Customer Experiences of Home Retrofit Products

An *Evidence Base* project

Final report, May 2013

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Published by Waterwise, May 2013

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Suggested citation for this report:
Bremner, S. Jordan, D. Omambala, I. and Tompkins, J. (2013). *Customer Experiences of Home Retrofit Products: An* Evidence Base *project.* Waterwise, London.

This research was funded by Defra, Environment Agency and Ofwat. Views expressed herein reflect research findings and authors' interpretations. The views do not necessarily reflect Waterwise or funder policy or opinions.

Waterwise would like to thank all members of the *Evidence Base* Project Working Group and Peer Review Group for contributing to the development of the project methodology and for reviewing drafts of this report:

Heather Aitken	Thames Water
Claire Anderson	Environment Agency
Tom Andrewartha	Essex and Suffolk Water
Andy Blackhall	Dwr Cymru
Doug Clarke	Severn Trent Water
Grant Gahagan	DEFRA
Alice Mahar	OFWAT
Ian McAthy	Affinity Water (formerly Veolia South East)
Steve Moncaster	Anglian Water
Clare Ridgewell	Essex and Suffolk Water
Kathy Thornton	Wessex Water
Neil Whiter	South West Water
Rob Wynn	South West Water

Waterwise would also like to thank the following organisations for contributing data to this project:

Anglian Water	Southern Water
Bournemouth and West Hampshire Water	South West Water
Dwr Cymru	Sutton and East Surrey Water
Environment Agency	Thames Water
Essex and Suffolk Water	United Utilities
Kent County Council	Affinity Water (formerly Veolia South East)[1]

[1] Veolia Water South East, Veolia Water Central and Veolia Water East are now know as Affinity Water (Veolia Water is a separate company not associated with the former Veolia Water company areas)

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1 Executive Summary

Introduction

Whilst water efficiency retrofit products are regularly used in water demand management initiatives, it remains difficult to determine water savings resulting from specific retrofit products because initiatives tend to install several products in each home. Furthermore, little is known about how customers use products after installation, including the frequencies of removal and misuse. Improved knowledge in both these areas will improve understanding of the length of time water savings are likely to be maintained. Therefore, this study focuses on what customers think of water-efficient products retrofitted in their homes, either through self-installation or by a professional.

Findings

Toilets

There were two main products installed; flush conversion devices and cistern displacement devices. There was little difference in the percentage satisfaction of customers who had these devices installed, with both being generally well liked. The flush conversion devices tended to be removed more frequently and required more remedial visits than the cistern displacement devices. For both types of product, dissatisfaction was mostly due to incorrect installation or the device not being appropriate for the customer's toilet. A small number of flush conversion devices were removed due to dislike of the product.

Showers

Customer satisfaction on shower devices varied greatly. Showerheads were generally perceived positively although this depended on the type installed. The types of device ranged from aerated showerheads to shower regulators. Main reasons for removal of a showerhead would be its comparison to the previously installed product; if the water efficient showerhead did not perform as well then it was more likely to be removed. In addition to this appearance of the showerhead was an additional factor that was considered by the customer. Shower regulators are generally viewed the same way as a showerhead, with customers only removing if installation leads to a reduction in shower experience. Shower timers are well liked by customers and only reasons for removal of these were that the timer stopped working or would no longer attach to the wall.

Taps

Customer feedback on tap inserts was generally quite mixed. There was a lot of negative feedback regarding tap inserts, mostly due to the insert causing a reduced flow in the kitchen where it was impractical. There were issues with self install of tap inserts as there were many occasions where the inserts would not fit the customers tap. Tap adaptors, which fit externally to the tap and alter flow were viewed slightly more positively as they could be fitted to a wider variety of taps, however some customers still found that there was sometimes too great a reduction in flow.

Garden

Whilst garden products may not always yield the highest water savings they were amongst the most positively received products looked at for this study. Hose guns were described as being an effective tool in customer recruitment. Water Butts were seen as a desirable product and in the few projects where they have been included, they have been very popular. Water crystals were also viewed favourably with a number of customers stating that they would be happy to pay for this product.

2 Introduction

For over four years Waterwise has been developing the evidence base for large-scale water efficiency. The 2008 report for Phase I of the Evidence Base programme of work drew on evidence from 20 water efficiency projects, targeting domestic properties, led by UK water companies. Phase II of the Evidence Base programme concluded in April 2011 and contributed to existing evidence on both homes and schools retrofitting. The programme is now in its third phase, which will run for three years, with funding in the first year from Defra, Ofwat and the Environment Agency (who also supported past parts of the programme).

The Waterwise Evidence Base has collated a large amount of data pertaining to water consumption changes resulting from water company-led retrofit projects. Many UK water companies help customers reduce water consumption through installation of water efficiency retrofit products, either as part of a free home visit or the provision of do-it-yourself products. Water efficient products are used to retrofit toilets, showers and taps[2] as well as improve water efficiency in other parts of the home, too. Whilst water efficiency retrofit products are regularly used in water demand management initiatives, it remains difficult to determine water savings resulting from specific retrofit products because initiatives tend to install several products in each home. Furthermore, little is known about how customers use products after installation, including the frequencies of removal and misuse. Improved knowledge in both these areas will improve understanding of the length of time water savings are likely to be maintained.

Despite or perhaps because of these gaps in knowledge, there is a tendency for water companies to use a similar range of water efficiency products in their initiatives. The potential water savings from these products is a key consideration during product selection, with savings often taken to be those assigned by Ofwat[3]. Price also is important, especially to ensure overall cost-effectiveness, that is, total litres of water saved per pound spent. Sometimes the popularity of particular products with customers is considered as well as the ease or difficulty with which products may be installed by customers (important in do-it-yourself initiatives).

Therefore, this study focuses on what customers think of water-efficient products retrofitted in their homes, either through self-installation or by a professional.

How an individual uses a product, and if indeed it remains installed in a home, has an impact not only on potential water savings but also on individuals' attitudes to water efficiency and other water efficient products. Understanding what customers think may bring additional benefits; for example, installing products that customers want, find useful and perceive work well may enhance the reputation of those providing the products. In addition, including desirable products within a project may well help improve customer recruitment. Above all, feedback from customers may help identify problems within with water efficiency initiatives, ensuring solutions are applied in future projects to achieve optimum water savings and customer satisfaction.

[2] Water Efficiency Retrofitting - A Best Practice Guide, December 2009, Available at: www.waterwise.org.uk/data/resources/30/water-efficiency-retrofitting-best-practice_final.pdf

[3] For more information, see Ofwat's June Return Reporting Guidelines at www.ofwat.gov.uk/regulating/junereturn/reportingreq/

3 Methodology

There were two strands to the research:

Literature Review

A rapid literature review was undertaken, covering published and unpublished reports, particularly from water companies. Informal discussions were carried out with water efficiency practitioners within water companies and consultancies as a means of identifying suitable literature. In addition, the UKWIR WR25c database was used to identify other potentially relevant projects. Relevant information was also gathered through the following:

- Water UK Water Efficiency Network
- Waterwise e-Newsletter
- Waterwise and KR Social Research 'Water & People' e-bulletin
- *Evidence Base* Steering Group and Working Group

Inclusion of sources was determined by relevance and source quality. The study aimed to include material that was:

- from the UK only;
- focused upon home retrofit programmes in which the customer opts in;
- uses a range of research methods (both qualitative and quantitative);
- both grey and peer reviewed literature from a range of sources (e.g., industry, government, regulators, consumer groups, academia, etc.);
- of suitable quality in terms of research method and relevance to the research question.

Sources were analysed using a charting method, collating information under headings to draw out key findings regarding customer experiences of products.

Telephone Interviews

In addition, telephone interviews were carried out with selected water efficiency practitioners. The interviews were designed to gather more detailed information about projects that had been identified through the literature review as well as to gather information from projects for which reports had not yet been published.

A shortlist of interviewees was compiled based on findings of the literature review, as well as existing knowledge of relevant projects for which no documented evidence was available. Preference was given to organisations that had extensive experience of such projects, had undertaken a project that differed from others in a potentially interesting way, or had undertaken a project that was particularly relevant to this topic but was as yet reported. From this shortlist the interviewees were selected according to their availability within the project timeline.

Eight telephone interviews were conducted during December 2011, with each lasting 30 to 60 minutes.

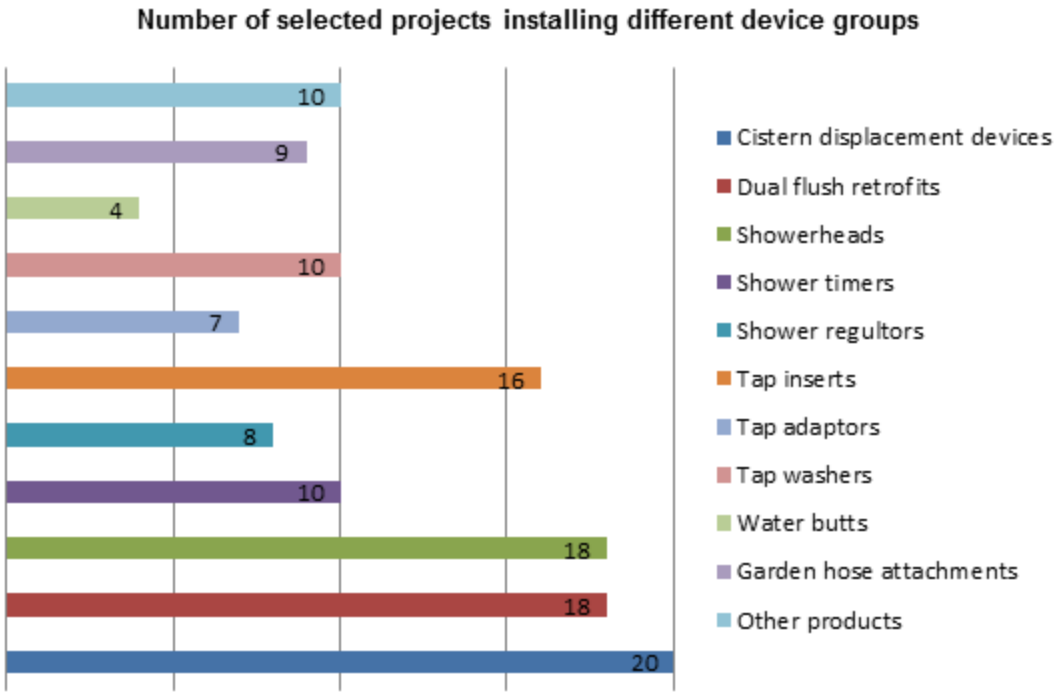
A topic guide[4] (see Appendix 1) was developed, and a list of the topics to be covered was sent to the interviewee ahead of the interview. Each interview was recorded and

[4] The interview covered two topics; customer feedback on retrofit products for the purposes of this report, and uptake and recruitment for a second *Evidence Base* project being conducted at the same time.

reviewed. Information from the interviews was charted, drawing out information relevant to the study. Interviewees were provided with a summary of the key points following their interview and asked to comment, to ensure that their views and opinions were accurately reflected.

4 The Evidence

This study identified twenty water efficiency projects that had collected information from customers to understand what they thought about home retrofit products. Table 1 provides a summary of these projects, including information source (i.e., literature review, interview or both) and products for which feedback was collected.



The chart above summarises the number of projects identified using each different type of product. Please note that these are product types, not manufacturers/models; for example, the tap insert group likely represents different tap insert makes and/or models.

Table 1 - Summary of water efficiency projects identified through literature review and products offered to customers

Organisation	Project	Year	Home visit retrofit / Self Install/ Both	Literature Review/ Interview/ Both	Products Included in Projects											Collection of Customer Feedback		
					Toilets		Showers			Taps			Garden Use		Other products	Method	Sample size	Timing
					Cistern displacement device	Dual flush retrofit	Showerhead	Shower timer	Shower regulator	Tap insert	Tap washer	Tap adaptor	Water butt	Garden hose attachments				
Anglian Water	**Bits and Bobs**	2011	Home visit retrofit	Interview	Yes	Yes		Yes	Yes	Yes	Yes					Telephone Survey		
Bournemouth and West Hampshire Water	**Product Giveaway**		Self Install	Literature Review			Yes			Yes						Email Survey	37 sent out, 6 complete	
Dwr Cymru	**Household Water Use Audit**	2008		Literature Review	Yes		Yes											
Environment Agency, Anglian Water, Bournemouth and West Hampshire Water, Essex & Suffolk Water, Southern Water, South West Water, Sutton and East Surrey Water, Tendring Hundred Water, Thames Water and Three Valleys Water.	**Retrofitting variable flush mechanisms to existing toilets**	2005	Home visit retrofit	Literature Review		Yes										Telephone Survey, Focus Groups	271 households completed survey.	
Essex and Suffolk Water	**WaterSmart - Household Water Audits in Moulsham**	1998	Home visit retrofit	Both		Yes	Yes						Yes	Yes		Postal Survey	1419 sent out, 591 completed	
Essex and Suffolk Water	**Water 21 Audit Project at Silver End in 2000**	2000	Home visit retrofit	Both	Yes		Yes				Yes							

Organisation	Project	Year	Home visit retrofit / Self Install/ Both	Literature Review/ Interview/ Both	Products Included in Projects										Collection of Customer Feedback		
					Toilets		Showers			Taps			Garden Use		Other products	Method	Sample size	Timing
					Cistern displacement device	Dual flush retrofit	Showerhead	Shower timer	Shower regulator	Tap insert	Tap washer	Tap adaptor	Water butt	Garden hose attachments				
Essex and Suffolk Water	**Moulsham and Silver End Project**	2002	Home visit retrofit	Both	Yes		Yes				Yes		Yes	Yes				
Essex and Suffolk Water	**Witham Customer Satisfaction Survey**	2003	Home visit retrofit	Both	Yes						Yes			Yes				
Essex and Suffolk Water	**Thurrock Home Surveys Final Report**	2006	Self Install	Both	Yes			Yes						Yes	Shower Flow Bag, Shower Hats, Water Crystals, Collapsible Beaker.			
Essex and Suffolk Water	**Water Saving Toolkit**	2007	Both	Both	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Drip gauge, Bath Measure, Beaker, Water crystals, Shower Flow Bag, Detective Kit			
Essex and Suffolk Water	**H2eco Project Phase 1**	2008	Home visit retrofit	Both	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes	Bath Measure, Water Crystals, Detective Kit	Paper based postal survey	633 (1495 total took part)	1 year after end of delivery
Essex & Suffolk Water	**H2eco project Phase 2**	2008	Home visit retrofit	Both	Yes	Yes	Yes			Yes	Yes	Yes			Bath Measure, Children's Packs	Paper based postal survey	557 (1439 total took part)	7 Months after end of delivery
Essex & Suffolk Water	**H2eco project Phase 3**	2009	Both	Both	Yes	Yes	Yes			Yes	Yes	Yes			Bath Measure, Children's Packs	Paper based postal survey	121 (194 total took part)	5 months after end of delivery

Organisation	Project	Year	Home visit retrofit / Self Install/ Both	Literature Review/ Interview/ Both	Products Included in Projects										Collection of Customer Feedback		
					Toilets		Showers			Taps			Garden Use		Other products	Method	Sample size	Timing
					Cistern displacement device	Dual flush retrofit	Showerhead	Shower timer	Shower regulator	Tap insert	Tap washer	Tap adaptor	Water butt	Garden hose attachments				
Kent County Council	**Water Savings for Existing Homes**	2011	Home visit retrofit	Interview	Yes	Yes				Yes				Yes		Telephone survey		2 weeks to a year after installation
Severn Trent Water	**Plug In**	2011	Home visit retrofit	Interview	Yes		Yes	Yes	Yes	Yes					Fat Trap			
Southern Water	**Dual flush Pilot Project**	2007	Home visit retrofit	Literature Review		Yes												
South West Water	**Water Care**	2007-2010	Home visit retrofit	Both	Yes	Yes		Yes		Yes		Yes			Washing Up Bowls	Paper based postal survey	403 (1200 total took part)	3 to 4 months after end of delivery
Sutton and East Surrey Water	**Preston Water Efficiency Initiative**	2009	Home visit retrofit	Both		Yes					Yes				Leakage survey	Paper based postal survey and focus group work		
Thames Water	**WaterWisely**	2012-	Self Install	Literature Review	Yes		Yes	Yes	Yes	Yes		Yes				Online Survey		
Thames Water/ Waterwise/ WWF	**Save Water Swindon**	2010-2011	Both	Interview	Yes	Yes	Yes	Yes	Yes	Yes		Yes		Yes	Hanging Basket Gels	Paper based postal survey		Included with self install pack
United Utilities	**Home Audit Project**	2008	Home visit retrofit	Literature Review	Yes	Yes	Yes	Yes										

Organisation	Project	Year	Home visit retrofit / Self Install/ Both	Literature Review/ Interview/ Both	Products Included in Projects										Collection of Customer Feedback		
					Toilets		Showers			Taps			Garden Use		Other products	Method	Sample size	Timing
					Cistern displacement device	Dual flush retrofit	Showerhead	Shower timer	Shower regulator	Tap insert	Tap washer	Tap adaptor	Water butt	Garden hose attachments				
United Utilities	**Water Efficient Showerhead Offer, 2008**	2008	Self Install	Literature Review			Yes											
Veolia Water South East	**Lydd Retrofit Trial**	2012	Home visit retrofit	Both	Yes	Yes	Yes			Yes						Telephone Survey	136 (204 visits total)	End of Trial
Waterwise	**Tap IntoSavings Braintree**	2010/ 11	Home visit retrofit	Both	Yes	Yes			Yes	Yes	Yes			Yes		Postal Suvery and Focus Groups		Before and After Trial
Waterwise	**Tap Into Savings Coventry**	2010/ 11	Home visit retrofit	Both	Yes	Yes	Yes	Yes	Yes	Yes					Fat Traps	Postal Suvery and Focus Groups		Before and After Trial
Waterwise	**Tap Into Savings Merstham/Redhill**	2010/ 11	Home visit retrofit	Both	Yes	Yes	Yes	Yes	Yes	Yes				Yes		Postal Survey and Focus Groups		Before and After Trial

5 Collecting Feedback

The main method used for collecting feedback was surveys, either postal, telephone or electronic. Four of the projects augmented these surveys with focus groups. A full breakdown of methods used by company, where known, is included in Table 1.

5.1 Surveys

Surveys were approached in different ways by different companies. The main variations included distribution techniques and timings of the surveys.

5.1.1 Paper Based Surveys

Paper based surveys were distributed in the following ways:

1. Questionnaire handed to the customer at the end of the visit, to be returned by post.
2. Questionnaire sent through the post to the customers with an explanatory letter, post retrofit.
3. Questionnaire sent through the post, included in the product pack for self-install products.

Most commonly, paper based surveys were handed to the customer at the time of product installation. In the instance of the questionnaires being sent through the post to the customers following a retrofit, delivery varied between a few weeks post retrofit up to a year later in some examples.

5.1.2 Telephone Surveys

These were less common than paper based surveys, however have been used within a number of projects identified within this review. The timing of these surveys again varied, with surveys taking place anywhere from immediately after the retrofit, to up to a year later.

5.2 Focus groups

It was found in this review that in addition to Waterwise in the Tap into Savings projects, only one water company had utilised focus groups in order to understand customers' views on home retrofit products.

6 Toilets

As can be seen in Table 2, a range of different measures and ratings were used by different projects in order to understand what the customer thought of a product. Some asked customers if they were pleased with a product or if they would recommend it to others, while others rated the product for usefulness (where 1 equals not very useful and 5 equals very useful).

The products included in Table 2 have been categorised by product type and not by product name. This means that within each category there are a number of different manufactured products, however for comparison purposes these have been included under product type headings.

Product	Project	Rating*
Dual flush conversion devices	Essex and Suffolk Water H_2eco project Phase 1 2008	87% pleased
		11% negative comments
	Essex & Suffolk Water H2eco project Phase 2 2008	89% pleased
	Essex & Suffolk Water H2eco project Phase 3 2009	86% pleased
	Veolia Water South East Lydd Retrofit Trial Report Jan 2012	55% recommend
	The 'Retrofitting variable flush mechanisms to existing toilets' project, 2005	74% would recommend
	The 'Retrofitting variable flush mechanisms to existing toilets' project, 2005	85% would recommend
	Sutton and East Surrey Water Preston Water Efficiency Initiative 2009	56% liked the product
Cistern Displacement Devices	Veolia Water South East Lydd Retrofit Trial Report Jan 2012	77% recommend
	Essex and Suffolk Water's Project in Witham (2003)	4.2 out of 5
	Essex and Suffolk Water Thurrock Home Survey Project	77% fitted the device
	Essex and Suffolk Water Water Saving Toolkit project	94% installation success
	Essex and Suffolk Water H_2eco project Phase 1 2008	25% double flushed since fitted
	Essex & Suffolk Water H2eco project Phase 2 2008	19% double flushed since fitted
	Essex & Suffolk Water H2eco project Phase 3 2009	14% double flushed since fitted
		67% installation success rate
	Veolia Water South East Lydd Retrofit Trial Report Jan 2012	Product 1 - 80% recommend Product 2 – 77% recommend
	South West Water's Water Care 2007-2010	Product 1 – 76% have installed and 5% intend to install Product 2 – 70% have installed and 11% intend to install

*All figures rounded to nearest whole number

Table 2- Summary of Feedback on Toilet Products from Literature Review

6.1 Flush Conversion Devices

As is shown in Table 2, in all but one of the projects where a flush converter was installed, a high percentage of customers were positive about the product.

In the instance where the rating of the product is reduced down to 55%, it was explained by Veolia Water South East in their interview that this came down to personal preference of the customer. It was also noted through Essex and Suffolk's interview that a number of elderly people had difficulty with the mechanism used in this particular device, the same device installed by Veolia Water South East. It was also noted that the customers who took part in Veolia Water South East's retrofit project had an average age of 63 years old. This may be a contributing factor to the anomalous results in this instance. Likewise the 56% positive rating in the Preston Water Efficiency Initiative could be attributed to the more elderly demographic in the targeted social housing.

In the focus groups conducted by Essex and Suffolk water as part of the Environment Agency's Retrofitting variable flush mechanisms to existing toilets project, it was mentioned that devices using a minimum, medium and full flush mechanism had problems of durability in use, they became loose as well as the minimum flush being described as useless. These focus groups also expressed concern about the ease of use of possible devices for children and those suffering problems with their hands.

Essex and Suffolk Water also conducted surveys as part of their H2eco project and asked customers if they felt the flush conversion device was working correctly, and if not to provide details as to what was wrong. The most commonly reported issue was the size of flush, will the low volume flush inadequate to clear the pan. A number of respondents stated that they had to double flush[5].

In their interview, Kent County Council described how in their project, there were only two cases where people did not like the flush conversion device, perceiving it not to work properly (the project targeted 539 homes but it is not clear how many of these had these devices installed).

Veolia Water South East commented in their interview that a third of their installed flush conversion devices were removed at follow up visits and that this was not due to installation issues. Both Anglian water and Sutton and East Surrey mentioned in their interviews that in some cases customers do not like having these devices installed. Sutton and East Surrey added that during their Preston project, sometimes the devices were installed incorrectly, meaning the toilet lid did not sit on the cistern correctly, however this is not a criticism of the device itself.

6.2 Cistern Displacement Devices

As can be seen in Table 2, the formal feedback from customers on cistern displacement devices (CDDs) is generally positive.

The only slightly negative feedback on these products came from Phase 1 of the H_2eco Project, which showed that 25% of customers had double-flushed since the

[5] It should be noted that although the link between the device being installed and the double flushing is implicit, there was no baseline data referred to in the reports to assess the level of double flushing prior to the installation.

device was installed and in Phases 2 and 3 of the same project, 19% and 14% respectively responded in the same way[6].
In interviews, both Severn Trent and Kent County Council mentioned that customers seemed generally happy with the CDDs, and when these were sent out they were highly likely to be installed due to it being simple to do so. None of the interviewees mentioned customer displeasure with CDDs.

Feedback from Thames Water's customer submissions on their Waterwisely Calculator indicate that sometimes customers order a CDD only to find that their toilet is already efficient enough and they cannot be installed. This is not an issue with the product itself, but indicates that some customers may receive these products and be unable to install them. Other responses have indicated that their toilet no longer works as well as it previously did, and dual flushing is necessary, but again this may be due to the device being installed in an unsuitable toilet. One customer commented that the CDD ended up blocking the float in their cistern, breaking the arm and resulting in the water flowing out through the overflow pipe.

6.3 Product removal

In a number of projects, customers were asked if they had removed any of the water efficiency products originally installed. Removal of a product suggests that for whatever reason, the product is not performing to the customer's satisfaction. As illustrated in Table 3, the proportion of customers reporting the removal of specific products can vary greatly between projects.

Product	Project	Percent Removed*
Flush Conversion Devices	Essex and Suffolk Water H_2eco project Phase 1 2008	11%
	Essex & Suffolk Water H2eco project Phase 2 2008	7%
	Essex & Suffolk Water H2eco project Phase 3 2009	8%
	United Utilities Home Audit Project	11%
	Veolia Water South East Lydd Retrofit Trial Report Jan 2012	36%
	The 'Retrofitting variable flush mechanisms to existing toilets' project, 2005	6%
	The 'Retrofitting variable flush mechanisms to existing toilets' project, 2005	17%
Cistern Displacement Devices	Essex and Suffolk Water - WaterSmart - Household Water Audits in Moulsham'	12%
	Veolia Water South East Lydd Retrofit Trial Report Jan 2012	33%
	Essex and Suffolk Water - Water 21 Audit Project at Silver End in 2000	15%
	Essex and Suffolk Water's Project in Witham (2003)	10%
	Essex and Suffolk Water H_2eco project Phase 1 2008	12%
	Essex & Suffolk Water H2eco project Phase 2 2008	8%
	Essex & Suffolk Water H2eco project Phase 3 2009	20%
	United Utilities Home Audit Project	22%
	Veolia Water South East Lydd Retrofit Trial Report Jan 2012	0%

*All figures rounded to nearest whole number

Table 3- Summary of Product Removal Data from Toilets from Literature Review

As was briefly discussed in section 6.1, feedback on the reasons that customers removed Flush Conversion Devices was collected as part of Essex and Suffolk Water's H_2eco Project Phase 1, 2 and 3. One of the most common reasons for

[6] Again it should be noted that although the link between the device being installed and the double flushing is implicit, there was no baseline data referred to in the reports to assess the level of double flushing prior to the installation.

removal was that the device reduced the flush volume to a level not sufficient to clear the pan each time it was used. There was also feedback from the same project that pointed to an issue which sometimes arose with the lever or handle where devices are installed not returning to the original position. This means that there is essentially no short flush.

There is little information available on why customers remove Cistern Displacement Devices. Based on the anecdotal evidence discussed in section 6.2 it may be due to the devices being unsuitable for the customer's cistern. Some comments from customers referred to the products as being 'unsuitable', 'burst' or 'didn't work'.

This points to a need to ensure that customers are given assistance in choosing products which are appropriate for their requirements. It is also worth considering that, although the level of product removal gives an indication of customer experience of toilet retrofit products, the quality of product installation may also be a significant factor in determining the level of product removal. But the key factor is communicating to the householder what has been installed and how the toilet should be operated with the new flush volumes. The need to explain and communicate to the householder is summed up by a Preston Water Efficiency Initiative focus group comment '*they put something in my toilet'*.

6.4 Remedial Visits

Details about the need to revisit a property in order to correct a fault with, or remove, one of the products installed were available from a handful of projects, as shown in Table 4. It is important to consider the prevalence of remedial visits when examining customers' experience of products, as the need to revisit can potentially have an adverse effect on customers' perceptions of water efficient kit.

Project	Product	Remedial Visits	Percent Remedial Visits*
Essex and Suffolk Water - WaterSmart - Household Water Audits in Moulsham'	Cistern Displacement Device	4	1%
Southern Water Dual Flush Pilot Project – 2007	Flush Conversion Device	76	3%
Essex and Suffolk Water H_2eco project Phase 1, 2008	Flush Conversion Device	28	3%
United Utilities Home Audit Project	Flush Conversion Device	3	3%
	Cistern Displacement Device	28	22%

*All figures rounded to nearest whole number

Table 4 - Summary of Toilet Product Remedial Visits

Feedback from these projects highlighted that the majority of remedial visits were caused by products being installed incorrectly or needing readjusting after prolonged use. The second biggest cause of remedial visits was broken siphons or other toilet parts. Siphons were the most common part of the toilet to break, as the flush conversion devices had to be attached in some way to the siphon. It was found that many of the siphons in customers' houses were extremely brittle due to their age and hence easily broken. Whilst the remedial visits are generally not occurring due to customer dislike of products, failure to install the products correctly or installation of faulty products will affect the customer's satisfaction.

7 Showers

7.1 Shower heads

As can be seen in Table 5, a range of different measures and ratings were used by different projects in order to understand how a product had worked after installation, and what the customer thought of it. Where the shower head was supplied to the customer for self-installation, the installation success rate is also included.

Project	Product	Rating
Essex and Suffolk Water - WaterSmart - Household Water Audits in Moulsham	Showerhead	45% satisfied with product
Essex and Suffolk Water then ran the Water Saving Toolkit project	Showerhead	83% installation success rate
Essex & Suffolk Water H2eco project Phase 1 2008	Aerated showerhead	93% customers pleased with the appearance of the showerhead
	Aerated showerhead	82% customers pleased with the performance of the showerhead.
Essex & Suffolk Water H2eco project Phase 3 2009	Aerated showerhead	68% installation success rate
	Aerated showerhead	78% happy with performance
United Utilities Water Efficient Showerhead Offer, in 2008	Aerated showerhead	73% found the flow over the body was better or the same as their previous showerhead
	Aerated showerhead	77% found the flow for washing hair was better or the same as their previous showerhead
Veolia Water South East Lydd Retrofit Trial Report Jan 2012	Shower heads	80% recommend
Sutton and East Surrey Preston Water Saving Initiative 2009	New installation of electric showers	86% liked the product

Table 5- Customer Feedback on Showerheads

The feedback from customers on showerheads was broader than that collected for toilet products. Questions sought to understand in more depth what customers thought about their experience of using their new water-efficient showerhead.

Overall, the feedback from customers about shower heads is positive. Recipients of the aerated showerhead via the United Utilities Water Efficient Shower head offer were asked to rate the experience of showering with their new showerhead compared to their old one. Nearly three quarters (73%) of customers that provided feedback found the flow over the body was better or the same as their previous showerhead and 77% found the flow for washing hair was equal to or better than their previous showerhead. Overall, 79% found the experience of using the showerhead was better or the same as using their previous showerhead, and 70 % of customers said they would continue to use the free aerated showerhead.

Appearance is not considered for the majority of retrofit products, as many are hidden inside taps or toilet cisterns, however because the showerhead is visible, aesthetics are important with this product. In their interview, South West Water

highlighted the importance of appearance. In the early stages of WaterCare, the white, plastic showerheads they offered were not as desirable to customers as the alternative chrome coloured showerheads. It was mentioned that this may have been because the chrome showerhead was perceived to be worth more, a point which is reiterated in the interviews with Veolia Water South East and Thames Water. The former explained that because the showerhead looks good and is of high quality, customers like and value this. Thames Water described how when requesting products, customers most often choose the showerhead; it is suspected that this is a result of its perceived value compared to other products.

The feedback from customers has not been entirely positive. In Essex and Suffolk Water's WaterSmart Household Water Audits in Moulsham project, only 45% of respondents were satisfied with their showerhead, this may be related to the fact that the project was carried out in 1998 and there have been significant improvement in the performance and quality of water efficient showers since then. Additionally, in their interview Thames Water highlighted a suspicion that people are removing showerheads after install due to a reduction in shower quality, although this is only speculation.

Feedback from Thames Water's customer submissions on their Waterwisely Calculator indicates that generally customers are very happy with their showerhead. The only instances where there is cause for dissatisfaction are when the showerhead is incompatible with the current shower system, or when the customer preferred features on their old showerhead, for example those that had articulated showerheads.

The most common reason stated for a showerhead not being installed was that the shower system was not suitable because the customer had a pumped mixer shower or an electric shower. The back pressure from a regulated showerhead could cause performance problems for both of these shower systems and showerheads are therefore not installed.

7.2 Shower Regulators

There is little data surrounding the installation rates and customer satisfaction of shower regulators. They are often distributed through partnership projects with third parties; which makes data collection more complicated. There is a need for more information on these products.

Feedback received through interviews suggests that there are similar issues with the shower regulator as there are with fitting the showerheads themselves. Anglian Water commented that customers are not always keen to have their shower regulated as it reduces their shower experience.

Conversely Severn Trent Water and Southern Water commented that they have distributed a large number of shower regulators and have had very little negative feedback.

One customer who gave feedback through Thames Water's customer submissions on their Waterwisely Calculator commented that they had to remove their shower regulator as the back pressure caused a leak through a plastic joint at the wall. Some customers commented that they couldn't fit the shower regulator to their current shower connections. Others praised the product stating that whilst they

couldn't tell a difference in the shower performance, using the flow bag provided they discovered they were using 25% less water than previously.

7.3 Shower Timers

Feedback gathered from Essex and Suffolk Water's Thurrock Home Survey Project shows that customers gave the device used a mean rating of 3.68 out of 5 for usefulness. In addition, the digital shower timer included in Essex and Suffolk Water's Water Saving Toolkit project had an installation success rate of 99.5%.

Sutton and East Surrey Water's interview revealed that shower timers are liked, the vast majority use them fairly regularly, with many stating that they have cut down their shower time. Often families will use the shower timer as a challenge by trying to beat the timer. Anglian Water commented that often customers like shower timers as it provides a talking point for the family and also gets kids involved.

Those who received products through the Thames Water's Waterwisely Calculator had mixed opinions on the shower timer. Whilst many liked the idea of the timer and wanted to use them, at least half the comments suggest that the products do not work well, with either water entering the timer causing it to no longer work, or by the suction cup not sticking to the wall properly. A small number commented that they used to shower in less than 4 minutes and now feel like they have an excuse to shower longer.

7.4 Product Removal

Five projects provided evidence on retention of showerheads; no information was provided regarding shower regulators or shower timers. Data collected is displayed in Table 6.

The projects that collected information in this area included three of which were self-install projects and two which were home visit retrofit projects. There does not seem to be any obvious relationship between the removal rate and whether the self-audit or home visit approach was used to install the showerhead.

General feedback, for example the interview with Thames Water, indicated that showerheads were removed where they gave a reduced experience compared to the previous product installed. In a small number of cases the showerheads started to leak at the hose connection point, which also led to removal.

Project	Product	Percent of Homes with Product Removed*
Essex & Suffolk Water H2eco project Phase 1 2008	Aerated showerhead	22%
Essex & Suffolk Water H2eco project Phase 2 2008	Aerated showerhead	34%
Essex & Suffolk Water H2eco project Phase 3 2009	Aerated showerhead	19%
United Utilities Home Audit Project	Aerated showerhead	27%
Veolia Water South East Lydd Retrofit Trial Report Jan 2012	Showerhead	17%

*All figures rounded to nearest whole number

Table 6 - Showerhead removals

8 Taps

The information found covers tap inserts, spray tap adaptors and tap re-washering. The success or otherwise of tap retrofit products has been measured in a variety of different ways. As can be seen in Table 7, this includes the percentage of customers who would recommend the product to a friend, as well as a rating out of 5 for usefulness.

Project	Product	Rating*
Essex and Suffolk Water's Project in Witham (2003)	Tap Washers	rated 4 out of 5 for usefulness
Essex & Suffolk Water H2eco project Phase 1 2008	Tap Inserts	85% still installed
	Tap Adaptor	87% still installed
		Of those with it still installed 96% were happy with it.
Essex & Suffolk Water H2eco project Phase 3 2009	Tap Inserts	85% still installed
	Tap Adaptor	84% still installed
		Of those with it still installed 98% were happy with it.
Veolia Water South East Lydd Retrofit Trial (2012)	Tap Adaptor	68% recommend

*All figures rounded to nearest whole number

Table 7- Customer Feedback on Tap Devices

The majority of feedback collected about tap retrofit products relates to whether they were successfully installed. The data gathered from other trials helps shed some light on some of the reasons that customers may have problems where tap inserts are offered or tap repair is carried out. The installation success rate for tap retrofit devices is low compared to other toilet and shower retrofit products. Phase 1 of Essex & Suffolk Water's H2eco project showed that there was a 26.6% installation success rate for tap re-washering, tap inserts 22.9% and the Miracle tap adaptor had an 51.6% installation success rate. As part of Phase 3 of the same project, tap re-washering resulted in a 56% installation success rate, tap inserts 20% and the Miracle tap adaptor 58% installation success rate. Tap inserts had a particularly low mean installation success rate of 21.5% from the two trials. The main reason for this is reported to have been that on majority of occasions there were problems fitting the tap inserts because the tap spout was not circular. For tap re-washering a mean installation rate of 41.3% was found across the two trials. The reason for this low value seems simply to have been that there many homes in which there were no leaks identified. The Miracle tap adaptor had a higher installation success rate across the two trials (mean 54%). While this represents a higher instance of installation success than for the previous two examples, there is still significant room for improvement.

However, in three Tap into Savings projects tap inserts were one of the most frequently installed products. This is because generally a variety of inserts were carried by installers to heighten the likelihood of compatibility.

8.1 Tap Inserts

Feedback gathered by Essex and Suffolk water in their H_2eco projects shows that generally, tap inserts are welcomed by customers and a majority of them keep them installed. A majority of customers stated reduction in flow as the reason they have

removed tap inserts, others claim that the inserts started to come loose and caused water to spray out in multiple directions.

Whilst not an issue with the product itself, Severn Trent Water, in their interview explained that where tap inserts had been sent to customers, however the instructions had not been clear and therefore only 35-40% of people had installed them.

The performance and customer experience of tap retrofit products has received less formal attention to date. The results from Essex and Suffolk Water's Witham Project show that customers that participated in the projects found tap re-washering useful (mean rating 4 out of 5).

Of the eight interviews carried out with water company practitioners, six identified tap inserts as devices which customers have had negative experiences with. The problems focused on three areas:

- The flow through the taps is reduced too much
- Issue with tap inserts falling out of taps and being removed
- Problems fitting the tap inserts into existing taps.
    - Due to the variety of taps in customer homes it is not possible to carry inserts to fit every design.
    - Build up of lime scale on customer's taps makes it difficult to install an insert.

8.2 Tap Adaptors

A product trial of kitchen swivel taps carried out by Sutton and East Surrey Water yielded positive results. They described in their interview how the 40 customers involved liked the product, viewing it as an improvement to their existing taps. The device was found to be good for cleaning vegetables in spray mode, and because it swivels it was good for cleaning the sink.

When asked why they didn't install the tap adaptor, or why they had removed it, customers from Essex and Suffolk's H_2eco projects commented that either the product didn't fit their taps, the product leaked or it altered the pressure of either the hot or cold water flow.

8.3 Product removal

Water efficiency projects were identified where feedback had been gathered on product retention for tap devices, the results of which are summarised in Table 8. The three Tap into Savings projects and Essex and Suffolk Water include comments from customers on why the tap devices were removed. As previously indicated, reasons included that too much spray was created, the tap insert reduced the flow too much and it became too slow to fill basin, kettle or saucepan, or it took too long to get hot water.

"I mean if you are going to fill up the kettle with water, with an insert in it, you want a pint of water, you're still going to get a pint of water." (Man, over 65, no children in household)

Some customers also had replaced the taps since the tap inserts had been installed. The main reasons given for removal of the tap adaptors were similar to those for tap

inserts but in addition, leaking water, problems with lime scale and the water being too bubbly were also identified as issues. In a few circumstances in the Tap into Savings projects people stated that the inserts had fallen out. In one case in the Tap into Savings Merstham/Redhill project, an installer was recalled to remove tap inserts because the water was 'grey', even thought the installer explained that this was a result of air bubbles in the water, the residents wanted the inserts removed.

Project	Product	Percent of products Removed*
Essex & Suffolk Water H2eco project Phase 1 2008	Tap inserts	15
	Tap adaptor	13
Essex & Suffolk Water H2eco project Phase 2 2008	Tap inserts	22
	Tap adaptor	14
Essex & Suffolk Water H2eco project Phase 3 2009	Tap inserts	15
Veolia Water South East Lydd Retrofit Trial Report Jan 2012	Tap adaptor	23

*All figures rounded to nearest whole number

Table 8- Removal of Tap Devices

8.4 Recurring Tap Leaks

Two Essex and Suffolk Water projects, the WaterSmart - Household Water Audits in Moulsham and Witham Projects provided feedback on the number of times that tap re-washering had been followed by recurring leaks. The Moulsham Project resulted in 24 recurring leaks (4%) and the Witham Project resulted in 10 recurring leaks (5%). As well as being relevant to customer's experience of retrofitting devices this feedback is also extremely relevant to understanding how installation of devices could be improved.

9 Garden

Garden products such as hose guns, water butts and water crystals were included in a number of water-efficiency retrofit projects identified by this review.

9.1 Hose guns

Table 9 summarises the formal feedback that has been collected from customers regarding hose guns. There are two main types of feedback, a rating out of 5 for usefulness and the percentage installation rate by the customer.

Product	Project	Rating*
Hose Gun	**Essex and Suffolk Water's Project in Witham (2003)**	Mean rating 3.80 out of 5 for usefulness
	Essex and Suffolk Water Thurrock Home Survey Project	Mean rating 4.38 out of 5 for usefulness
	Essex and Suffolk Water then ran the Water Saving Toolkit project	99% installation success rate
	Essex & Suffolk Water H2eco project Phase 1 2008	74% installation success rate
	Essex & Suffolk Water H2eco project Phase 2 2008	77% installation success rate
	Essex & Suffolk Water H2eco project Phase 3 2009	69% installation success rate

*Percentages rounded to nearest whole number

Table 9: Customer feedback on hose guns

The small amount of feedback available for hose guns is reasonably positive. Kent County Council have found that hose guns are very popular, describing in their interview how they are useful for encouraging people to sign up to a project.

Four self-audit projects where Essex and Suffolk Water distributed devices to customers as part of packs, provided feedback on the installation success rate for hose guns. The results of these are seen in Table 9, however there is no explanation provided from any of the customers as to why they didn't install the hose gun.

Customers who received hose guns through the Thames Water's Waterwisely Calculator were very positive about the product. Only One person has so far commented in a negative way, claiming that the product leaks water out through the connection to the hose.

9.2 Water butts

Water butts are fairly rare in water efficiency retrofit projects. The data that is available is summarised in Table 10, and focuses upon installation success rates.

Product	Project	Rating*
Water Butt	**Essex and Suffolk Water then ran the Water Saving Toolkit project**	98% installation success rate
	Essex & Suffolk Water H2eco project Phase 1 2008	82% installation success rate
	Essex & Suffolk Water H2eco project Phase 2 2008	78% installation success rate
	Essex & Suffolk Water H2eco project Phase 3 2009	89% installation success rate

*Percentages rounded to nearest whole number

Table 10: Customer feedback on water butts

Four Essex and Suffolk Water projects asked customers to provide feedback on the installation success rate for water butts. In their interview Essex and Suffolk Water explained that the water butt has a clear price value and customers can relate to the water savings which result from using them. Water butts, in their experience are therefore a firm favourite with customers and tend to rarely be removed from the house. This is supported by the data collected on water butts as noted in Table 10.

Water Butts were installed in a small number of homes during Sutton and East Surrey's Preston Water Efficiency Initiative. After the retrofit programme was finished, customers were asked to rate particular products, when asked about water butts none of the customers responded saying that they 'disliked a lot' or 'disliked' their water butt. All of those who responded 23% stated they had 'no opinion', 8% responded that they 'liked' the product and 69% responded with the 'like a lot' option.

Anglian Water stated in their interview that they would like to continue using water butts, stating that people always like one, even if they already have one.

9.3 Water Crystals

Water Crystals have been included in six different trials which have collected feedback from customers about how their experience of using them.

Product	Project	Rating*
Water crystals	**Essex and Suffolk Water Thurrock Home Survey Project**	Mean rating 4.24 out of 5 for usefulness
	Essex and Suffolk Water Water Saving Toolkit project	99% used
	Essex & Suffolk Water H2eco project Phase 1 2008	57% used 24% intend to use
		77% would buy
	Essex & Suffolk Water H2eco project Phase 2 2008	50% used 39% intend to use
		82% would buy
	Essex & Suffolk Water H2eco project Phase 3 2009	70% used
		71% would buy
	Thames Water Save Water Swindon 2010-11	91% liked them

*Percentages rounded to nearest whole number

Table 11: Customer feedback on water crystals

Whilst there are no explanations given from the projects in Table 11 as to why the customer perception of water crystals is generally a good one, it is evident that the product is popular.

Comments provided through feedback on the Thames Water's Waterwisely Calculator suggest again that the product is very popular with customers, with many requesting the opportunity to order more through the scheme. The only downside with this project was that the products were sent out in the winter months and customer feedback was therefore skewed as many people had not had the chance to use the product yet.

The Thurrock Home Survey Project resulted in water crystals receiving a mean rating of 4.24 out of 5 for usefulness, the highest score received by any product in that trial. The picture becomes slightly unclear when looking at what proportion of customers had used the water crystals they received, with figures ranging from 57% up to 99%. However, even where only 57% of customers reported having used the crystals, 77% would buy the product, suggesting that even those who had not yet used the crystals may well do so in the future.

10 Other Products

The literature review revealed a wide range of products for which feedback from customers has been collected, many of which had been used in only one or two projects. A brief summary of the feedback from each type of product is given below.

10.1 Bath measure

Essex and Suffolk Water collected information from customers to evaluate their experience of using bath measures. Bath measures indicate the amount of water used in each bath and encourage customers to reduce the amount of water used in each bath. An 89% installation success rate was achieved for bath measures in the Water Saving Toolkit project.

In addition, Phase 1 and 3 of the H_2eco project found that 75% and 61% of customers respectively were pleased with their bath measure. However, these studies also found that only between 40 and 44% of customers claimed that everyone in their household used the product and some commented that once they'd used it a couple of times it was thrown away. Also others could not use the product as it couldn't be used with their current bath. It should also be noted that Essex and Suffolk Water have decided to no longer offer this product in their package.

10.2 Drip gauge and leak survey

Essex and Suffolk Water's Water Saving Toolkit project offered customers a drip gauge which was used to measure the amount of water that was wasted per day from a dripping tap. The drip gauges had an installation success rate of 77%, but this was based on a very small number (13) that were supplied to customers. As part of the same project customers were offered the opportunity to have a leakage survey carried out, this resulted in a use success rate of 87%.

10.3 Flow bags

The shower flow bags are a tool to help customers calculate the amount of water used when they shower. Flow bags received a rating of 3.55 out of 5 for usefulness as part of Essex and Suffolk Water's Thurrock Home Survey Project, and achieved a 100% use success rate when included in the Company's Water Saving Toolkit Project. Thames Water have also delivered these throughout their WaterWisely programme. Whilst no direct feedback has been obtained on the flow bag itself, feedback on the showerheads often includes an observation of the volume of water the customer now saves. This indicates that the bags are a useful tool in helping the customer visualise the water saving properties of other new products.

10.4 Leak alarm

These can detect whether water is flowing through a pipe for any extended period and emits an audible alarm. Leak alarms had a 53% installation success rate in Essex and Suffolk Water's Water Saving Toolkit Project. Problems identified included that if the product was installed in a damp area it was more likely to sound even if there was no detectable leak. In four cases (of 39 fitted), this resulted in either the staff advising the customer to remove the product or scheduling a remedial visit for a plumber to try to find a suitable position for the product or if necessary remove the product. The main reason for customers not fitting the device once received was that there was no exposed pipe work available. There is also some anecdotal evidence that customers require information on the product alongside installation, this is

illustrated with feedback from the Preston Water Saving Initiative focus groups *'there was a thing on the pipe that kept beeping, so I took it off'*.

10.5 Beakers

Collapsible beakers were included in Essex and Suffolk Water's Thurrock Home Survey Project and their Water Saving Toolkit Project. These projects provided respectively a mean rating of 3.54 out of 5 for usefulness, and a 98% use success rate.

10.6 Children's pack

Phase 1 and 3 of Essex & Suffolk Water's H_2eco project collected feedback on children's packs, which were one of the options available to households that participated in the projects. The pack contained a children's detective kit which included games, puzzles, an interactive CD-ROM, a pen, water cycle colouring sheet and a leaflet on how to save water around the home and in the garden. The packs were very popular, with 97% and 93% of customers respectively pleased with them.

10.7 Tea towels and shower hats

Tea towels were offered to customers as part of Essex and Suffolk Water's Thurrock Home Survey Project and received a mean rating of 4.22 out of 5 for usefulness. As part of the same project shower hats received a mean rating was 3.36 out of 5.

11 Knowledge Gaps

Considering the customer experience of water efficiency products is an important element in understanding the impact of retrofitting homes. This section describes the areas of knowledge that need to be improved in order to help stakeholders to produce better understand customer experiences of water saving products and consequently help them improve home retrofit projects.

One of the main difficulties faced by this review has been the amount of information collected by water companies when surveying customers about their experience with particular products as well as the way that this information is presented and the timing of data collection.

The following describes gaps in our knowledge; which have been highlighted through this review.

- Whilst there is information provided on customer feedback it is very difficult to compare this feedback between product types. This is mainly due to the information being collected differently between projects, for example, different questions are asked about different types of products.

- The information collected is not widespread enough to evaluate customer experience. Detailed data collection has only occurred in a handful of projects, and even these tend to focus on a limited number of products within that project.

- Data is only collected at one time interval and is usually immediately after the products have been sent out or installed. Whilst this gives information on how many products are in place in customers' homes it has no bearing on the longevity of any water savings or long term satisfaction of customers.

- There is a need to gather information on the impact of staff training on customers opinions of products as the way they are presented and explained seems to have an impact on opinion and subsequent use. There is also a need to gather information on the presentational element of retrofit projects, as a householder in the Preston Water Efficiency Initiative put it 'it wasn't explained, the man just come in to do the job. He wasn't rude or anything but he just wanted to get it done, see you later and out the door'.

- Customer feedback is limited to product type in most areas. The only area product brand is incorporated is with toilet devices. Without this information it is hard to compare products within a group and judge customer experience of products fairly.

12 Implications for Future Projects

Collecting feedback from customers about their experience of home retrofit water efficiency products is not widespread. While some companies are collecting lots of information after every project, this is not the case with all. The information collected together within this review provides some insight into what products people like, alongside data about product removals, remedial visits and problems experienced by customers following installation.

- Look to include products that are more desirable to customers. Experiences included in this report indicate that customers are either more likely to sign up to projects that include recognisable products as well as novel 'clever tech' water saving products. From our research these products include, but are not limited to, hose guns, water butts and higher end showerheads. Whilst some of these products may not be the best water saving devices they should encourage customers to sign up to projects.

- Work to understand the reasons why customers like or dislike a product. Many of the water efficiency projects used in this review have understandably focussed on the number of products installed and removed as this directly reflects the water savings achieved. Unfortunately these numbers do not give us insight as to why customers might keep or remove a product. Collecting descriptive information of this nature can be more labour intensive but will ultimately lead to a better understanding of which products are more likely to both attract customers to home retrofit schemes but also which products are likely to remain installed in the customer home. Consider asking questions such as: What exactly did you like about the product? Why was that an improvement on what was installed before? How was the product useful? Why did you remove the product? What extra information did you require?

- Work to understand how often a product is used. In addition to understanding why a customer likes or dislikes a product, it should also be a priority to determine how often a customer uses a product. This will also indicate whether a product is popular or not. It may be the case that more popular products are not the ones that save the most amount of water per use, but if they are being used regularly then they will save larger volumes of water in the long term compared to those products that may appear to save more water but are thrown away or removed after a few uses.

- Collect information at numerous intervals after product installation. Many of the projects looked at for this report only collect customer experience data at one period of time. This is usually at the time of installation, shortly after installation or up to a year later. Most information collected is done immediately after installation of products and whilst this information is useful to understand installation rates and therefore indicates water savings, it does not consider the longevity of these savings.

- Focus should be on all products installed, not just a select few. As can be seen in this report, there is more information on some products than others. Most projects that collect information do so on their key products e.g. tap inserts, toilet devices and showerheads, there is very little information available on other products. Whilst some of this is due to products not being

offered in all of the projects, in most cases it is simply that questions are not asked about those products that may not deliver large water savings.

- Present your data by brand where possible. For the best part, all information collected on toilet devices is presented by the brand of the device used, in all other areas this is a rarity. Doing this will allow us to compare particular branded products in the future and determine if there are particular products within a group that are preferred. For example, one project may install a showerhead that does not perform particularly well and this will reflect badly on showerheads as a whole group, to compare this particular showerhead with alternatives will allow a better understanding of which showerheads to use in future projects.

13 Appendices

13.1 Appendix 1: Interview topic guide

Evidence Base Phase III - Interview topic guide

Introduction – 5 minutes

- Explain the purpose of the interview & how what they say will be used
- Introduce the tape recorder
- Explain about confidentiality and write up of interview prior to publication
- Are there any questions?

Background – 5 minutes

- Could you tell me about your role in your organisation
- Can you tell me about the water efficiency programmes you have been involved with
  - What was your role?
  - How much involvement did you have in delivery of the programme?
  - What about the evaluation (if any)?
- And what kind of programmes were these?
  - Self audit / DIY or home visit retrofit
  - What was on offer?

Recruitment and Uptake – 25 minutes

- What audience was involved in the programme? Why this audience? How were they selected?
  - Prompt: A specific area, demographic, group etc
- What recruitment methods were used?
  - Prompt: Letters, leaflets, posters, phone calls, advertorials, radio, events, road shows, internet etc
  - details about the wording used, presentation, colours, branding, partnerships etc
  - If multiple methods, in what sequence were they used?
  - What was the timing of the recruitment methods? For example, if there were two letters sent, how long between the two?
  - Did the recruitment method evolve at all?
- How successful or unsuccessful was each method?
  - What overall uptake was achieved?

MAKE SURE ALL METHODS ARE DISCUSSED

  - Precisely what was it about a particular method that made it successful?
    Prompt: e.g. timing, wording, targeting, colours, partners, staff etc
  - Were some approaches more successful with certain audiences?
- In future, how would you approach recruitment to ensure the best possible uptake?

Customer feedback on products – 25 minutes

- What specific products were used in the programme/s?
  - Why were these particular products chosen?

        - Prompt: Water savings, cost, previous feedback
- How did you go about collecting feedback from customers about the products?
    - Method
        - Prompt: Survey (postal, phone, internet), interviews, focus groups
        - How long after event?
        - Sample size, proportion of households involved in programme
- What feedback did you receive?
    - What products did customers like?
        - Why did they like the product? Precisely?
        - Prompt: look, water saving, money saving
    - What products did customers not like?
        - Why did they not like the product? Exactly why...
        - Prompts: complaints, removals, replacements

MAKE SURE ALL PRODUCTS ARE DISCUSSED

- In future, what products would you choose? What is the reason for this?

Is there anything else you would like to add?

Thank interviewee and close.

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