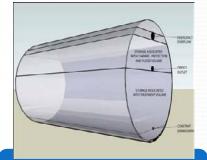




#### £10 billion to £12 billion huh?



£5bn to convey 164m3 treated RW





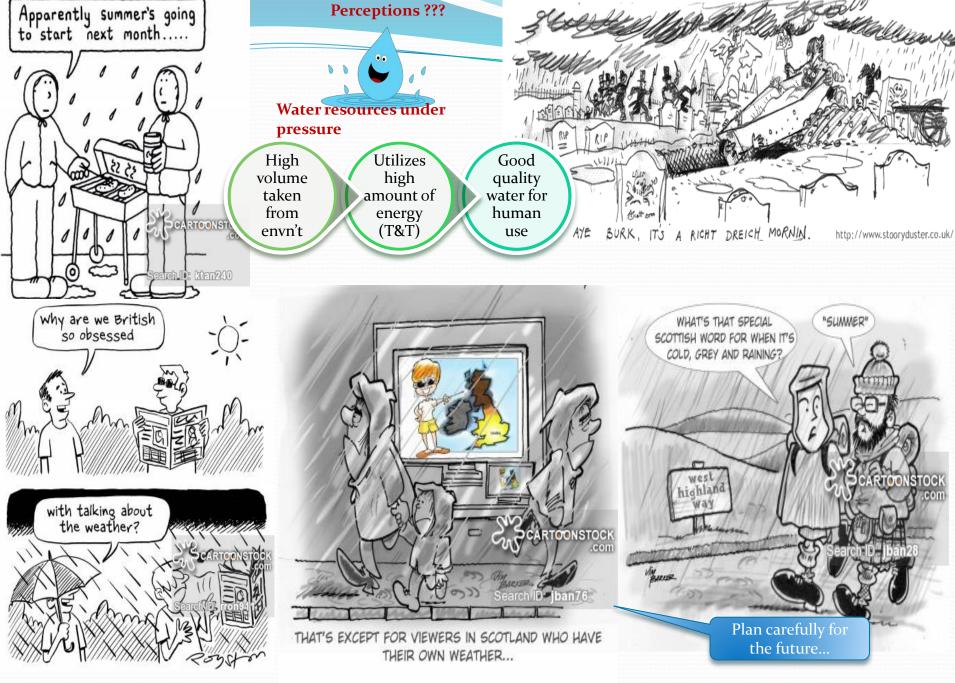




Manage risk
Economy
Natural environment

tuture plan Supply protecting whilst baken treated utilizes approximately development ensure taken treated utilizes approximately development ensure to south a valiable scotland environment transport context sustainable good changing footprits high carefully treat situation everyone quality United resources need Within run-off volume





Save a wee bit of cloud pee RWH

- Demand on groundwater
- Dependence on mains water supply
- Flooding
- Improves plant growth (not chlorinated)

- Energy use to T&T runoff
- Pollution
- CO<sub>2</sub> emissions

- Cost effective, resilient and as a climate change mitigating solutions as compared to the conventional (re)design water distribution systems
- Overall energy consumption associated with RWH systems is a very minor fraction of total building energy consumption



# climate hanging

#### Our climate is changing...



Changing climate

And

Reducing our carbon footprint



Optimize RWH

Water consumption



Climate change impact

Watercourse quality





CHRIS MADDEN





#### <u>Framework</u>

Socio-economic acceptance Attitudes Perceptions





Mimicking carbon neutral explore feasibility of **RWH** in peri-urban areas in Scotland

Social and technical adaptations

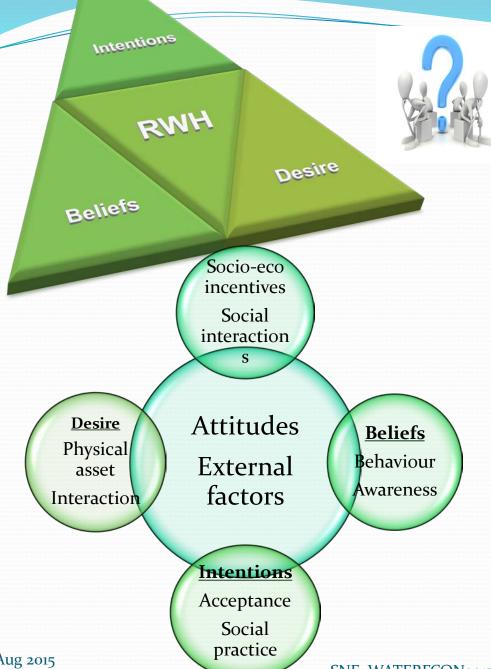
Aims and objectives

Perceptions on climate and its' effects on their water source

Analyse behaviour, attitudes and perceptions





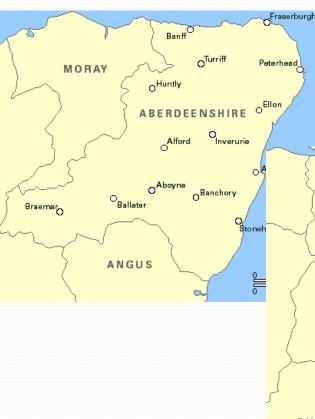


The main research questions set were:

**Scottish PWS householders** would have a positive attitude towards RWH

Scottish PWS users will be more concerned about the effects of climate change on their source of PWS than those on public mains supply







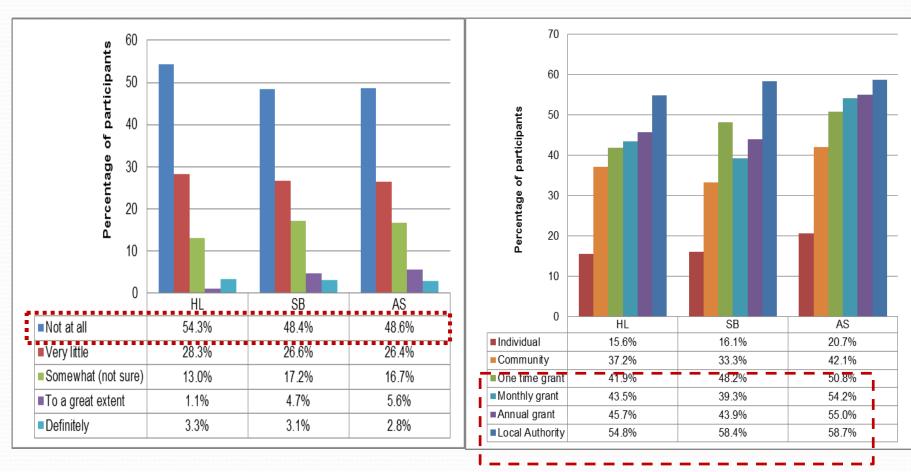




questions a survey was developed to collect data from three local authority areas (Aberdeenshire, **Scottish Borders and** Highlands) The questionnaires were administered randomly and the responses received from the survey were processed to answer the overall research questions

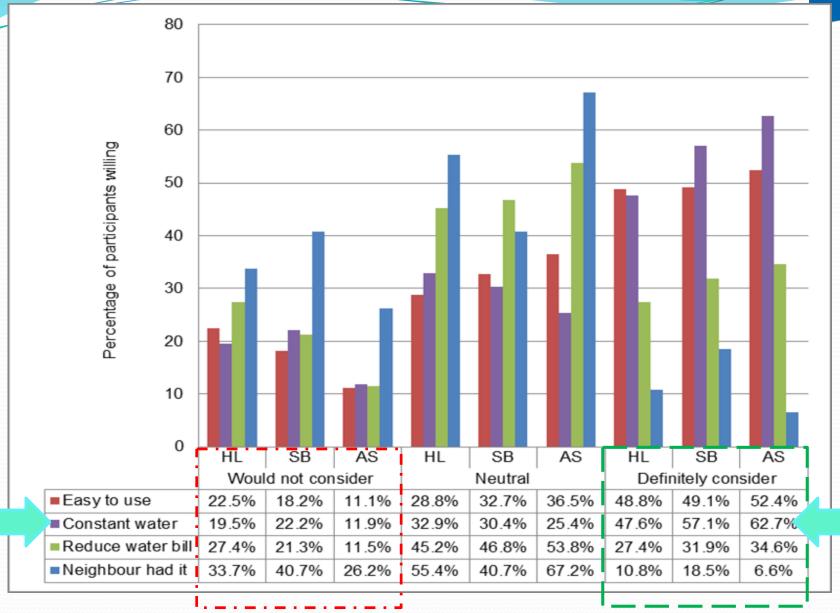
### **RESULTS**

#### Socio-economic and technical adaptations of RWH in Scotland

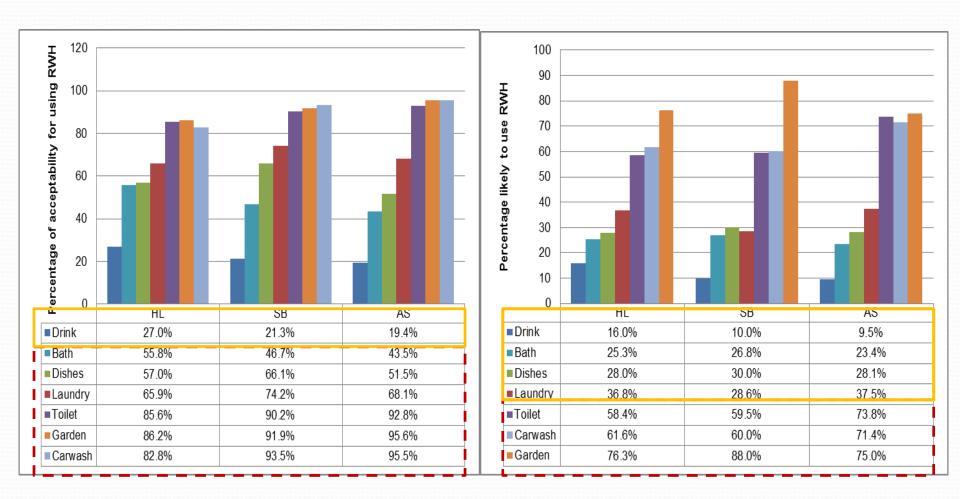


#### Socio-economic incentives to implementing RWH





#### Behaviour, attitudes and perception of RWH in Scotland



The level of acceptability and likelihood of using RWH for domestic purposes





## THANK YOU FOR YOUR LISTENING



### **ANY QUESTIONS?**





