Water Affordability in England and Wales

A report prepared for CCWater

Dr. Carolyn Snell and Professor Jonathan Bradshaw

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EXECUTIVE SUMMARY

Background

- Water poverty is a growing problem as a result of increasing water prices. For the purposes of this report, the standard measure of water affordability (3 per cent of net income spent on water) is used.
- Key issues in addressing water poverty include the regional variation in water bills which reflects the different financial needs of water companies who hold regional monopolies. This is not reflected in any statutory forms of support to help people manage their water bills, such as the notional water component of income support.
- Regional variation in bills creates a unique difficulty among the essential utility services in arriving at a national solution; the issue of how to provide fairly the necessary support to customers with widely varying bills is problematic.

Research methods

Data from the Family Resources Survey (FRS) has been used to analyse the socio-economic characteristics of those at risk of water poverty in England and Wales. Analysis of the most recent data (2006-7) found that 14.6 per cent of the population were in water poverty. Use of FRS data has meant that we are unable to break down findings according to water company, due to differences in categorisation between FRS regions and water company regions. However, this does not impact on national averages.

Research findings

- Using the 3 per cent water poverty level, risk of water poverty varies with the regional location and characteristics of the household. The following groups are all found to be at increased risk of water poverty:
    - Amongst **benefit recipients**, 33.3 per cent of those receiving Child Tax Credit (CTC) and who are at risk of poverty are water poor. The second highest figure is amongst those receiving Income Support (IS) or Job Seeker's Allowance (JSA), with 30.9 per cent defined as water poor. Also, amongst those receiving Pension Credit, Housing Benefit or Council Tax Benefit, 28.3 per cent are water poor.
    - Of all those households in water poverty, 30.7 per cent are **single pensioners**.
    - Of **single occupancy households**, 23.4 per cent are water poor. Also, of all the water poor, 54.4 per cent are single occupancy households.
    - Of those **households with no workers**[1], 28.5 per cent are in water poverty. Also, amongst all those defined as water poor, 71.6 per cent are households with no workers.
    - Of those in the **lowest income quintile**, 54.9 per cent are in water poverty. Of all those in water poverty, 71.3 per cent are in the lowest income quintile.

[1] Households with no workers are not necessarily entitled to benefits e.g. students, savings above a certain level, retired or not working out of choice.

- **Regional variation: at** regional[1] level the highest proportion of water poor households is Wales, with 20.2 per cent of households living in water poverty. This is closely followed by the South West with 19.9 per cent of households living in water poverty.
- The water poverty rate is double the average for single pensioners, 'other tenure' household groups, households on IS, JSA, or CTC, workless households, and the bottom income quintile.

❖ Several ways of mitigating water poverty using receipt of benefits were tested.
- A scheme targeting out of work benefit/tax credit groups would help up to 24.2 per cent of households in water poverty and cost £447 million per year
- A scheme targeting low income working households would help up to 6.5 per cent of water poor households and would cost £289 million per year.

❖ There are three problems with using receipt of means-tested benefits as a passport to water poverty relief.
1. The majority of households in water poverty are not receiving means-tested benefits/working tax credits. Only 24 per cent of those out of work and only 6.5 per cent of those in work.
2. Some of this may be due to non take-up of benefits. But even if take-up was 100 per cent a passport on means-tested benefits would still not reach all or a majority of the water poor.
3. People do not correctly report that they are receiving means-tested benefits in the FRS. In the case of Pension Credit we know what proportion that applies to because DWP have matched FRS responses against benefit records but for the other benefits/tax credits we don't know. But it would only marginally increase the percentage of the water poor covered.

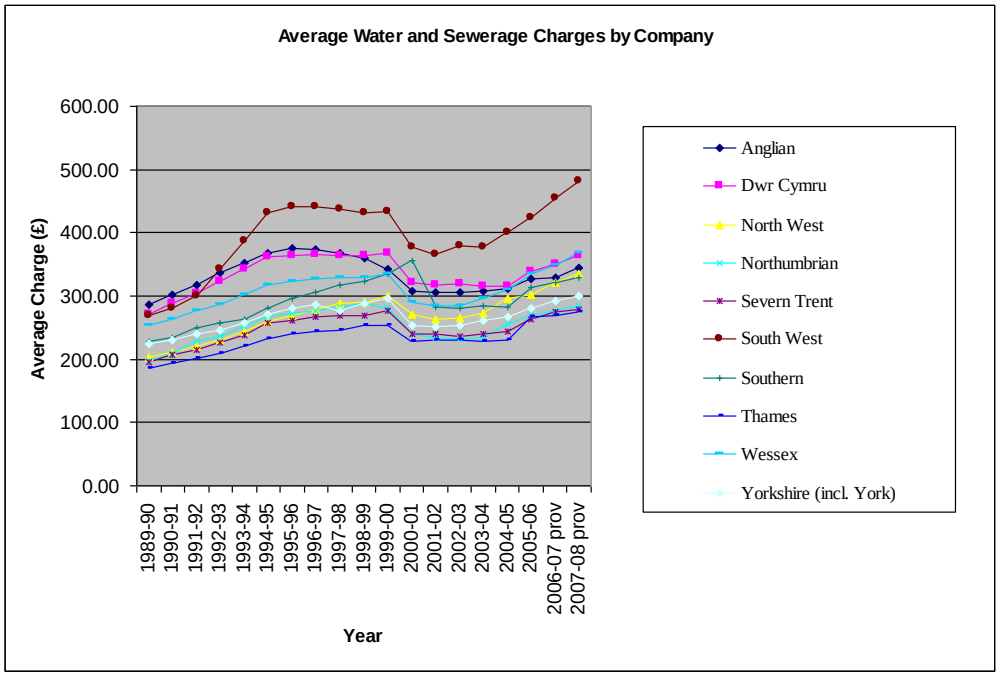
❖ In conclusion no single way of targeting help was found that would allow for an ideal passport. Either significant numbers in water poverty were omitted from support and/or significant numbers not in water poverty would be helped. Other methods for addressing water poverty, aimed at targeting those in water poverty rather than based on a passport benefit, are indicated in the interests of efficiency and equitability.

[1] These are Government Office regions not water company regions. So for example Wessex Water and South West Water are in the South West Region. Thames Water covers a much larger area than London and Seven Trent Water covers the East and West Midlands.

1 Introduction

The burden of increasing energy prices on poorer households is acknowledged by both policy makers and academics. Policies to ensure that households are still able to use sufficient energy have been developed alongside measures that encourage energy efficiency (which has both cost and environmental benefits). However in terms of increasing water costs illustrated in Figure 1, it is clear that these have been rising in real terms.

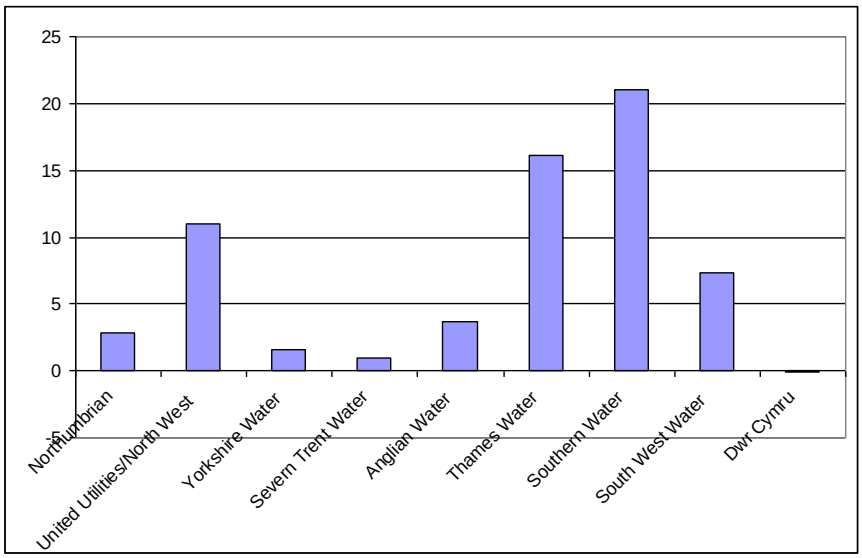
Figure 1: Average water and sewerage bills in 2007/8



Source: OFWAT 2007

This increase is the result of changes in legislation, particularly at EU level, and in some parts of England water resource issues. The trend is expected to continue. Figure 2 shows estimates of how water prices may change at the next price review, based on proposals in water and sewerage company Draft Business Plans. Except for Dwr Cymru there are proposals for further real increases in all water and sewerage company regions with particularly large increases proposed in the North West (United Utilities), Thames Water and Southern Water company regions. This is likely to create increasing numbers of households that are defined as 'water poor' (i.e. where more than 3% of household income is spent on water costs).

Figure 2: Estimate real price increases 2009/10-2014/15 2007/8 terms (%)



Source: OFWAT

CCWater commissioned researchers from the Department of Social Policy at the University of York to assess mechanisms within the tax and benefits system that might enable equitable access to water supplies by those defined as water poor.

This research consisted of two elements, first, a review of existing knowledge on water poverty; including an overview of existing forms of help for those struggling to pay water bills (see Appendix A). The second part of this research has focused on an analysis of the Family Resources Survey (FRS) to investigate the extent of water poverty in England and Wales, and the characteristics of households in water poverty. It also considers the possibility of using a mechanism within the tax and benefits system to address this.

2 Analysis of the Family Resources Survey

The FRS is an annual survey of a representative sample of 25, 000 households in the UK. It was established by the Department for Work and Pensions and was designed to provide good quality data on incomes and receipt of benefits. It is the source of the poverty statistics series *Households below Average Incomes*. It is extremely useful for this project because it not only has detailed income data, it also has a set of questions on water charges. The analysis presented here selects the households in England and Wales (about 21,000) from the 2006/7 survey – the latest available at the time of writing. The dataset has been used here to: describe variations in water charges according to household characteristics; identify the characteristics of those spending more than 3 per cent of their net income on water (the standard threshold for water poverty); and estimate how successful a variety of ways of targeting help to certain groups of benefit recipients might be in mitigating water poverty.

The latest available FRS is 2006/7, however it is important to note that there will have been a number of movements in costs, prices, and incomes since then. OFWAT estimate that average water bills increased from £5.60 per week in 2006/7 to an

estimated £6.00 in 2007/8. That is a real (controlling for prices) increase of 4.5 per cent. However between 2005 and June 2008 the water element of the Consumer Price index rose 22.2 per cent compared with an all items rise of 8.3 per cent, thus there was a real price increase in water of 13.8 per cent over that longer period. However income also rose during this period: earnings rose by about 11 per cent between 2005 and May 2008, not as fast as water prices, but faster than overall prices. What matters to the water poverty calculations are not just movements in water prices but also changes in **net** income. The only estimates of movements in net income (but after housing costs) are produced by the Department for Work and Pensions (DWP), and only for a set of proportions of average earnings (half, two-thirds and so on). However many households dependent on benefits did not have income increases as large as average earnings (or net income). In fact at the moment only Pension Credit and the child element in Child Tax Credit are linked to the earnings index automatically. Other benefits are either linked to movements in retail prices (including the Basic State Pension, Child Benefit, Working Tax Credit, and disability benefits) or to movements in the Rossi (inflation after housing costs) index (JSA and Income Support rates for adults). So for example between April 2004 and April 2008, while the earning index rose by 15.4 per cent, the Retail Prices Index rose by 13.3 per cent, and the Rossi index by 8.5 per cent.

3 Findings

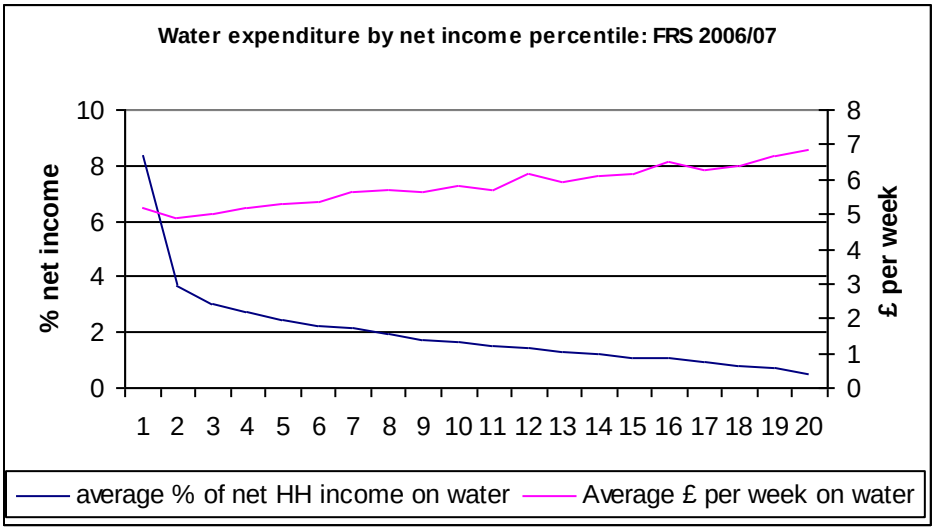
3.1 Spending on water

Based on the FRS data set, in 2006/7 average spending on water was £5.85 per week (£5.42 with a meter and £6.07 without a meter) which constituted 1.9 per cent (1.8 per cent with and 2.0 per cent without water meters) of net household income[2]. This is very close to the OFWAT estimate for 2006/7 of £5.60 per week (£5.08 with and £5.83 without a water meter).

Average spending hides variation. It can be seen in Appendix A that spending on water varies – by family type, size, age group, region, benefit status, numbers of workers, ethnicity, presence of a disabled child and adult and income level. Water charges also vary as a proportion of household income, and not always in the same way as spending. Indeed water spending is not very income elastic – spending is higher for higher incomes but not much higher, while income varies considerably. Figure 3 plots water expenditure by quantile group of net income (20 equal groups). It can be seen that the average water charge (right hand axis) varies only from an average of £5.20 per week for the lowest income group to £6.90 for the highest income group. Water spending as a proportion of net income varies more from 8.3 per cent in the lowest group to 0.5 per cent in the highest income group.

[2] Gross income less income tax and national insurance contributions

Figure 3: Water expenditure by net income percentile: FRS 2006/7.



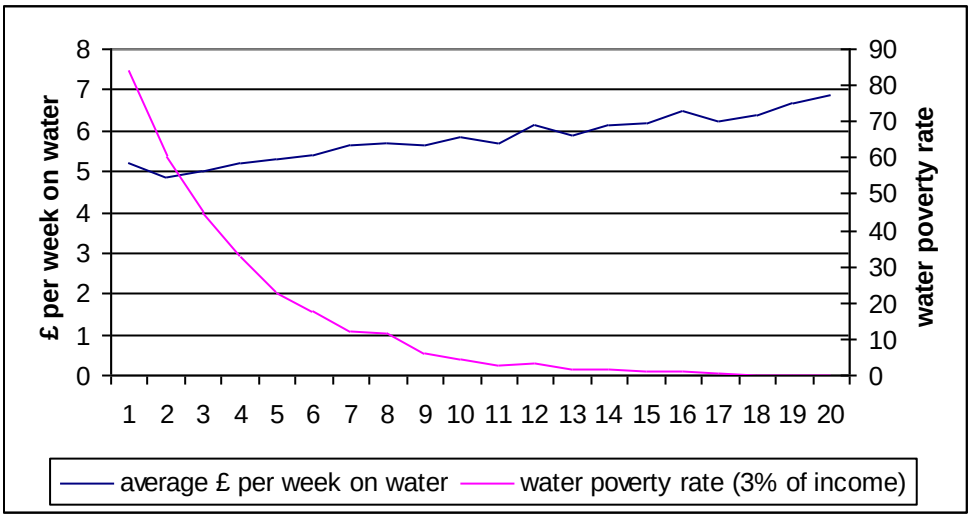
3.2 Prevalence of water poverty

In 2006/7 14.6[3] per cent of households spent more than 3 per cent of their net income on water (11.2 per cent with and 15.4 per cent without water meters).

3.2.1 Income & employment

Figure 4 shows how water poverty varies with income percentile group (20 equal groups).

Figure 4: Water poverty by quantile group



Of those in the lowest income quintile, 54.9 per cent are in water poverty. Of all those in water poverty, 71.3 per cent are in the lowest income quintile.

Closely related, of those households with no workers, 28.5 per cent are in water poverty. Also, amongst all those defined as water poor, 71.6 per cent are households with no workers.

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[3] This proportion is higher than the 12 per cent predicted for 2009/10 by Defra. Their estimates were based on analysis of the FRS for 2001/02 and 2002/3. Defra (2004) *Cross-Government Review of Water Affordability report*.

3.2.2 Regional variation

Table 1 explores the variation in water poverty by Government Office region. The region with the highest average water charge is the South West which covers South West Water and Wessex Water. The highest proportion of water poor households is in Wales (predominantly Welsh Water and Dee Valley Water), with 20.2 per cent of households living in water poverty. This is only marginally higher than the South West area, where 19.9 per cent of households are defined as being in water poverty.

It is likely that, had we been able to show water poverty at water and sewerage company level, there would have been a distinct difference in water poverty levels for Wessex and South West Water, as the latter has the highest average bill levels in England and Wales.

Table 1: Variations across Government Office regions

Region	Average £ per week on water	% spending more than 3% water	Composition of those spending more than 3% on water	Composition of the sample
NE	5.04	12.7	4.3	4.9
NW/Mersey	6.08	17.9	15.5	12.6
York/Humber	5.47	13.2	8.7	9.6
EM	5.63	14.9	8.4	8.2
WM	5.45	15.0	10.2	9.9
East	6.32	12.9	9.2	10.4
London	5.14	10.8	10.3	14.0
SE	5.94	11.9	12.4	15.2
SW	6.86	19.9	13.3	9.7
Wales	6.52	20.2	4.3	4.9
Total	5.85	14.6	100	100

3.2.3 Family type

Table 2 considers family type - single households, lone parents with one dependent, and single pensioners stand out as those most at risk of water poverty. Of those who are single, 23.4 per cent spend more than three per cent of their net income on water costs, 24.6 per cent of lone parents with one dependent, and 30.7 per cent of single pensioners spend more than three per cent of their net income on water costs. Of all those deemed to be in water poverty, 30.7 per cent are single pensioners, and 23.7 per cent are single households.

Table 2: Family type

Family type	Average £ per week on water	% spending more than 3% water	Composition of those spending more than 3% on water	Composition of the sample
Single	4.86	23.4	23.7	15.0
Couple	5.96	6.8	7.6	16.4
C+1	6.07	6.5	3.0	6.6
C+2	6.85	6.0	3.4	8.1
C+3	7.09	7.8	1.2	2.2
C+4+	7.01	7.7	0.4	0.8
LP+1	5.68	24.6	5.1	3.0
LP+2	6.31	19.9	2.7	2.0
LP+3+	6.60	15.4	0.9	0.9
Pensioner single	4.77	30.7	30.7	14.5
Pensioner couple	6.06	14.4	13.1	13.2
Multi-unit	6.50	7.0	8.3	17.3

Household size is also of relevance. Of single occupancy households, 27.1 per cent are water poor, and of all the water poor, 54.4 per cent are single occupancy households.

3.2.4 Benefit/tax credit recipients

Table 3a shows that 33.3 per cent of those receiving CTC and who are at risk of poverty (with an income less than 60 per cent of equivalent income) are water poor. The second highest figure is amongst those receiving IS or JSA, with 30.9 per cent defined as water poor. Also noteworthy is that amongst those receiving PC, HB or CTB, 28.3 per cent are currently water poor. However only 37.1 per cent of those receiving any of the income tested benefits are water poor.

Table 3a: Benefit recipients

Tax/ benefit class[4]	Average £ per week on water	% spending more than 3% water	Composition of those spending more than 3% on water	Composition of the sample
IS or JSA	5.87	30.9	17.2	8.1
HB or CTB	5.53	28.3	28.9	14.8
PC	5.13	24.7	11.6	6.8
PC or HB or CTB	5.53	28.3	28.9	14.8
CTC or WTC	6.48	10.2	12.0	17.1
CTC & at risk of poverty	6.63	33.3	7.3	3.2
Any of the above[5]	6.02	18.2	37.1	29.5
IB or DLA	5.79	18.4	14.1	11.0
Any of the above	5.94	12.4	54.3	35.6
None of the above[6]	5.79	12.4	54.3	64.4

It must be noted that with any solutions based on benefits, non-take up by individuals entitled to the benefit poses problems.

The latest data on take up is shown below in Table 3b. This means that, for example, at most 90% of those entitled to Income Support take this up, and at most 60% of those entitled to JSA (income based) take this up.

Table 3b: Benefit take up rates 2006/7. Tax Credit Take-up rates 2005/6

	% of caseload	% of expenditure
Income Support	81-90	87-95
Housing Benefit	81-87	86-92
Council Tax Benefit	63-69	65-72
Pension Credit	59-67	69-76
JSA ib	49-60	52-64
Child Tax Credit	80-84	89-93
Working Tax Credit	59-63	79-85

Sources:
DWP (2008) Income related benefits: Estimates of Take-up 2006-07.
HMRC (2008) Child Tax Credit and Working Tax Credit Take-up rates 2005/06

3.2.5 Disabled children/adults in household

Table 4 illustrates the levels of water poverty in households containing disabled children or adults. The proportion of households containing disabled children is very low (3.5 per cent). Of those households with disabled children, 11 per cent are in water poverty. The numbers are more striking amongst households with disabled adults. Firstly, there are more of these households, and of those with disabled adults

[4] These are not mutually exclusive categories, so the total may exceed 100%
[5] IS, JSA, HB, CTB, PC, CTC or WTC
[6] IS, JSA, HB, CTB, PC, CTC, WTC, IB or DLA

around 19.7 per cent are in water poverty. Of those households currently in water poverty, 44.5 per cent are those containing a disabled adult.

Table 4: Disabled children/adults in household

	Average £ per week on water	% spending more than 3% water	Composition of those spending more than 3% on water	Composition of the sample
Disabled child				
No	5.81	14.7	97.4	96.5
Yes	6.75	11.0	2.7	3.5
Disabled child (DLA subtracted from income)		12.2	2.8	-
Disabled adult				
No	5.89	12.1	55.5	67.2
Yes	5.76	19.7	44.5	32.8
Disabled adult (DLA subtracted from income)		22.5	47.7	-

To summarise the most significant findings, the rate of water poverty varies considerably with household circumstances. The rate of water poverty is at least double the average for:

- Single pensioners
- "Other" tenure
- Households on IS/JSA, CTC and at risk of poverty,
- Workless households
- The bottom income quintile

4. Assessing policy responses

The aim of this research project was to investigate whether the tax and benefits system can be used to address water affordability, and if so, to assess the most appropriate benefit or tax credit. Any scheme for mitigating water poverty needs to try to:

- Maximise the proportion of water poor households covered
- Reduce water poverty as much as possible
- Minimise the help going to the non water poor
- Minimise the overall costs of the measure
- Be simple for consumers to understand and claim
- Be simple and cheap for operators to administer
- Avoid incentives to waste water
- Avoid incentives to under consume

With a water poverty prevalence of 14.6 per cent it is unlikely to be easy to meet all these criteria at the same time. However with the envisaged increases in water poverty more households will be affected. A number of methods were explored within this research, including demographic criteria, benefit receipt criteria, consumption level criteria and then all three in combination. The essence of a successful policy response to water poverty is to reduce the burden of water charges on those households suffering from the problem. This could be done by a price and/or income subsidy including:

- Cross subsidising tariffs between consumers and introducing a social tariff or subsidy. This is not the preferred option of CCWater as their research with customers indicates that they are generally opposed to the extension of social tariffs. This approach appears to be the one that is being followed by government in response to fuel poverty, however, it may be difficult to target this to appropriate groups given the nature of water poverty (it affects a number of different socio-economic groups).
- Providing a public subsidy to the water industry in respect of certain households to reduce their charges.
- Providing an income subsidy to certain households (like the winter fuel payment).
- Increasing benefits so that some or all the households are lifted out of water poverty.

Any of these and other measures need to be able to identify those at risk of water poverty. We assume at this point that water companies are unlikely to set up their own assessment of the ratio of water charges to net income.

Thus eligibility needs to be based on the verifiable circumstances of the household. This could be either:

- Their demographic characteristics – for example a person in the household over 60 (as with the winter fuel payments) and/or
- Passported on the receipt of certain classes of benefit – for example receipt of Income Support (as with free school meals) and/or
- Tied to the level of the water bills - for example spending over the regional average and/or
- Other criteria – perhaps connected to a meter.

In this paper we focus on proposals made by CCWater - to pay the difference between 3 per cent of income and the average bill for the region for consumers in receipt of Income Support or Pension Credit[7].

5. Assessing proposals made by CCWater

In our modelling we have amended this so that the water charges are capped at 3 per cent of the household income rather than the average charge for the region. While it may be a good idea to have a cap on the subsidy to avoid wasteful consumption, setting it at the regional average does not seem appropriate – some will be in water poverty paying less than the regional average and some will need to consume and pay more than the regional average. We have considered both out of work and in work households, and the results are presented below.

5.1 Out of work households and in receipt of income related benefits

We have modelled CCWater's proposals for out of work households, and these are presented in Table 4. This scheme would cost £446.86 million and would move 24 per cent of households out of water poverty[8] [9]. The other 76 per cent of water poor in out of work households are not recorded as receiving these benefits[10]. There are other limitations of this scheme. Firstly means-tested benefits are not claimed by all those who are eligible for them. For example only between 59 and 67 per cent of pensioners take-up their entitlement to Pension Credit[11], and if receipt was used as a criterion for water relief they would be doubly jeopardised. Non take-up is a problem for all the benefit based solutions. Secondly, the scheme only tackles water poverty among workless households and households working only a few hours per week.

[7] Housing Benefit and Council Tax Benefit are also considered but because they vary with rent and council tax and eligibility extends further up the income distribution they are rejected.

[8] If the threshold was the average regional water charge it would cover 19.6 per cent of the water poor costing £273 million

[9] Note this is the water poor in 2006/7.

[10] Pension Credit is under reported in the FRS. In 2004/5 Bradshaw and Richardson found that 19.2 per cent of pensioners reported receipt whereas DWP, checking administrative records, found that 26.9 per cent were in receipt. Richardson, D. and Bradshaw, J. (2008) Variations in the Take-up of Pension Credit, *Benefits: the Journal of Poverty and Social Justice*, October 2008, 16, 3, 235-244.

[11] http://www.dwp.gov.uk/asd/income_analysis/jun_2008/0607_Summary.pdf

Table 4: Water poverty rates amongst out-of-work means-tested benefit recipients (2007-08)

	Water poverty threshold	% spending over 3% of benefits on water	% of total 2006-07 out of employment water poor	Average water poverty gap[12] (£ per week)	Cost of closing poverty gap (£ millions per year)[13]	Number[14]
Pensioner single on PC	3.57	73.0	7.8	3.31	148.01	774
Pensioner couple on PC	5.45	67.2	2.0	3.38	51.39	310
Single not working 16 hours, on IS/JSA, 16-24	1.41	95.5	1.2	5.53	14.95	32
Single not working 16 hours, on IS/JSA, 25-64	1.77	97.6	6.6	4.33	86.81	328
Couple neither working 16 hours, on IS/JSA	2.78	97.0	1.0	4.80	17.84	63
Lone parent + 1, not working 16 hours, on IS/JSA	3.69	85.3	2.8	3.99	53.03	254
Lone parent + 2, not working 16 hours, on IS/JSA	5.11	81.0	1.5	3.27	29.46	193
Lone parent + 3, not working 16 hours, on IS/JSA	6.54	52.6	0.4	3.60	13.79	94
Lone parent + 4, not working 16 hours, on IS/JSA	7.96	44.4	0.1	3.44	3.49	26
Couple +1, neither working 16 hours, on IS/JSA	4.70	75.4	0.4	3.72	8.38	38
Couple +2, neither working 16 hours, on IS/JSA	6.12	70.6	0.4	4.65	12.57	54
Couple +3, neither working 16 hours, on IS/JSA	7.55	42.7	0.2	3.08	3.82	29
Couple +4, neither working 16 hours, on IS/JSA	8.97	7.9	0.0	5.90	3.32	14
Total		78.1	24.2	3.77	446.86	2,209

5.2. In work households

It is difficult to decide on a criterion for the working water poor – perhaps the best solution is to include all households receiving Working Tax Credit (WTC). In 2007/8 the threshold for coming off WTC was £11,500 for a single householder and 3 per cent of that is £6.63 per week. Table 5 applies that as the water poverty threshold for all households receiving WTC and estimates that the cost of closing their water poverty gap is £288.78 million per year but it only helps up to 6.5 per cent of the water poor[15].

Table 5: Water poverty gaps amongst non-recipients of out-of-work benefits who spend more than £6.63 a week on water and sewerage (2007-08)

[12] Water poverty gap defined as weekly water charge minus 3% of benefit income

[13] Based on 21,660,000 people in England and Wales, the cost of closing the water poverty gap for each category is estimated as follows: (proportion of benefit family type in the entire weighted sample)*(average poverty gap for family type)*21,660,000*52/1.000,000

[14] Unweighted

[15] If the subsidy was the difference between the water charge and the regional average it would help 10.5 per cent of in work water poor and the cost £162 million per year.

	% spending more than £6.63/week on water	% of total 2005-06 water poor in work households	Average water poverty gap[16] (£ per week)	Water poverty threshold (£ per week)	Cost of closing water poverty gap (£ millions per year)[17]	Unweighted N
WTC recipients	53.7	6.5	4.21	6.63	288.78	1,249

[16] Water poverty gap defined as weekly water charge minus the regional average in 07/08

[17] Based on 21,660,000 people in England and Wales, the cost of closing the water poverty gap for each category is estimated as follows: (proportion of benefit family type in the entire weighted sample)*(average poverty gap for family type)*21,660,000*52/1.000,000

6. Conclusions

In this paper we have focused on the proposals made by CCWater to pay the difference between 3 per cent of income and the average bill for the region for consumers in receipt of Income Support or Pension Credit. We have found the following:

- A scheme targeting out of work households in water poverty will help up to 24.2 per cent of the water poor and will cost £446.86 million per year ongoing.

- A scheme based on working water poor could help up to 6.5 per cent of water poor households costing £288.78 million.

We also suggest that since price increases are likely to be very uneven in different regions, there are questions over whether there needs to be a national or a regional response.

As demonstrated by the relatively low level of households captured in this analysis any method that passports eligibility on criteria such as benefit/tax credit groups (other than actual water poverty) is going to suffer targeting problems. This is true of existing policy measures - for example not all those in fuel poverty are receiving the winter fuel payment. It remains a matter of judgement as to what degree of inaccuracy in targeting is acceptable, and such a proposal may face the criticisms that it will only help a minority of those in water poverty.

APPENDIX A – Literature review - Review of water poverty

Executive Summary

- Water prices have been and are proposed to continue to rise, leading to an increase in the number of households experiencing water poverty. In addition to cost of living increases, three contributing factors are increasing levels of debt across the water industry, water stress leading to some water companies introducing compulsory metering, and low take-up of WaterSure, the social tariff which is the only universal mechanism to help with water charges.

- The conventional measure of water poverty – spending 3% or more of net household income on water – is used here.

- Prior to 1999, domestic water supplies could be disconnected for non-payment. Legislation prohibiting this ensured that all households have access to unlimited water, but also removed the option of disconnection as a means to reduce outgoings for customers – ie. Previously customers had the option, albeit an undesirable one, to choose disconnection to avoid accruing further debt - , or discourage non-payment for companies.

- The banning of disconnection also raises the problem of distinguishing between customers who can't pay bills as a result of water poverty, and those who won't pay bills due to an awareness that this will not result in disconnection. It is therefore not possible to determine which customers are in water poverty simply by looking at arrears.

- Water companies operate as regional monopolies: domestic customers cannot opt to use a different water supplier. Water bills vary significantly between different water companies as a result of regional differences in access to water and standards of infrastructure. These differences are not reflected in the various forms of support for vulnerable customers in managing water bills.

- Regional variation in bill levels is driven to a large extent by environmental and health related agendas, requiring companies to reduce wastage and ensure high water quality.

- Regional variation is the factor that makes water poverty unique amongst the utilities: in other areas, customers can choose from a range of suppliers, whereas water customers are tied into their regional supplier irrespective of perceived value for money. This results in unique difficulties in supporting customers as national solutions do not address regional variation.

- Following the replacement of supplementary benefit with income support in 1989, water charges were no longer included in rates through the housing benefits scheme. This impacted on water poverty and debt for several reasons: benefit recipients were required to deal directly with water companies for the first time, requiring the motivation to do so and a level of financial literacy; the notional water component of income support did not cover the full amount of any region's water bill; regional variation in water charges was not

addressed in income support levels; and the Rossi index was not applied to the water element of income support between 1988-1992.

- ❖ Academic findings agree that water bills and debt are set to rise, along with levels of water poverty. It has also been claimed that water is the fastest rising area of debt for low-income families.

- ❖ Little work has been conducted into the qualitative impact of water poverty on low income households. This area is complex as a result of water forming a constant but relatively low financial commitment compared to other outgoings, and amongst non-metered households there is no room for flexibility in use and therefore in charges.

- ❖ Impacts of water poverty have been found to include metal health problems, summonses over non-payment, worry, family tensions, and arguments. Where metering is in place, concerns have been raised that a desire to reduce water bills may result in unhealthy and unhygienic measures.

- ❖ The Vulnerable Groups Regulations lay out the groups which water companies are governmentally mandated to support, including people who for a range of reasons may need to use more water or may struggle to access the water supply, for example people in housing with no water connection..

- ❖ WaterSure, a social tariff based on the average water bill for each region, is the only universal support mechanism aimed at households on low incomes. However, eligibility is based on the eligibility criteria of the vulnerable groups regulations, meaning that it is not responsive to anomalies placing households not defined as vulnerable in water poverty. Whilst take-up of WaterSure is relatively low, it has increased recently due to several initiatives including the re-branding of the scheme by CCWater and increased promotion by companies.

There are a number of conclusions drawn in this report. Firstly, the literature review (included as Appendix A) leads us to consider the nature of water poverty as a policy problem. The relationship of debt to water poverty is considered, as customers can fall into debt either by paying water bills where these are not affordable, or by opting not to pay water bills in favour of other bills. It is also suggested here that since water provision cannot be removed, there is an incentive to prioritise other costs first. This makes it difficult to distinguish between customers who can't pay as opposed to customers who won't pay water bills.

Secondly, the empirical analysis of the water poor finds that rates are at least doubled for single pensioners, those living in 'other tenure' households, households on income support/job seekers allowance, child tax credit, and at the risk of poverty, workless households, and those in the bottom income quintile. It is also found that of the 4.1 per cent of the population spending more than 5 per cent of their net income on water, the rate is doubled for singles of working age, single pensioners, those living in 'other

tenure' households, single households, households on income support/job seekers allowance, child tax credit, and at the risk of poverty, on housing benefit/ctb, or working tax credit, workless households, and the lowest income quintile.

Thirdly, the empirical analysis has included an assessment of a policy solution through the tax and benefits system. A number of approaches have been tested, and it has been concluded that any such approach will be inefficient in the sense that it will not reach all the water poor, and will also provide support to those not defined as water poor.

1 Background

Currently, increases in the level of water prices coincide with increasing fuel charges and now food prices. For people on a low income in particular, such combined increases add pressure to already tight budgets. Against the general rise in the cost of living there are other factors at play in the water industry that affect levels of water poverty:

- There is an increasing level of debt across the water industry - it has been estimated that a growing proportion of consumers will be paying more than three per cent of their net income on water – this being the conventional marker of water poverty.[18]
- In addition to this, water companies have the option of introducing compulsory metering programmes in parts of England which are classified as being areas of 'serious water stress', as metering is believed to lead to a reduction in water consumption. However, by moving households onto water meters and changing the way they are charged for water from a fixed annual bill to a variable bill based on usage, some households – particularly large families - are at risk of higher water costs. This leads to a concern that some consumers may be inclined to control their consumption in unhealthy ways in order to save money.
- Currently the WaterSure scheme - a social tariff - is the only universal mechanism to help people with their water charges but it has a very low take-up and its eligibility criteria mean that it is limited to a small sub-section of the customer base. The government has encouraged the water industry to develop social tariffs, as it has also done for the energy industry with some success.

2. Water poverty

2.1 Water poverty prior to and after 1999

Debates around water poverty in England and Wales have emerged since privatisation. These focus around price levels and disconnection. Research conducted in the early 1990s into the effects of utility provision by 'privatised monopolies' (at the time water, gas and electricity all fell into this category), found that water customers were at the greatest disadvantage as prices rose far more than any of the other privatised utilities (Drakeford 1997: 116). Prior to 1999 it was not illegal to disconnect domestic water supplies for non-payment, and a number of researchers highlight an increase in dysentery and hepatitis in the early 1990s, linking this in part to the disconnection policy (Sawkins and Dickie 2008: 86, see also Lobina and Hall 2001). Equally, before 1998 restrictive flow devices were not illegal, and these were also associated with public health risks (often referred to as self-disconnection).

The nature of water poverty as a policy problem has changed significantly since 1999, when it became illegal to disconnect household properties. The ban on disconnection has contributed to an increase of customers in debt with Castro (2007: 765) suggesting that 'In 2004 between 2 and 4 million households in England and Wales were living in 'water poverty'' (see also Klein, 2003, Fitch and Price 2002, Greene,

[18] This measure was proposed by Fitch and Price in 2002 and is currently the measure used by DEFRA.

2002; Ofwat 2004 pp14-19). However, it must be acknowledged that it is difficult to determine accurately the proportion of households in debt to water companies as a result of water poverty rather than an unwillingness to pay. Castro comments that 'On the basis of the available evidence, it can be argued that mainstream policies in England and Wales have contributed to reinforcing existing inequalities and poverty' (Castro 2007:765). It is also argued that since 1999 it is difficult to distinguish between the 'can't pays' and 'won't pays' (Sawkins and Dickie 2008). This is because the ultimate sanction of losing the water service via disconnection is no longer there to prompt 'won't pays' to make payment.

The most significant two issues relevant to water poverty since 1999 are the regional diversity of bills, and changes in the benefits system that have reduced specific state support for water bills - these are now discussed in detail below.

2.2 The impact of regional diversity of water charges

The creation of the Regional Water Authorities (RWAs), and subsequent privatisation of these leading to the formation of the current water companies, has led to the potential for regional disparities in water and sewerage charges. In effect each water company holds a regional monopoly on water supply for domestic customers. Although the specified social obligations on water companies laid out by the government on privatisation have meant that geographical issues have not impacted on supply in the same way as was the case in the energy industries (such as areas where certain services are not available), a high level of regional variation exists between the charges made for supplies (Sawkins and Dickie, 2008). Regional variation occurs because of the 'K factor': i.e. the percentage increase or decrease in charges allowed each year to cover the costs of the repair, maintenance, and updating of infrastructure to ensure compliance with statutory obligations and environmental standards (Huby and Anthony, 1997: 207-8). This varies for each water company as they have different local issues such as water resource availability and infrastructure requirements. Accordingly investment priorities and costs vary across the industry.

The regional variation in the level of water bills was highlighted by an All Party Parliamentary Working Group (APPWG) report '[there is] considerable regional variation both in terms of deprivation and costs' (APPWG, 2008: 14). Whilst in the energy industries customers are able to shop around for the best deal, this is not possible for domestic water customers due to the existence of regional monopolies. Whilst the Water Act 2003 makes provision for large-scale commercial users to change suppliers, a lack of uptake of this has been noted (APPWG, 2008), and the APPWG advise "a cautious approach" to the introduction of competition for domestic users (2008: section 5). Huby and Anthony highlight that regional variation exists not only in the level of water bills, but in access to means of support in managing the payment of these (1997: 211). This takes three forms: differing types of support available to customers depending on the relationship between their water company and local benefits agency (*Op cit.* 215); differing levels of availability and access to suitable advice and social services (*Op cit.* 211); and differing levels of accessibility of schemes such as WaterSure, designed to help vulnerable groups (*Op cit.* 214). As will be discussed below, existing universal (i.e. non-regional) forms of support offered do not necessarily take into account these regional variations. A final point to note is that regional variation in bills creates a unique difficulty among the essential utility services in arriving at a national solution; the issue of how to provide fairly the

necessary support to customers with widely varying bills is problematic. This is a key point.

2.3 Water poverty and benefit recipients

Changes in the benefit system following the privatisation of the water industry meant that benefit recipients became responsible for paying water bills, rather than this being administered between the (then) Department for Social Security and water companies directly. The most significant changes to the benefit system occurred at the end of the 1980s, when Supplementary Benefit was replaced with Income Support. Early research into these changes found that Income Support (unlike its predecessor Supplementary Benefit) did not fully compensate for rising water bills (Herbert and Kempson 1995), with Huby and Dix finding that amongst those living on Income Support, over three quarters were finding it difficult to pay their water bills (1992: 220). The notional water component of Income Support has failed to cover adequately increasing water bills for three reasons:

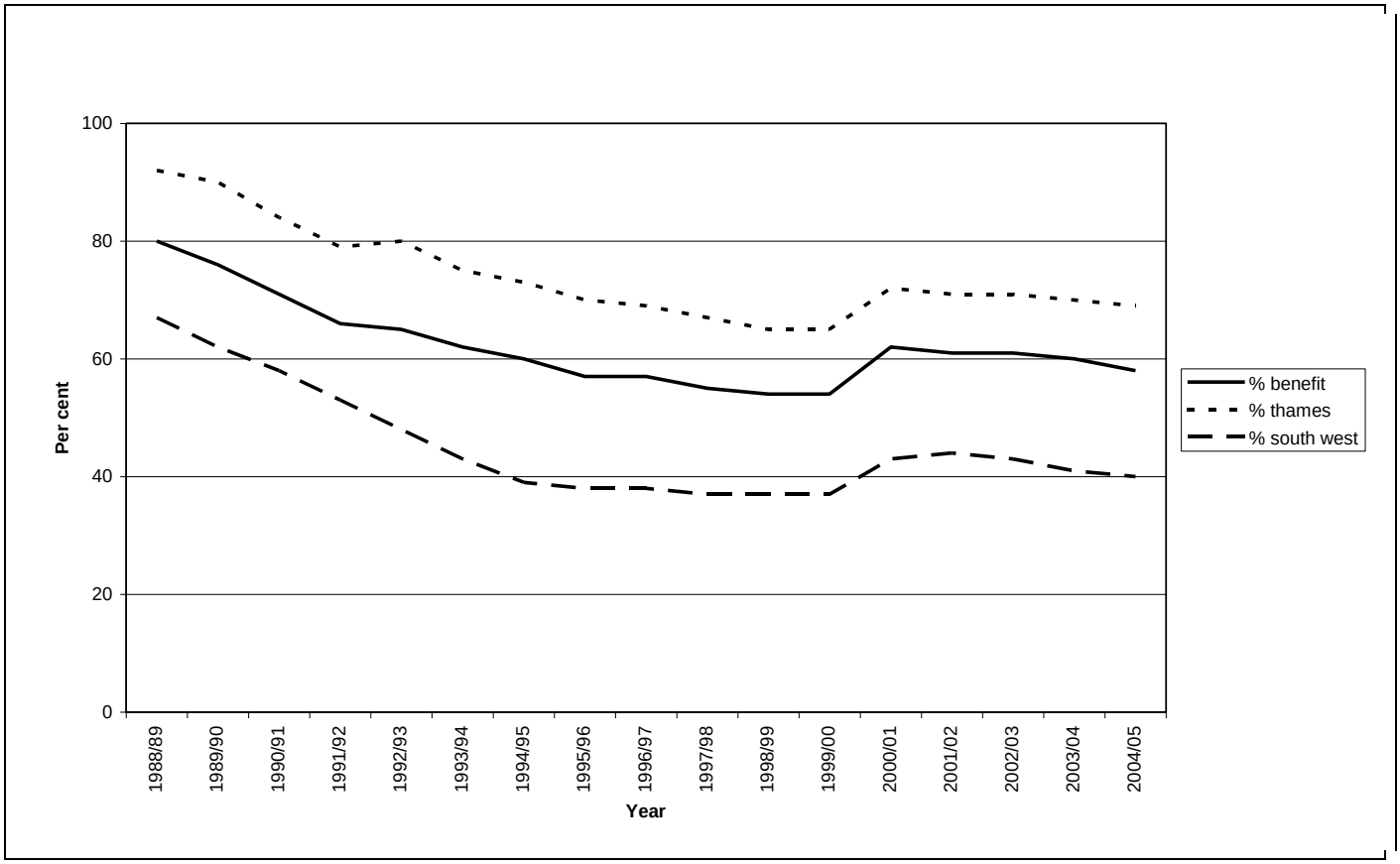
- it did not cover the full amount of any region's average water bill;
- it failed to address the issue of regional variation in water charges, meaning that people in higher charging areas were affected disproportionately;
- the Rossi index, used to uprate benefit payments, was not applied to the water component between 1988 and 1992, a time of large increases in water prices (Sawkins and Dickie, 2008; Huby and Anthony, 1997).

Post-1992, the Rossi index was applied to the water and sewerage element of benefit payments, but it was not backdated for the 1988-92 period, resulting in an ongoing deficit (Sawkins and Dickie, 2008). This failure to uprate the water component may have been a factor in increasing differences between benefit rates and water charges, with a 91% increase in water charges and 97% increase in sewerage charges over the period between 1989-90 and 1997-98, whilst Income Support for the over 25s increased by only 41% over the same period (Huby and Anthony, 1997: 208). In practical terms, this resulted in an increased proportion of income going towards water bills; a 1993 Ofwat report stated that 10% of the weekly income of some benefit-dependent households was spent on water, and this was projected to increase to 14% by 2004-5 (cited in Huby and Anthony, 1997). This well exceeds the widely adopted figure used to identify households experiencing water poverty, which is spending more than 3% of net income on water and sewerage charges.

Drakeford summarises the changes in the 1990s: 'water costs have risen rapidly since privatisation, such costs fall particularly heavily on those groups within the population whose need for water is greatest (does this statement only apply to metered households rather than those on fixed bills as well?) GM– It will do by the nature of support for vulnerable households – poorer people are more likely to be metered, and metering is required for accessing watersure, and these groups in turn are also more likely to have to rely on state benefits for their maintenance. State benefits however, have proceeded in exactly the opposite fashion to water costs….benefit levels have failed to keep pace with water prices' (1997: 119-120).

Figure 1 presents data from 1988 to 2005, analysing the percentage of which Income Support payments cover average water charges. [19] The middle line in Figure 2 provides a figure for average water bills, showing that the extent to which the assumed allowance for water bills within income support initially covered around 80 per cent of water costs in 1988, falling to 54 per cent in 1998-2000, and then rising to over 60 per cent between 2001-2004, and then falling back down to 58 per cent in 2004-2005. However, it is important to note that since the Labour Government came to power in 1997 there have been substantial real increases in Income Support for families with children and Pension Credit for pensioners. The failure to incorporate water into the Rossi index until 2002 only really now affects single and childless couples on Income Support who only have had their benefits increased in line with the index.

Figure 1: Benefit element as percentage of average water charge, adapted from Sawkins and Dickie (2008: 81-82)



As described above, the post-privatisation regional variations in water charges have also had an affect on water affordability with Huby and Anthony (1997) considering the variation between standardised benefit payments for water and regional variations in water bills: 'People living on standard rates of benefit in areas with higher water charges clearly face more pressures on household budgets than those in areas where

[19] Several assumptions are made by the authors here. When Supplementary Benefit was replaced by Income Support, the average estimated water bill for those receiving SB was £1.65 per week. This has been uprated using the ROSSI index, and compared against increases in water charges (see Fitch 2002, and Sawkins et. al 2008).

bills are lower' (1997: 211). These variations are also demonstrated in Figure 2 – this allows a comparison between the highest average charges (South West Water), with the lowest (Thames Water as at 2004-05?)). Whilst the general trends remain the same, the assumed allowance for water bills within Income Support covered 92 per cent of water costs in Thames Water area in 1988, falling to the lowest point of 65 per cent in 1998-2000, and rising back to 69 per cent in 2004-2005. This compares to 67 per cent in South West Water area in 1988, reducing to 37 per cent in 1998-2000, and rising back to 40 per cent in 2004-2005. For benefits claimants, the movement away from having direct payments of benefits to water companies has meant that since 1988 regional variation is no longer subsidised: claimants in higher-charging areas simply have to spend a higher proportion of their income on water bills (Sawkins and Dickie, 2008: 79; Huby and Anthony, 1997: 210).

Within academic literature it has been widely acknowledged that since privatisation, poorer customers are struggling to pay water bills (Huby, 1995; Huby and Anthony, 1997; Sawkins and Dickie, 2008). Bakker's study found that 75% of Income Support claimants struggle to pay for water and that "for low-income families the most rapidly rising component of overall debt related to water" (Bakker, 2001). This is reflected in the rate of increases in costs and benefits, and, as outlined above, benefit rates for single people and childless couples of working age have not increased in line with increases in water prices. The burden of infrastructural and environmental maintenance and development required by water companies, then, which is evenly distributed between water customers within each region, can be seen to produce a disproportionately high burden on low-income households, especially those which depend on benefits (Huby, 1995: 224).

2.4 The effects of being 'water poor'

Little has been written concerning the individual impact of water poverty on customers and households, and much information is old and therefore partially outdated due to changing regulations, particularly the 1999 Water Services Act. Literature tends to focus on certain groups who are vulnerable to experiencing difficulties in making water payments, including those in receipt of benefits, older people, and families (see Sawkins and Dickie, 2008; Huby, 1995; Hills, Huby and Anthony, 1997). Water and sewerage costs remain a relatively low proportion of incomes in comparison to other outgoings. However, recent increases in the cost of other essentials, including food and fuel for domestic and travel uses, result in the fixed cost of water imposing a significant and inflexible burden. Indeed, those spending more than 3% of their net income on water will have to reduce their spending on other consumables such as food or energy (or face the risk of debt).

In 1992 a National Association of Citizens Advice Bureaux (NACAB) report indicated that debt arising from difficulties in paying water charges has been found to impact on mental health: summonses issued as a result of non-payment caused distress, especially to older customers, and water poverty has been linked to worry, family tensions and arguments (NACAB, 1992; Huby, 1995: 220). Huby comments that water debts can "have impacts on living standards, health and wellbeing" (1995: 221). In their *Water Pricing* report, the House of Commons Environment, Food and Rural Affairs Committee quote Dr Noel Olsen as saying of many customers in Devon and Cornwall that water and sewerage charges "have reached a point where their affordability has become a threat to public health", and that "a poor diet and social isolation are inevitable if debt is to be avoided and an excessive charge absorbed out

of a standard pension income" (2003: 12). However, there appears to be a lack of coordinated research in to the quantitative and qualitative impacts of water poverty on those experiencing it.

3. Existing mechanisms that support vulnerable groups

Governmental and parliamentary groups, in addition to consumer and regulatory bodies, agree that it is necessary to support vulnerable groups in paying their water bills (APPWG, 2008; CCWater, 2008; DEFRA, 2008); however, there are some discrepancies in how vulnerable groups are defined. The measure used for defining the water poor is those spending 3% or more of their 'annual disposable [net] income' on water bills (DEFRA, 2007b). Furthermore, DEFRA also state that because of the government's priority of "protecting and supporting vulnerable groups", Ofwat have "particular responsibilities" towards:

- the disabled or chronically sick
- pensioners
- individuals on low incomes
- those in rural areas and those whose premises are not eligible to be supplied by a licensed water supplier (DEFRA 2008: 8).

The Vulnerable Groups Regulations (VGR) provide the basis for eligibility for WaterSure, the criteria for the social tariff[20] are presented in Box 1. The numbers of those applying for WaterSure have increased significantly between 2006-8, however, the actual number of recipients are very small (see below).

Box 1: criteria for WaterSure

In receipt of at least one of the following benefits	**Additional criteria**
❖ Council Tax Benefit ❖ Housing Benefit ❖ Income Support ❖ Income-based Jobseeker's Allowance ❖ Working Tax Credit ❖ Child Tax Credit (except families in receipt of the family element only) ❖ Pension Credit	Must have responsibility for three or more children (under 19) in full time education living in the home OR proof of at least one specified medical condition: ❖ desquamation (flaky skin disease); ❖ weeping skin disease; ❖ incontinence; ❖ abdominal stoma; ❖ Crohn's disease; ❖ ulcerative colitis; ❖ renal failure requiring dialysis at home (where there is no contribution by the local health authority to the cost of the water used)

In addition, all WaterSure households must be metered (this should be included in the criteria above). As of April 2005 if a customer is in receipt of the benefits listed above, they may also be eligible for WaterSure if a doctor certifies that they have a medical condition that requires a significant amount of water.

[20] Previously known as the Vulnerable Groups Scheme

WaterSure ensures that eligible customers pay no more than the average household water and sewerage bill for their area. It is calculated based on the cheaper of two ways of billing: either customers are given the metered charge for the water they have used if it is less than the average household bill, or their bill is capped at the level of the regional average if it would otherwise have been more (Ofwat, 2008b). Therefore, the average bill for those on WaterSure for a particular water company is likely to be similar to or the same as the average household bill for their region. However, the eligibility criteria for WaterSure mean it is unavailable to many households who may still be classed as water poor, or who struggle with higher than average metered bills, such as large families who use a lot of water out of necessity (CCWater, 2008). Figure 3 (not included) provides an overview of the number of applicants for WaterSure per water company between 2005-7. At the national level Ofwat find that 'In England and Wales the number of customers successfully applying for assistance has risen by 23% in the past year from 13,187 to 16, 260. A number of factors have contributed to this increase including:

- More customers becoming metered;
- Customers applying under the 'other medical condition' criteria;
- Rising bills; and
- Increased promotion by companies' (Ofwat 2008d).

This review allows some insight into some of the key issues within the study of water poverty and policy. Firstly, due to the unique nature of water provision the most pressing issue is the debt that customers can fall into - either by not paying water bills, or by opting to pay water bills in favour of other bills. It is also suggested here that since water provision cannot be removed, there is an incentive to prioritise other costs first. Secondly, the variation in charges between regions is clearly noteworthy.

APPENDIX B – FRS tables 2006/07

Table: FRS 2006/07: All Households

	Average £ per week on water	% spending more than 3% water	Composition of those spending more than 3% on water	Composition of the sample
Family type				
Single	4.86	23.4	23.7	15.0
Couple	5.96	6.8	7.6	16.4
C+1	6.07	6.5	3.0	6.6
C+2	6.85	6.0	3.4	8.1
C+3	7.09	7.8	1.2	2.2
C+4+	7.01	7.7	0.4	0.8
LP+1	5.68	24.6	5.1	3.0
LP+2	6.31	19.9	2.7	2.0
LP+3+	6.60	15.4	0.9	0.9
Pensioner single	4.77	30.7	30.7	14.5
Pensioner couple	6.06	14.4	13.1	13.2
Multi-unit	6.50	7.0	8.3	17.3
Tenure				
LA	5.45	24.8	16.0	9.3
HA	5.66	23.2	12.9	8.1
Private	5.66	15.1	10.5	10.2
OO outright	5.79	19.6	44.1	32.9
OO mortgage	6.09	5.6	14.8	38.7
Other	5.04	34.1	1.7	0.7
Region				
NE	5.04	12.7	4.3	4.9
NW/Mersey	6.08	17.9	15.5	12.6
York/Humber	5.47	13.2	8.7	9.6
EM	5.63	14.9	8.4	8.2
WM	5.45	15.0	10.2	9.9
East	6.32	12.9	9.2	10.4
London	5.14	10.8	10.3	14.0
SE	5.94	11.9	12.4	15.2
SW	6.86	19.9	13.3	9.7
Wales	6.52	20.2	7.6	5.5
Number of people in household				
1	4.82	27.1	54.4	29.5
2	5.95	11.7	29.5	36.7
3	6.35	8.0	8.3	15.2
4	6.74	5.7	4.9	12.6
5	7.11	6.4	1.8	4.2
6+	7.12	7.7	1.0	1.9
Tax/benefit class[21]				

[21] These are not mutually exclusive categories, so the total may exceed 100%

APPENDIX B – FRS tables 2006/07

	Average £ per week on water	% spending more than 3% water	Composition of those spending more than 3% on water	Composition of the sample
IS or JSA	5.87	30.9	17.2	8.1
HB or CTB	5.53	28.3	28.9	14.8
PC	5.13	24.7	11.6	6.8
PC or HB or CTB	5.53	28.3	28.9	14.8
CTC or WTC	6.48	10.2	12.0	17.1
CTC & at risk of poverty	6.63	33.3	7.3	3.2
Any of the above[22]	6.02	18.2	37.1	29.5
IB or DLA	5.79	18.4	14.1	11.0
Any of the above	5.94	18.6	45.7	35.6
None of the above[23]	5.79	12.4	54.3	64.4
Number of workers in HH				
0	5.43	28.5	71.6	36.8
1	5.85	10.8	22.5	30.3
2	6.24	2.9	5.5	27.3
3	6.56	1.4	0.4	4.3
4+	6.79	0.0	0.0	1.3
Ethnicity				
White	5.87	14.6	91.5	91.4
Mixed/Other	5.41	16.8	2.0	1.7
Asian	5.92	12.7	3.3	3.8
Black	5.30	15.5	2.9	2.7
Chinese	5.90	14.6	0.4	0.4
Household bills in arrears				
0	5.81	13.5	84.7	91.4
1	5.92	23.6	7.3	4.5
2	6.33	24.0	3.8	2.3
3	6.35	29.0	2.1	1.0
4+	7.67	37.2	2.2	0.9
Child under 3				
No	5.79	15.1	93.0	90.1
Yes	6.31	10.3	7.0	9.9
Disabled child				
No	5.81	14.7	97.4	96.5
Yes	6.75	11.0	2.7	3.5
Disabled child (DLA subtracted from income)[24]	-	*12.2*	*2.8*	-

[22] IS, JSA, HB, CTB, PC, CTC or WTC

[23] IS, JSA, HB, CTB, PC, CTC, WTC, IB or DLA

APPENDIX B – FRS tables 2006/07

	Average £ per week on water	% spending more than 3% water	Composition of those spending more than 3% on water	Composition of the sample
Disabled adult				
No	5.89	12.1	55.5	67.2
Yes	5.76	19.7	44.5	32.8
Disabled adult (DLA subtracted from income)	-	*22.5*	*47.7*	-
Income quintiles				
Lowest	5.06	54.9	71.3	19.8
Second	5.51	16.1	21.1	18.9
Third	5.83	4.1	5.5	19.3
Fourth	6.18	1.4	1.9	20.2
Highest	6.55	0.2	0.3	21.8
Total	5.85 (18,882)	14.58 (18,693)	100 (2,806)	100 (18,882)

FRS 2006/07: Households with Water Meters Only

	Average £ per week on water	Average % of net HH income on water	% spending more than 3% water	% spending more than 5% water	Composition of the sample
Family type					
Single	4.13	2.1	15.1	6.6	15.1
Couple	5.88	1.3	6.1	2.1	16.4
C+1	6.40	1.4	7.0	**2.2**	5.8
C+2	7.25	1.3	6.8	1.4	7.4
C+3	7.61	1.7	9.6	2.5	1.8
C+4+	9.29	1.8	15.2	6.1	0.6
LP+1	5.43	2.2	18.9	2.6	2.1
LP+2	6.90	2.6	21.0	6.9	1.2
LP+3+	7.69	2.6	28.0	10.9	0.4
Pensioner single	3.85	2.3	16.8	5.6	20.2
Pensioner couple	5.35	1.7	9.0	2.6	17.5
Multi-unit	6.87	1.5	8.6	2.7	11.4
Tenure					
LA	5.25	2.5	24.0	10.3	3.3
HA	5.66	2.3	20.4	5.5	7.8
Private	5.51	1.8	12.6	3.6	7.2
OO outright	4.91	2.1	13.4	4.8	42.8
OO mortgage	5.98	1.2	5.0	1.6	38.0
Other	4.38	2.3	25.6	4.3	1.0
Region					
NE	4.60	1.7	4.4	2.5	2.6
NW/Mersey	6.31	2.0	14.2	4.9	8.5
York/Humber	4.80	1.6	8.5	2.8	9.2

APPENDIX B – FRS tables 2006/07

	Average £ per week on water	Average % of net HH income on water	% spending more than 3% water	% spending more than 5% water	Composition of the sample
EM	5.42	1.7	11.0	3.2	9.4
WM	4.98	1.8	11.2	3.7	8.7
East	5.55	1.8	10.0	2.8	17.2
London	4.66	1.6	8.0	2.4	8.6
SE	5.46	1.6	10.1	3.1	18.2
SW	6.04	2.1	16.3	6.1	13.0
Wales	5.41	2.1	15.3	6.7	4.7
Number of people in household					
1	3.97	2.2	16.1	6.0	35.3
2	5.60	1.6	8.8	2.5	38.9
3	6.62	1.6	8.1	2.9	11.4
4	7.25	1.3	6.9	1.7	9.9
5	7.89	1.5	10.0	1.8	3.2
6+	8.95	2.1	11.9	6.6	1.3
Tax/benefit class[25]					
IS or JSA	6.10	2.8	30.2	12.43	4.54
HB or CTB	4.97	2.4	23.1	7.64	10.83
PC	4.17	2.2	17.8	4.19	6.29
PC or HB or CTB	4.97	2.4	23.1	7.64	10.83
CTC or WTC	7.24	1.8	12.7	2.62	12.01
CTC & at risk of poverty	8.09	3.7	48.9	11.68	1.75
Any of the above[26]	6.10	2.1	16.9	4.87	21.65
IB or DLA	5.37	1.9	15.2	4.54	8.42
Any of the above	5.90	2.0	16.5	4.77	26.84
None of the above[27]	5.25	1.7	9.2	3.31	73.16
Number of workers in HH					
0	4.65	2.4	17.6	6.3	42.3
1	5.53	1.6	9.6	2.8	29.1
2	6.38	1.1	3.7	0.7	24.9
3	6.88	1.2	1.2	1.2	2.9
4+	7.41	0.8	0.0	0.0	0.8
Ethnicity					
White	5.39	1.8	11.0	3.7	93.8
Mixed/Other	5.36	2.2	17.4	6.5	1.5
Asian	6.67	1.7	14.5	3.6	2.8
Black	5.21	1.6	9.1	2.2	1.5
Chinese	5.87	1.6	20.2	0.0	0.4

[25] These are not mutually exclusive categories, so the total may exceed 100%

[26] IS, JSA, HB, CTB, PC, CTC or WTC

[27] IS, JSA, HB, CTB, PC, CTC, WTC, IB or DLA

APPENDIX B – FRS tables 2006/07

	Average £ per week on water	Average % of net HH income on water	% spending more than 3% water	% spending more than 5% water	Composition of the sample
Household bills in arrears					
0	5.35	1.7	10.3	3.4	94.3
1	6.13	2.3	25.5	9.1	2.9
2	7.35	2.5	28.2	10.6	1.4
3	5.73	2.1	16.0	4.6	0.8
4+	8.02	2.6	33.7	5.1	0.7
Child under 3					
No	5.29	1.8	11.2	3.7	91.7
Yes	6.85	1.7	10.7	4.1	8.3
Disabled child					
No	5.36	1.8	11.0	3.7	97.5
Yes	7.72	1.8	16.8	3.7	2.5
Disabled child (DLA subtracted from income)[28]		*1.9*	*17.3*	*3.0*	
Disabled adult					
No	5.54	1.7	10.2	3.5	68.5
Yes	5.17	1.9	13.3	4.1	31.5
Disabled adult (DLA subtracted from income)		*2.1*	*14.8*	*5.0*	
Income quintiles					
Lowest	4.31	3.9	39.6	15.6	21.0
Second	4.66	1.9	10.1	1.8	18.2
Third	5.38	1.5	4.6	0.6	18.2
Fourth	6.19	1.2	2.4	0.4	18.8
Highest	6.42	0.7	0.3	0.2	23.8
Total	5.42 (5,489)	1.8 (5,423)	11.12 (5,489)	3.7 (5,423)	100 (5,489)

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APPENDIX B – FRS tables 2006/07

FRS 2006/07: Households Without Water Meters Only

	Average £ per week on water	Average % of net HH income on water	% spending more than 3% water	% spending more than 5% water	Composition of the sample
Family type					
Single	5.10	2.6	24.9	8.3	14.3
Couple	6.02	1.4	6.9	2.6	16.9
C+1	5.98	1.5	6.3	2.5	7.2
C+2	6.73	1.4	5.6	2.3	8.7
C+3	6.98	1.5	7.0	1.8	2.5
C+4+	6.36	1.5	5.3	1.0	0.9
LP+1	5.81	2.7	25.0	7.5	3.2
LP+2	6.34	2.3	20.7	4.2	2.2
LP+3+	6.60	2.2	14.7	3.4	1.0
Pensioner single	5.48	3.3	41.8	12.2	11.4
Pensioner couple	6.52	2.3	17.8	4.2	12.2
Multi-unit	6.46	1.4	6.2	2.0	19.7
Tenure					
LA	5.72	2.5	26.6	6.1	8.4
HA	5.79	2.5	23.8	6.2	7.2
Private	5.51	1.9	14.63	4.5	9.4
OO outright	6.31	2.5	23.2	7.6	31.7
OO mortgage	6.14	1.4	5.8	2.0	42.6
Other	5.45	2.9	39.5	6.2	0.7
Region					
NE	5.23	1.9	11.9	4.3	5.2
NW/Mersey	5.97	2.2	18.3	5.4	15.0
York/Humber	5.73	1.9	14.6	3.4	10.0
EM	5.69	2.1	16.4	4.8	8.2
WM	5.60	1.9	15.9	4.7	11.0
East	7.05	1.9	14.6	4.7	7.7
London	5.41	1.6	10.7	3.4	13.9
SE	6.21	1.8	12.4	4.1	14.5
SW	7.44	2.4	21.6	7.4	8.7
Wales	6.90	2.3	20.8	5.9	5.9
Number of people in household					
1	5.27	2.9	32.5	10.1	25.7
2	6.13	1.9	12.8	3.7	36.6
3	6.34	1.5	7.8	2.3	16.9
4	6.64	1.3	5.3	1.9	14.0
5	6.95	1.4	5.3	1.6	4.7
6+	6.66	1.4	6.5	2.3	2.2
Tax/benefit class[29]					

[29] These are not mutually exclusive categories, so the total may exceed 100%

APPENDIX B – FRS tables 2006/07

	Average £ per week on water	Average % of net HH income on water	% spending more than 3% water	% spending more than 5% water	Composition of the sample
IS or JSA	5.96	2.7	31.00	8.48	8.49
HB or CTB	5.84	2.7	30.47	7.08	14.81
PC	5.66	2.6	29.23	4.96	6.37
PC or HB or CTB	5.84	2.7	30.47	7.08	14.81
CTC or WTC	6.36	1.7	9.37	2.43	19.36
CTC & at risk of poverty	6.50	3.0	31.56	10.68	3.66
Any of the above[30]	6.11	2.1	18.15	4.41	31.53
IB or DLA	5.99	2.2	18.72	5.10	11.98
Any of the above	6.06	2.2	18.60	4.81	38.11
None of the above[31]	6.07	1.9	13.44	4.64	61.89
Number of workers in HH					
0	5.90	3.1	34.3	10.6	33.1
1	6.00	1.8	10.9	3.2	30.9
2	6.22	1.1	2.5	0.7	29.5
3	6.51	0.9	1.5	0.9	5.2
4+	6.56	0.7	0.0	0.0	1.4
Ethnicity					
White	6.11	2.0	15.6	4.7	91.0
Mixed/Other	5.61	1.9	16.8	3.6	1.7
Asian	5.70	1.8	12.4	4.2	4.3
Black	5.54	2.0	15.3	5.8	2.7
Chinese	6.06	1.6	11.0	11.0	0.3
Household bills in arrears					
0	6.04	1.9	14.3	4.4	90.8
1	6.05	2.4	23.6	6.5	4.7
2	6.22	2.5	24.1	8.3	2.5
3	6.97	2.9	37.4	11.1	1.0
4+	7.15	3.5	38.0	11.1	1.0
Child under 3					
No	6.05	2.0	16.1	4.9	89.4
Yes	6.21	1.8	9.9	3.1	10.6
Disabled child					
No	6.05	2.0	15.7	4.8	96.1
Yes	6.50	1.6	8.7	1.9	3.9
Disabled child (DLA subtracted from		*1.7*	*10.21*	*2.38*	

[30] IS, JSA, HB, CTB, PC, CTC or WTC

[31] IS, JSA, HB, CTB, PC, CTC, WTC, IB or DLA

APPENDIX B – FRS tables 2006/07

	Average £ per week on water	Average % of net HH income on water	% spending more than 3% water	% spending more than 5% water	Composition of the sample
income)[32]					
Disabled adult					
No	6.06	1.8	12.3	3.9	67.3
Yes	6.08	2.3	21.9	6.4	32.7
Disabled adult (DLA subtracted from income)		*2.5*	*25.12*	*7.85*	
Income quintiles					
Lowest	5.45	4.6	63.4	24.2	18.1
Second	5.88	2.3	19.1	2.1	18.4
Third	6.05	1.6	3.8	0.4	19.9
Fourth	6.17	1.2	0.7	0.2	21.7
Highest	6.64	0.7	0.1	0.0	22.1
Total	6.07 (12,276)	2.0 (12,168)	15.4 (12,168)	4.7 (12,168)	100 (12,276)

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