

Regional Differences in Water and Sewerage Service Costs

1. Introduction

The Independent Review of Charging for Household Water and Sewerage Services led by Anna Walker published its interim report in June 2009. The report concludes that “**costs should reflect regional differences and that water prices should continue to be regionally based and geographically averaged**” (paragraph 3.2.4, p53). However, before translating this interim conclusion into a final recommendation, the report requests further views on the issue.

The debate as to whether or not regional differences in water prices should remain is framed by the report within the context of the designation of water and sewerage services as either a public or private good. Perceiving these services as a public good recognises that the environmental improvements provided by them are enjoyed by individuals who have not funded them: “**visitors to the seaside benefit from the elimination of the discharge of untreated sewerage to the sea, but are not directly charged for this improvement**” (p53). However, the counter argument is also presented within the interim report: “**a considerable proportion of the benefits will actually accrue to those who currently pay for these improvements.**”

Therefore, this document summarises a review of the evidence underpinning the public versus private good debate. This review has been prepared by SERIO in collaboration with Professor David Wheeler, Pro Vice-Chancellor and Dean (Designate) of the Plymouth Business School and Professor Simon Payne, Head of Plymouth Law School and Associate Dean of the Plymouth Business School. This review includes:

- ❖ An overview of the regional differences in water and sewerage service costs;
- ❖ A review of policy documentation and academic literature; and
- ❖ An analysis of the number of visitors and trips to the South West.

2. The Regional Differences and the Natural Environment

Regional differences in water and sewerage service charges have developed due to variation in the historic infrastructure (pre-privatisation), geographic characteristics and population size. As described by the Environment Food and Rural Affairs Committee’s Fifth Report to the Ofwat Price Review (2009, paragraph 35), published after the interim Walker Review, the result has been that “**large geographical areas with small populations have high costs spread among few people**”. To demonstrate the extent of current and future regional differences, the Committee

draws upon the example of South West Water customers' bills:

“[they] are predicted to increase on average by £20 in real terms by 2014-15, compared to a £12 average rise for a Severn Trent Water household, and this comes on top of bills which are already nearly 60% higher than those of Severn Trent Water.”

Full details of the regional differences in household bills are shown in Table One below. South West Water has the highest level of sewerage charges in England and Wales; 25% higher than the next highest and 50% above the average sewerage charges in 2008/09.

Table One: Water and Sewerage Company Average Household Bills in 2008-09 and 2009-10^{a, b}

| | Average water bill for | | Change ¹ £ | Average sewerage bill for | | Change ¹ £ | Total change – combined bill ¹ | |
|--------------------------------|------------------------|---------|--------------------------|---------------------------|---------|--------------------------|-------------------------------------------|-----|
| | 2008-09 | 2009-10 | | 2008-09 | 2009-10 | | £ | % |
| | £ | £ | | | | | | |
| Anglian Water | 167 | 174 | 7 | 209 | 219 | 10 | 17 | 4.6 |
| Dwr Cymru² | 165 | 170 | 6 | 223 | 233 | 11 | 17 | 4.3 |
| Northumbrian Water: | | | | | | | | |
| - Northumbrian | 128 | 130 | 2 | 164 | 168 | 4 | 7 | 2.2 |
| - Essex & Suffolk ³ | 164 | 168 | 4 | | | | | 2.3 |
| Severn Trent Water | 146 | 153 | 7 | 144 | 151 | 7 | 15 | 5.0 |
| South West Water | 200 | 206 | 7 | 285 | 283 | -2 | 4 | 0.9 |
| Southern Water | 122 | 127 | 4 | 228 | 243 | 15 | 20 | 5.6 |
| Thames Water | 174 | 178 | 4 | 114 | 117 | 3 | 7 | 2.4 |
| United Utilities | 165 | 172 | 7 | 194 | 205 | 11 | 19 | 5.3 |
| Wessex Water | 194 | 202 | 8 | 198 | 210 | 12 | 20 | 5.1 |
| Yorkshire Water | 149 | 153 | 4 | 168 | 177 | 9 | 13 | 4.0 |

Source: Ofwat, http://www.ofwat.gov.uk/consumerissues/chargesbills/prs_inf_avercharges2009-10.pdf.

Notes:

- a. Average household bills for water only companies have not been reproduced here.
- b. Bills for 2008-09 and 2009-10 are estimates. They are based on provisional and forecast data that each company provides, for the year ending 31 March.
 1. Numbers in columns may not add because of rounding.
 2. The average bills for Dwr Cymru reflect a rebate of £22 in 2009-10 and £21 in 2008-09 given to customers who take both water and sewerage services from the company.
 3. Bills for Essex & Suffolk are for water services only.

In addition to the size of the South West population, the environmental landscape creates unique challenges to sewerage services. The region's key environmental characteristics include (South West Water, 2007, page 4 and Natural England, 2009, page three):

- ❖ 3429 square km of Environmentally Sensitive Countryside;
- ❖ 40% of designated land that receives special protection for its outstanding quality, compared to 23% for England overall;
- ❖ 2,100 km of coastline, more than any other region and 25% of England's total coast;
- ❖ 507 km of Heritage Coast, representing 59% of England's total;
- ❖ 144 EC Designated Bathing Waters, representing 33% of the total in England and Wales;
- ❖ 22 designated shellfish waters, representing 21% of England's total; and,
- ❖ The seas off the South West of England support half of the UK's wildlife.

The environmental protection costs associated with maintaining and improving these characteristics, and in particular the high proportion of national bathing waters in region, have been identified by South West Water as a key reason for the high customer bills. Indeed, they report that 3% of the country's population are required to improve 30% of the country's bathing waters (South West Water, 2007, p41). For example, the 'Clean Sweep' Programme cost £1.5 billion over 18 years and funded the closure of 250 crude sewage discharges and 140 new or improved waste water treatment works. In their 2007 Strategic Direction Statement, they describe the sustainability of assets as a key challenge for the future, with South West Water having the largest asset value per customer of any of the water and sewerage companies. This is reportedly because a large number of assets is supported by a small population (p25).

3. Environmental Protection as a Public versus Private Good

As the designation of water and sewerage services as either a public or private good is of significance to the regional differences debate, consideration is given to the UK's policy on the importance and value of the environment they protect. For example, the UK Government's Sustainable Development Strategy (DEFRA, 2005, page 97) stated that:

“Natural resources are vital to our existence. Our health and wellbeing are inextricably linked to the quality of our air, water, soils and biological resources. The use of their environmental wealth is vital for economic development and poverty reduction in this country and abroad. Our economy and key industrial sectors are directly and indirectly reliant on functioning ecosystems, which are vital for nutrient cycling, atmospheric and climate regulation, and break down and mitigation of waste. Our landscapes, seascapes and wildlife are inseparable from our culture and sense of identity. For many people the natural world has its own intrinsic value.”

In addition, the Environment Food and Rural Affairs Committee (2009) stated that:

“The question for Defra is whether environmental improvements in certain regions, such as measures to protect beaches in the south west, should be seen as a national benefit to be paid for by tax payers or as a regional infrastructure deficit to be paid for by local water customers. Ofwat and Defra have so far failed to make the argument that regional variations in the costs customers must bear for environmental investment are fair and appropriate” (paragraph 40).

The issue of ‘equalisation’ versus ‘economic equity’ has also been debated within academic literature. In the context of water charges, equalisation refers to: ***“the principle that users in different regions should pay, as near as possible, equal bills regardless of the cost they impose on the system”*** and economic equity as the principle of ***“users of a utility service should pay, as near as possible, the costs they individually impose on the system”*** (Bakker, 2001, p147). Bakker argues that the currently water regulatory framework is currently based on the latter.

However, the principle of economic equity does not recognise the disproportionate maintenance costs imposed on some regions as a result of a unique environmental landscape. As Chappells and Medd state (2008, page 732): ***“the widely shared view that “fairness” is satisfied if we “pay for what we get” fails to account for how needs (and the limits of negotiability and choice) are structured by social conventions and by systems of provision.”***

This debate has interesting parallels with the wider environmental justice agenda. Although this agenda typically focuses upon ensuring population groups, such as deprived communities, are not disproportionately exposed to the impact of negative environmental conditions, it can be argued that the converse is an equally just. That is, no population group should experience disproportionate economic impacts through their proximity to high quality

environmental landscapes.¹ Indeed, the vision that no-one should be seriously disadvantaged by where they live underpins much of recent Government policy (Social Exclusion Unit, 2001, page 24).

This argument is however dependent upon whether or not the principles of social justice are perceived as an appropriate mandate for policy and legislation. In returning to the evidence, it is suggested that the principle of economic equity is weakened by the volume of visitors to the South West from outside the region. As shown in Table Two below, 17.6 million trips were made to the South West in 2008 by residents in England. Removing South West residents (6.2 million) from the total number of trips to the region, reveals that, based on the Census 2001, the equivalent of 23.2% of the English population visited the South West in 2008.

Table Two: Visitors Taking Trips to the South West Region According to Residence (Country and UK Region) 2006-08

| Area | 2006 (millions) | 2007 (millions) | 2008 (millions) |
|--------------------|--------------------|--------------------|--------------------|
| England | 18.6 | 19.2 | 17.6 |
| Scotland | 0.3 | 0.3 | 0.2 |
| Wales | 1.3 | 0.9 | 1 |
| Northern Ireland | 0.1 | 0.1 | 0.1 |
| | | | |
| North East | 0.2 | 0.2 | 0.3 |
| North West | 1.1 | 0.9 | 1.1 |
| Yorks & Humberside | 0.8 | 0.8 | 0.7 |
| East Midlands | 1.2 | 1.3 | 1.1 |
| West Midlands | 1.9 | 1.8 | 1.5 |
| East of England | 1.8 | 1.8 | 1.6 |
| London | 1.9 | 2.2 | 1.7 |
| South East | 3.8 | 3.5 | 3.5 |
| South West | 6.1 | 6.7 | 6.2 |

Source: Detailed Trend Reports: UKTS, 2008

(<http://www.tourismtrade.org.uk/MarketIntelligenceResearch/DomesticTourismStatistics/UKTS/TrendReports08.asp>)

Sample sizes: On average, approximately 100,000 per year (2,000 per week).

Figures have been rounded.

¹ The affordability of water rates, and its regional variation, have been well debated elsewhere and are therefore not discussed here. For a summary of the key arguments, see http://www.citizensadvice.org.uk/index/campaigns/social_policy/consultation_responses/cr_utilities/walker_review_of_household_charging_for_water_and_sewerage_services.

The high volume of tourists to the region inevitably imposes costs on the South West's water and sewerage system. In addition, and as shown in Table Three below, breaking down type of trips by destination reveals that the largest proportion of trip types undertaken by visitors (from all regions in the UK) to the South West in 2008 were to the seaside (37.6%, 7.1 million). Therefore, a large proportion of visitors are directly benefiting from the environmental improvements funded by South West Water customers.

Table Three: Destination of Visitors Taking Trips to the South West 2006-08

| Type of Trip | 2006 (millions) | 2007 (millions) | 2008 (millions) |
|------------------------|--------------------|--------------------|--------------------|
| Seaside | 8.4 | 8.1 | 7.1 |
| Large city/ large town | 4.5 | 4.1 | 4.3 |
| Small town | 4.1 | 4.7 | 4.2 |
| Countryside/ village | 3.9 | 3.9 | 3.6 |
| Total | 20.3 | 20.5 | 18.9 |

Source: Detailed Trend Reports: UKTS, 2008

(<http://www.tourismtrade.org.uk/MarketIntelligenceResearch/DomesticTourismStatistics/UKTS/TrendReports08.asp>)

Sample sizes: On average, approximately 100,000 per year (2,000 per week).

Figures have been rounded.

Therefore, it is evident that South West residents are funding a resource which is utilised by a substantial proportion of the national population. It is acknowledged that the regional economy benefits from the volume of visitors, however, other regions also benefit from tourism without placing the burden of the protection of the attraction upon the local population.

4. A Way Forward

There are numerous examples of current cross-subsidisation of utilities. For example, and as cited by the Environment, Food and Rural Affairs Committee (2009), there is a cross-subsidy to power distribution to the Scottish Highlands and Islands. In addition, there is a power in the Water Industry Act 1991 for taxation to be used to subsidise water companies who incur additional costs for reasons related to national security. A similar power for rural areas was repealed by the Environment Act 1995.

Furthermore, Natural England's Environmental Stewardship is due to process payments to farmers and other land managers in October 2009 to ensure the protection of the environment. More specifically, this scheme aims to:

- ❖ Conserve wildlife (biodiversity);
- ❖ Maintain and enhance landscape quality and character;
- ❖ Protect the historic environment and natural resources;
- ❖ Promote public access and understanding of the countryside; and,
- ❖ Protect natural resources.

Given the characteristics of the South West's environmental landscape (see Section Two), and its enjoyment and use by a national population, it is suggested that the region's bathing waters should also receive similar protection.

It is recognised however, that achieving equalisation is likely to be a difficult and complex process. Although the Environment, Food and Rural Affairs Committee (2009) concluded that the regional variations in costs are yet to be demonstrated as fair and appropriate, they state that:

“In the first instance the extent of differences in charges and service levels needs to be established, before posing the questions of whether those differences are appropriate, and what the consequences would be on different consumers of either reducing these, or indeed introducing further differences in the form of cross-subsidies” (paragraph 37).

Any change of approach to water charging would require a change of policy and primary legislation to either change the way in which charges schemes are submitted and approved or to permit tax revenue to be used to iron out some of the inequities in the system.

5. References

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