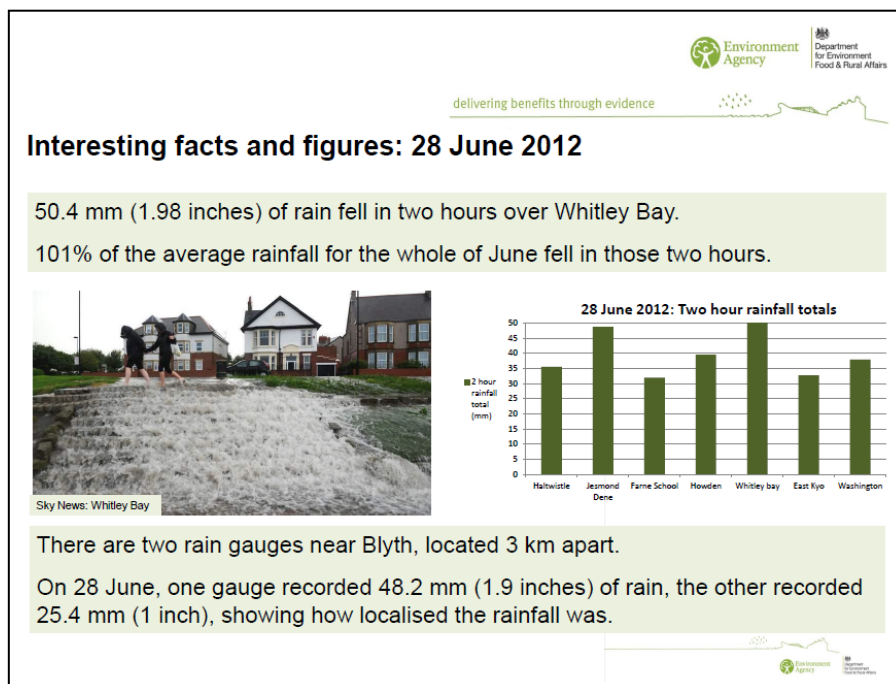
### What did we learn about running a public dialogue on flood risk?

There were learning points from this test dialogue event. These included the following.

1. The flood risk experts should expect a barrage of questions about all areas of extreme rainfall and flood risk.
2. The flood risk experts can use this as an opportunity to learn about public perceptions and the use of language and terminology. There was an equal amount of learning from both public and experts at the event.
3. Single dialogue events are restrictive as shown by the large appetite for the public to engage further with the topic and materials. Even through a two hour time period, people were able to reflect and produce more questions and ideas. Multiple events with the same people may be key to enabling them to digest information, reflect and undertake peer-to-peer discussions.
4. Facilitators need clear questions and guidance on the parameters of the discussions and the aims of each session.

Alison from Sciencewise wrote a detailed blog from the event which can be found at <http://www.sciencewise-erc.org.uk/blog/?p=1901>


### Example Flood Fact Sheets



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### Interesting facts and figures: Flood management

The Operations Delivery team in the North East maintains approximately 1,700 kilometres of watercourses.



34 flood gates encircle the town of Yarm. These are closed in flood conditions. They stopped flooding to 250 houses in September 2012.

The Hull Barrier protects 17,000 properties from tidal flooding.

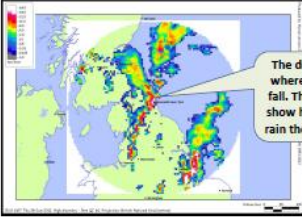



Example posters used at the event.

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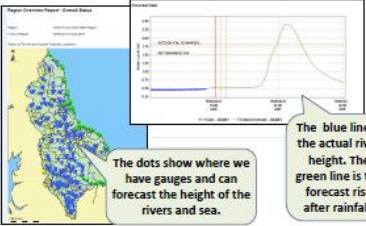
### How do we know if a flood is about to happen?

Heavy rainfall is forecast by the Met Office and Flood Forecasting Centre.



The dots show where rain will fall. The colours show how much rain there will be.

Rainfall data goes into Environment Agency forecasting models to predict how much each river will rise.




The dots show where we have gauges and can forecast the height of the rivers and sea.

The blue line is the actual river height. The green line is the forecast rise after rainfall.

If rivers are forecast to rise high enough to cause problems, we take action.

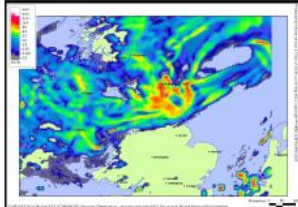
We clear blocked rivers. We warn people.




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### September 2012: Rain and Floods


Between 23 and 25 September 2012, parts of North East England had 4 inches (100mm) of rain.



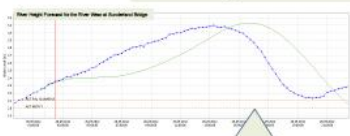
The A1 near Catterick was flooded.



Rivers across the region rose to high levels. The River Wear at Chester-le-Street reached 3.97m; the second highest level recorded.




River Wear in Durham.



River height forecasts (the green line) predicted how high the River Wear would rise. The actual level is the blue line.

Flood gates were closed in Rothbury.



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