

WATER EFFICIENCY INITIATIVES - GOOD PRACTICE REGISTER

Water and Sewerage Companies (England and Wales) - 2007

Overview:

- This register provides a checklist of water efficiency options that companies should consider when planning their water efficiency activities.
- Different activities are listed by type. For example activities related to cistern displacement devices or collaborative research and development are grouped under these headings.
- Activities are listed under two categories, “baseline” or “water stressed”. Baseline activities are those that should to be considered across England and Wales. Water stressed activities are those that should be considered in areas of water stress, such as the south east of England.
- The driver for carrying out each activity is listed. For example customer awareness, demand reduction or developing the evidence base.
- Contact companies are given for each activity. These companies can be contacted for further information.
- The register is a live document and will be updated when new information, techniques or experience becomes available. This will formally be done annually to coincide with Ofwat’s ‘Security of supply’ report and involve Waterwise, Water UK and the water companies.

Guidelines for use:

- This register is a checklist of water efficiency options, which companies can choose to engage in if their specific situations are suited. Some actions will not be appropriate or could prove to not work or be too costly in some areas.
- This register should not be used as a year-on-year action plan. Some activities could be undertaken only once and not need to be repeated whereas others may need to be undertaken at regular intervals.
- We do not expect all companies to carry out all actions under either the baseline or water stressed categories. Nor are these categories mutually exclusive. Companies should consider any activity that they believe is appropriate for a particular area.
- Companies are not expected to undertake activities where they are not cost-effective compared with the benefits that would be achieved.
- As general good practice, Ofwat believes that on any visit to a customer’s property (either domestic or commercial) the opportunity should be taken to pass on the water conservation message. This may be as simple as providing a leaflet on water saving tips, providing a pack of water saving devices, right up to providing a full water audit of the property. Where appropriate companies should also consider other possible synergies in delivering water efficiency messages during their day-to-day contact with customers.
- The contact companies are not intended to be an exhaustive list of those companies that engage in a particular activity, but rather a point of contact for more information on the activity. The company(ies) underlined are the contacts for the activities in the ‘water stressed area’ column. Note that this does not necessarily mean the highlighted company’s area is ‘water stressed’.

WATER EFFICIENCY INITIATIVES - GOOD PRACTICE REGISTER
Water and Sewerage Companies (England and Wales) - 2007

CONTENTS

<u>Water efficiency activity</u>	<u>Page</u>
1. Cistern displacement devices (CDDs)	3
2. Household water audits	5
3. Commercial water audits	7
4. Customer education / awareness	9
5. Other water efficiency initiatives	13
6. Metering	16
7. Water butts/ Composters/ Trigger Hoses	18
8. Retrofitting – toilets, showerheads	18
9. Collaborative R & D	19
10. Supply pipe repair / replacement	20
Key / Assumptions	21

WATER EFFICIENCY INITIATIVES - GOOD PRACTICE REGISTER
Water and Sewerage Companies (England and Wales) - 2007

ACTIVITY	GOOD PRACTICE – baseline service	GOOD PRACTICE – water stressed area	DRIVER FOR ACTIVITY	EVALUATION	Contact company(s)
<p>Cistern displacement devices (CDDs)</p> <p>Hippo – displace 2-3 litres / flush. Suitable for 9l or larger cisterns.</p> <p>Save-a-flush – displace 1 litre / flush. Suitable for 7-9l cisterns.</p>	<p>Example: The distribution of free cistern displacement devices has been a cornerstone of Thames Water’s water efficiency campaign plan since it was introduced in 1996. Approximately 119,900 cistern devices were distributed free to household customers in 2005-06 and 65% of these were assumed to have been installed. This has resulted in an estimated water saving of 1.6Ml/d. Over 3.2 million devices have been distributed in Thames Water’s supply area to date.</p> <p>Thames Water encourages customers to request a Hippo or Save-a-flush cistern device by either completing the Self-Audit Questionnaire (SAQ) leaflet sent out in customer bills, via its Water Wise website, by contacting the Customer Centre or by picking up a device at various events across the Thames Water region. Advice for customers on which device to choose is available on the website and instructions on how to install them are given on the back of the device.</p> <p>It is assumed that the average household occupancy in the Thames Water supply area is 2.5 and that the average flushing frequency is 5.2 times per person per day. The Hippo saves 2.5 litres per flush and the Save-a-flush 1 litre.</p>				
1.1	Provide information on CDDs to customer base via website (and links), company magazines, newsletters and with billing information		Customer awareness		All companies
1.2	Provide CDDs through external events (e.g. visitor centres, speakers’ panels, exhibitions, customer drop-ins) and via external sources (e.g. schools, festivals, local authorities, Wildlife Trusts)		Customer awareness Demand reduction	Hippo ¹ : 18-36 litres/CDD Save-a-flush ² : 5-14 litres/CDD Note: assume 25% installation rate	ANH
1.3	Distribute CDDs to customer base on request (written, e-mail or telephone) . Provide fitting instructions and additional water efficiency information		Demand reduction	Hippo ¹ : 18-36 litres/CDD Save-a-flush ² : 5-14 litres/CDD Note: assume 70% installation rate	WSH, NES
1.4	Provide CDDs to all businesses and households that either opt for a meter or are selectively metered		Demand reduction		BWH

WATER EFFICIENCY INITIATIVES - GOOD PRACTICE REGISTER
Water and Sewerage Companies (England and Wales) - 2007

ACTIVITY	GOOD PRACTICE – baseline service	GOOD PRACTICE – water stressed area	DRIVER FOR ACTIVITY	EVALUATION	Contact company(s)
1.5	Provide CDDs as part of a water audit if applicable (ie if cistern volume is > 6 litres or the toilets are not dual flush)		Demand reduction	Hippo ¹ : 18-36 litres/CDD Save-a-flush ² : 5-14 litres/CDD Note: assume 70% installation rate	
1.6		Targeted distribution of CDDs to high water using metered households or high rateable value homes	Demand reduction	Hippo ³ : 60-150 litres/CDD Save-a-flush ⁴ : 24-60 litres/CDD Note: assume 100% installation rate	
1.7		Conduct follow-up surveys to ascertain CDD usage and impact	Company / Customer awareness Develop evidence base		<u>NES, SST</u>

WATER EFFICIENCY INITIATIVES - GOOD PRACTICE REGISTER
Water and Sewerage Companies (England and Wales) - 2007

ACTIVITY	GOOD PRACTICE – baseline service	GOOD PRACTICE – water stressed area	DRIVER FOR ACTIVITY	EVALUATION	Contact company(s)
Household water audits	<p>Example: Northumbrian – Essex & Suffolk Water has developed a least cost ‘Do It Yourself’ option self audit pack. It contains clear messages and instructions on how customers can carry out their own audits, using tools (e.g. jug, watch) readily found in the home. This small DIY self audit pack includes:</p> <ul style="list-style-type: none"> • Save-a-flush (more can be requested); • Tea towel; • Washing machine magnet; • Audit Booklet explaining how to carry out a self-audit. <p>This has been developed into a Water Saving Toolkit, whereby customers are able to select the water efficiency devices that are best suited to their lifestyles.</p> <p>Information on how to receive a DIY audit is available on the company’s website, in company magazines and the annual billing leaflet.</p>				
2.1	Provide information on self audit to customers via website, company magazines, newsletters and in billing information	Provide self audit information to entire customer base	Customer awareness Demand reduction	Saving per audit ^{5a} : 11-12 litres/day Note: assume 25% self-audit rate	ANH, NES TMS <u>SRN, DVW, MKT</u>
2.2	Encourage customers to carry out self audits on their water use. Provide examples of the potential environmental benefits and financial savings available.		Customer awareness Demand reduction		WSX, NES
2.3		Provide customers with paper water audits and pre-paid reply envelopes. Combine this with a free prize draw to encourage completion.	Customer awareness Demand reduction		<u>TVN</u>
2.4		Provide customers with access to a DIY self audit packs / water saving toolkits.	Customer awareness Demand reduction		<u>NES</u>

WATER EFFICIENCY INITIATIVES - GOOD PRACTICE REGISTER
Water and Sewerage Companies (England and Wales) - 2007

ACTIVITY	GOOD PRACTICE – baseline service	GOOD PRACTICE – water stressed area	DRIVER FOR ACTIVITY	EVALUATION	Contact company(s)
2.5	Carry-out water audits at customers' request	Targeted company water audits at high water using metered households or high rateable value homes	Demand reduction	Saving per audit ^{5b} : 47 litres/property/day Note: assume 50% audit take-up Targeting audits at higher usage properties should yield greater savings.	THD
2.6		Run local water audit awareness sessions in town halls or other suitable venues. Provide information on potential savings (environmental and financial). Local plumbers to attend. Provide appointment booking service to increase water audit uptake rates.	Customer awareness Demand reduction	Saving per audit ⁵ : 11-12 litres/day	Ofwat
2.7		Develop an 'audit and fit' programme (surveys, retrofitting and communication of messages). To be carried out by water company Approved Plumbers.	Customer awareness Demand reduction		TMS

WATER EFFICIENCY INITIATIVES - GOOD PRACTICE REGISTER
Water and Sewerage Companies (England and Wales) - 2007

ACTIVITY	GOOD PRACTICE – baseline service	GOOD PRACTICE – water stressed area	DRIVER FOR ACTIVITY	EVALUATION	Contact company(s)
Commercial water audits	Example: The 'on-request' water audit service for commercial customers offered by South West Water involves a half day visit by a Water Conservation advisor to the company, a check on all water equipment on site and a follow up report advising on possible water savings, the costs involved and payback period. Follow-up analysis was carried out on all the audits (Jan 2000 – Dec 2004) and this has shown that 70% of all companies audited and given advice on water saving had implemented at least some of the savings suggested.				
3.1	Encourage schools, hospitals and other community establishments to carry out self audits on their water use e.g. "Be Smart" scheme (SVT)		Customer awareness Demand reduction	Self-audits in institutional premises could yield large savings	ANH, SVT, TMS, YKY
3.2	Provide water audit information to all commercial customers	Actively target all commercial customers that use over 10Ml/year regarding the availability and potential of water audits.	Customer awareness		MKT
3.3	Provide water audits to commercial customers on request	Provide follow-up analysis of water audits carried out (one-year on)	Demand reduction	Company audits could yield large savings	SWT, YKY
3.4	Provide website link to Envirowise, the Carbon Trust, the Energy Centre for Sustainable Communities, Waterwise	Contact companies that have liaised with Envirowise etc, to establish whether water efficiency advice has been taken	Customer awareness		NWT, TMS BWH
3.5	Engage with NHS hospitals to provide water efficiency information and advice (NHS project)		Customer awareness Demand reduction	Potentially large savings to made.	ANH, SES
3.6	Provide commercial customers with information on the Enhanced Capital Allowances Scheme.		Customer awareness		<u>NES</u>
3.7	Water regulations inspections at commercial sites, to include a water efficiency assessment.		Customer awareness Demand reduction	Assumption is that a 5% water saving can be made as a result of an inspection ⁶	WSX , CAM PRT, SST
3.8	Work with Large User tariff customers on issues		Customer		SWT

WATER EFFICIENCY INITIATIVES - GOOD PRACTICE REGISTER
Water and Sewerage Companies (England and Wales) - 2007

	including the promotion of water efficiency measures – water use and waste minimisation reviews.		awareness / Demand reduction		
3.9		Establish a dedicated team to carry out water efficiency assessments to the business sector	Customer awareness Demand reduction		<u>ANH</u>
3.10		Target users that have high peak demands eg Hotels and Guest Houses	Customer awareness Demand reduction		
3.11		Run commercial customer seminars on waste and water minimisation	Customer awareness		<u>NES</u>
3.12		Liaise with farmers with regard to leaking water troughs.	Customer awareness Demand reduction		<u>BRL</u>

WATER EFFICIENCY INITIATIVES - GOOD PRACTICE REGISTER
Water and Sewerage Companies (England and Wales) - 2007

ACTIVITY	GOOD PRACTICE – baseline service	GOOD PRACTICE – water stressed area	DRIVER FOR ACTIVITY	EVALUATION	Contact company(s)
Customer education / awareness	Example: Anglian Water carried out a successful, and award winning, advertising campaign featuring Bill Oddie to promote their WaterWise message. The campaign used bus back advertising and local radio, with 330 buses advertising and ten radio stations broadcasting the message through May, June and July 2006.				
4.1	Provide (easy to find) water saving information (for home and garden) on website homepage	Set-up / run a Water Conservation Helpline	Customer awareness		NES SWT
4.2	Provide water saving information with billing literature e.g. top ten water efficiency tips		Customer awareness		ANH
4.3		Distribute water efficiency information to entire customer base	Customer awareness		YKY, BRL THD, TVN
4.4	Provide interactive website options which: <ul style="list-style-type: none"> - allow customers to estimate the amount of water they use; - allow customers to estimate the water and bill savings associated with various activities or appliances; - incorporate additional energy savings information. 	Provide financial incentives to engage in water efficiency (e.g. competition, prize draw) Provide community-based and environmental incentives to engage in water efficiency	Customer awareness Demand reduction		NES, TMS, BRL TMS, TVN YKY
4.5	Provide information on the impact on the environment to inform unmetered customers how to contribute to saving water.		Customer awareness		
4.6	Incorporate water volume use comparisons in billing information		Customer awareness		Australia - Yarra Valley Water
4.7	Use billing information and any other written contact with customers as an opportunity to promote water efficiency: <ul style="list-style-type: none"> - water efficiency tip in the 'frank' mark on envelopes; - water efficiency inserts with letters; - water efficiency footnotes on envelopes; - water efficiency footnotes on letters; - water efficiency footnotes on e-mails. 	Incorporate water efficiency messages into the 'waiting time' periods during customer contact calls.			SES, TVN, TMS Waterwise

WATER EFFICIENCY INITIATIVES - GOOD PRACTICE REGISTER
Water and Sewerage Companies (England and Wales) - 2007

ACTIVITY	GOOD PRACTICE – baseline service	GOOD PRACTICE – water stressed area	DRIVER FOR ACTIVITY	EVALUATION	Contact company(s)
4.8	Involve key stakeholders in spreading the water efficiency message e.g. local MPs, trade bodies, local authorities		Customer awareness		YKY
4.9	Provide links to: Bag it and Bin it, Water Family, WaterintheSchool and BeattheDrought websites		Customer awareness		NES, SWT BRL, SES
4.10	Promotion of a water efficiency calendar giving topical water saving advice each month. Provide seasonal information on gardening habits.		Customer awareness / Demand reduction		YKY
4.11	Develop water saving packs (CDD, shower timer, hosepipe trigger gun etc) available to customers at external events and via website		Customer awareness Demand reduction		NWT, NES
4.12	Deliver water conservation message to schools	Provide incentives for schools to take up the water efficiency message	Customer awareness		SVT, TMS, WSH NES
4.13	Provide educational visual material for schools eg Wet Water Wizard (DVDs, website), Water is Cool packs, Water Matters teacher's guide.	Provide the means by which schools can monitor non-legitimate continuous use in schools i.e. to identify leakage at night or during holiday periods.	Customer awareness Education		SVT, TMS, NES, WSH, BRL
4.14	Deliver water efficiency messages at water company facilities eg visitor centres, treatment works	Run water conservation roadshows / water efficiency events	Customer awareness		SVT, WSH, BRL NWT, SWT WSX
4.15	Deliver water conservation message via garden centres, DIY outlets, botanical gardens, Royal Horticultural Society (RHS) venues	Deliver water efficiency messages at national shows e.g. Good Food Show, Good Homes Show, IWEX, BBC Gardeners World,	Customer awareness		ANH, NWT
4.16	Target high visitor number local attractions to promote the water conservation message eg zoos, gardens, National Trust (NT) sites etc	Provide examples of water efficient gardens at key tourist sites	Customer awareness		SWT, SEW SRN

WATER EFFICIENCY INITIATIVES - GOOD PRACTICE REGISTER
Water and Sewerage Companies (England and Wales) - 2007

ACTIVITY	GOOD PRACTICE – baseline service	GOOD PRACTICE – water stressed area	DRIVER FOR ACTIVITY	EVALUATION	Contact company(s)
4.17		Liaise with sports clubs and venues (eg football and cricket clubs) to promote the water conservation message.	Customer awareness		<u>TMS</u>
4.18		Enrol support from celebrity to spread the water conservation message (e.g. Bill Giles, Charlie Dimmock)	Customer awareness		<u>SVT, SRN</u> <u>FLK, SEW</u>
4.19		Provide water efficiency messages / presentations to gardening groups	Customer awareness		
4.20		Use company vans and bespoke vehicles to advertise and promote water efficiency messages.			<u>TMS, YKY</u>
4.21		Promotion of a catalogue providing water efficient gardening products	Customer awareness		<u>SWT, TMS</u>
4.22		Set-up a dedicated environment & education centre (including water efficiency section)	Customer awareness		<u>TVN</u>
4.23		Promote water efficiency to farms, agricultural premises and in parks	Customer awareness		<u>NWT</u>
4.24	Include water conservation/saving information and advice in local newspapers	Present water conservation messages in other organisations news letters/publications eg Wildlife Trusts, Countryside Trusts etc	Customer awareness		BRL <u>SWT</u>
4.25	Provide links on website to Waterwise and the Water Technology List so that customers can access information on water efficient products		Customer awareness		SWT
4.26		Run a Drought Campaign, focussing on both the water company's actions and the means by which the public can contribute to reducing wastage.	Customer awareness		<u>SRN, TMS</u>
4.27		Run media campaigns to raise awareness of water efficiency (billboard advertising, radio, TV, newspaper, cinema)	Customer awareness		NES, South east comps. (cinemas) ¹²

WATER EFFICIENCY INITIATIVES - GOOD PRACTICE REGISTER
Water and Sewerage Companies (England and Wales) - 2007

ACTIVITY	GOOD PRACTICE – baseline service	GOOD PRACTICE – water stressed area	DRIVER FOR ACTIVITY	EVALUATION	Contact company(s)
4.28		Liaise with hotels and guesthouses to encourage guests to use water wisely both on holiday and once back at home	Customer awareness, Demand reduction		<u>NWT</u> , <u>WSX</u>
4.29		Run poster / advertising campaigns to increase awareness of the issues and the means of water conservation	Customer awareness		<u>ANH</u> , <u>PRT</u> , <u>WSX</u>
4.30		Contact metered customers that have unexpected increases in their consumption (high consumption letters)	Customer awareness		<u>ANH</u> , <u>THD</u>
4.31		Tailor water efficiency activity and messages for different ethnic / societal groups	Customer awareness		<u>TMS</u>
4.32	Conduct market research / survey to ascertain customers' views on water conservation and the methods by which it is delivered		Develop evidence base		BRL
4.33	Run awareness campaign on the potential for pipe bursts/leakage due to frost damage	Promote pipe-lagging to customers	Customer awareness		YKY, BRL
4.34		Promote water efficiency in conjunction with new film releases, particularly children's genre.	Customer awareness		<u>FLK</u>

WATER EFFICIENCY INITIATIVES - GOOD PRACTICE REGISTER
Water and Sewerage Companies (England and Wales) - 2007

ACTIVITY	GOOD PRACTICE – baseline service	GOOD PRACTICE – water stressed area	DRIVER FOR ACTIVITY	EVALUATION	Contact company(s)
Other water efficiency initiatives	<p>Example: Mid Kent Water is involved in a Partnership project with the Environment Agency, Kent County Council and Hillreed Homes. Its aims are to:</p> <ul style="list-style-type: none"> – encourage a wider acceptance by the public and a willingness by other developers to adopt water efficient fixtures and fitting voluntarily; – reduce water use especially during peak times such as the summer months; and – gain a better understanding of people’s patterns of behaviour towards water use. <p>Project involves 250 new properties. The first 50 properties have been built with current standard fittings and features as a control and the remaining 200 properties will incorporate:</p> <ul style="list-style-type: none"> – ultra low flush toilets with a 2 or 4 litre dual flush compared to a standard 6 litre; – water efficient washing machines using 9 l/per kg compared to a possible 40 l/per kg; – flow regulators to wash basins reducing use from a standard 10 l/min to 5 l/min; – aerated shower heads with flow regulator reducing flow from 20 l/min to 10 l/min – rainwater butts; and – flow regulator on outside tap. 				
5.1	Carry out water efficiency campaigns at treatment works and company offices and target company staff – fixing dripping taps, capturing rainwater for use on site and recycling water		Demand reduction		ANH, TMS
5.2	Actively engage customers/the public in spotting and reporting leaks (Leakspotters)		Customer awareness / Leakage reduction		TVN
5.3	Encourage (metered) customers to identify leaks on their supply and internal pipes (for example by turning off water and viewing meter)		Customer awareness Leakage reduction		
5.4	Enter innovative water efficiency activity or research for the Environment Agency’s Water Efficiency Awards		Company awareness		NES, SWT, SRN, TMS, TVN
5.5	Run a 'water efficient' family competition aimed at both measured and unmeasured households.		Customer awareness / Demand reduction		SST

WATER EFFICIENCY INITIATIVES - GOOD PRACTICE REGISTER
Water and Sewerage Companies (England and Wales) - 2007

ACTIVITY	GOOD PRACTICE – baseline service	GOOD PRACTICE – water stressed area	DRIVER FOR ACTIVITY	EVALUATION	Contact company(s)
5.6		Establish a dedicated water efficiency team	Demand reduction		<u>NES, TMS</u>
5.7		Create/develop initiatives/working relationships with house developers to promote water conservation etc (see example above)	Customer awareness Demand reduction		<u>NES, MKT</u> <u>TVN</u>
5.8		Offer developers reduced infrastructure charges in return for inclusion of water efficiency in new developments	Demand reduction		
5.9		Create relationships with major chains to install water efficiency measures eg YHAs, hotels, supermarket etc	Customer awareness Demand reduction		<u>YKY, SEW</u>
5.10		Run a 'Water Use Pledge'	Demand reduction		<u>NES, YKY</u>
5.11		Set-up an On-line shop allowing customers to purchase water efficient garden and domestic products.	Customer awareness Demand reduction		<u>CAM,</u> <u>Sydney</u> <u>Water</u>
5.12		Become involved in the design and development of major new commercial developments eg shopping centres, airports	Demand reduction		
5.13		Provide a subsidised tap-rewashing service	Demand reduction	4000-5000 litres saved per rewashed tap ⁷	<u>CAM</u>
5.14		Liaison with Fire Services to assess water usage and greywater recycling	Demand reduction		<u>TVN</u>
5.15		Develop a proactive approach to tackling illegal water use esp. fire hydrants	Demand reduction		<u>TVN</u>

WATER EFFICIENCY INITIATIVES - GOOD PRACTICE REGISTER
Water and Sewerage Companies (England and Wales) - 2007

ACTIVITY	GOOD PRACTICE – baseline service	GOOD PRACTICE – water stressed area	DRIVER FOR ACTIVITY	EVALUATION	Contact company(s)
5.16		Develop working relationships with local councils and regional planning authorities to raise profile of water efficiency in housing	Customer awareness / Demand reduction		<u>TVN</u>
5.17		Develop a do-it-yourself water saving kit – to include easy to install aerators for bathroom and kitchen taps and flow regulators for showers	Demand reduction	Sydney Water have quoted a saving of 16,000 litres per year per property	<u>Sydney Water</u>
5.18		Develop a subsidised package whereby a qualified plumber will visit customers to install water saving devices and check for minor leaks.	Demand reduction	Sydney Water have quoted a saving of 21,000 litres per year per property. Cost to customer - \$22 Cost to company - \$180	<u>Sydney Water</u>
5.19		Liaise with local councils and estate agents to include water efficiency information in new homeowners' packs.	Customer awareness / Demand reduction		<u>PRT</u>
5.20		Promote, sponsor or distribute 'waterless' car washing materials.	Demand reduction		<u>SEW</u>

WATER EFFICIENCY INITIATIVES - GOOD PRACTICE REGISTER
Water and Sewerage Companies (England and Wales) - 2007

ACTIVITY	GOOD PRACTICE – baseline service	GOOD PRACTICE – water stressed area	DRIVER FOR ACTIVITY	EVALUATION	Contact company(s)
Metering	<p>Example: Bournemouth & West Hampshire Water use the powers under Section 144B of the WIA91 to meter on change of occupancy. The company publicises its policies through the following channels:</p> <ul style="list-style-type: none"> - regular articles in their customer newsletter; - on its website; - by writing to all local solicitors, estate and letting agents; - by advising all solicitors who request property searches; - by requesting Wessex Water to advise joint customers who make contact with them. <p>When a customer makes contact to advise of a change of occupier at an unmetered property the company advises them at the time that it will survey with a view to metering. The company then allows two working days time-lag should they have any queries. Although some customers are cautious at the time of metering the company's experience is that ongoing queries or complaints are rare.</p>				
6.1	Provide water efficiency information to all households that are newly metered	Provide a water audit to newly metered customers	Customer awareness / Demand reduction	See household water-audit savings.	<u>MKT</u>
6.2	Provide water efficiency information to all businesses that are newly metered	Provide a water audit to newly metered business customers	Customer awareness / Demand reduction	See non-household water-audit savings.	
6.3	Provide interactive website options which allow customers to estimate the savings associated with becoming metered (environmental and financial)		Customer awareness / Demand reduction	Opting for a meter is assumed to reduce demand by at least 5%	
6.4	Promote company's free meter option (website / billing information)		Increasing meter penetration / Demand reduction	Opting for a meter is assumed to reduce demand by at least 5%	NWT, WSX
6.5	Engage in selectively metering customers on change of occupancy as allowed under the Water Industry Act 1999	Engage in selectively metering customers who have a high discretionary use of water (e.g. sprinklers, swimming pool) as allowed under the Water Industry Act '99	Inc. meter penetration / Demand reduction	Selectively metered customers are assumed to reduce their demand by at least 10%	BWH, TVN <u>SEW</u>

WATER EFFICIENCY INITIATIVES - GOOD PRACTICE REGISTER
Water and Sewerage Companies (England and Wales) - 2007

ACTIVITY	GOOD PRACTICE – baseline service	GOOD PRACTICE – water stressed area	DRIVER FOR ACTIVITY	EVALUATION	Contact company(s)
6.6	Engage in metering void properties				<u>SEW</u>
6.7		Consider application for Water Scarcity Area Status	Demand reduction		<u>FLK</u>
6.8	Provide major customers with monthly water consumption data and graphs.	Install data loggers on business customers' meters to show flow profiles	Customer awareness Demand reduction		<u>BRL, BWH, BRL</u>
6.9		Provide high-use customers with confidential access to flow data through the internet	Customer awareness Demand reduction		<u>BWH</u>
6.10	Install meter housing when carrying out other work whether or not meter is being installed		Increasing meter penetration		
6.11	For properties on a shared supply use/offer internal meters with 'low-power radio transponder' or 'out-reader'		Increasing meter penetration		<u>ANH</u>
6.12		When a supply pipe is repaired free of charge, require the customer to be metered for a minimum of 1 year	Increasing meter penetration Leakage reduction		<u>BWH</u>
6.13		Proactively install meters outside domestic properties, which can be brought into usage at a customer's discretion. Inform customers of savings that would be made if bill was metered.	Increasing meter penetration Leakage reduction		<u>ANH</u>

WATER EFFICIENCY INITIATIVES - GOOD PRACTICE REGISTER
Water and Sewerage Companies (England and Wales) - 2007

ACTIVITY	GOOD PRACTICE – baseline service	GOOD PRACTICE – water stressed area	DRIVER FOR ACTIVITY	EVALUATION	Contact company(s)
Water butts/ Composters/ Trigger Hoses	Example: Around 85,000 litres of rainwater fall on the average house each year. This has prompted Yorkshire Water to offer discounted water butts through a mail order agreement with Straight (previously Blackwall). The offer is in the company's 'Clear' customer guide sent to all customers with water bills. Alongside water butts, the company runs a free hosepipe trigger gun offer on the homepage of its website and a composter promotion in its 'Clear' customer guide.				
7.1	Provide information on water butts etc on website and/or with billing information		Customer awareness		ANH, THD
7.2	Promotion of water butts (possibly subsidised) via garden centres and distributors	Promote and provide free hosepipe trigger guns	Customer awareness Demand reduction	Potential savings from: 250 to 1300 litres/butt/year or 0.6 to 4.2 litres/property/day ⁸ Potential savings: 3000 to 4000 litres saved per year per trigger gun ⁹	ANH, YKY <u>NES, YKY</u>
7.3	Provide a mail order water butt / composter service		Demand reduction	Potential savings vary from: 250 to 1300 litres saved per year per water butt ⁸	SRN
7.4		Liaise with district councils and local authorities to promote devices for water efficiency and reducing waste	Customer awareness		<u>SWT, YKY</u>
Retrofitting – dual / variable / low flush	<p>Example: Variable flush toilet retrofit collaborative project between nine water companies and the Environment Agency – data was gathered from 136 properties and feedback from 271 customers across all companies taking part. Following the relaxation of the Water Supply (Water Fittings) Regulations 1999 to allow the retrofitting of variable flush mechanisms to WC siphons, the study monitored the effect of variable flush devices in a selection of domestic households. Two types of devices were trialled Variflush (manufactured by Peterton) and Ecoflush (manufactured by Gesek). The aims of the project were to quantify water savings at the household level to assess the robustness and performance of the devices; to gauge customer acceptance; to enable endorsement of the products; and to assess the viability of a wider scale installation.</p> <p>The main findings of the study were:</p> <ul style="list-style-type: none"> - A reduction in water consumption of 8.5% per property from the pre-installation consumption is significant enough for the devices to be used in larger scale demand management projects. - Careful targeting and appropriate education could increase potential savings. - The largest per person savings are achieved in smaller households. - Nearly half of the participants in the trial would not buy the device for £20. 				
8.1		Low flush toilet retrofit programmes – free installation to customers	Demand reduction	Average reduction of: 31 litres/property/day ¹¹	<u>NES, SRN</u>
8.2		Encourage customers to retrofit water saving showerheads to existing mixer or pumped showers with high flow rates	Demand reduction		<u>NWT</u>

WATER EFFICIENCY INITIATIVES - GOOD PRACTICE REGISTER
Water and Sewerage Companies (England and Wales) - 2007

ACTIVITY	GOOD PRACTICE – baseline service	GOOD PRACTICE – water stressed area	DRIVER FOR ACTIVITY	EVALUATION	Contact company(s)
Collaborative R & D - collective water industry responsibility	Example: United Utilities research study on water use by showers. The objective of the study is to undertake a programme of market research and shower testing to define water efficient shower performance in terms of physical parameters (eg. flow-rate, temperature, spray pattern and skin pressure) and develop satisfactory customer comfort performance criteria. It is intended that the results will assist the water industry and the Market Transformation Programme in influencing future water use by showers. The study started in September 2005 and comprises two main stages. The first stage includes a literature review, market research and identification of a suitable testing programme. This is being followed by the second stage, which involves undertaking a shower testing programme and investigation of customer satisfaction with a combination of laboratory and residence-based evaluations. The project is due to be completed in summer 2006.				
9.1		Effectiveness (regarding water use) of dual flush, low flush or variable flush toilets	Develop evidence base	Potentially up to 25% toilet water use savings	<u>ANH, NES</u> <u>SWT, SRN</u> <u>TMS, BWH, TVN</u>
9.2		Effectiveness of water butts on water consumption and peak demands	Develop evidence base		<u>SRN</u>
9.3		Conduct a CDD/Save-a-Flush trial – water savings, longevity of devices	Develop evidence base		<u>PRT, SST</u>
9.4		Research into customer awareness and attitude to water conservation	Company awareness		<u>TMS</u>
9.5		Micro-component analysis on domestic customers	Company awareness		<u>TVN</u>
9.6		Trials to test performance and water consumption of showerheads	Develop evidence base		<u>TMS</u>
9.7		Research into the water savings achievable through household water audits	Develop evidence base		<u>TMS, YKY</u>
9.8		Study the water efficiency and acceptability of showers	Develop evidence base		<u>NWT</u>
9.9		Investigate the savings associated with metering customers	Develop evidence base		<u>DVW</u>
9.10		Research into customers interest and commitment to saving water in the garden	Develop evidence base		<u>SST</u>

WATER EFFICIENCY INITIATIVES - GOOD PRACTICE REGISTER
Water and Sewerage Companies (England and Wales) - 2007

ACTIVITY	GOOD PRACTICE – baseline service	GOOD PRACTICE – water stressed area	DRIVER FOR ACTIVITY	EVALUATION	Contact company(s)
Supply pipe repair / replacement	Example: Wessex Water's supply pipe repair and replacement policy is as follows. The company will detect and repair or replace, free of charge, a leaking service pipe to an individual domestic property - up to the outside wall of the house - providing it is accessible and does not pass under any structure. There is no limit to the number of repairs. The company reserves the right, where appropriate, to replace the pipe rather than repair it. Where work is carried out by Wessex Water, full reinstatement will be made of the area directly affected by the repair.				
10.1	Provide limited free supply pipe repair service to customers	Provide unlimited free supply pipe repair service to customers	Leakage reduction	Litres saved per repair: 14,000 – 1.2million ¹⁰	All companies <u>NES, WSX, THD</u>
10.2	Advertise free repair/replacement service via website / billing information		Customer awareness		WSX
10.3	Offer and carry-out leakage detection surveys		Customer awareness Leakage reduction		YKY
10.4	Provide limited free supply pipe replacement service to customers		Leakage reduction	Litres saved per repair: 14,000 – 1.2million ¹⁰	
10.5	Provide subsidised re-laying service	Provide unlimited free supply pipe replacement service to customers	Leakage reduction	Litres saved per repair: 14,000 – 1.2million ¹⁰	TMS, YKY, <u>WSX</u>
10.6	Provide a free telephone leak reporting service.		Leakage reduction		NWT, WSH
10.7		Recommend a leakage alarm for customer pipes, taps and overflows	Leakage reduction		<u>SWT</u>
10.8	Provide on-site leakage detection service for business customers		Leakage reduction		ANH
10.9	Keep up to date with the latest leakage detection techniques, and implement them.		Company awareness		WSH

WATER EFFICIENCY INITIATIVES - GOOD PRACTICE REGISTER

Water and Sewerage Companies (England and Wales) - 2007

Key / Assumptions:

- 1 In general it has been assumed that a Hippo displaces approximately 2.5 litres/flush, that average household occupancy rate is 2.3 to 2.5 and that an individual flushes the toilet (at home) 4-6 times a day
- 2 In general it has been assumed that a Save-a-flush displaces approximately 1 litre/flush, that average household occupancy rate is 2.3 to 2.5 and that an individual flushes the toilet (at home) 4-6 times a day
- 3 It has been assumed that a Hippo displaces approximately 2.5 litres/flush, that higher household occupancy rates are between 6 to 10 and that an individual flushes the toilet (at home) 4-6 times a day
- 4 It has been assumed that a Save-a-flush displaces approximately 1 litre/flush, that higher household occupancy rates are between 6 to 10 and that an individual flushes the toilet (at home) 4-6 times a day
- 5a Self-audit savings are estimated from ANH and NES June return (2005) figures.
- 5b Water audit savings are taken from a TMS pilot project (1998).
- 6 Water Regulations (Byelaw) savings assumption from CAM June return (2005).
- 7 Assumes that a dripping tap will waste 25 litres per day and would otherwise drip for 6 months before being fixed (CAM June Return (2005)).
- 8 In their June returns companies have assumed that a water butt will be filled (with rain water) and emptied on to the garden between 1 and 6 times a year. It is also assumed that the volume of a normal water butt is between 200 and 280 litres.
- 9 Savings attributable to hose trigger guns are taken from SEW June Return (2006) and are based on the results of the WRc Microcomponent Study CP187. The assumptions are that a trigger gun is used 0.89 times per day, saves 46.7 litres per use and that there is a 25% installation rate.
- 10 The supply pipe leakage repair / replacement assumptions vary considerably between companies and are as follows: supply pipe leak rates between 4 and 1600 litres/property/day; hour day factor between 20 and 26; leakage days saved between 4 and 124.
- 11 Assumption based on retrofitting 4.5l low flush toilets (SRN June Return (2006))
- 12 See company list below.

Water Companies

ANH	Anglian Water	BWH	Bournemouth & West Hampshire Water	<u>South east companies (see 4.24)</u>
WSH	Dŵr Cymru / Welsh Water	BRL	Bristol Water	Folkestone & Dover Water
NWT	United Utilities	CAM	Cambridge Water	Mid Kent Water
NES	Northumbrian and Essex & Suffolk Water	DVW	Dee Valley Water	Portsmouth Water
SVT	Severn Trent Water	FLK	Folkestone & Dover Water	South East Water
SWT	South West Water	MKT	Mid Kent Water	Southern Water
SRN	Southern Water	PRT	Portsmouth Water	Sutton & East Surrey Water
TMS	Thames Water	SEW	South East Water	Thames Water
WSX	Wessex Water	SST	South Staffordshire Water	Three Valleys Water
YKY	Yorkshire Water	SES	Sutton & East Surrey Water	
		THD	Tendring Hundred Water	
		TVN	Three Valleys Water	