

# Co-producing knowledge for local drought resilience

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**MaRIUS**  
[www.mariusdroughtproject.org](http://www.mariusdroughtproject.org)

# Transdisciplinary engagement

## Environmental Competency Groups (ECGs)

- a method for collaborative investigation
- local residents, scientists and professional environmental experts to work together in order to approach local environmental problems in new ways



# Environmental Competency Groups

## Ryedale Flood Research Group 2007/8



- Proposed upstream storage measures to mitigate flood risk in Pickering Nov 2008
- Taken up in Defra demonstration project 'Slowing the flow at Pickering' 2009-2012
- Upstream storage measures installed 2012-2015

# From flooding to drought

## MaRIUS ECG aims

- Bring vernacular knowledge to bear on the production of drought and water scarcity expertise
- Interrogate the modelling techniques that underpin water scarcity estimation and management, improve expert practices through incorporation of local knowledge
- Interdisciplinary collaboration within MaRIUS project team





# MIND THE GAP



**“We talked quite a lot about the ..... importance to find a solution to making that link between local detailed information and then trying to fit that into a sort of framework that could be used for decision-making, and making the link between the detail..... and the box its got to fit. Not losing it so much meaning in that conversion process that the model becomes useless.”  
(CH, Kennet ECG member)**

# ON SCREEN VS ON THE GROUND



**“A decision recently about a new sewage treatment discharge that was consented because it had been done as a desk exercise and the geographical reference point was the nearest data point they had, which was enough downstream for the flows to be considerably different because there had been two streams by the data point they used and the fact that the discharge was going upstream to what was a much, much smaller bit of river. The outcome probably would have been different if somebody had actually one out on site and had a look, rather than just running the model as a desk exercise.”**  
**(CH Kennet ECG member. Nov 2015)**

# The Kennet ECG in practice

## Choice of locality

- Drought 2012
- Historical controversy over abstraction
- Previous water quality research

## Selecting participants

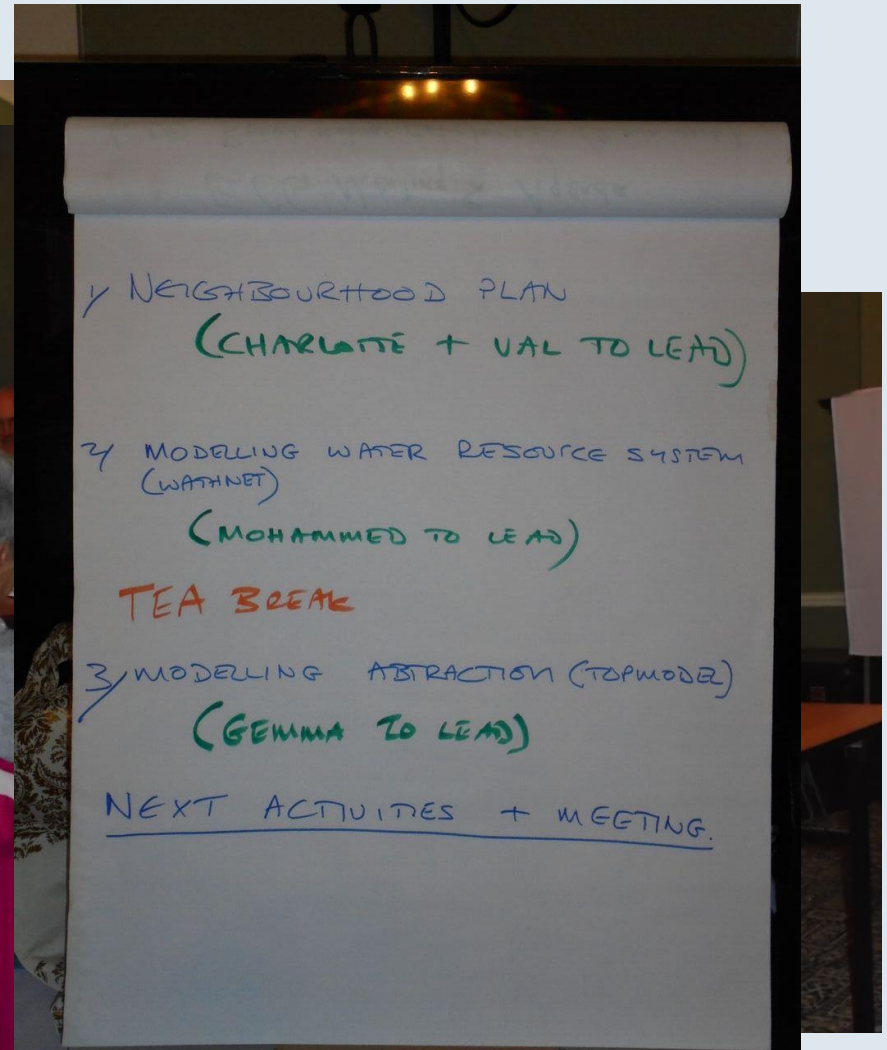
- Project team members (self-selection and suitability)
- Local residents (self-selection with interview)

## Process

- 12 months, 6 meetings, 14 people and 1 records taker
- Doing things together (objects, modelling)
- Equal value of different types of expertise and knowledge



# The meetings





# Insights

## *About drought:*

- Local interest in long-term catchment management to improve resilience to extreme events such as drought
- Local concerns over disconnects between policy frameworks for flood, drought, water quality

## *About the ECG method:*

- A **research** method, focus on process, co-produce new knowledge
- Next step: **Community Modelling**, focus on locally usable and useful output

# Outputs

## From the Kennet ECG:

- Contribution to Area Neighbourhood Plan
  - Statutory, local guidelines for development
- A co-authored report (made publicly available online)
  - The foundation for NP contribution

*First to bring water into NP, alignment of two separate but interacting policy areas: Catchment Management and Local development*

## From MaRIUS about the Kennet ECG:

- Book with cross-disciplinary conversations
  - Journal papers
- ECG website (update, case study)