

# Haltwhistle Burn River Watch Meeting

16th February 2015



Photo: [@bearded\\_bage](#)



# Items to cover

- Tools for the River Watch Group
- General monitoring progress & 2014 data
- 2014 floods - 22<sup>nd</sup>/23<sup>rd</sup> December 2014
- How is your data helping?
  - Broomshaw - telemetered system
  - Slaty Sike runoff-management plan
  - Modelling
  - Citizen science for catchment management – research
- Opportunities & monitoring queries

But first...

Q. What does the term “modelling” mean to you in the context of catchments (rivers)?





# Tools for the river watch group

<http://research.ncl.ac.uk/haltwhistleburn/>



**Haltwhistle Burn**

**Project Partners:**

 **Newcastle University**

 **Tyne Rivers Trust**

A project part funded by 

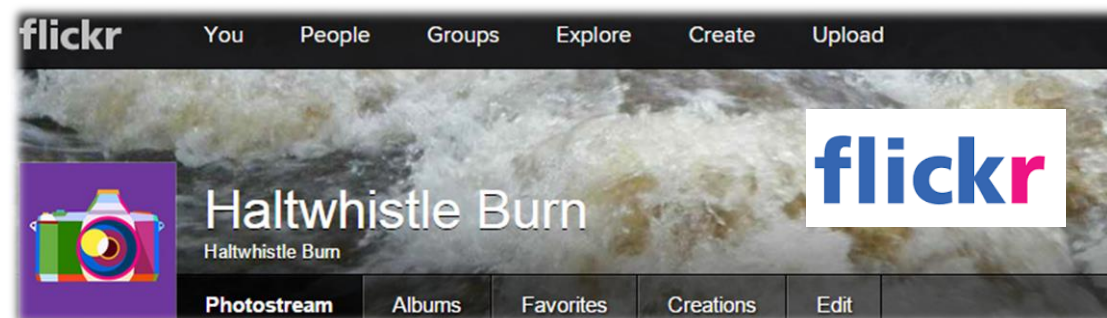
**Welcome to the Haltwhistle Burn research webpage.** Newcastle University (School of Engineering and Geosciences) is working in partnership with the Tyne Rivers Trust (TRT) on a PhD project focussed around the Haltwhistle Burn. A 'total catchment' approach is proposed in the Haltwhistle Burn Catchment to improve fish populations, water quality, hydromorphology and also reduce flood risk.

*Community-Based Monitoring and Modelling for Catchment Management:*

The PhD project itself is looking at how the Haltwhistle community can take part in monitoring and modelling the water environment. This is called **Citizen Science**. Members of the public are co-producing knowledge with catchment scientists to help understand and manage the water environment.

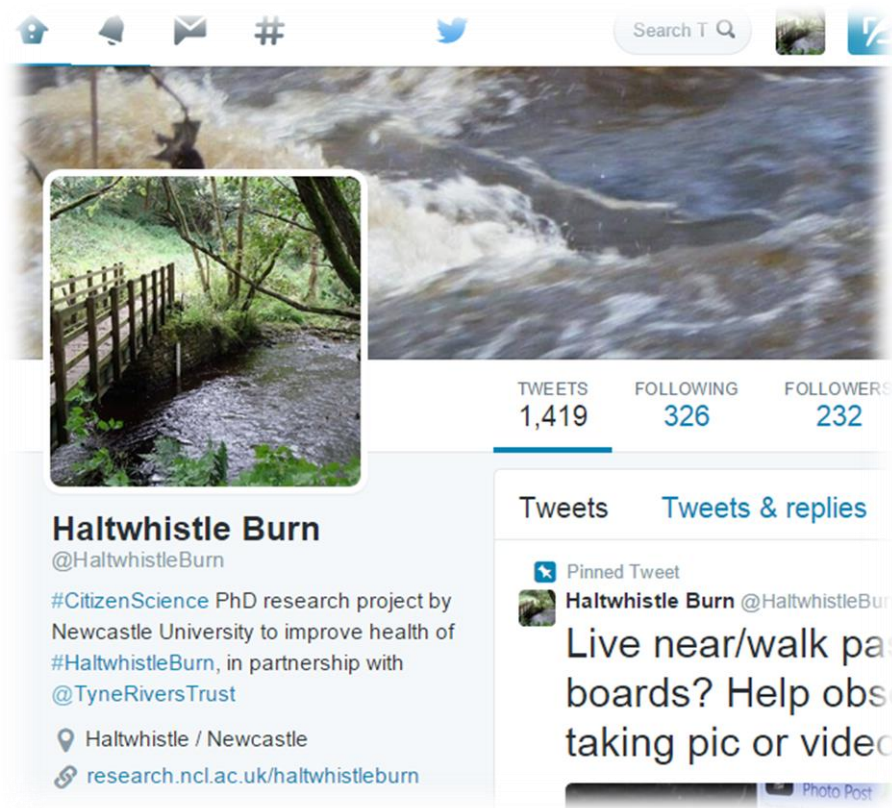
This research site hosts information on the project and act as an information and sharing tool for the community. Use it to find out more about the project, explore maps and historical catchment information, submit your

<https://www.flickr.com/photos/114248420@N03/>

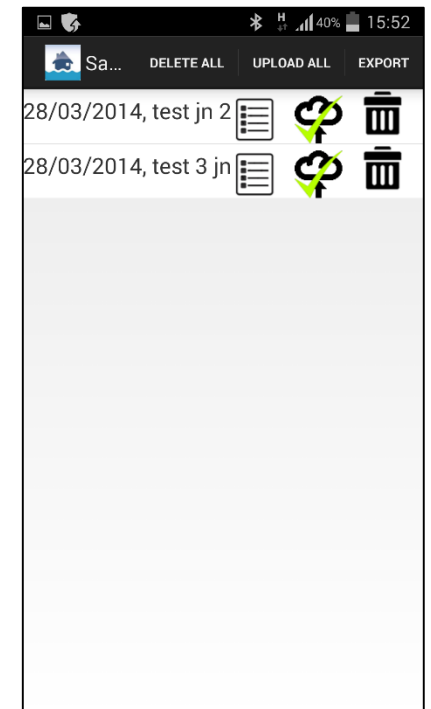
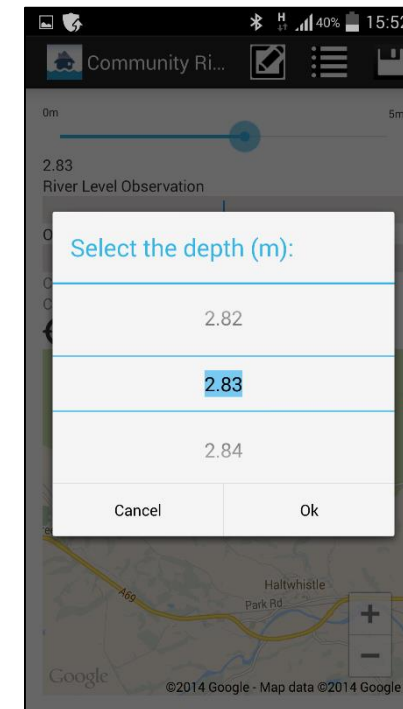
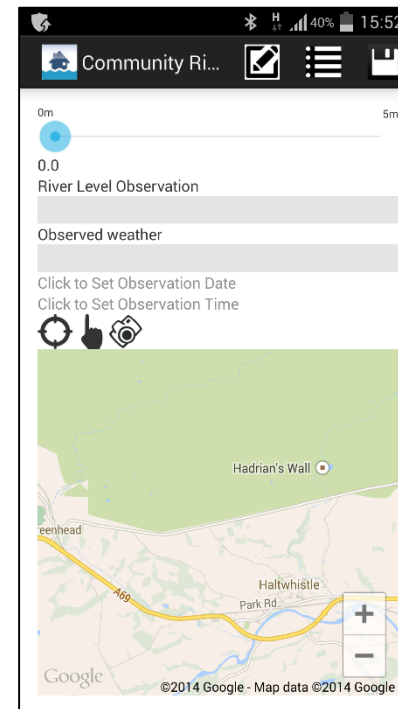


# Tools for the river watch group

<https://twitter.com/HaltwhistleBurn>

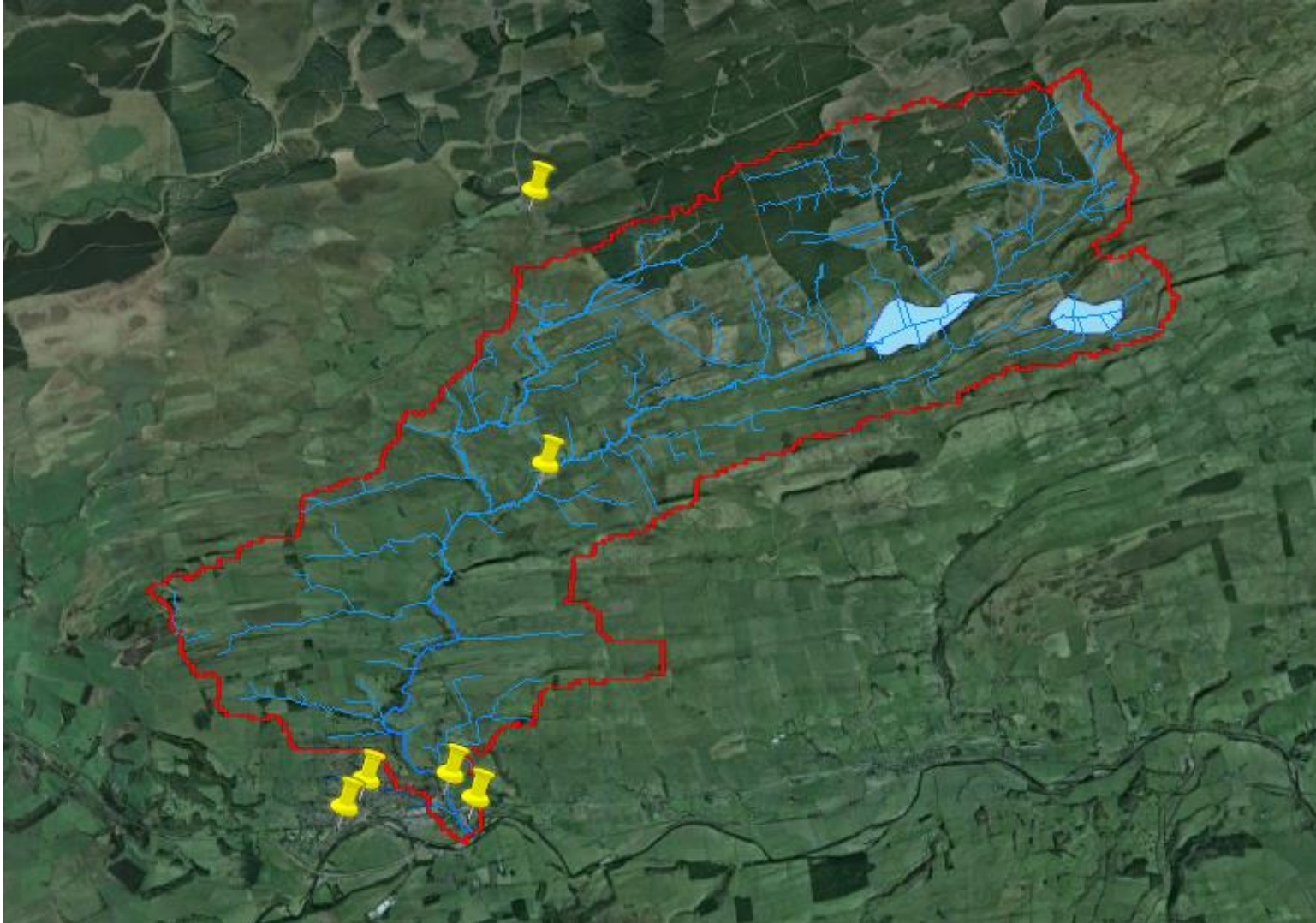


[Community Flood & Weather App](#)

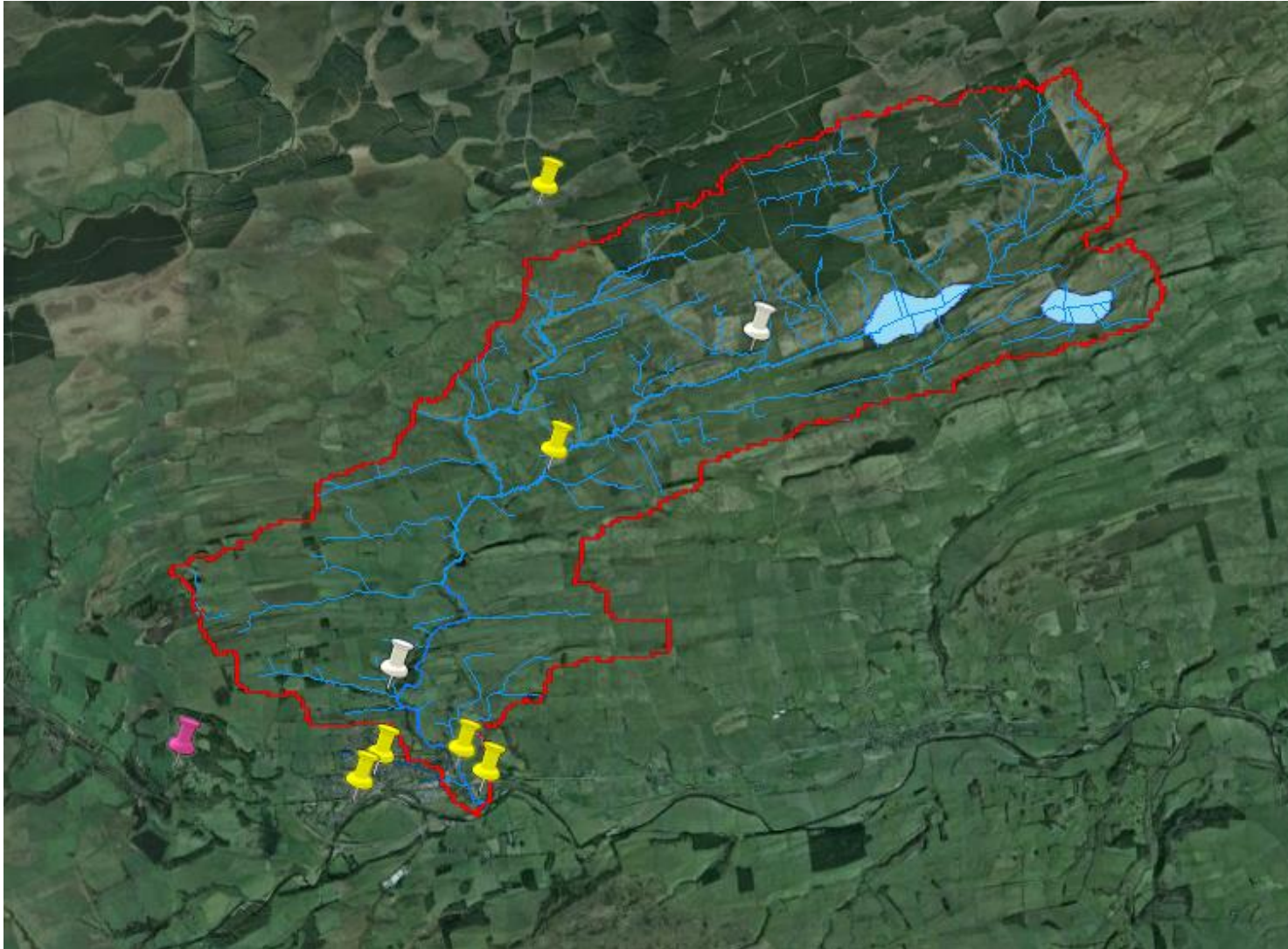




# General monitoring progress 2014 - Rainfall

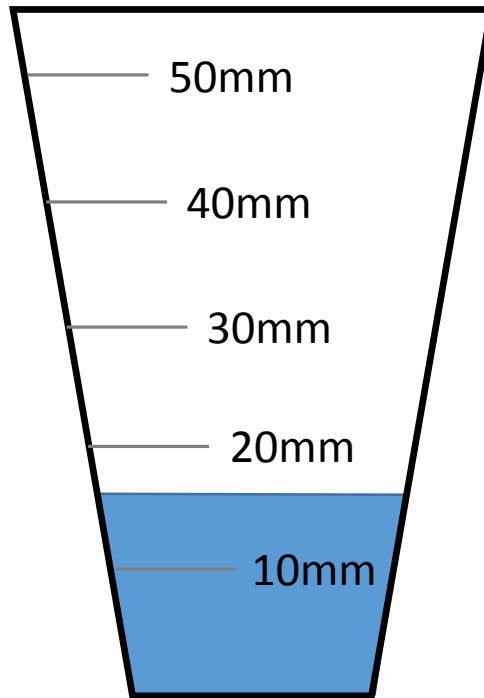


# General monitoring progress 2014 - Rainfall

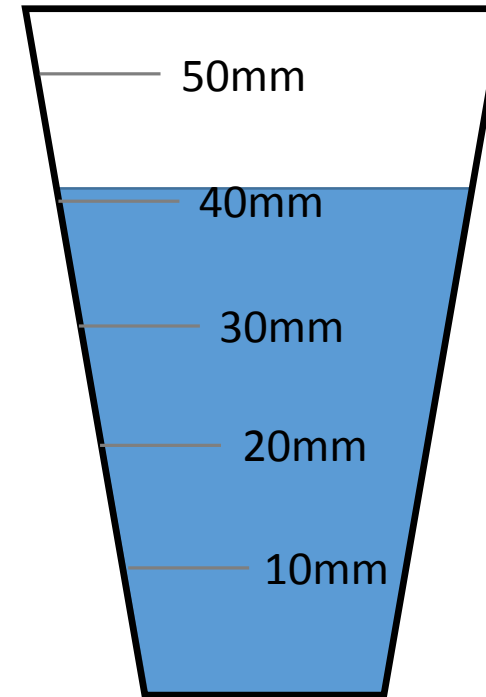


# General monitoring progress 2014 - Rainfall

*Gibbs Hill*



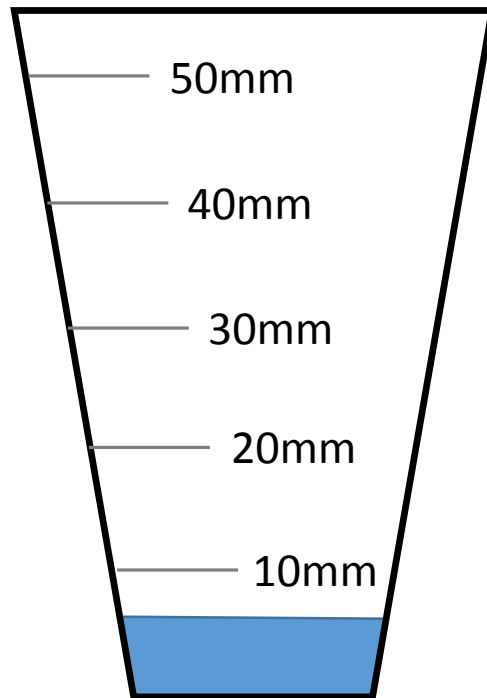
*Townfoot*



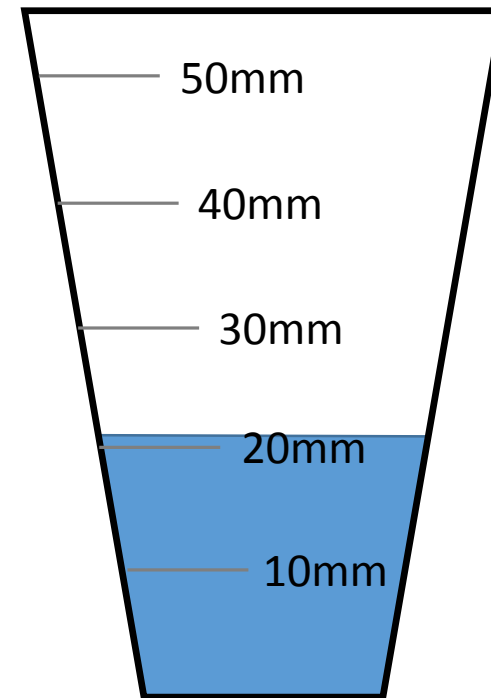


# General monitoring progress 2014 - Rainfall

*Gibbs Hill*



*Townfoot*

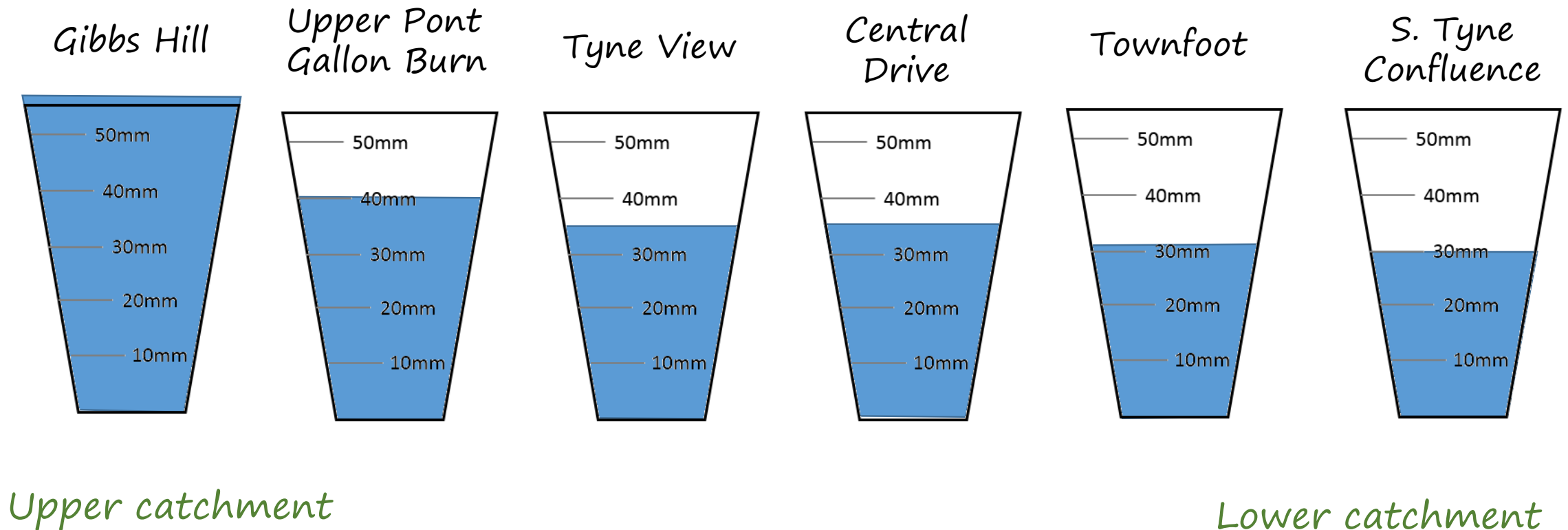


# General monitoring progress 2014 - Rainfall

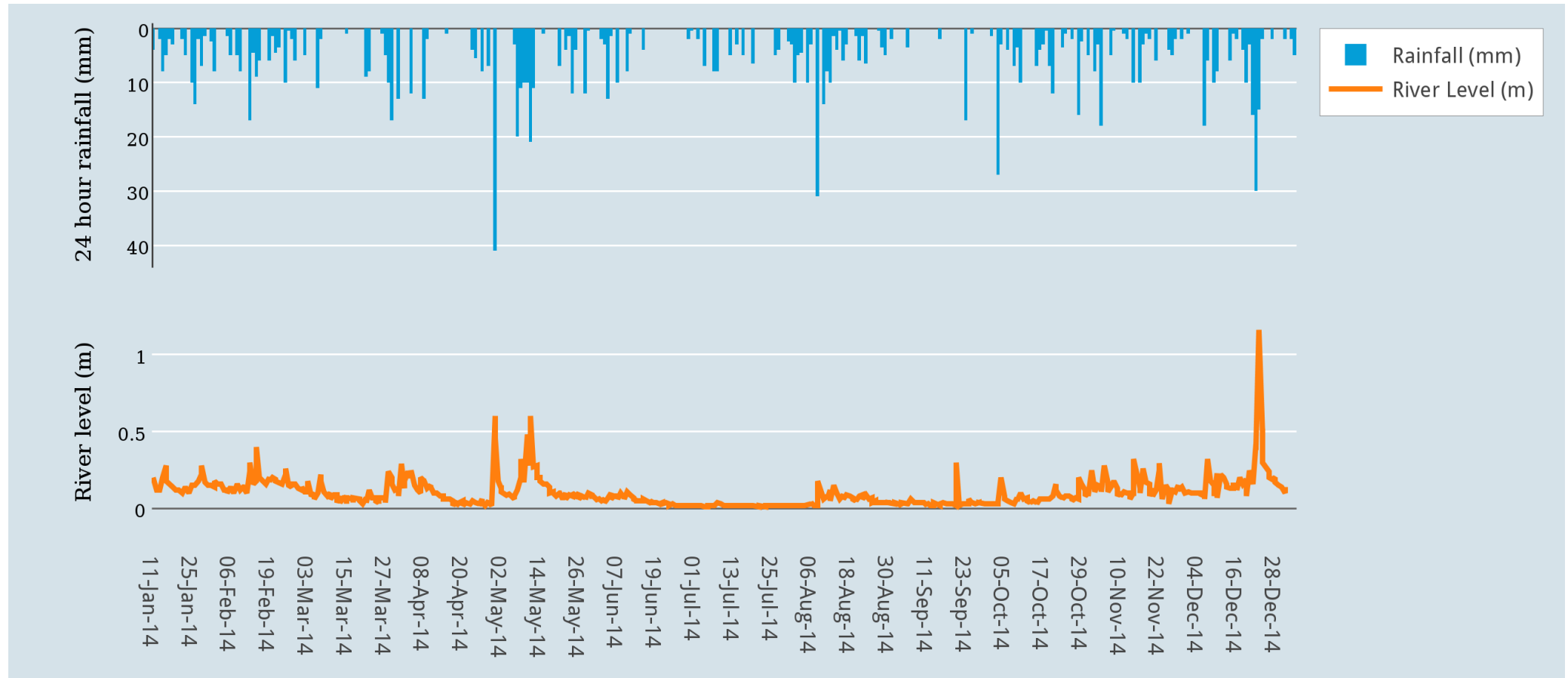
Total rainfall – July 2014	
Gibbs Hill	50.1mm
Townfoot	59mm
South Tyne Confluence	45.5mm
Tyne View	69mm



# General monitoring progress 2014 - Rainfall



# General monitoring progress 2014 – River level





# General monitoring progress 2014 – Water Quality



# General monitoring progress 2014 – Water Quality

- Weekly WQ monitoring
  - Broomshaw
  - Townfoot
  - Gibbs Hill (soon)
- Crude indication
- Rural land use
- Corresponds with EA trends

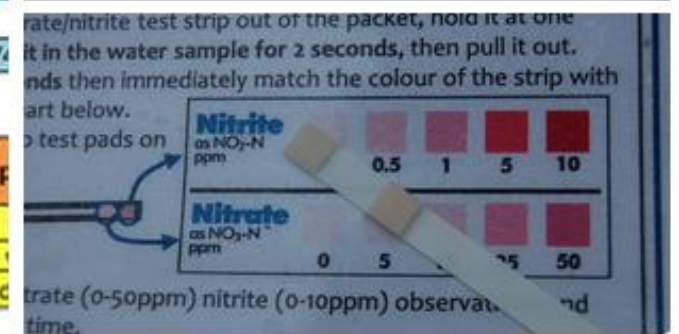
 **Haltwhistle Burn**  
@HaltwhistleBurn

Community has observed #RiverLevels #Rainfall #Floods #Erosion #Habitats. Now also #WaterQuality! #CitizenScience



DO	6
phos	1
pH	5
nitrites	0
nitrites	5

WQ at GIBBS HILL BRIDGE		Grid reference 374
DO	D.O.	Temperature
9	4 ppm	-4C
		Notes (visual observation - 1)
		Fast flowing clear to slight c



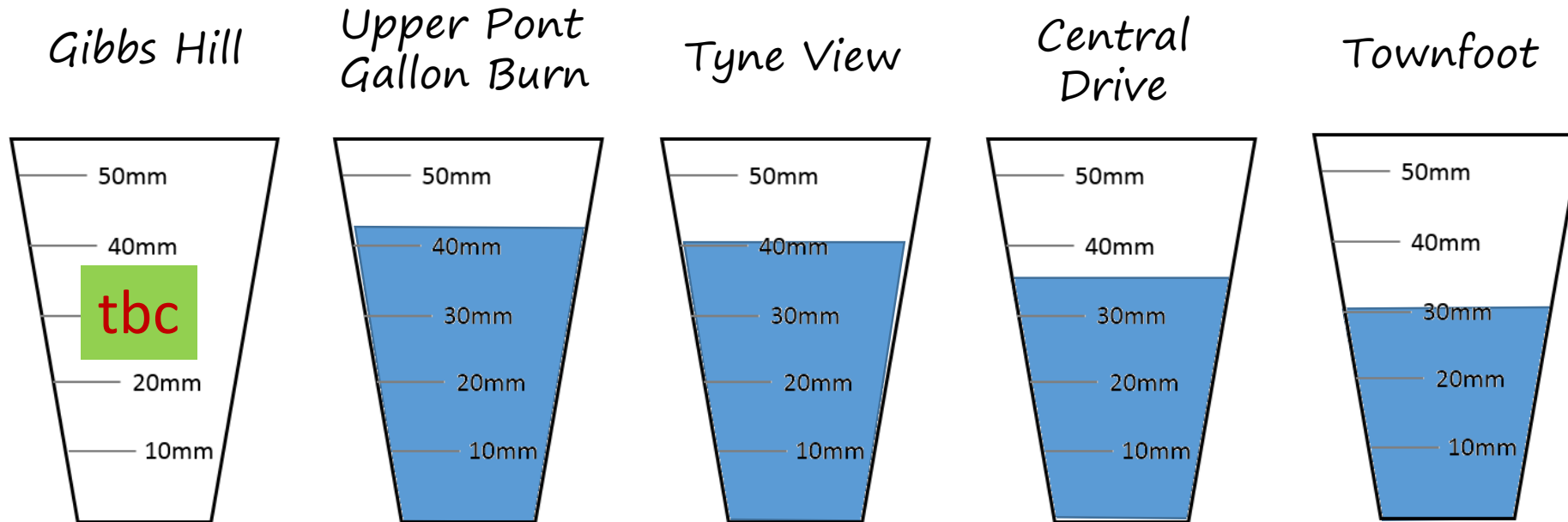




# General monitoring progress 2014 – Ecology



# 22<sup>nd</sup> & 23<sup>rd</sup> December 2014 – lots of evidence



*Upper catchment*

*Lower catchment*

# 22<sup>nd</sup> & 23<sup>rd</sup> December 2014 – lots of evidence



22-12-2014 0915hrs  
Townfoot



22-12-2014 0932hrs  
Mill Bridge



22-12-2014 1011hrs  
Broomshaw



# 22<sup>nd</sup> & 23<sup>rd</sup> December 2014 – lots of evidence



22-12-2014 1127hrs  
Cawfields



22-12-2014 1135hrs  
Caw Burn d/s Cawfields



22-12-2014 1337hrs  
Caw Burn at Gibbs Hill





# 22<sup>nd</sup> & 23<sup>rd</sup> December 2014 – lots of evidence



22-12-2014  
Upstream of Pont Gallon Burn  
Leaky Dams



22-12-2014  
Pont Gallon Burn Leaky Dams



# 22<sup>nd</sup> & 23<sup>rd</sup> December 2014 – lots of evidence



23-12-2014 1309hrs  
Caw Burn at Gibbs Hill



23-12-2014 1549hrs  
Military Rd Culvert



23-12-2014 1606hrs  
Caw Burn d/s Cawfields



# 22<sup>nd</sup> & 23<sup>rd</sup> December 2014 – lots of evidence



01/05/2014 17:18



04/01/2015 15:52



# 22<sup>nd</sup> & 23<sup>rd</sup> December 2014 – lots of evidence

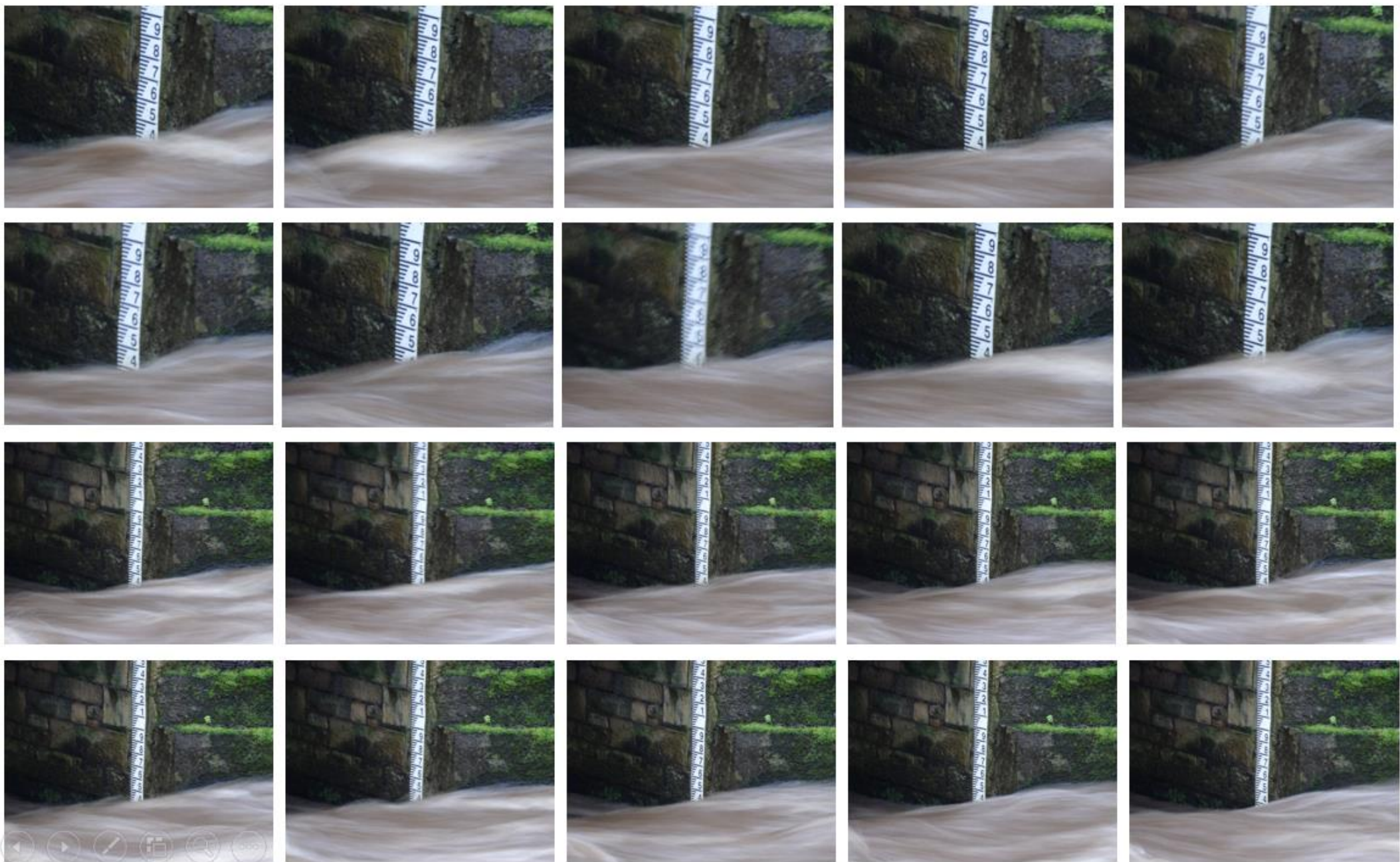


25th December 2014



4th January 2015



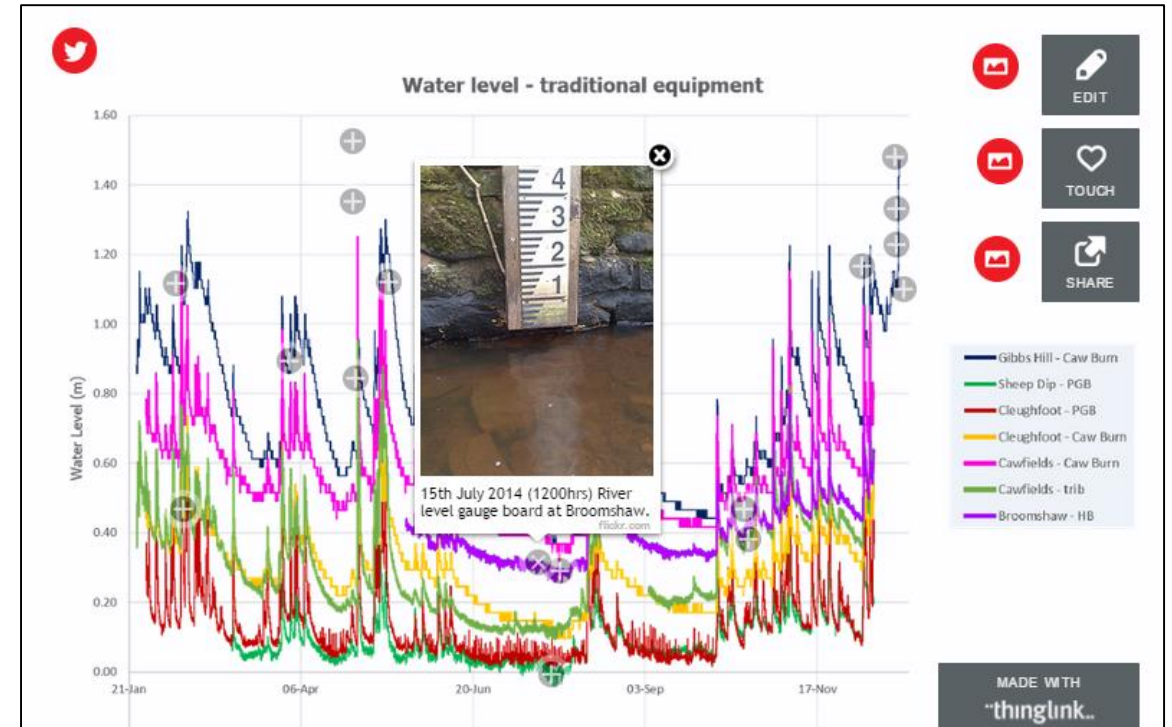
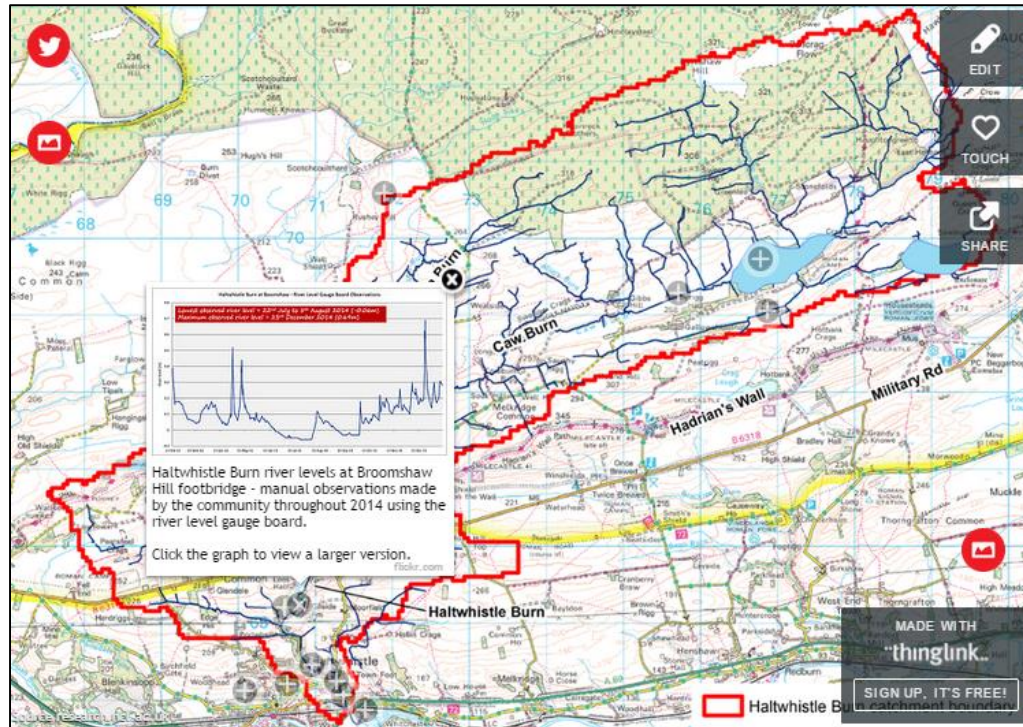


*“WAVE EFFECT” – highlighted by you*

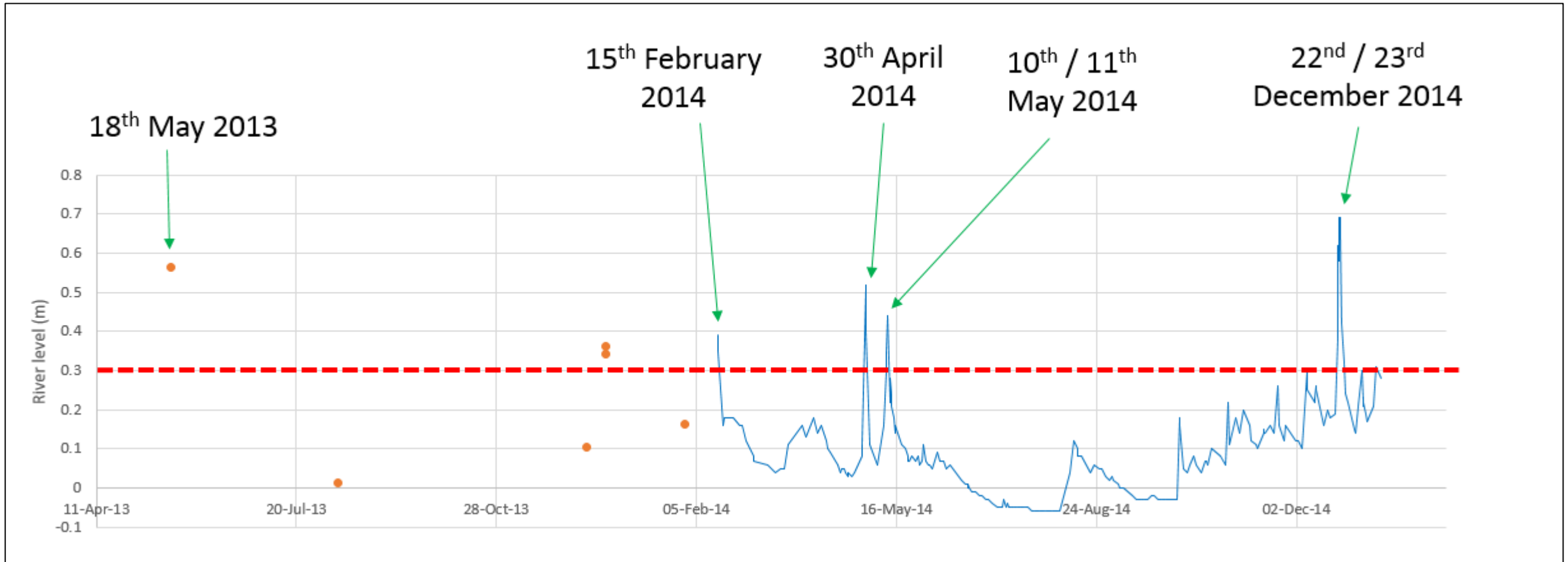


# 22<sup>nd</sup> & 23<sup>rd</sup> December 2014 – lots of evidence

<http://research.ncl.ac.uk/haltwhistleburn/communityhub/monitoring-catchmentscurrentstatus/>



# How is your data helping?





# How is your data helping?

- Slaty Sike NFM
- Report
  - Interactive map
  - Leave a comment

<http://research.ncl.ac.uk/haltwhistleburn/communityhub/catchmentmanagement/>

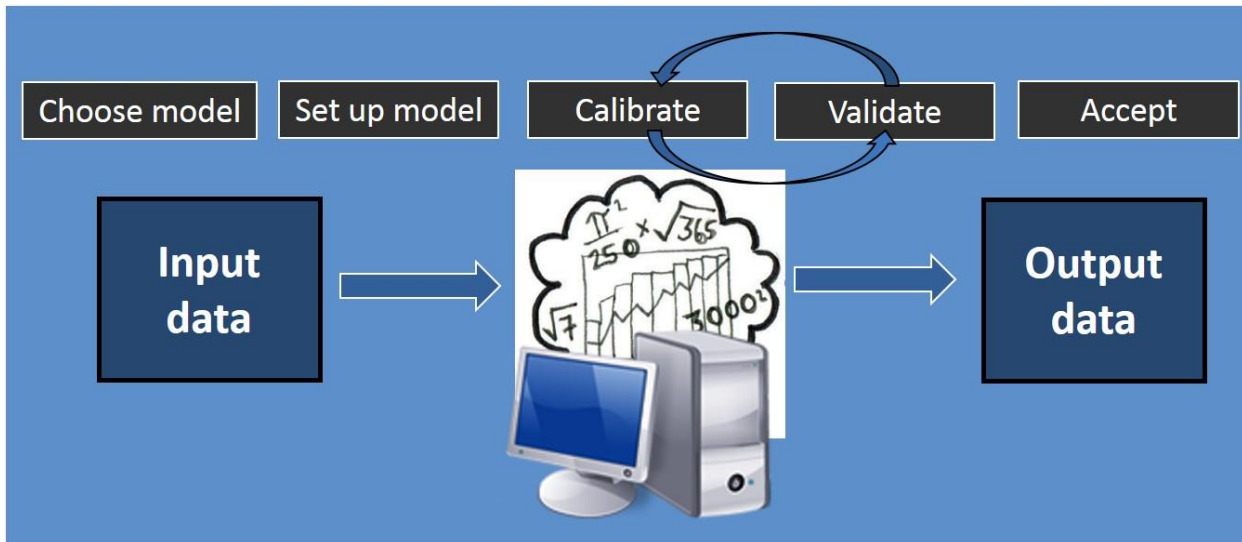
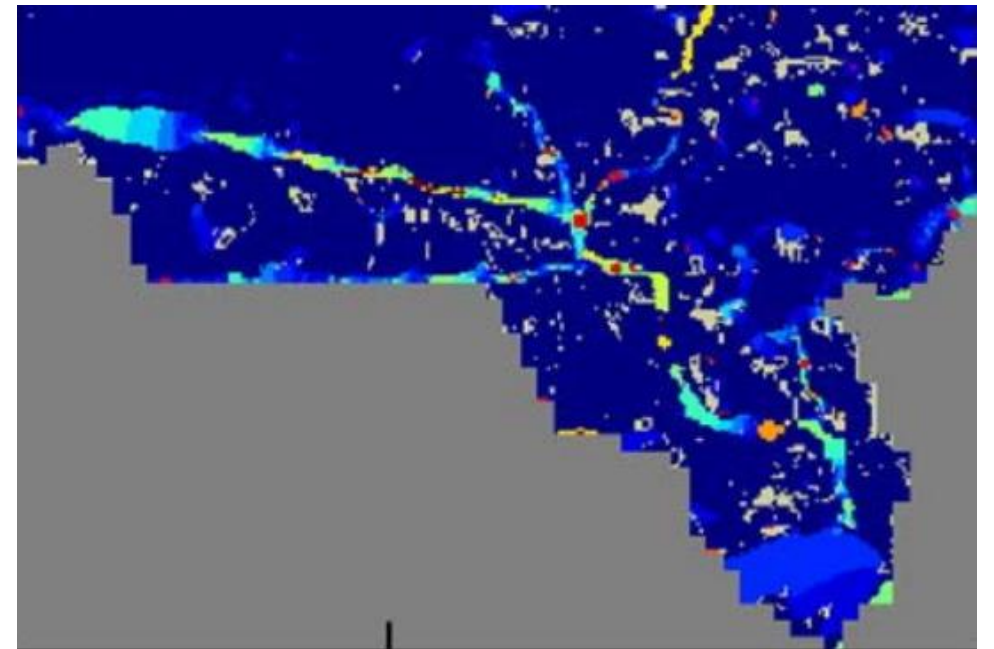
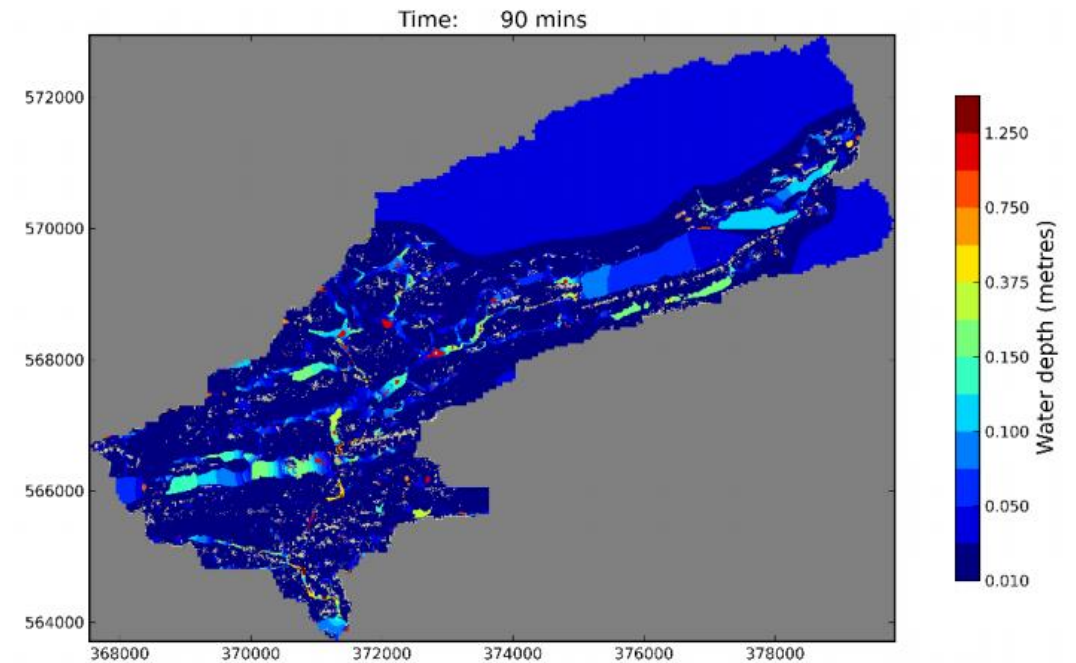




# How is your data helping?

## Research:

- Citizen science & catchment management
- Modelling



# How is your data helping?

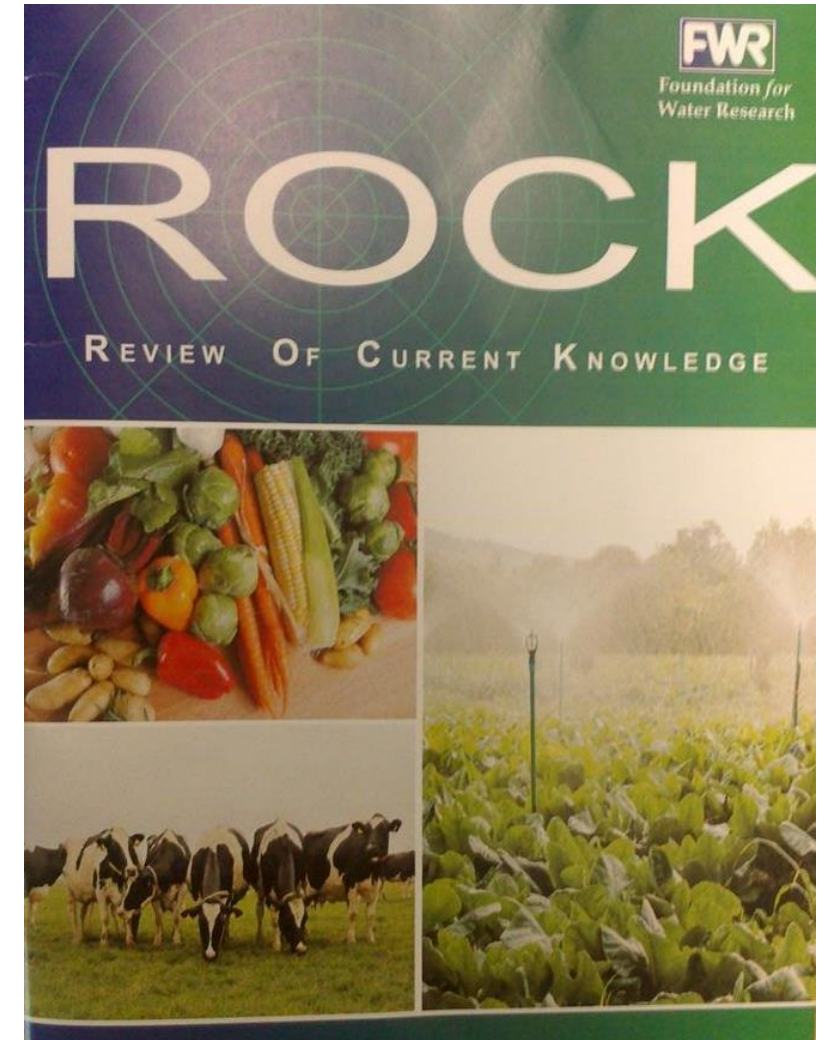
Research:



The  
University  
Of  
Sheffield.



- Support EA / NCC projects
- Data which will influence flood plan



# Opportunities & monitoring queries

- Twitter + App training (now)
- Tablets + waterproof camera
- “Wave effect”
- Slaty Sike (woody debris)
- Upper catchment?
- Most important data:
  - Daily variations = bigger picture
  - Floods: videos + pics Townfoot & Broomshaw
- Training cards available – open to anyone
- Any data outstanding to share



Haltwhistle Burn  
river watch

