TECHNICAL COMMITTEE – WATER REUSE

Date: Wednesday 1st April 2015
Venue: Room 646, Cockcroft Building, University of Brighton, Lewes Road, Brighton
Time: 11.00 hours – 13.00 hours

In attendance:	
Phil Barnard	Chandlers (Chair)
Andy Wilson	Scottish Water
Katherine Hyde	University of Reading (via SKYPE)
Suzy Armsden	WATEF Administrator
Kemi Adeyeye	WATEF Lead
Will Harte	DEFRA
Stephen Reader (for Phil Henry)	Polypipe
Doug Clarke	Severn Trent (Via SKYPE)
Neil Pendle	Waterscan

Apologies:	
Kevin Reed	Graf UK (co-chair)
Daniel Clark	CC Water
Lutz Johnen	Aquality
Alan Fewkes (Academic chair)	Nottingham Trent University
Sarah Mukherjee	Water UK
Angela Wallis	Environment Agency

MINUTES

Welcome & Introductions

Phil Barnard welcomed everyone and introduced Doug Clarke from Severn Trent and Katherine Hyde from University of Reading as new members. A brief introduction from everyone then followed
Phil Barnard is Head of Sustainability at Chandlers Sustainable Building Solutions.
Neil Pendle is MD of Waterscan – who deal with commercial water management on behalf of companies such as Whitbread dealing with both rainwater harvesting and grey water recycling.
Stephen Reader is the Specification Manager of Polypipe who is standing in for Phil Henry.
Andy Wilson – Project Manager – Scottish Water
Doug Clarke – Water Efficiency Manager for Severn Trent
Katherine Hyde – University of Reading – sits on BSI committee – research on sustainability construction management – also have greywater recycling research being undertaken in university laboratory.
Kemi introduced Alan Fewkes in his absence – he is from Nottingham Trent University and sits on the BSI committee as well as Katherine.
Will Harte – works on water policy at DEFRA.

Review of Interim Report :

Those present at meeting were given draft copy of interim report (including those present by SKYPE)

Template *– Action: Please can everyone send Suzy their contributions (thanks to those who have already one done so) Suzy will re-send template to everyone.*

University of Reading Research Report on GWR: There are 5 GWR systems on trial and there will be a full set of results available by end April.

Neil Pendle can supply report from hotel in Abu Dhabi. Similar data is being put together by Service Innovation Technical Committee. Contact at Waterscan is Rebecca Gale – Neil Pendle to circulate contact details to Kemi.

Survey in commercial arena of GWR will be complete in May. There are 10 to 12 commercial customers undertaking survey. Results will be interesting – does same data apply for domestic as well as commercial?

Severn Trent have done this type of survey – still collating responses – looking fairly positive. Some customers did not understand that they had a RWH unit, generally views are quite positive or at worst neutral. One issue is maintenance – this is potential problem, units being used are Reaqua units – and maintenance is generally a simple filter change and a top up of disinfectant. Only 10 units at moment so fairly small sample and no issues have been raised by tenants during use of RWH systems.

Discussion on who is responsible for ensuring maintenance meets with BIS codes and practices ensued. Project manager would drive project – filtration is a pre-requisite and will be driven by the project manager. The same principles would apply for GWR. A Graf rainwater harvesting tank is already fitted with pump and filtration. There is no enforcement of BSI standard in RWH.

Doug Clarke – in terms of water companies there is a duty for them to be competent in the installation of units. Local installers have to inform Severn Trent about RWH systems

Water companies have duty to protect water network – check that RWH are working properly e.g. check that anti backflow valve is in place – how can they do this if they are not aware of systems being installed? Currently the risk level is high. Need specifications to protect supply of water into the building.

Kemi mentioned that during Berlin field trip, we saw a system with an air gap which creates a safe connection. Water companies need to be informed – there are legal requirements for the installers for compliance. The scheme is purely voluntary. All water companies should have a "joined up" approach. We should have an agreed Code of Conduct. If system incorrectly installed and maintained then guarantee is withheld until such time as confirmation is received that system has been correctly installed. Problem is that nothing is enforced – it needs to be the manufacturers'

responsibility to ensure that the maintenance company carry this out. Domestic buildings don't always fall under the radar of building regulations. We need legislation in place to say that equipment guarantee will be null and void unless satisfactory evidence of correct installation is supplied. All equipment to have the correct air gap – if you don't supply this it's the manufacturers responsibility to supply equipment which complies with water regulations for example "Please confirm that you have installed xxx system as instructed by these regulations ".

There is possibility where people may try to provide bogus evidence, in which case as equipment is incorrectly installed then the warranty for that equipment is deemed invalid.

In domestic cases usually installed by qualified CIPHE plumber. Non domestic –is air gap sufficient and does it comply with water regulations? How are water companies checking this?

This is something which needs national agreement/legislation. There are often RWH systems in place which the water companies are not aware of. Contact Rain Water Management Association for data? Commercial is probably more of a problem.

Do we need regulations to be clearer or is it manufacturers' responsibility to ensure that certain aspects of installation meet with requirements? The water companies need to be more aware. Currently there are no GWR systems installed in Scotland so this is the right time to plan the notification process.

Need to work out how to deal with systems already in place. If contamination of water network who is responsible? If water company has not been informed it would be hard to demonstrate that they are responsible. There needs to be something in place to require the water companies to be notified. (Water companies should have primary responsibility).

Need for Approved installers (on commercial side) for example to ensure RWH tank fitted correctly; approved product list (quite a few products currently on market); need to regulate before competition in 5-10 years' time means more (unregulated) installers and products enter the marketplace. Polypipe ensure their installations meet AA air gap regulations prior to connection to mains water supply. Graf provide installation guide with their RWH tanks and only issue warrant once system has been installed correctly.

BSI regulations are not enforceable. BS8525 – Katherine to check up if similar systems can be installed and each needs to comply with building regulations or just one check necessary?

We need to establish training qualifications for installers. We need approved installer system. This will add costs – people very conscious of cost/benefit ratio.

Combine with SUDS – would this be something which can be thought about? There are a number of manufacturers who are looking at combining RWH with SUDS. The benefits are that RWH is sporadic and relies on rainfall whereas SUDS can be stored. Also GWR is regulating what goes into the sewer system. The SUDS tank can be bigger- there is possibility for larger attenuation system with RWH.

It's a mess in terms of how we can move things forward – we need to focus on how it is dealt with from a water company viewpoint and then liaise back to installers and manufacturers. We need to formulate a workable and forward thinking proposal.

This is an opportunity to get people to want to expand into RWH/SUDS. If you have a combined system you have to put effluent or overflow into sewer. Possibly creation of too much water from water handling point of view. Where is the incentive to install? There would need to be an example of economic success of such a system. Customers' don't want this type of system – they want RWH or GWR not combined. The technological challenge is that we need to encourage water reuse

There should be a "Return on Investment". It's the customer's choice – they have to like the idea of saving rivers, slowing down surface water run-off and reducing the risk of flooding, etc. Need to look at cost/benefits - if you want RWH to work on an economical basis then you have to combine SUDS as well.

Example cited of barn conversion where client wanted sustainable energy in order to make property more sellable in open market.

Kemi to get information from SUDSNet. Perhaps there are sites we can visit?

Code for Sustainable Homes 2006: Non mandatory except where - Local authorities require housing developers to comply by including in planning policy; affordable homes are funded by Homes and Community Agency which requires home to be built to code level 3; the code level 3 building standard is incorporated in building regulations. We need to do more so that people are aware of what they get.

Water companies: how many water companies work with for example housing associations around the code for sustainable homes? Examples cited are Albion Water, South West Water, Thames Water and United Utilities.

Public Awareness: the water companies should look at what technology they can provide – can this be included in the water bill?

What are they doing about Innovation (good example: Severn Trent)

Most people appreciate that they have to save water – in general they understand that there is only a certain amount of water to go around (finite). There is a tendency to offer customers who show interest in water efficiency a piece of kit but "one size does not fit all". Some people would prefer to pay for a RWH system rather than have someone come into their home. There is a growing "intervention fatigue". We are running the risk of not getting right out there. Even with high performance shower heads there is a group of people who still prefer to take baths in the evening. They buy water efficient systems as an investment. A means of future proofing. They need confirmed pay back. What has been installed actually works. Water companies need to know that systems are working efficiently.

Next Steps:

Public Awareness: We need data on what the public is actually thinking. Perhaps do attitude survey amongst student population. Neil Pendle to send recent survey to Kemi/Katherine for analysis.

Anglian Water have development team who target the non-domestic sector. There is a knowledge gap here. Different demographics between domestic, commercial, housing etc. as to what is considered to be a modern bathroom. We need to produce something to take to developers in order to obtain their views.

Legislation/Planning:

There are no funds available – real pressure for robust evidence on carbon emissions. There is information out there but how do we get hold of it?

The public need quantifiable evidence. We need to show the public that water efficiency is great.

Action: Look at evidence which exists. Attitude survey from Neil Pendle will answer specific questions.

We need template – once this is agreed – we can circulate survey and put together information received.

Agreed actions:

1. *Neil to send survey questions to Kemi/Katherine so that they can construct the 10 questions to be use*
2. *Question/survey template – Kemi to send link*
3. *Presentation at WATEF conference (Neil has volunteered to present)*
4. *Proposed abstract to be drafted and sent to all for comments. Kemi and Katherine to do this. Suzy to send out to all committee members*
5. *Questions for survey to be agreed by 10 April 2015 (ideas what region of country are you from?*
6. *Next meeting in mid June – Suzy to send out Doodle poll*