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Risk Management and Engagement

John Watt and Simon McCarthy







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Overview

- Teaching risk
- “Consequence management” and its link to risk.
- Functions of risk management and the need for effective risk communication
- Engaging stakeholders







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Risk Management Principles Module

- Risk management frameworks and governance concepts (IRGC and ISO guidance)
- Social impacts and vulnerability to flooding (western Europe)
- Introducing flood warning and emergency response (3 units)
- Preventative health and safety
- Risk assessment challenges
- Tolerability of risk including frameworks and concepts such as ALARP/ALARA
- Built environment risk management
- Risk communication (perception, world views, values, biases)
- Business continuity
- Stakeholder engagement and planning
- Flood defence approach, monitoring for maintenance UK
- Introducing flood warning and emergency response







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Characteristics of Crisis


- No/Little Notice
- Beyond Expectations and Experience
- On the frontiers of procedure
- Increased Workload
- Confusion
- Shortage of Time and Information
- Loss of control (actual or potential)
- Thirst/need for information
- Need to assure.








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Key terms

- Emergency Plan**  
A plan to ensure that, if an emergency occurs or is likely to occur, each responder body can deliver its functions so far as necessary or desirable for the purpose of preventing the emergency, reducing, controlling or mitigating its effects, or taking other action in connection with it.
- Business Continuity Plan**  
A plan to ensure that an organisation can continue to perform their critical functions in the event of an emergency so far as is reasonably practicable.
- Business Continuity Management**  
A process that helps manage risks to the smooth running of an organisation or delivery of a service, ensuring continuity of critical functions in the event of a disruption, and effective recovery afterwards.

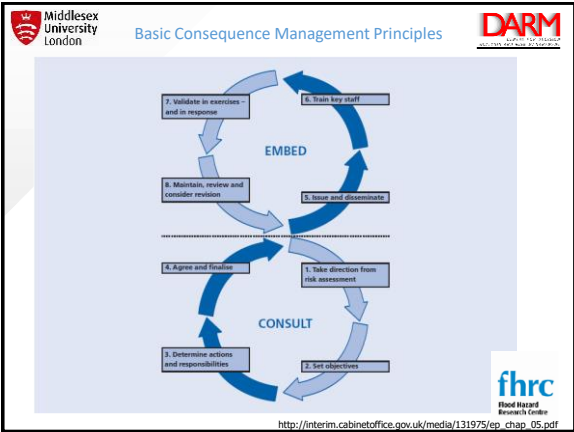


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Emergency Planning

- Generic plans** are the core plan which enables the organisation to respond to, and recover from a wide range of possible emergencies. They should hence include procedures which would be used in all instances for e.g. the emergency management approach, ensuring the welfare of staff and the provision of sufficient resources for responding to the emergency.
- Specific plans** relate either to a particular emergency or kind of emergency, a specific capability, or to a specific site or location. Specific plans are a detailed set of arrangements designed to go beyond the generic arrangements when they are likely to prove insufficient in a particular case. A specific plan usually relies on a generic plan.



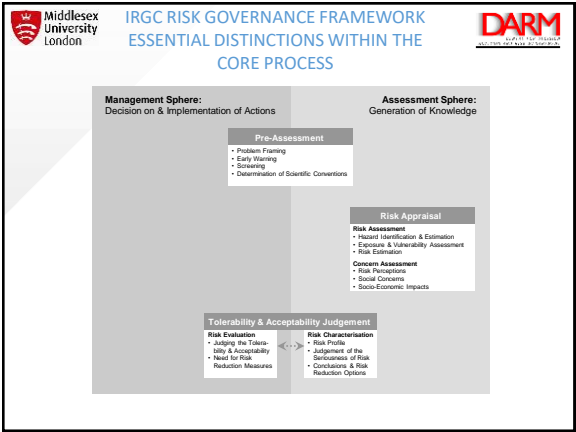
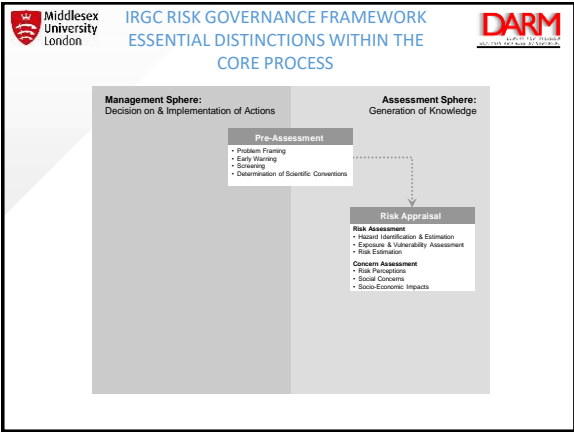
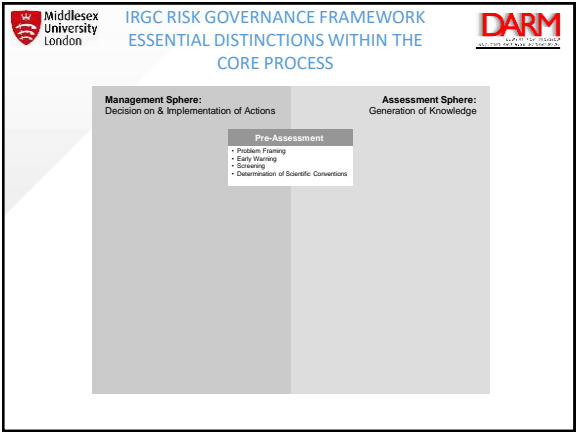
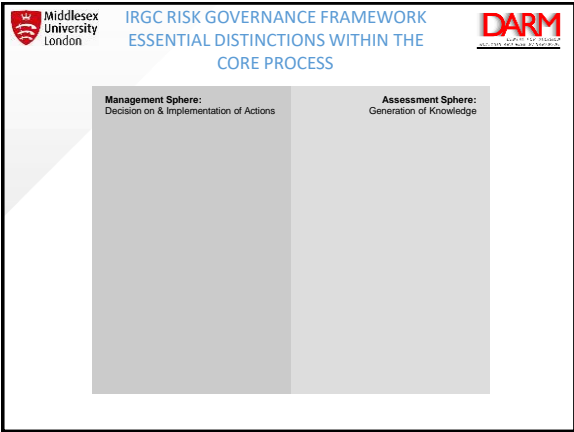
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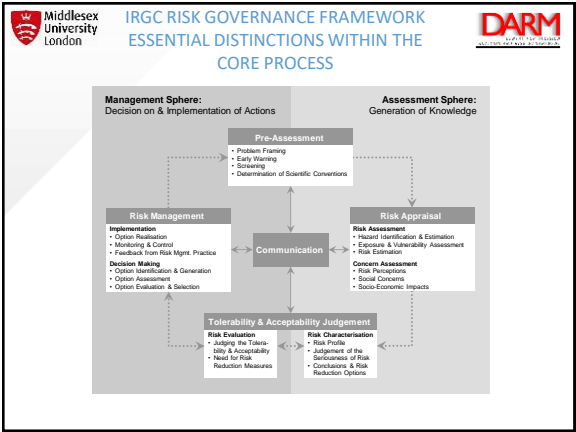
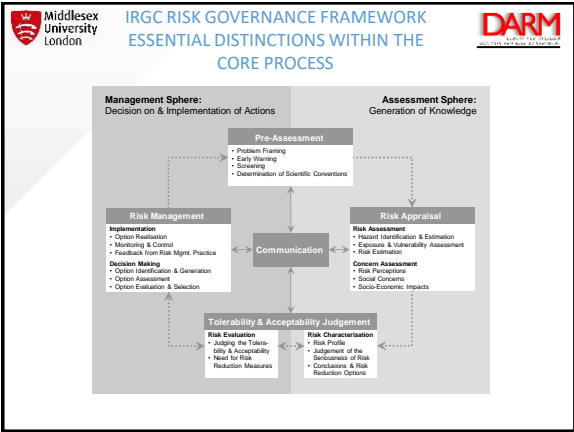
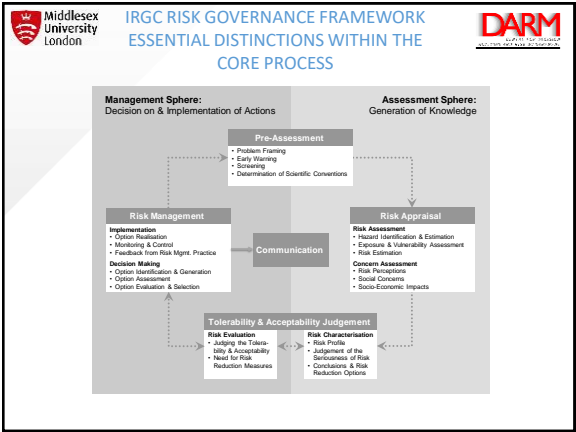
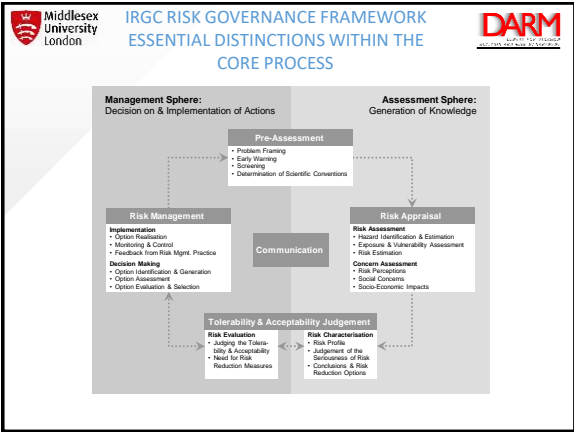
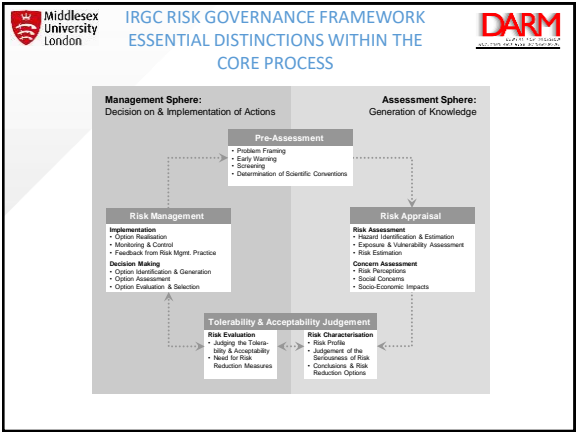
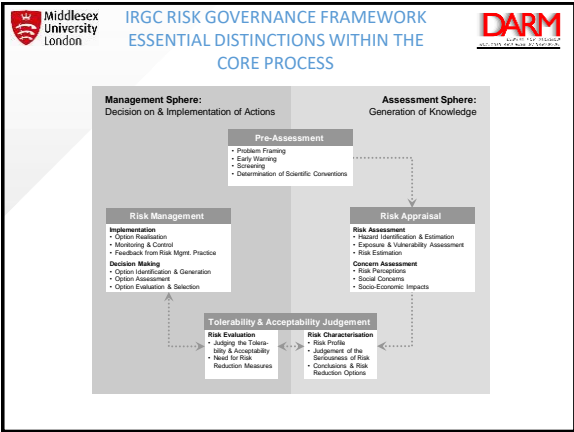
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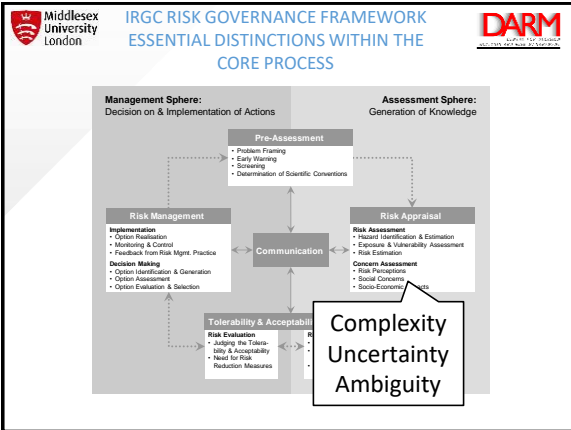
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## In summary

- Consequence management is an important part of risk management.
- It requires a degree of reorientation.
- Time and control are critical elements.
- Pre-planned, rehearsed and understood responses, protocols, empowerment and objectives are vital.







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## Risk management - simple

- Can assume either conflict or uncertainty or both.
- In some cases risks are routine and well understood
- There are procedures and best practice in place, guidance exists

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## Three Challenges Of Risk Management - Complexity

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- Complexity** resulting from the difficulty of identifying and quantifying the links between a multitude of potential causal agents and effects.
- Still mainly falls to professionals to deal with
- May be need for additional advice

<http://www.1000topics.com/metaphor-for-complexity/>

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## Three Challenges Of Risk Assessment – Residual Uncertainty

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- Uncertainty**
  - variation among individual targets
  - measurement and inferential errors
  - system boundaries and ignorance
- Precaution**

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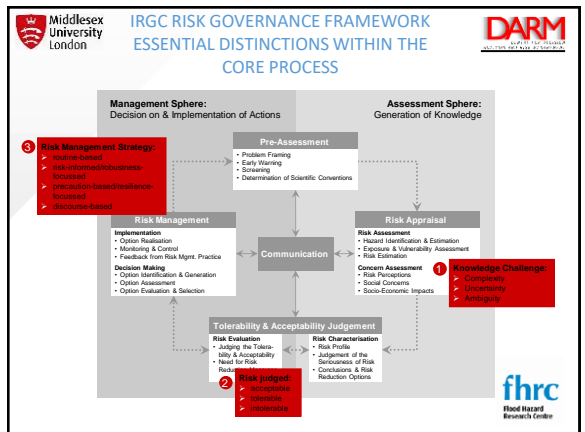
## Three Challenges Of Risk Assessment - Ambiguity

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THE SCIENTIFIC COMMUNITY IS DIVIDED  
SOME SAY RISK WHEN IT  
BARRAGES, SOME SAY  
IT IS DIRT

- Ambiguity** in interpreting results
  - What does it mean?
  - Is it tolerable?
- Different interpretations of an identical result – i.e. as a good thing or a bad thing
- Different concepts of what can be regarded as tolerable – e.g. pragmatic view vs aesthetic context view

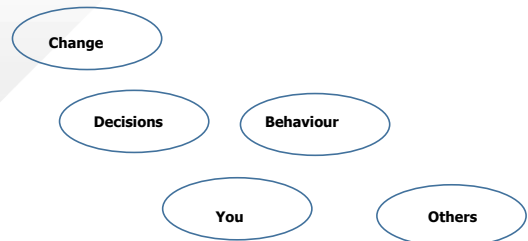
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## Stakeholder Engagement

- Some Key Principles
- Stakeholder Analysis
- Examples of Activities

## Purpose of Risk Communication?



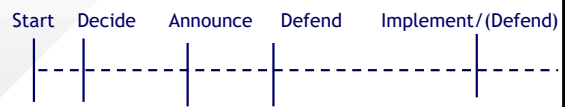
# General Theoretical Approaches

Approach	Characteristic	Discourse
Communication process	Classical sender, message, receiver model	Lundgren and McMakin 2009
Mental Model	Cognitive psychology where audience characteristics, needs and beliefs must be understood	Morgan et al. 2001
Culture and ethnicity	A need to understand the ethnic subcultures their norms, language, household structure, obligations etc	Lindell and Perry 2004
Crisis communication	Based in persuasion and dominated by one-way communication to stimulate behaviour change	Lundgren and McMakin 2009
Hazard plus outrage	Forestral or manage outrage or anxiety	Sandman et al. 1987
Social network contagion	Assumes the influence of an individual's behaviour is greater from their network of daily contacts	Scherer and Cho 2003
Convergence communication	Advocates a prolonged dialogue to managed risk	Rodgers and Kincaid 1981
Social constructionist	Sociology where an understanding of how problems are socially 'created' through claims making activities must be understood	Spector and Kitsuse 1987
Social trust	Trust needs to be built in risk management bodies	Cvetkovich and Earle 1995
Social amplification of risk	There is deliberate and accidental attenuation of risks. This needs to be understood and managed.	Kasperson et al 1988

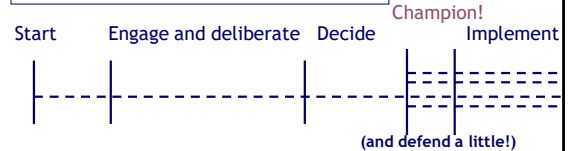
(Adapted from Hoppner and Buchecker 2010)

## What works: UK

## Decide-Announce-Defend

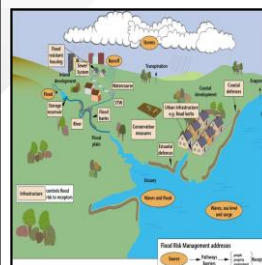


## Engage-Deliberate-Decide

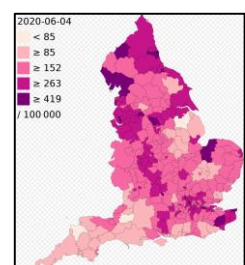


## Key Principles

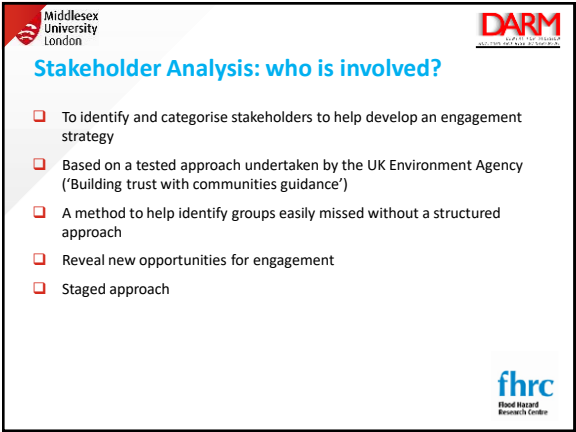
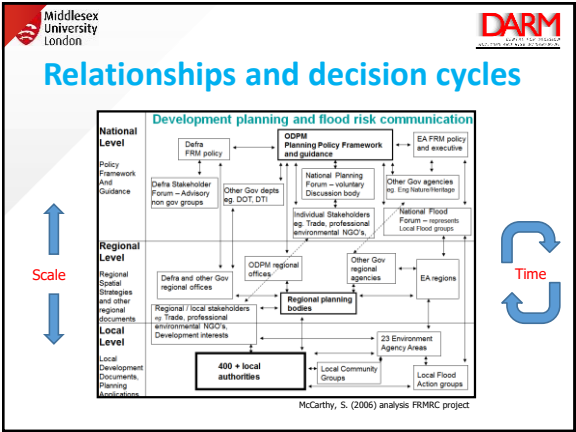
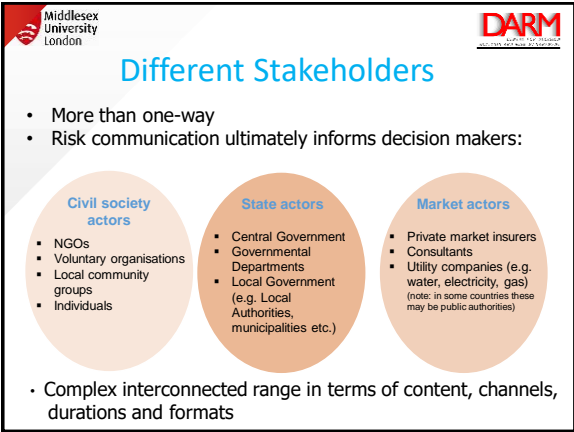
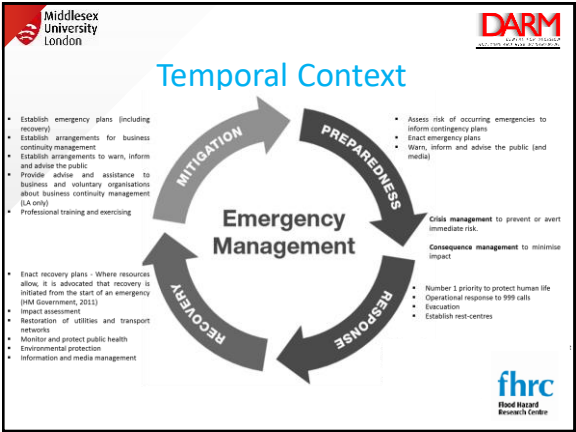
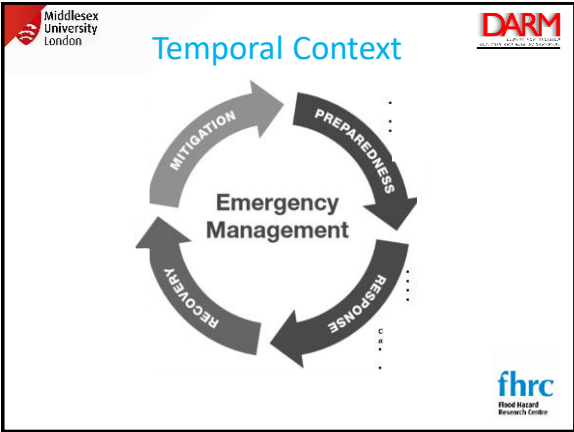
## Spatial Context and Characteristics?



Environment Agency



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## Some contextual questions

- What do we want to achieve?
- What are the limits of what can be done?
- Where do the constraints and limitations lie and with whom?
- How much time is available – what has to be achieved and what would be fantastic to achieve?
- Why would others want to work with us?
- Are there legal issues that need to be addressed?
- What can and can not be influenced?
- What local sensitivities need to be taken into account?



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## Identify stakeholder groups

- For each of the issues identified:
  - e.g. Anti-vax, food allergies or flood risk, earthquake*
- Write down all the stakeholders for each category in turn:
  - Sector:** Private, Public, Voluntary, Community
  - Socio-economic:** gender, age, life-stage, ethnicity, income
  - Function:** user, service provider, landowner, regulator, decision maker
  - Geography:** location to issues, permanent or transitory
  - Information:** Users, Gatherers, Enthusiasts
  - Don't forget disability groups and groups with members who might also be interested in the issues*

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## Refine the list of stakeholders

- This will clarify degrees of stakeholder relevance
- Combine the lists and sort by:
  - Influence** - the level of influence they have now and in the future (dynamic)
  - Affected** - how they will be affected now and in the future
  - Interest** - what is their current and future interest in the issues
  - List the relevant stakeholders under the three titles.
  - Also note that stakeholder characteristics and motivations may change in the future.

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## Mapping Exercise

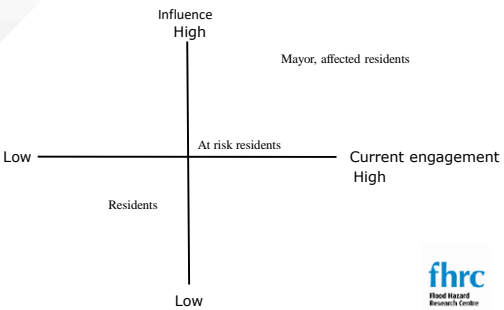
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## Moving towards an engagement plan

Mapping technique example for the stakeholders

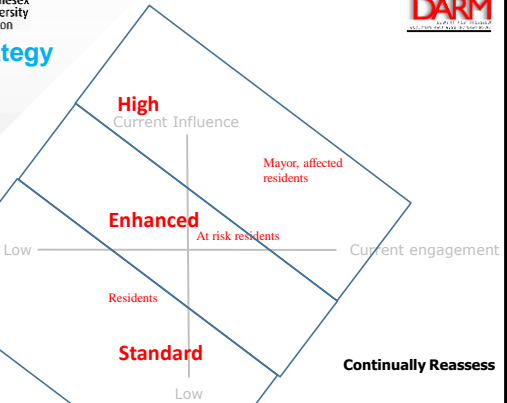


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## Strategy



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# Activities: Public

# Strategy

**High**  
Liaison groups  
Facilitated meetings  
Dialogue to co-decide

**Enhanced**  
Surveys, interviews  
Workshops  
Surgeries  
Focus groups  
Internet (inviting feedback)  
Liaison group  
Public meetings

**Standard**  
Leaflets  
Newsletters  
Newspapers  
Internet

When?  
Where?  
How often?  
How?

# Provision of Information

# Flood Pack

Reusable waterproof Sleeve  
Simple design

# Active Dialogue

# Children to parents

Online / App Versions  
Role play class activities



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Disaster Preparedness



EU WesenCIt Project 2016. Vicenza, Italy

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# Activities: Professionals

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# Awareness of the risk





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# Physical interventions







Residual Risk?

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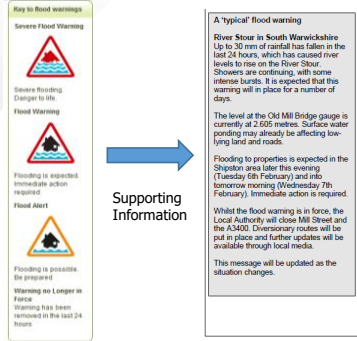
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Disaster Preparedness

# Behaviour change: Warning messages

## Translating science



Communicating Flood warnings and forecasting report SC150013 Sept 2020)

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Disaster Preparedness

# Translated

### A 'typical' flood warning

River Stour in South Warwickshire  
Up to 30 mm of rainfall has fallen in the last 24 hours, which has caused river levels to rise on the River Stour. Showers are continuing, with some intense bursts. It is expected that this warning will be in place for a number of days.

The level at the Old Mill Bridge gauge is currently at 2.605 metres. Surface water ponding may already be affecting low-lying land and roads.

Flooding to properties is expected in the Shipston area later this evening (Tuesday 6th February) and into tomorrow morning (Wednesday 7th February). Immediate action is required.

Whilst the flood warning is in force, the Local Authority will close Mill Street and the A3400. Diversionary routes will be put in place and further updates will be available through local media.

This message will be updated as the situation changes.

### An 'impactful' flood warning

River Stour in South Warwickshire  
Heavy rain is currently falling in the Shipston area and will continue throughout the day (Tuesday 6th February). This is causing the River Stour to rise and it is forecast to continue rising through tomorrow morning.

Low-lying areas near to the Old Mill are already flooded. Properties and roads around Mill Street and the bottom end of Telegraph Street will start to flood first from around 10.30pm tonight. Further flooding could occur along the A3400 from 4am as river levels rise. River levels will be at their highest between 7am and 8am tomorrow (Wednesday 7th February).

Flood waters may be knee deep and fast-flowing in all these areas. Residents are strongly urged to take action now. Remain safe and be aware of your local surroundings.

We will be closely monitoring the situation throughout the night and this message will be updated as the situation changes.

Our staff are out in the area and will relay information and assist the emergency services and council.

Communicating Flood warnings and forecasting report SC150013 (Sept 2020)

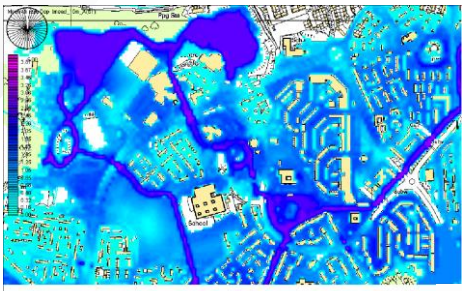
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## Animated Tools

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## Training and Exercises


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- Not just information but 'convincing' information.
  - 'ownership' of the certainty or uncertainty in both the measures and the message
- Still involves relationships! Importance of training exercises.

*'I work quite closely with James (EA flood defence) and if James blinks his eyes that tells me everything I need to know ...  
... that is a refinement of lots and lots of trust and communication' (Police FRMRC1 interview)*

- Think about evaluation right at the start.

(McCarthy et al. 2007)



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## Understand Needs

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Early Stakeholder Analysis

Identify most engaged stakeholder groups in relation to local issue

Arrange to meet each group at their convenience

Secure early support & trust

Ask citizens how they make decisions profile, technological abilities, baseline attitudes, willingness to participate & contact details

Develop solutions in relation to needs



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## Difficulties of stakeholder engagement

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- It does not automatically lead to consensus
- Stakeholders can be cynical about the value of participation
- Stakeholders may only participate if they think their interests are threatened
- Participation can raise unrealistic expectations of what can be achieved
- It may slow down the decision
- It costs money, that may not be available
- Needs trained or well informed mediators

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