

**Consumer
Scotland**

Luchd-Cleachdaidh Alba

Affordability of water and sewerage charges

The outlook for water poverty
in Scotland

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Executive Summary

Background

Scottish Water provides water and wastewater services to around 2.6 million dwellings in Scotlandⁱ.

Charges levied on households fund Scottish Water to deliver these services. The average charge per household was £410 in 2023/24, generating revenues for Scottish Water of just over £1bn. The specific charge faced by any household is determined by the council tax band that the property falls within, plus various discounts, reductions and exemptions.

Determining the appropriate level and structure of water charges is about balancing two competing considerations.

- On the one hand, ensuring sufficient income is raised from customer charges to adequately fund existing services and invest in the infrastructure required for the future.
- On the other hand, ensuring that these customer charges don't unfairly burden consumers in general, and those least able to pay in particular.

These issues and trade-offs will be at the heart of the forthcoming Strategic Review of Charges, the process which determines the trajectory for customer charges during the 6-year period from 2027/2028 to 2032/2033.

This report aims to inform that debate by examining the affordability of water and sewerage charges in Scotland in the recent past and considering the outlook for coming years. It also considers some of the options for enhancing the affordability of water charges, examining the impact of these on bill affordability and on revenues from charges.

Evolution of charges

During the 2021-2027 plan period, Scottish Water is permitted to increase domestic water charges by up to a maximum of two percentage points above the CPI rate of inflation (CPI+2%) on average each year.

Charges were increased by CPI+2% in 2021/22. They were then increased by less than CPI+2% in both 2022/23 and 2023/24, before increasing by 8.8%, almost double the CPI rate of 4.6%, in 2024/2025.

The result is that the water charge is around the same level – in inflation-adjusted terms – in 2024/2025 as it was in 2021/2022. However, charges in 2024/2025 are around 7% below where they would have been had a CPI+2% pathway been followed in each year, equivalent to around £50 for the typical household.

Measuring water affordability

This report considers water affordability by examining trends in a widely-recognised measure of 'water poverty'. This measure deems that households spending more than 3% of disposable income on water and sewerage services are in 'water poverty', and households spending more than 5% of disposable income are in 'severe water poverty'.

Limitations of these measures include that they ignore other aspects of households financial wellbeing, such as debt and assets, and income volatility and uncertainty. Nonetheless, the water poverty measures used in this report remain the most pragmatically useful, given the availability of data, and they allow for comparisons to be made across time for different types of customer.

Recent trends in water poverty

We estimate that around 10.6 per cent (275,000) households in Scotland are in water poverty in 2024/2025. Within this group, 120,000 households are deemed as being in severe water poverty (4.6% of all households).

These estimated water poverty rates are broadly in line with the decade preceding the cost-of-living crisis. Between 2011/11 and 2021/22, the water poverty rate was consistently between 11-12%, while the severe water poverty rate was consistently around 4-5%.

The water poverty rate is estimated to have been slightly lower in 2022/23 and 2023/24. This reflects the fact that Scottish Ministers and Scottish Water agreed not to increase water charges by the possible CPI+2% in recognition of the pressure on households, such that the water charge increased more slowly than household incomes, partly because of temporary boosts to social security payments associated with the cost-of-living crisis.

Illustrating trade-offs

Our analysis also shows what may have happened to water poverty rates if the water charge had increased by CPI+2% in each year of this SRC period, (i.e. a 6.2% increase in charges in 2022/23 and a 13.1% increase in 2023/24, rather than the actual increases of 4.2% and 5% respectively).

- We estimate that the 3% water poverty rate would have been around 1.5 percentage points higher by 2023/24 had this scenario occurred, implying an additional 38,000 households in water poverty.
- However, the flipside is that higher charges would also have generated additional revenues for Scottish Water. We estimate that Scottish Water revenues would be almost £100m higher in each year from 2023/24 onwards had this alternative charging scenario been followed.
- This illustrates the challenges in trading off, on the one hand, the requirement to raise revenues from customer charges to fund investment in the water network, and on the other hand, the imperative of ensuring that water charges are affordable to current consumers.

Characteristics of households in water poverty

The most significant risk factor for water poverty is having low income. Amongst the ten per cent lowest income households, seven in ten are in water poverty. This falls to two in ten amongst households in the second lowest income decile.

Virtually no household in the top half of the income distribution spends more than 3% of its income on water and sewerage.

Of the 275,000 households in Scotland in water poverty, nearly all are also in low income poverty. Only 25,000 households are in water poverty but not in low income poverty.

Other household characteristics are less directly correlated to water poverty, but include:

- Council tax band: water poverty rates are higher in council tax bands E, F, and G than in A, B, C and D. This reflects wide variation in household income within each band, combined with the fact that charges are systematically higher in higher banded properties.
- Family type: Water poverty rates are lower amongst pensioner households than working age households. But water poverty is fairly ubiquitous across household composition.
- Housing tenure: Water poverty rates have tended to be higher amongst households in the private and social rented sector than owner occupiers. There is some evidence that increases in mortgage rates in 2022/23 and 2023/24 has narrowed this gap in water poverty rates by tenure.

Modelling the impacts of policy change

We model the impact of various potential policies to enhance water affordability.

- The increase in the Water Charges Reduction Scheme (WCRS) from 25% to 35% - which was implemented in 2021/22 – is estimated to have brought an additional 185,000 households into the scheme. The water poverty rate is around 0.3 percentage points lower (equivalent to 8,000 households) as a result.
- Increasing the WCRS to 50% would reduce water poverty by a further 0.5 percentage points (13,000 households) at a cost of around £22m. All WCRS recipient households would benefit financially from this change; its impacts are thus broader than indicated by the poverty analysis alone.
- These costs of increasing the WCRS would tend to be funded by higher charges on customers more generally. Increasing the WCRS from 35% to 50%, at a cost of £22m, would imply an additional £8 annually on all bills.
- The key reason why increases in the WCRS don't have more of an impact on the poverty rate is that there is some misalignment between households in water poverty and households in receipt of Council Tax Reduction (which is the condition for WCRS receipt). Our analysis suggests that only around one third of households in water poverty are in receipt of WCRS. On the other hand, a majority of WCRS-recipient households are not in water poverty.

- Halving the Single Person status discount would reduce spending on this discount by around £40m, potentially freeing up resources that could be allocated to supporting households facing the most acute affordability challenges. Single Person households in receipt of WCRS would be insulated from the effects of reducing the Single Person discount. But Single Person households not in receipt of the WCRS would be exposed to the effects of any increase in charges. The water poverty rate would increase by just over half a percentage point, equivalent to around 13,500 households.

Conclusions

The current Strategic Review of Charges has recently commenced and will consider the outlook for charging during the 2027-2032 period. There is likely to be a significant need to support growth in investment to maintain service levels and invest for the future, particularly given the challenges of adapting to climate change.

This may create pressure for above-inflationary increases in the water charge. It is therefore important that improvements to affordability mechanisms are robustly considered during the SRC process.

Increasing the level of discount available under the WCRS is likely to represent a relatively cost-effective way of helping to keep bills affordable for many households in the short term, and is worthy of consideration – particularly if it coincides with efforts to raise the take-up of Council Tax Reduction.

Consumer Scotland's analysis illustrates that increasing the level of discount available under the WCRS, from 35% to 50%, would act as a cost-effective way to keep bills affordable for many households in the short term.

Consumer Scotland recommend that the sector, coordinated by the Scottish Government, commence work to implement this enhanced rate of discount, in advance of the next strategic review period in 2027. This should be supplemented by efforts to raise the take-up of Council Tax Reduction, ensuring that more of those eligible for the current discount receive it.

There may also be a case for introducing a 'by-application' mechanism to offer reductions in charges for customers who fall through the gaps of existing affordability support mechanisms.

Progressing these recommendations would act to provide meaningful support and additional protection for those who may struggle to afford their water and sewerage charges in the upcoming charging period, while the sector explores more comprehensive reform to the structure of water charges in the coming years.

We hope that this report will be useful in informing those deliberations.

1. Introduction

- 1.1 Scottish Water provides water and wastewater services to around 2.6 million dwellings in Scotland. The annual charge paid by households for these services is determined by the council tax band that the property falls within, with various discounts, reductions and exemptions also available to certain households.
- 1.2 Charges levied on these households for waste and wastewater services (after reductions and deductions) totalled just over £1bn in 2023/24, equivalent to an average charge per household of £410.
- 1.3 Determining the appropriate level and structure of water charges is about balancing two competing considerations. On the one hand, ensuring sufficient income is raised from customer charges to adequately fund existing services and invest in the infrastructure required to address the challenges of climate change and ageing infrastructure. On the other hand, ensuring that these customer charges don't unfairly burden consumers in general, and those least able to pay in particular.
- 1.4 Getting this trade-off between these considerations 'right' is partly about determining the overall level of consumer charges and how these are increased over time. But it is also about how those charges are shared across customers via the tariff structure, and how various discounts and reductions are targeted.
- 1.5 The trade-off is particularly challenging at present. Household finances are continuing to recover from the cost-of-living crisis and long period of income stagnation that preceded it. At the same time, there is a need for significant investment in the water network, both to sustain and enhance service quality whilst mitigating the impacts of climate change.
- 1.6 These issues and trade-offs will be at the heart of the forthcoming Strategic Review of Charges, the process which determines the trajectory for customer charges during the 6-year period from 2027/2028 to 2032/2033.
- 1.7 This report aims to both inform the context for the upcoming Strategic Review of Charges, and support future discussions on the basis of charging, by examining the affordability of water and sewerage charges in Scotland in the recent past and considering the outlook for coming years. It considers how the affordability of water bills have evolved over time, and which type of consumers are most likely to face affordability challenges. It also considers some of the options for enhancing the affordability of water charges, examining the impact of these on bill affordability and on revenues from charges.

- 1.8 In theory at least, there are a wide range of options for reform of the approach to water charging. In the extreme, these options could include moving away from the current approach to levying charges on the basis of council tax band, perhaps to a system of metering. In practice however, Scottish Ministers have indicated that the current approach to charging – with local authorities billing and collecting charges for unmetered households on the basis of council tax band – will broadly remain in place throughout the 2027-2033 period, with the prospect of more fundamental reform in the longer term.ⁱⁱ
- 1.9 In this context, this report sets out options for changes to affordability mechanisms that could work practically within the existing tariff structure. The report recognises that, whilst the current charging system is imperfect, it will likely remain in place, broadly in its current form, until at least 2033. Whilst there is some appetite for more fundamental reform, fundamental change would require an extensive period of analysis, deliberation and consultation.ⁱⁱⁱ
- 1.10 The report argues that there are practical steps that can be taken within the existing tariff system to better protect those at risk of water poverty, notwithstanding the more fundamental reforms that may take place in the longer term.

2. Water charging policy

The framework for water charging policy

- 2.1 The determination of water charges in Scotland is framed by a six year plan period. The current charging framework covers the period from April 2021 to March 2027.
- 2.2 During the two years prior to the commencement of a six-year plan period, a Strategic Review of Charges (SRC) is undertaken involving government, regulators, Scottish Water and customer representation to determine the basis for water charging during the six-year plan period itself. This culminates in an agreed tariff structure for water charges, and leaves some discretion for Scottish Water to determine annual increases in charges, within an overall financial envelope set by the regulator.
- 2.3 During the SRC, Scottish Ministers set out objectives for Scottish Water, and a Statement of Charging Principles. The objectives for 2021-2027 cover aspirations in relation to standards of service, asset maintenance, supporting economic growth, addressing issues relating to climate change, flooding and the environment, amongst others^{iv}.
- 2.4 The Statement of Charging Principles 2021-2027^v establishes five principles that Ministers expect Scottish Water and WICS to follow, when determining charges. These principles are set-out in Box 2.1. In addition, the Statement of Charging principles establishes in legislation the tariff structure to be applied over the six-year plan period, i.e. the ratio of charges applied to different council tax bands, as well as the design of reductions and discounts).

Box 2.1: Summary of Scottish Ministers Principles of Charging 2021-2027

The Scottish Government, in its Principles of Charging report for 2021-2027, identifies five key principles for water charging:

1. Charges should be reasonably stable over time (having regard to inflation);
2. There should be full-cost recovery (Charges should cover the full costs of providing services to customers)
3. Charges should be harmonised geographically (i.e. similar customers in different parts of Scotland should not face different charges for equivalent services)

4. Charges should be cost-reflective (this is effectively a finer grained version of the full-cost recovery principle, i.e. charges for drinking water to households should reflect the cost of providing drinking water to households)
5. Charges should be fair, equitable and affordable both to the present and future generations.

- 2.5 With the overall tariff structure determined by Scottish Ministers in the Principles of Charging, Scottish Water sets the annual increase in the charge. However, its proposed annual increase must be approved by WICS within the context of guidelines set out by WICS during the SRC, in a document known as the Final Determination.
- 2.6 The 'Final Determination' represents WICS' judgement of the level of revenue Scottish Water needs to collect through customer charges in order to deliver the objectives set for it by Scottish Ministers, consistent with the 'Principles of Charging'.
- 2.7 Specifically, in its 'final determination', WICS determines the 'lowest reasonable overall cost' that Scottish Water will have to incur to meet Ministers' environmental, quality and service objectives for the industry, taking into account Scottish Water's costs and efficiency.
- 2.8 The outcome of WICS' Final Determination is thus a maximum amount of charges that Scottish Water can levy during the six-year regulatory control period.
- 2.9 The SRC process is informed by customer views. During the SRC for 2021-2027 this customer engagement was through a Customer Forum, an innovative attempt to build consumers into the process.
- 2.10 To summarise, water charges in a six-year charge period are determined as the outcome of a series of decisions and guidance by Ministers, WICS and Scottish Water during the Strategic Review of Charges. Key elements include:
 - Scottish Ministers set a series of objectives for Scottish Water, together with a set of principles of charging, and determine the overall tariff structure.
 - WICS makes a judgement about the level of revenue Scottish Water needs to collect through customer charges in order to deliver the objectives set for it by Scottish Ministers. This determines the maximum permissible increase in charges over the plan period.
 - Scottish Water then determines the annual increase in the charge, within the context of the guidance issues by WICS and the tariff structure established by Scottish Ministers.
- 2.11 In the rest of this chapter we examine the structure of water tariffs in more detail, and then go on to consider how the overall level of the water charge has evolved over time.

Council tax bands and the water charge

- 2.12 Every household served by Scottish Water has to pay for the supply of water and, when connected to the sewerage system, for the collection and treatment of wastewater.
- 2.13 Unlike in England and Wales, domestic water users in Scotland tend not to be metered and are not billed on the basis of water use. Instead, household charges for water and sewerage are primarily determined by council tax band, with higher banded properties paying progressively more compared to lower-banded properties.
- 2.14 The charges for 2024/2025 are shown in Table 2.1. Annual charges for combined water supply and waste water collection (before any reductions are applied) range from £364 for properties in band A to £1,093 for properties in band H. Note that these charges are before any reductions or discounts are applied.

Table 2.1: Households water and sewerage bills are determined primarily by council tax band

Metered household water and sewerage charges, 2024/2025

Council Tax Band	Water Supply	Wastewater Collection	Combined Services
Band A	£168.60	£195.66	£364.26
Band B	£196.70	£228.27	£424.97
Band C	£224.80	£260.88	£485.68
Band D	£252.90	£293.49	£546.39
Band E	£309.10	£358.71	£667.81
Band F	£365.30	£423.93	£789.23
Band G	£421.50	£489.15	£910.65
Band H	£505.80	£586.98	£1,092.78

Source: Scottish Water

Discounts and exemptions

- 2.15 Not all households are subject to the full water and sewerage charge shown in Table 2.1. A number of status discounts, exemptions and reductions are available.
- 2.16 The two main types of status discount are the single occupancy discount and the disregard occupancy discount:
- The single occupancy discount provides households that consist of only one adult eligible for council tax a 25% on its water and sewerage bill.
 - The disregard occupancy discount provides a 50% discount to households that consist entirely of individuals who are exempt from paying council tax (this group includes long-term hospital patients, student nurses, prisoners, and members of religious communities).
- 2.17 Both of these discounts align with equivalent discounts for council tax.

- 2.18 Some households are fully exempted from water and sewerage charges. These include households occupied solely by students, solely occupied by adults that are severely mentally impaired, and short-term vacant households.
- 2.19 The disabled banding reduction provides a reduction for households that have been adapted to meet the needs of a disabled person. Specifically, the reduction works by charging the household the charge for a property one band below that at which the property is currently valued.

The Water Charges Reduction Scheme

- 2.20 Some households have their water and sewerage charge reduced. Low-income households can have their charge reduced through the Water Charges Reduction Scheme (WCRS). The WCRS provides a bill reduction to households which are in receipt of Council Tax Reduction.
- 2.21 The extent to which a household's bill for water and sewerage can be reduced is proportionate to the amount of Council Tax Reduction (CTR) the household receives. However, the extent to which a household can see its water charge reduced through the WCRS is less extensive than the level of reductions available through CTR. The maximum reduction available under the WCRS is 35%. In comparison, Council Tax Reduction can extend to 100% of a household's Council Tax bill.
- 2.22 Specifically, a household in receipt of CTR will receive a reduction on its water bill equivalent to 35% of the reduction it receives for CTR. If a household receives full, 100% relief on its council tax bill (i.e. its council tax bill is reduced to 0 through CTR), it qualifies for a 35% reduction in its water and sewerage charge.
- 2.23 If a household receives a 50% reduction in their council tax bill via CTR, it receives 50% of the maximum discount available on their water and sewerage bill (i.e. $50\% \times 35\% = 17.5\%$).
- 2.24 It is also important to note that the WCRS is not additional to the single person status discount. 35% is the maximum by which a household's water bill can be reduced by, including both the single person discount and the WCRS. So a single person household in full receipt of CTR will receive a 25% status discount on their bill, but only an additional ten percentage points of bill reduction on top of this via the WCRS, bringing their total reduction to the 35% maximum. A single person household receiving 50% reduction on their council tax bill would receive a 25% single person status discount but no more (since 50% of 35% is 17.5%, which is less than 25%).^{vi}
- 2.25 The reductions available for water and sewerage charges are noticeably less generous than those available for council tax. However, it is important to note that the WCRS is somewhat more generous now than it was in the recent past. In previous charging periods (up to and including 2020/21), the maximum support under the WCRS was 25%. This meant that a single person household in receipt of CTR would receive no additional bill support compared to a single person not in receipt of CTR (since both households would receive the single person 25% status discount, the maximum available). The

increase in the WCRS to 35%, introduced in 2021/22, redresses this anomaly to some extent. We discuss its impacts in subsequent sections.

The cost of reductions, exemptions and discounts

- 2.26 The value of these various discounts, reductions and exemptions is shown in Table 2.2. Gross charges (before any reductions) totalled almost £1.2bn in 2022/23. Discounts, almost entirely for single person status, were worth over £100m, whilst exemptions (for properties that are occupied but where nobody is liable for the charge) were worth £60m.
- 2.27 The WCRS was worth £25 million. Part of the explanation as to why this might seem a relatively small amount is that, where a household is eligible for a 25% single person status discount and full WCRS at 35%, the majority of that household's bill reduction (25/35) is accounted for as status discount. Disability relief is worth £1m, and received by some 14,000 dwellings.

Table 2.2: Reductions and reliefs are worth almost £200 million

Value of charges, reductions, exemptions and discounts, 2022/23

Expenditure	£ million	As percentage of gross charges
Gross charges	£1,184	100%
Disability relief	£1	0%
Discounts	£106	9%
Exemptions	£61	5%
Water Charge Reduction Scheme	£25	2%
Net charges	£991	84%

Source: Supplied by Scottish Water to Consumer Scotland. Note: figures are estimates

Collecting charges

- 2.28 The responsibility for billing and collecting water charges does not rest with Scottish Water but with local authorities. Local authorities collect water charges together with council tax, and return to Scottish Water the relevant share of the total amount collected. Scottish Water makes payments to local authorities in exchange for them assuming the function of billing and collecting charges.
- 2.29 Consumers in Scotland thus receive one annual notification (or Demand notice) containing two bills, one for council tax and one for water and sewerage services. However, the fact that the system of reductions is different for water and sewerage compared to council tax can lead to confusion amongst some consumers regarding their liabilities for the water charge. Previous research shows that a majority of consumers who receive a 100% reduction for council tax assume that the same discount applies to water, do not pay and subsequently find themselves in debt. Consumer Scotland has recommended improvements to the information that consumers who are exempt from

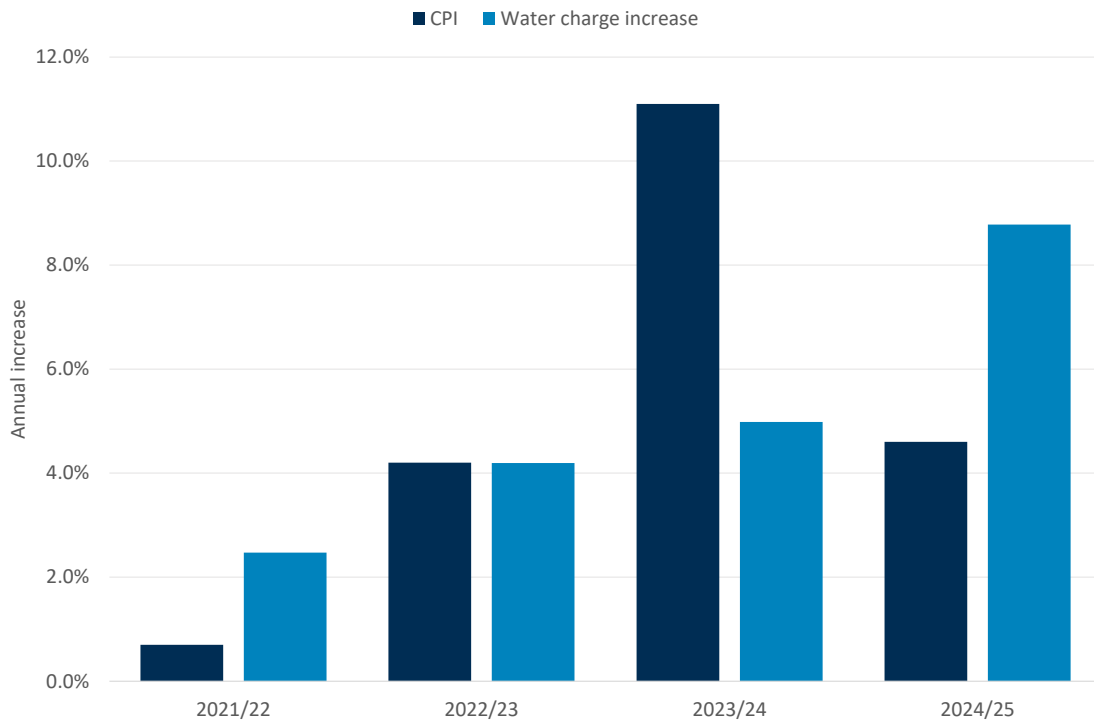
Council Tax due to their financial circumstances receive about the water and sewage charges they are liable for^{vii}.

Recent increases in the water charge

- 2.30 For the 2021-2027 plan period, WICS determined that the maximum amount of charges that Scottish Water can levy on its customers is CPI+2% on average for each year of the regulatory control period.
- 2.31 WICS's Final Determination set out that this above inflation increase was necessary to maintain service levels in the face of ageing assets, combined with the response required to a changing climate, and aspirations that the water industry achieves a net-zero status by 2040. Above-inflationary charge increases are deemed necessary to respond to the challenges posed by the climate crisis and ageing infrastructure, and realise the Water Sector Vision.^{viii}
- 2.32 What has happened to charges during the first three years of the plan period?
- In 2021/22, the first year of the plan period, charges increased by 2.5% in cash terms. Given that the rate of CPI inflation in October 2020 was 0.74% (it is the rate of inflation the previous October which sets the context for the bill increases in April), this increase was very slightly below, but broadly in line with, the CPI+2% maximum average for the six-year plan period (Chart 2.1).
 - In 2022/2023, Scottish Water increased the charge by 4.2% in cash terms. This uplift was in line with the value of CPI in October 2021. The impact of this decision was thus that the water charge remained unchanged in real terms, and hence fell short of the CPI+2% envisaged for the plan period as a whole.
 - For 2023/2024, Scottish Water announced that charges would increase by 5%. This is significantly below the annual rate of CPI inflation in October 2022 which was actually 11%.
 - In 2024/2025, the water charge will increase by 8.8%, almost double the CPI rate of 4.6% in October 2023.
- 2.33 Thus over the first four years of the plan period, charges have increased by some 21.9% cumulatively. This is identical to the cumulative rise in the CPI index, implying that charges in real terms have remained unchanged. But this is substantially below the increase in charges of 31.5% that would have been observed had charges followed a CPI+2% pathway.
- 2.34 As a result, charges in 2024/2025 are around 7% below where they would have been had the CPI+2% pathway been followed.

Chart 2.1: The water charge has increased below CPI+2% on average so far in this charging period

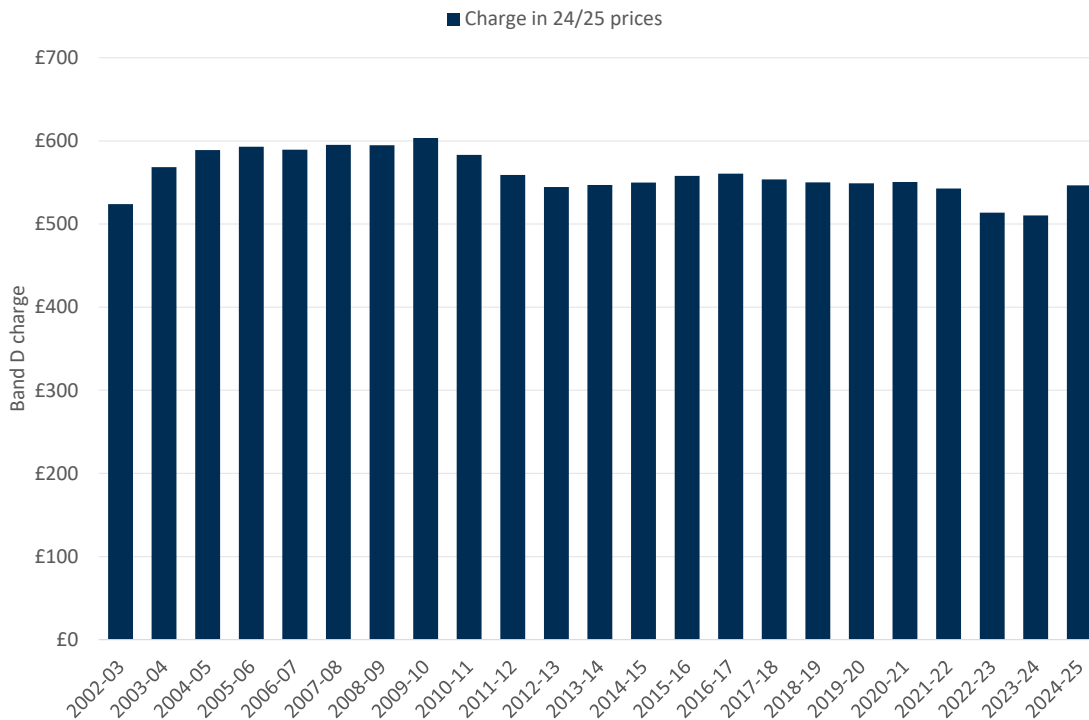
Annual rate of change of the Consumer Prices Index and water charges in Scotland



Source: Consumer Scotland analysis of ONS Consumer Prices Index, and Scottish Water water charges pages

- 2.35 The below anticipated increases in the charge is likely to have improved the affordability of bills for today's customers, relative to the CPI+2% scenario that might have been. However, the lower than potential increases in the water charge might imply lower levels of resources to fund investment in the water network.
- 2.36 Chart 2.2 shows the evolution of the water charge in real terms since 2002, when Scottish Water was established. After having declined in real terms following the recession of 2008/9 (the charge was frozen in cash terms for four years), the water charge remained unchanged in real terms for ten years, from 2012/13 until 2021/22.
- 2.37 The water charge declined in real terms between 2021/22 and 2022/23 before the above-inflationary increase in 2024/2025 realigned it with its recent real terms level. (The real terms decline in 2021/2022 may seem difficult to reconcile with chart 2.1; the difference is due to the fact that chart 2.1 compares the increase in the charge in a given financial year with CPI of the previous October, which is what is relevant to charge setting; whereas chart 2.2 takes the charge in a given financial year and deflates this by the average CPI for that same financial year, which is what is most relevant to thinking about the affordability of charges for households).

Chart 2.2: The water charge declined in real terms during the cost-of-living crisis
 Combined water and sewerage charge for band D property in 2024/2025 prices



Source: Consumer Scotland analysis of Scottish Water charges data. Charges are deflated using the Consumer Prices Index published by ONS; for 2024/2025, CPI is forecast to grow 1.6% in line with the latest forecast from the Office for Budget Responsibility.

2.38 Part of the justification for increasing the generosity of the WCRS from 25% to 35% at the start of the 2021-2026 SRC period was that this ‘charges for those receiving the full [WCRS] discount will increase at less than the rate of inflation over the 2021-2027 regulatory control period’.^{ix}

2.39 It is worth noting that it remains the case that bills (for those in receipt of WCRS) will go up less than inflation over the 2021-2026 period, despite much higher inflation than had been anticipated when this objective was set.

2.40 In fact, the rate of inflation is immaterial to the achievement of the objective. To see this, note first that if charges increase by CPI+2% for six years, this equates to a cumulative real terms increase of 12.6%. But for those in receipt of WCRS, an increase in the discount from 25% to 35% equates to a bill reduction of 13.3%, offsetting the above inflationary rise. (The bill for a WCRS recipient household declines by 13.3% because this is the difference between paying 75% of a bill and 65% of a bill).

3. Defining and measuring water affordability

Defining the affordability of water and sewerage services

- 3.1 The extent to which water charges are affordable depends on the level of the water charge faced by any household relative to the disposable income of that household.
- 3.2 In the UK, households that spend more than 3% of their disposable income on water and sewerage charges are deemed to be in 'water poverty'. Households which spend more than 5% of their income on water and sewerage charges are deemed to be in 'severe water poverty'.
- 3.3 The use of the three per cent water poverty threshold in England and Wales can be traced back to at least 1999, when it was used as a measure of water affordability on the grounds that it represented twice the median spend by households on water charges as a percentage of disposable income^x.
- 3.4 The 3% and 5% water poverty definitions have been used extensively to assess the affordability of water and sewerage charges in England and Wales^{xi}, and in Scotland in the past^{xii}. These measures have also been applied in a wide variety of countries and contexts outside the UK^{xiii}.
- 3.5 In these analyses, household income is measured net of direct taxes (income tax, national insurance contributions and council tax), and includes income from pensions, and from social security payments (both means tested and non means tested). It is measured after housing costs, which means that households' spending on rent and mortgage interest payments are deducted. Household income is also equivalised, which means it is adjusted to take account of household size^{xiv}.
- 3.6 The strength of the 3 per cent and 5 per cent poverty measures is that they explicitly take account of households' financial means, placing the water charge in that context. They allow for comparisons across time, places and consumer groups.
- 3.7 But no measure of water affordability or poverty is perfect. The extent to which water charges are affordable for a household is likely to depend on other measures of financial wellbeing beyond income, including for example financial wealth, and the nature of any debt owed. In principle, data on debt and assets could be included in a water poverty definition if good data existed on it.

- 3.8 The extent to which water charges create financial distress for individual households might also reflect households' perceptions of the security of their income or their living situation more generally. In this sense, whilst statistically based definitions and measures of water affordability are useful in quantifying the scale of affordability issues for different groups over time, they don't necessarily reflect the lived experience for those who face affordability challenges.
- 3.9 A further limitation of the 3 per cent and 5 per cent measures is that the extent to which water charges create affordability challenges might depend on the *level* of household income as well as the *percentage* of that income that is spent on water charges. For example, a household with an income of £30,000 spending £900 on water charges might not face the same level of affordability challenge as a household with an income of £10,000 spending £300 on water charges. In chapter 4 we introduce an alternative water poverty measure that takes into account income level as well as the percentage spent on water charges.
- 3.10 Despite these caveats, the income based definitions of water affordability, and the 3 per cent and 5 per cent definitions of water poverty, are useful in understanding the extent to which water charges create affordability issues for different groups of consumers over time.

Measuring water poverty

- 3.11 To monitor trends in water poverty we use the 'households below average income' (HBAI) dataset. The HBAI is derived from the Family Resources Survey (FRS), an annual survey of households' income.
- 3.12 The FRS is overseen by the Department of Work and Pensions. The survey is designed to be representative of households in each nation and region of the UK. Each year, around 3,000 households in Scotland are surveyed, ascertaining a range of information on each household including demographic and socio-economic characteristics, and information on the level of income from different sources.
- 3.13 The latest HBAI/FRS survey results available to us related to the 2022/23 financial year.
- 3.14 To estimate water affordability in years after this, we use the IPPR Tax-Benefit model to create updated iterations of the 2022/23 data for subsequent years.^{xv} In practice this means updating the 2022/23 data in line with latest statistics, where these have been published, on growth in earnings, pension income, social security payments and other forms of income, and incorporating known changes in tax policy and housing costs.
- 3.15 Where outturn data on these growth parameters has not yet been published, forecasts made by the Office for Budget Responsibility (OBR) and the Scottish Fiscal Commission (SFC) are used in the modelling to project the 2022/23 data forward into 2023/24 and subsequent years. For this forecasting, we draw on the latest available OBR and SFC forecasts, which date from March 2024 and December 2023 respectively.

3.16 These updated iterations of the 2022/23 HBAI data are combined with estimates of households' water charges in 2023/24 and beyond. For 2023/24 and 2024/2025, we of course know what these water charges will be (for each household in the dataset, we can calculate that households water bill because we know their council tax band, its eligibility for status discounts and reductions). For years beyond 2024/2025, we generally assume that water charges increase at CPI+2% unless stated otherwise.

4. Trends and outlook for water poverty

- 4.1 This chapter examines trends in measures of water poverty in the past, and forecasts water poverty over the next few years. It then goes on to examine water poverty rates amongst different consumer groups.

Water poverty rates over time

- 4.2 Chart 3.1 shows the evolution of the 3% and 5% definitions of water poverty in Scotland since 2002/3.
- Over the period until 2022/2023 these poverty rates are derived from published (outturn) HBAI statistics.
 - From 2023/24 until 2026/2027, these are forecasts. The core forecast (shown by a solid line) is an estimate of water poverty rates based on the 'actual' level of the water charge in 2023/2024 and 2024/2025, and under an assumption that the charge grows at CPI+2% in 2025/2026 and 2026/2027. This latter assumption is arguably somewhat conservative, since water charges could increase by more than CPI+2% in the final two years to make up for lower increases in some previous years of the strategic review period.
 - A counterfactual scenario (shown by a dashed line) illustrates how water poverty rates would have evolved had they increased at CPI+2% in all years of the SRC period (this being the maximum average annual increase allowed over the 2021/22 – 2026/27 period). In practice this means an assumption that water charges increased by 6.2% and 13.1% in 2022/2023 and 2023/2024 respectively, rather than the 4.2% and 5% actually observed.

Water poverty prior to the cost-of-living crisis

- 4.3 The proportion of households in 3% water poverty declined somewhat in the mid noughties, largely reflecting relatively robust household income growth relative to the water charge. Between 2007/8 and 2021/22, the proportion of households in 3% water poverty remained essentially unchanged at around 12%. This means that around 310,000 households were in water poverty in 2021/22.
- 4.4 The proportion of households in 5% water poverty remained largely unchanged at around 5 per cent between 2002/3 and 2021/22 (individual years see some variation around 5 per cent, but there is no statistically meaningful divergence from 5 per cent).

- 4.5 It might be asked why the 3% poverty rate declined somewhat in the mid-noughties but the 5% poverty rate did not. The most likely explanation for this is that, whilst household income growth in the mid-noughties was generally fairly robust relative to the water charge, this was not so obviously the case for the lowest income decile of households, whose incomes grew less robustly^{xvi}.
- 4.6 In Chapter 3 we noted that one potential criticism of the water poverty measure is that it considers only the *proportion* of income spent on water charges, regardless of the *level* of household income. Box 3.1 considers an alternative definition of water poverty, one that takes into account the extent to which a household has low income, as well as simply the proportion of its income that it spends on water and sewerage. The key takeaway is that whilst this results in slightly fewer households deemed to be in water poverty compared to the standard 3% measure, it doesn't change conclusions as to the long term trend in water poverty.

Water poverty during the cost-of-living crisis

- 4.7 The outturn HBAI data for 2022/23 suggests that the 3% water poverty rate declined to under 10 per cent in that year – the lowest rate of water poverty since the establishment of Scottish Water.
- 4.8 The extent of this drop in water poverty may reflect a degree of annual volatility that inevitably occurs in any survey like this. But the fact that there is some decline in water poverty is not in itself a surprise, as it reflects:
- A real terms fall in the water charge; the increase in water charge of 4.2% was somewhat lower than the increase in earnings (and the National Minimum Wage increased by 6.7% in April 2022).
 - A series of 'cost-of-living payments' to families in receipt of means tested and disability related social security benefits which acted to boost the incomes of some households. Consumer Scotland's analysis indicates that, of the 1.5 percentage point fall in the water poverty rate in 2022/23, around 0.6 percentage points can be attributed to the temporary social security top-ups.
- 4.9 The 5% poverty rate did not fall as significantly in 2022/23 as the 3% poverty rate. This seems to reflect in part the distribution of households with respect to the water charge as a percentage of income^{xvii}.

Water poverty in 2024/2025 and beyond

- 4.10 Our forecasts suggest that in 2024/2025, the water poverty rate will return to its level in 2021/2022. This reflects the 8.8% increase in water charge, and, to a slightly lesser extent, the removal of the temporary cost-of-living social security top-ups.
- 4.11 In subsequent years, and assuming that the water charge increases at CPI+2%, our forecasts suggest modest increases in the water poverty and severe water poverty rates. In both cases, water poverty remains in line with past levels (severe water poverty) or slightly lower than past levels (in the case of the 3% water poverty rate).

4.12 As noted above, the assumption that increases in the water charge increase at CPI+2% is arguably conservative. Scottish Water is permitted to increase charges by CPI+2% each year on average over the six year charge period. Technically speaking, given that charges increased by less than CPI+2% in two of the first four years of the charge period, Scottish Water has scope to increase charges by substantially more than CPI+2% in each of the remaining two years. If this occurred, water poverty rates would increase by more than set out in Chart 3.1.

What might have happened?

4.13 The analysis in Chart 3.1 also indicates what is likely to have happened to water poverty rates if the water charge had increased by CPI+2% in each year of this SRC period. Notably this would imply a 6.2% increase in charges in 2022/2023 and a 13.1% increase in 2023/2024.

4.14 Our analysis suggests that the 3% water poverty rate would have been around 1.5 percentage points higher by 2023/2024 had this scenario occurred, implying an additional 38,000 households in water poverty. The severe water poverty rate would have been around 0.3 percentage points higher, implying an additional 10,000 households in severe water poverty.

4.15 Of course whilst higher charges would have meant higher water poverty, the flipside is that higher charges would also have generated additional revenues for Scottish Water; and these additional revenues may to an extent have benefited future consumers through higher investment today.

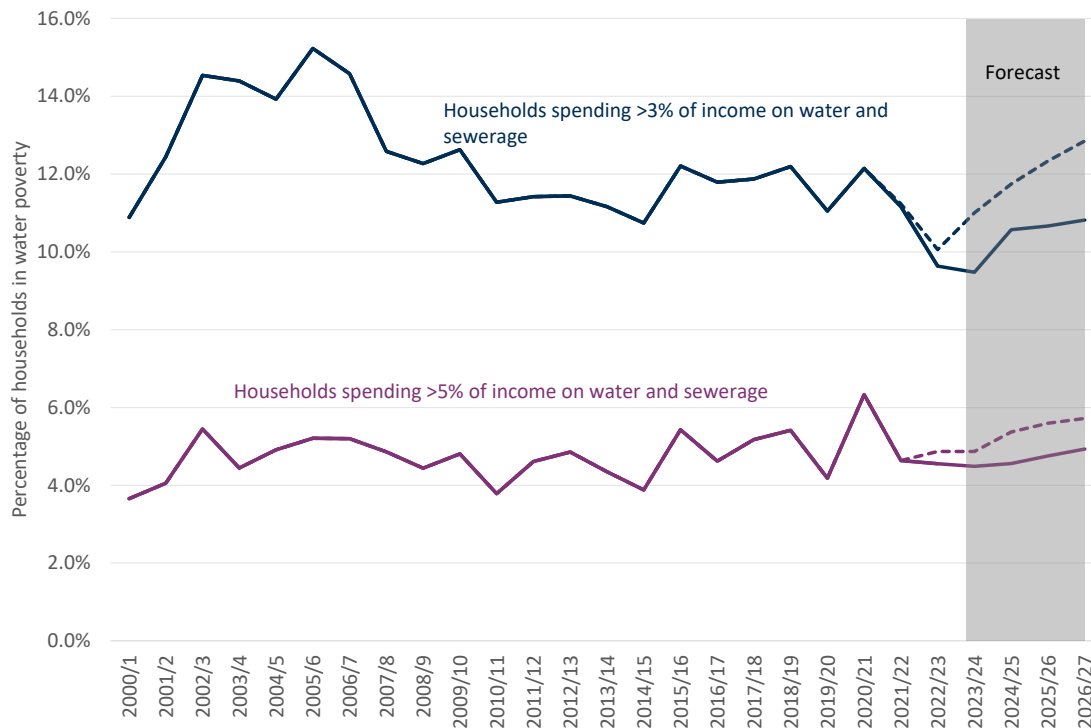
4.16 Our analysis suggests that Scottish Water revenues would have been over £100 million higher in 2023/2024 under a scenario where charges had increased at CPI+2% in 2022/2023 and 2023/2024. Some of this difference would also be baked into future years, so that Scottish Water revenues would also be higher (by around £90 million per year) throughout the subsequent three years of the SRC period.

4.17 There was no absolute requirement on Scottish Water to increase charges by CPI+2% each year – this is a maximum average annual increase over the six year charging period, 2021/2-2026/7. And there is nothing to say that, having increased charges by less than CPI+2% in recent years, Scottish Water can't increase charges in subsequent years by more than CPI+2% to 'make up the difference'.

4.18 Nonetheless, this illustrates the challenges in trading off, on the one hand, the requirement to raise revenues from customer charges to fund investment in the water network, and on the other hand, the imperative of ensuring that water charges are affordable to current consumers.

Chart 3.1: Water poverty rates are expected to remain below historic highs

Percentage of households in Scotland spending above 3% or 5% of disposable income on water charges



Source: Consumer Scotland analysis of Households Below Average Income dataset 2001/2 – 2022/23, and Family Resources Survey via IPPR Tax-Benefit model. Notes: the dashed line shows the estimated path of water poverty if charges had followed a CPI+2% trajectory

Characteristics of water poverty

4.19 The rest of this chapter considers how water poverty rates vary by household characteristic. For this analysis, we pool two years of HBAI data in order to maximise the sample size.

Water poverty and income

4.20 There is a strong relationship between household income and the risk of water poverty. Chart 3.2 divides the 2.6 million Scottish households into ten deciles of net income, from the lowest income ten per cent of households to the highest.

4.21 Consistent with previous research, this shows that the risks of being in water poverty are strongly related to income:

- Of households in the lowest decile of income, 70% are in water poverty (i.e. they spend more than three per cent of their income on water and sewerage charges). This falls to 20% of households in the second decile, and 7% in the third decile. Virtually no household in the top half of the income distribution spends more than 3% of its income on water and sewerage.

- Similarly, being in extreme water poverty (i.e. spending more than 5% of disposable income on water and sewerage charges) is uniquely a feature of low household income. 42% of households in the lowest income decile are in extreme water poverty. Only 4% of households in the second decile are in water poverty, and no household outside of the lowest income fifth is in extreme water poverty.

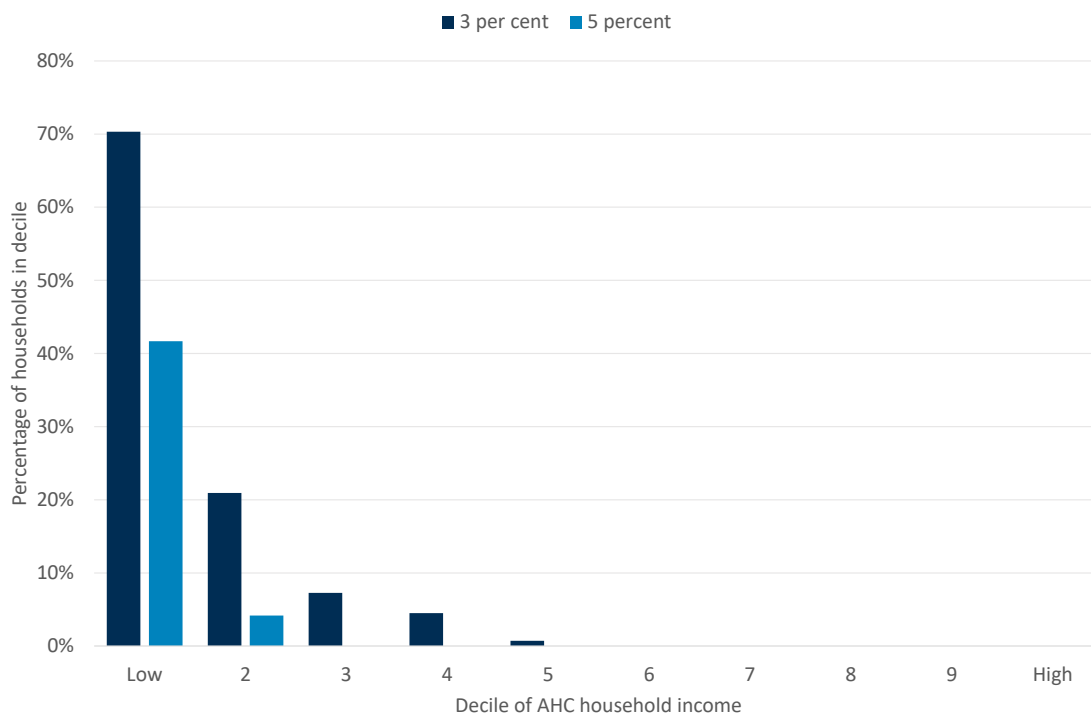
4.22 It is therefore no surprise that rates of water poverty are highest amongst households living in low-income poverty.

4.23 Of the 260,000 households in Scotland in water poverty in 2021/2022 and 2022/2023, nearly all are also in low income poverty. Only 25,000 households are in water poverty but not in low income poverty.

4.24 And, as noted above, all households in severe water poverty are also in low-income poverty.

Chart 3.2: Low income is the biggest predictor of water poverty

Percentage of households in Scotland spending above 3% or 5% of disposable income on water charges by decile of After Housing Cost income, 2021/22 – 2022/23



Source: Consumer Scotland analysis of Households Below Average Income dataset 2021/22-2022/23.

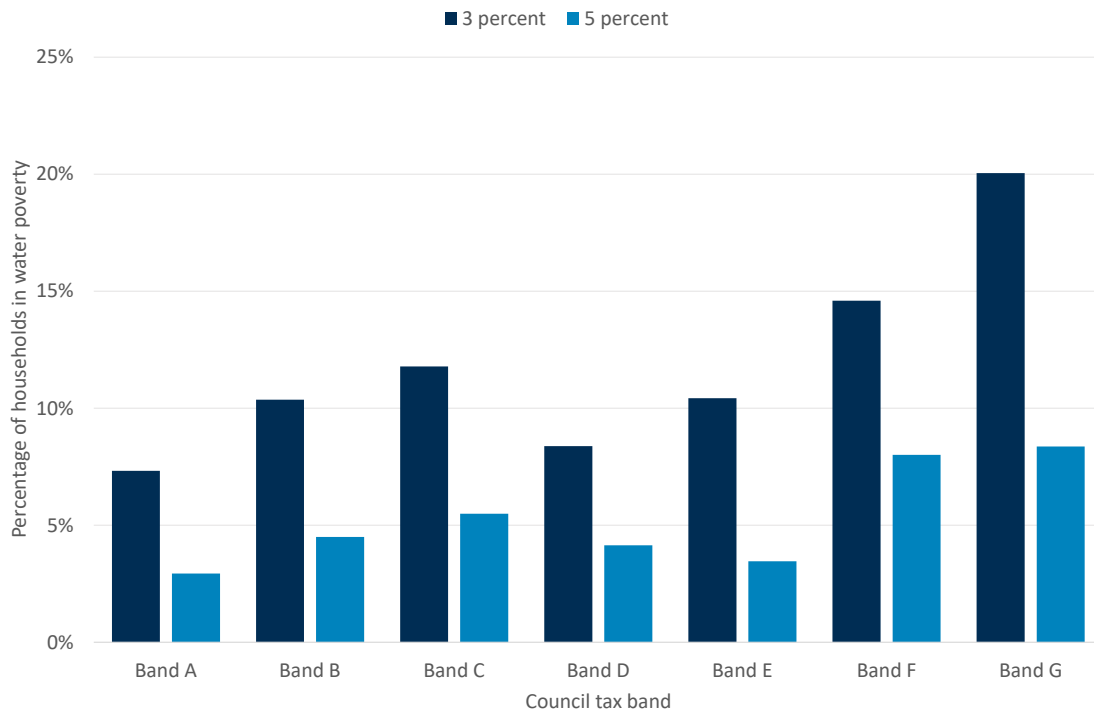
Water poverty and council tax band

4.25 Chart 3.3 shows the water poverty rates for households in different council tax bands. It shows that that a larger proportion of households in council tax bands F and G are in poverty compared to those in bands A-E.

- 4.26 The finding that water poverty rates are higher in higher banded households is consistent with previous research^{xviii}. Nonetheless, the finding can initially appear paradoxical – after all, household incomes are an increasing function of council tax band.
- 4.27 However, whilst it is the case that average income of households increases as we move from bands A through G, what is more relevant is the fact that, within each council tax band, there is a wide variation in household income.
- 4.28 This is illustrated in Chart 3.4, which shows the percentage of households in each council tax band who have weekly net incomes below £360 per week (this amount corresponds to the 25th percentile nationally, so across Scotland as a whole, 25% of households have weekly incomes lower than £360).
- 4.29 Over a third of households in bands A and B have incomes below the 25th percentile. But low income households are also found in the higher bands. Over 10% of households in bands E, F and G have weekly incomes below the 25th percentile nationally.
- 4.30 The takeaway is that, whilst average incomes rise through council tax bands, there are nonetheless a reasonable number of low income households living in higher banded properties. Combining this observation with the fact that higher banded properties by definition pay higher water charges helps to explain why water poverty rates are higher in bands F and G.
- 4.31 Whilst recognising that water poverty rates are higher in higher banded properties, it is important also to remember that there are proportionately fewer properties in the higher council tax bands. So whilst water poverty *rates* are higher in bands F and G, a *greater share of all households in water poverty* are actually in band B. In other words, whilst water poverty rates are lower in bands A and B, the fact that there are more properties valued in bands A and B means that these bands account for a large share of all households in water poverty.
- 4.32 Box 3.1 examines the extent to which the conclusion that water poverty rates are highest in bands F and G holds if we take into account households' level of income (in addition to just the percentage of income spent on water charges). It finds that households in water poverty but which are not in income poverty are most likely to be in bands F and G – and that on an alternative definition of water poverty, differences in water poverty rates across council tax bands are less marked.

Chart 3.3: Water poverty rates are highest in council tax bands F and G

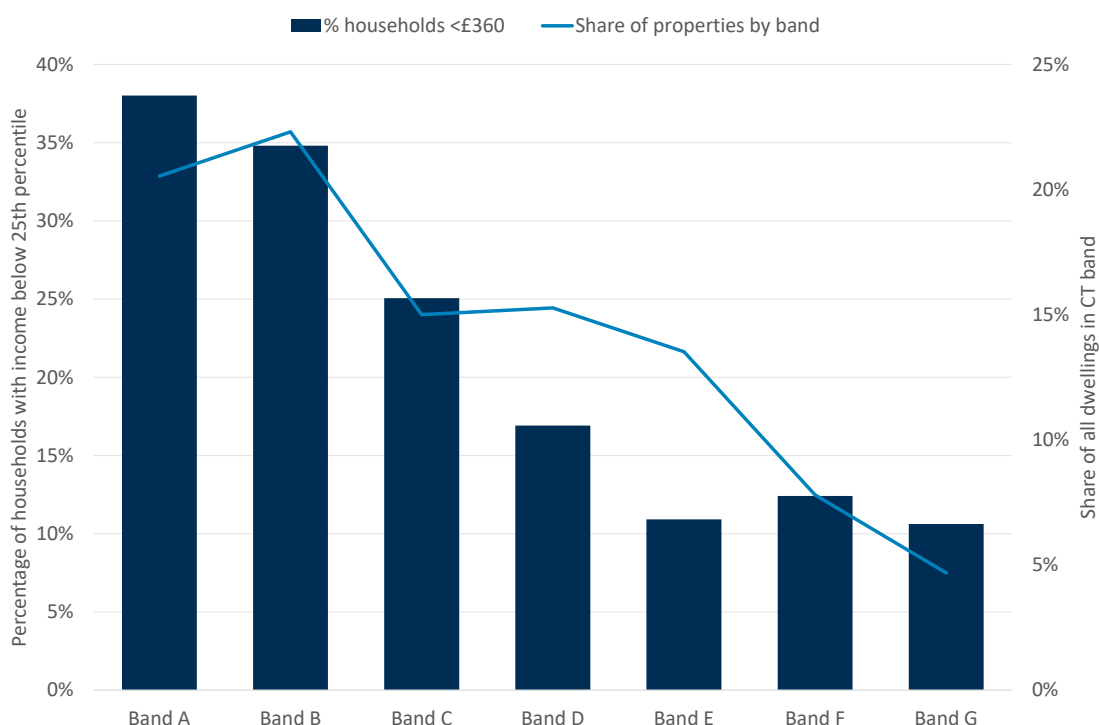
Percentage of households in Scotland spending above 3% or 5% of disposable income on water charges by council tax band, 2021/22 – 2022/23



Source: Consumer Scotland analysis of Households Below Average Income dataset 2021/22-2022/23. N = 7,455. Note: band H excluded due to few observations.

Chart 3.4: More than one in ten households in higher banded properties have low incomes

Percentage of households in Scotland with incomes below the 25th percentile (£360 per week) by council tax band, 2021/22 – 2022/23; and share of dwellings by council tax band



Source: Consumer Scotland analysis of Households Below Average Income dataset 2021/22-2022/23. N = 7,455. Note: band H excluded due to few observations.

Box 3.1: Water poverty, income poverty and council tax band

One potential criticism of the 3% measure of water poverty is that it is possible for a relatively better-off household to be deemed in water poverty. This arises because of the way that water charges increase significantly as we move through the council tax bands.

Taking 2021/22 to illustrate, the band A combined charge was £306. A couple household with an annual net income below £10,200 would be deemed in water poverty; but an income above this level would be deemed not to be in water poverty.

In contrast, the band G charge was £765. This means that a couple household with income of up to £25,500 would be deemed to be in water poverty.

This raises the question – does a charge of £765 place the same degree of financial pressure on a household with £25,500 income as does a charge of £306 for a household with £10,200 income?

The relevant income poverty threshold in 21/22 was approximately £17,000. So in the example above, the band A household is clearly in income poverty; whereas the band G household, despite being in water poverty, is well above the income poverty threshold.

Given these potential ambiguities, some have argued that the 3% water poverty definition could be misleading as an indicator of the degree to which water charges place financial pressure on different households.

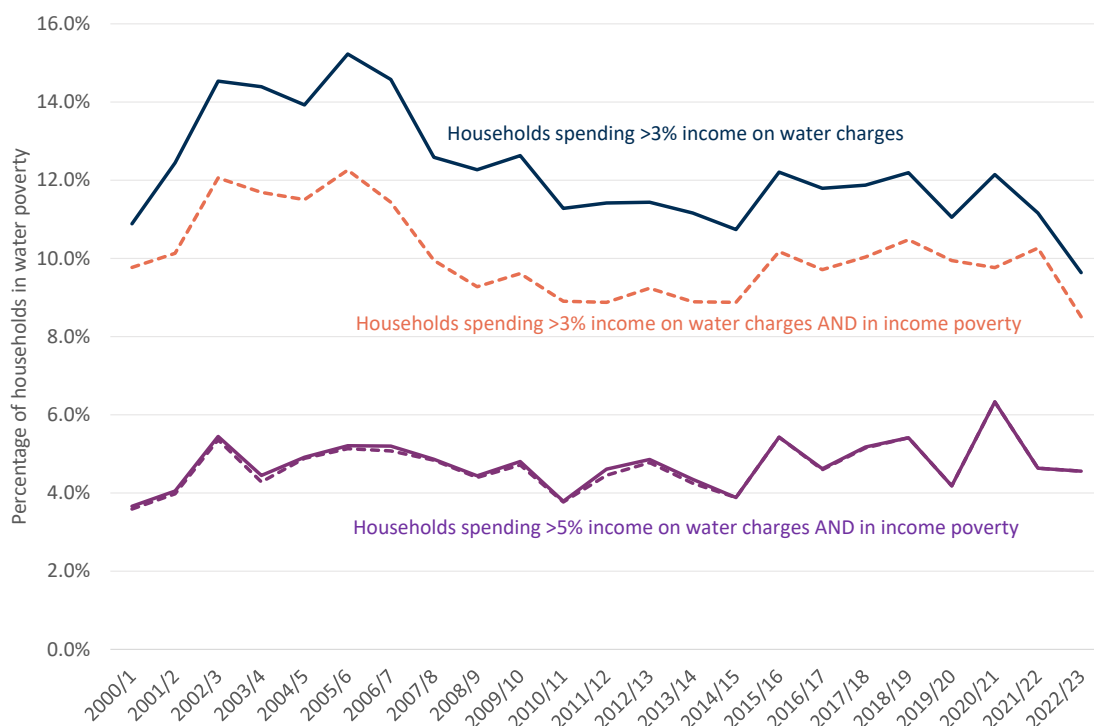
One way of addressing this criticism would be to add an additional criterion to the water poverty definition, so that households were only deemed to be in water poverty if they both spent more than 3% of income on water charges, and also had low income poverty.

Chart 3.5 shows the historic evolution of this alternative water poverty measure alongside the 3% and 5% measures shown previously. The proportion of households in water poverty on this alternative definition is always slightly lower than the conventional 3% figure, reflecting the fact that, under the traditional 3% measure, some households in 'water poverty' are indeed not in income poverty.

However, constraining the 5% definition to households that are also in income poverty makes no difference because any household that spends more than 5% of its income on water charges is by definition in income poverty.

Chart 3.5: Most households spending more than 3% of income on water charges are also in income poverty

Percentage of households in Scotland in various definitions of water poverty



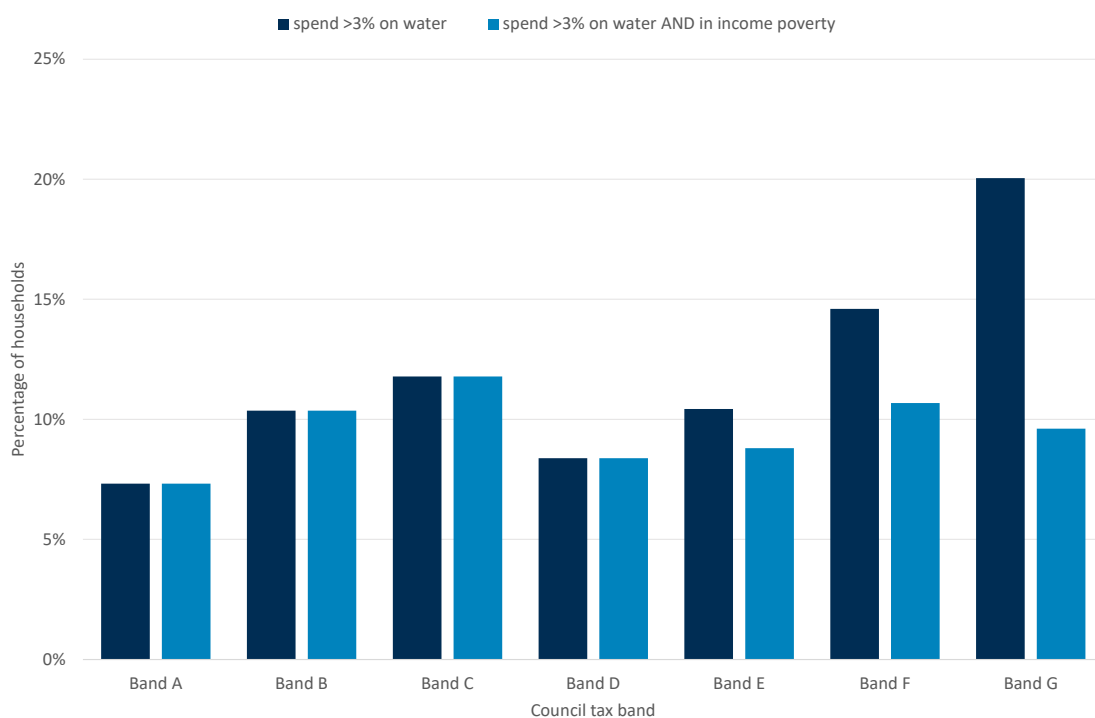
The alternative definition of water poverty – that constrains water poverty status to only be applicable to households who are in income poverty – does change the extent to which water poverty rates are higher in council tax bands F and G compared to other bands (Chart 3.6). On the alternative definition of water poverty, water poverty rates are in fact similar across council tax bands.

However, the patterns of water poverty on other dimensions – such as family type or tenure – is not fundamentally changed by whether the 3% measure is or isn't constrained by the additional income criterion.

There are several takeaways from this. First, only a small proportion of households spend more than 3% of income on water charges but have an income high enough not to be in income poverty; as such, constraining the water poverty definition to only include households on a low level of income generally makes little difference to assessment of the numbers of households in water poverty or the trend over time. However, given that most of the households in water poverty who are not in income poverty are in higher council tax-banded properties, constraining the water poverty definition to exclude higher income households does change the conclusion that water poverty rates are highest in bands F and G.

Chart 3.6: Households in higher banded properties who spend more than 3% income on water are not always income poor

Percentage of households in Scotland in two definitions of water poverty by council tax band



Source: Consumer Scotland analysis of Households Below Average Income dataset 2021/22-2022/23. N = 7,455. Note: band H excluded due to few observations.

Household composition and water poverty

4.33 Chart 3.7 shows the percentage of various family types living in households in water poverty.

- The variation in water poverty rates by family type is quite pronounced. Single males are most likely to be in water poverty, with a rate of 17%; single women have a poverty rate of 11%.
- In contrast, single pensioners are relatively unlikely to be in water poverty, with a rate of 4% for single male pensioners and 7% for single female pensioners.
- Working age couples (with or without children) are more likely to be in water poverty than single parents.

4.34 A variety of factors lie behind these findings. Single males are disproportionately likely to have low incomes, as to a slightly lesser extent are single females.

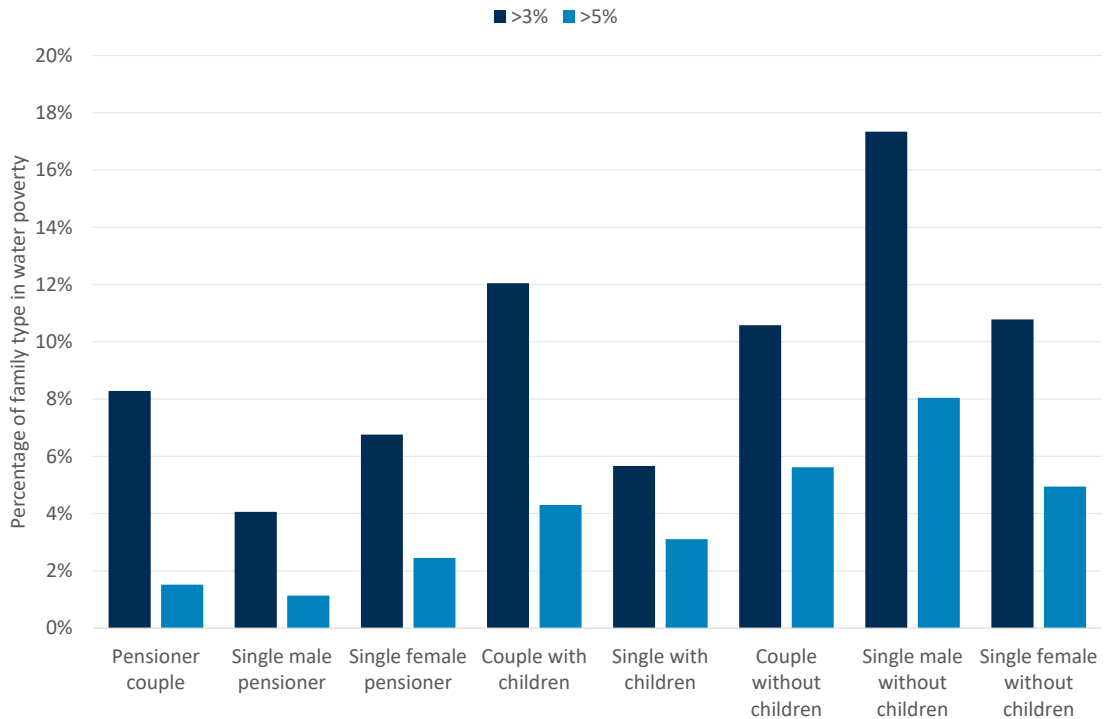
4.35 Single parents are also relatively likely to have low incomes. But they tend to be more likely to live in lower band properties and to qualify for benefits and hence be in receipt of the WCRS. Around half of single parents receive WCRS, compared to a quarter of single people without children (single people without children are also more likely to share accommodation, so don't necessarily receive the single person discount).

4.36 Working age couples are less likely to have very low incomes, but they are more likely to live in higher banded properties (than single people) and less likely to be in receipt of WCRS than single people.

4.37 The takeaways are that pensioners are somewhat less likely to be in water poverty than working age families, and that single males are particularly likely to be in water poverty. These patterns to an extent reflect the distribution of family types in low income poverty. Single people, particular males, are particularly likely to be in income poverty, and pensioners are less likely to be in income poverty. But it also reflects the distribution of family types by council tax band, and their eligibility for the WCRS.

Chart 3.7: Pensioner households are less likely to be in water poverty than working age households

Percentage of households in Scotland spending above 3% and 5% of income on water and sewerage charges, 2021/2022 – 2022/2023



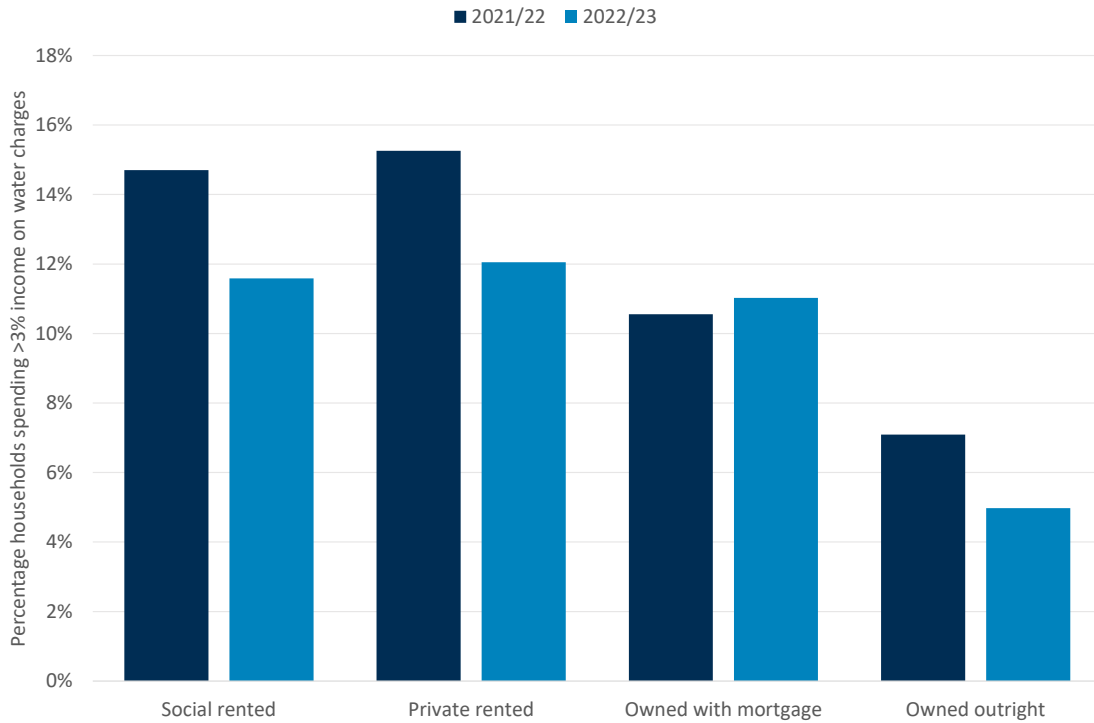
Source: Consumer Scotland analysis of Households Below Average Income dataset 2021/22-2022/2023. N = 7,455.

Housing tenure and water poverty

- 4.38 Households in the private and social rented sector have in recent years been more likely to be in water poverty than owner occupiers (Chart 3.8). This is unsurprising in that owner occupiers have tended to have higher after housing cost incomes than those in the private rented or social rented sectors.
- 4.39 It might be asked whether water poverty rates would increase for mortgagers following the increase in interest rates during the cost-of-living crisis. Bank rate increased from 0.1% in November 2021 to 5.25% by August 2023.
- 4.40 Our analysis indeed finds that mortgagers are the only tenure type for whom water poverty rates did not decline between 2021/2022 and 2022/2023 (Chart 3.6).
- 4.41 Caution needs to be taken in reading too much into a single year's figures, but this does provide emerging evidence that rising interest rates may shift the pattern of water poverty across tenures. The poverty rate for mortgagers may worsen further in 2024/2025, although robust outturn data will be required to test this hypothesis. (Most mortgagers are on fixed rate mortgage deals, and are only affected by increased interest rates when their current fixed term ends and they have to roll-on to a new deal; the Bank of England estimated in June 2024 that around one third of mortgage holders are yet to reprice onto higher rate deals but will do so between now and 2026^{xix}.)

Chart 3.8: Water poverty rates amongst mortgaged households did not fall in 2022/2023

Percentage of households in Scotland spending more than 3% of income on water charges by housing tenure, 2021/2022 and 2022/2023



Source: Consumer Scotland analysis of Households Below Average Income dataset 2021/22-2022/23. N = 7,455

5. Considering policy options

5.1 This chapter examines the impact of various potential changes to water discounts and discounts on water poverty and Scottish Water revenues. The options are modelled in 2024/25 for illustrative purposes, but the general size of the results should be broadly transferable to future years.

The impact of varying the WCRS

5.2 One option for increasing the affordability of water charges is to increase the generosity of the Water Charges Reduction Scheme. But what impact would increases in the WCRS have on consumers, and at what cost?

5.3 Table 5.1 provides a summary of the impact of changing the amount allocated through the WCRS.

5.4 To provide context, it shows that a WCRS set at 25% (as was the case until 2021/22) would result in a 3 percent water poverty rate some 0.3 percentage points higher than with the WCRS at 35%. This means that around 8,000 fewer households are in water poverty because the WCRS is at 35% compared to what would be the case if the WCRS were set at 25%.

5.5 What about the impact of further increases in the WCRS? Increasing the WCRS to 50% would reduce water poverty by 0.5 percentage points; increasing the WCRS to 100% would reduce water poverty by more than a full percentage point compared to the WCRS at 35% (equivalent to 25,000 fewer households in water poverty).

5.6 It is important to remember that the impact of changing the WCRS is broader than simply what is indicated by the poverty line analysis. When the WCRS is increased, all households in receipt of the WCRS benefit from the support, and all recipient households should find therefore that the affordability of their water charge should become more manageable.

5.7 Increasing the WCRS from 25% to 35% brought an additional 185,000 households into the scheme. Why did the number of recipient households increase despite the fact that eligibility criteria have not changed? The explanation is that, when the WCRS was 25%, single person households, who already received a 25% bill reduction, could not benefit from the WCRS. Once the WCRS increases to 35%, single person households become receive an additional ten percentage points of bill reduction through the WCRS.^{xx}

5.8 Increasing the WCRS from 35% to 50% or 100% doesn't materially change the number of recipient households^{xxi}, but it does increase the average amount of bill support by recipient household. The average amount of annual bill support for recipient

households through the WCRS would increase to £130 and £290 if the WCRS was 50% or 100% respectively.

- 5.9 There is clearly a cost to increasing the WCRS. Our analysis suggests that increasing the WCRS from 25% to 35% implicitly cost around £14m. Increasing it from 35% to 50% would cost £22m. Increasing it to 100% would cost a further £71m.
- 5.10 These increased costs of the WCRS would tend to be funded by higher charges on customers more generally. Increasing the WCRS from 35% to 50%, at a cost of £22m, would imply an additional £8 annually on all bills, somewhere between 1.5-2% of a typical bill.

Table 5.1: Increasing the WCRS provides additional support for recipient households but does not eliminate water poverty

Impact of varying the Water Charges Reduction Scheme on recipient households, water poverty, and scheme cost, 2024/2025

	WCRS reduction			
	25%	35%	50%	100%
3 per cent poverty rate	10.9%	10.6%	10.1%	9.4%
5 per cent poverty rate	4.7%	4.6%	4.4%	4.3%
No. of WCRS recipients	271,000	456,000	460,000	467,000
Average reduction per WCRS recipient	£83	£80	£127	£286
Total annual cost (£m)	£20m	£34m	£56m	£127m

Source: Consumer Scotland analysis using IPPR Tax-Benefit model.

Misalignment between water poverty and WCRS

- 5.11 The previous discussion showed that increasing the WCRS from 35% to say 50% would benefit a large number of households and provide relatively significant bill reductions to those households.
- 5.12 However, despite the broad based benefit, increasing the WCRS appears to have relatively limited impact on the headline water poverty metric. Why is this?
- 5.13 The answer lies in the distinction between the households which are in water poverty and those that receive the WCRS. Not all households in water poverty are in receipt of CTR, and hence the WCRS; in fact our analysis suggests that only around one third of households in water poverty are in receipt of WCRS. On the other hand, a reasonable number of WCRS-recipient households are not in water poverty (Table 5.2).
- 5.14 The fact that there is some misalignment between households in water poverty and those in receipt of the WCRS isn't a surprise. It is generally accepted that a significant number of income poor households do not receive any means tested benefits. This is because of a combination of less than full take-up, and eligibility rules that preclude certain households.

- 5.15 Eligibility for the WCRS is based on receipt of CTR; eligibility for CTR is in turn based on receipt of various passporting benefits, notably including Universal Credit, and various other income parameters.
- 5.16 Whilst the eligibility criteria for CTR and qualifying benefits like UC are based primarily on household income, they also take into account things like number of children in the household, housing costs, and the presence of disability. They are clearly not benefits that are targeted explicitly on household water charges as a percentage of income. This helps explain why many households in receipt of the WCRS are not in water poverty. Universal Credit (which passports households onto CTR and hence WCRS) is paid to a reasonable number of families in the middle of the income distribution, and it is estimated that some 29% of working age families will be in receipt of UC when it is fully rolled out^{xxii}.
- 5.17 The fact that receipt of WCRS amongst households in water poverty is relatively low can be explained in part because some households eligible for CTR are not in receipt of it. This ‘under-claiming’ of CTR can occur for several reasons – people might not want to subject themselves to the income assessment, they might not know how to apply, or they might not know that CTR exists (and even if households are in receipt of a qualifying benefit such as UC, they have to notify their local authority of that fact in order to receive CTR). It is difficult to estimate the extent of under-claiming with any certainty, with previous studies suggesting that between a quarter and a third of households who are eligible for CTR may not be in receipt of it^{xxiii}.

Table 5.2: There is some misalignment between WCRS receipt and water poverty

Relationship between WCRS receipt and water poverty, 2024/2025

	In receipt of WCRS	Not in receipt of WCRS
In water poverty	68,000	201,000
Not in water poverty	389,000	1,883,000

Source: Consumer Scotland analysis using IPPR Tax-Benefit model.

The impact of changing the Single Person discount

- 5.18 We model the impact of a reduction in the Single Person discount to examine the extent to which it would increase revenues from higher income single person households that could be used to cross-subsidise other consumer groups.
- 5.19 Currently, single person households are entitled to a 25% discount on the ‘standard’ water charge for their property. There is an implicit justification for the single person discount from both income and consumption perspectives. Single person households are likely to have, on average, lower incomes than multi-occupancy households, and to consume less water.
- 5.20 However, not all single person households have low income; and offering a 25% discount to all households comes at relatively high cost (the total value of single person status discounts is almost £100m).

- 5.21 What might be the effect of reducing the Single Person status discount? Would it increase the number of households facing affordability challenges with their water bills? And could any costs saved be used in a more targeted way to offset affordability challenges?
- 5.22 In this section we model the impact of reducing the single person status discount from 25% to 12.5%.
- 5.23 Halving the Single Person status discount would at face value halve spending on the Single Person discount, from around £100m to £50m. But this would be somewhat offset by an additional £8.5m spending on the WCRS. The reason for this is that, assuming the WCRS remains at 35% in this scenario, single person households in receipt of WCRS would see the amount they receive under the WCRS increase to offset the reduction in SP status discount (i.e., WCRS-recipient households receive a total discount of 35% regardless of how this is balanced between WCRS and the Single Person status discount).
- 5.24 The typical bill for a single person household would increase by around £40-£45 annually as a result of this policy, after taking into account the offsetting impact of the WCRS.
- 5.25 Despite the automatic offsetting of the Single Person discount through higher WCRS, the water poverty rate would nonetheless increase by just over half a percentage point, equivalent to around 13,000 households. Our analysis suggests that a majority of these, around two-thirds, would be single pensioner households, while the remainder would be working age single person households.
- 5.26 In summary, recipients of the WCRS are effectively insulated from the effects of reducing the Single Person discount. But Single Person households not in receipt of the WCRS would be exposed to the effects of any increase in charges as a result of a lower Single Person discount. Some of those single person households may be relatively income-poor. A halving of the Single Person discount would bring an additional 13,000 households into water poverty (and worsen affordability challenges for Single Person households already in water poverty).
- 5.27 Of course the ‘saving’ from the halving the Single Person discount, at around £43m, is reasonably significant; and could be used for a combination of increasing the WCRS and/or reducing the annual increment in the charge.

Table 5.3: Halving the Single Person discount would increase the water poverty rate

Impact of varying the Single Person discount on water poverty, and scheme cost, 2024/2025

	Single person discount 25%	Single person discount 12.5%	Difference
Total cost of SP discount (£m)	£103	£51	-£52
Total cost of WCRS (£m)	£35	£44	£9
3% poverty rate	10.6%	11.1%	0.5%
5% poverty rate	4.6%	4.8%	0.2%

Source: Consumer Scotland analysis using IPPR Tax-Benefit model.

A ‘by-application’ fund

- 5.28 A major strength of the WCRS is that it is provided automatically to qualifying households, i.e. those in receipt of Council Tax Reduction. In other words, eligible households do not need to take any action to receive the WCRS since eligibility – being in receipt of CTR – guarantees the WCRS automatically.
- 5.29 This contrasts with the position in England, where affordability support is not provided automatically, but where households who meet various eligibility criteria have to apply to their water provider for access to bill support. It also contrasts with the position in the energy market in Scotland, and the market for broadband services across the UK, where all affordability support is provided on a ‘by application’ basis.
- 5.30 There are significant limitations of a ‘by application’ affordability schemes. Consumers may not know that ‘by application’ schemes exist, what the eligibility criteria are, or how they can apply. The process of applying can be time-consuming and difficult. These factors tend to mean that take-up of ‘by-application’ schemes is relatively low, particularly amongst consumers in vulnerable circumstances who are most in need of support. Furthermore, ‘by-application’ schemes create administrative burdens for the suppliers who deliver them.
- 5.31 For these reasons we would not advocate moving from an ‘automatic’ scheme to a more discretionary, ‘by-application’ scheme. However, a ‘by-application’ scheme could complement an automatic scheme, such as the WCRS.
- 5.32 As we demonstrated above, there is a degree of misalignment between the households in receipt of WCRS and those in water poverty. This is partly because the eligibility criteria for WCRS are not explicitly aligned with the factors determining water poverty. However, it also reflects the practical challenge of trying to target and administer support to a specific group of households in the absence of robust real time information on those households’ circumstances. In other words, there will always be a degree of mismatch between the households in water poverty according to some specific, detailed criteria, and how support can be targeted practically through proxy measures of need.
- 5.33 Given these difficulties in getting support to all households in water poverty, the presence of a ‘by-application’ scheme could supplement the WCRS. A ‘by-application’ scheme could operate to provide equivalent rates of bill discount as the WCRS to households who met certain low-income criteria, but for whatever reason were not in receipt of CTR.
- 5.34 We have not sought in this report to identify eligibility criteria for such a scheme, nor to model likely levels of uptake. But the concept of a ‘by application’ scheme that supplements the WCRS by providing a safety net for households not in receipt of WCRS is worthy of consideration.

Comparisons with affordability protections in England & Wales

- 5.35 To provide some comparative context, we have briefly set out the various affordability protections applied to household water bills in England & Wales.

- 5.36 Both the charging mechanisms and market structure across England and Wales are markedly different from Scotland. Households with water meters represent the majority of the market (60%^{xxiv}) in England, whereas metered households are a negligible proportion of those in Scotland. Households in England and Wales can also be charged based on their 1990 rateable value^{xxv} or via an assessed volume charge^{xxvi}.
- 5.37 Equally, the market structure itself differs by having a range of water companies supplying services across different areas of England and Wales, whereas Scottish Water acts as the sole provider in Scotland, with local authorities in Scotland acting as billing agents.
- 5.38 As outlined by the Consumer Council for Water (CCW) in their independent review of water affordability^{xxvii}, there are two primary schemes which act to provide bill reductions for specific households across England & Wales – social tariffs and the ‘WaterSure’ scheme.
- 5.39 Social tariffs are offered by individual water companies, funded through customer charges, and are developed in consultation with existing customers, based on evidence.
- 5.40 Social tariffs across providers differ in terms of eligibility criteria and level of support offered^{xxviii}. As outlined in CCW’s Water Mark 2023 data^{xxix}, this creates significant variability in terms of the average bill reduction offered. Across water and sewerage companies in England & Wales, this varies from £73 to £313 in terms of the average annual reduction. For water only companies, the reduction is between £24 to £88. The average bill reduction across the sector is £151.
- 5.41 Eligibility and take-up also varies substantially. CCW’s Water Mark 2023 data highlighted approx. 1.4M customers registered to a social tariff in England and Wales, at a total cost of around £206M. However, customers registered per 10,000 households across providers varies considerably, from 637 to 190 across water & sewerage companies, and from 890 to 254 across water only companies. The industry average is 433 customers per 10,000 households.
- 5.42 Meanwhile, the WaterSure scheme is designed to protect low-income households on a meter from excessive charges, if their usage is higher than an average household due to essential needs. The scheme is designed to limit a recipient household’s charges to the average for their specific region, at most.
- 5.43 Eligibility for WaterSure is determined by several criteria, a household must be metered, receive specific welfare benefits, and either receive child benefit for three or more children under 19, or have someone living at the property with a medical condition which necessitates high water use.
- 5.44 Approx. 221,000 customers are supported via the WaterSure scheme, at a total cost of £68M. As with social tariffs, variability exists in terms of uptake, which ranges across water & sewerage companies from 66 to 271 customers per 10,000 metered households.

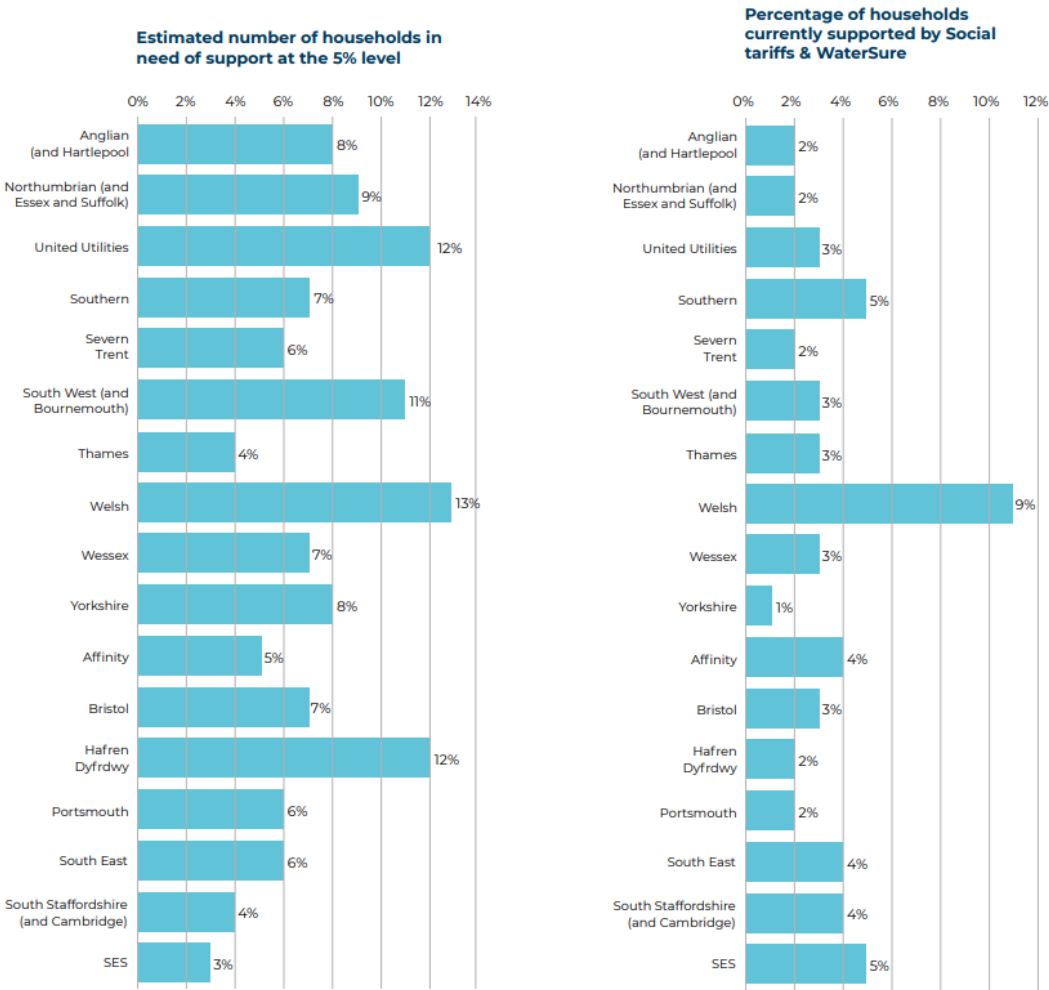
5.45 While CCW outlines in their Water for All report a range of factors which influence uptake (differing bill levels, meter proportions across regions, benefit take-up levels etc), they also highlight that more could be done to promote the initiative to customers.

5.46 Equally, as outlined in the CCW review (pg. 25), broader support exists from providers such as in-house crisis funds, payment matching to support debt clearance, and payment breaks. However, there is significant variability in terms of the scope of services delivered across providers.

5.47 CCW argues this significant variation creates a ‘postcode lottery’ in terms of support availability. This is further illustrated by evidence they present in their independent review of affordability (pg. 18) which illustrates the disparity between the estimated number of households in need of support across operating regions, and those supported by either a social tariff or the WaterSure scheme at the time of the review.

Chart 3.9: Illustration of the distinction between households “in need of support” at the 5% level of water poverty and those currently supported by Social Tariffs & WaterSure in England and Wales

Sourced from CCW’s Independent Review of Water Affordability (pg. 18)^{xxx}



- 5.48 This leads to clear differences in outcomes across regions. As an example, CCW estimated that 36% of households facing water poverty (at the 5% level) were supported out of it by existing measures in the Dwr Cymru Welsh operating region, as opposed to only 4% in the Anglian and Hartlepool operating regions^{xxxii}.
- 5.49 The significant variation in support across billing regions and the disparity in outcomes this creates for customers has led for CCW calling for a single social tariff across England and Wales. CCW's recommendation is that this tariff is designed in such a way as to explicitly target the 5% level of "severe water poverty".
- 5.50 CCW recommend that such a scheme would offer harmonised eligibility criteria across England and Wales and be delivered via a single, centralised funding pot which ensures that bill increases are not disproportionate in regions which have a larger overall support need (preventing the funding increase falling purely on bill payers within those regions).
- 5.51 CCW also sets out several possible options of how such a social tariff could be consistently structured across billing regions. CCW assessed, in their independent review, that four options could act as a basis for further discussions with the industry:
- A fixed amount bill reduction for all eligible customers
 - A fixed percentage bill reduction for all eligible customers
 - A bill cap linked to the water poverty metric with a personalised assessment
 - A free 'block' or allowance of water to all eligible households.
- 5.52 As outlined by CCW, these options would all come with respective advantages and disadvantages in terms of ease of communication and understanding across the customer base, fairness in terms of support distribution, and efficiency in terms of households brought out of water poverty relative to the cost of the option proposed.
- 5.53 The affordability landscape in England and Wales is markedly different to the context in Scotland, with significant divergence in terms of market structure and the basis of charging for many households.
- 5.54 However, broadly, similar issues are identified by CCW in their reviews of the outcomes in terms of existing support schemes (regarding eligibility, targeting and the level of support provided) as is outlined by Consumer Scotland in this analysis.
- 5.55 While the issues outlined are similar, by virtue of substantially higher levels of household metering in areas of England and Wales, there is potentially a wider suite of possible options for government and industry to pursue to develop schemes which appropriately target water poverty, but also balance fairness and value for money (in addition to broader sectoral objectives like water efficiency) in more overt ways which are more immediately visible / accessible to customers.

6. Conclusions

- 6.1 This report has used two measures of water poverty to examine the affordability of water and sewerage charges. These measures consider the proportion of households' disposable income that is spent on water and sewerage charges.
- 6.2 No single measure of water affordability is ever likely to be perfect. Limitations of the water poverty measures include the fact that it ignores other aspects of households financial wellbeing, such as debt and assets, and income volatility and uncertainty. Nonetheless, the water poverty measures used in this report remain the most pragmatically useful, given the availability of data; and they allow for comparisons to be made across time for different types of customer.
- 6.3 We find that water charges became more affordable – water poverty rates declined – during the cost of living crisis. This result, whilst perhaps surprising, reflects the below inflationary increase in the charge, combined with temporary cost of living support delivered to households in receipt of means tested benefits.
- 6.4 The improvement in water affordability is unlikely to last, and water poverty looks likely to return to its historic norm in 2024/2025 and 2025/2026.
- 6.5 There is inevitably a trade-off between the affordability of charges and the revenues raised through those charges. The lower than permitted increase in charges in 2022/2023 and 2023/2024 helped achieve a 1.5 percentage point reduction in water poverty. But this has meant lower revenues, to the tune of around almost £100m per year, for Scottish Water. The effect of this lower revenue on investment, and hence future consumers, is as yet unclear.
- 6.6 The current Strategic Review of Charges has recently commenced and will consider the outlook for charging during the 2027-2033 period. There is likely to be a strong need to support growth in investment to maintain service levels and invest for the future, particularly given the challenges of adapting to climate change.
- 6.7 In light of these investment needs there is likely to be a case for looking at whether to increase Scottish Water borrowing from the Scottish Government. But this has its own challenges, not least lower capital budget for other areas of Scottish Government investment spending.
- 6.8 To an extent therefore, decisions will have to be made on how to balance the increased investment needs with costs, and how to pay for it. The affordability of bills needs to be considered during this process.
- 6.9 It is legitimate and important to ask whether different approaches to water tariffs and affordability policy could help mitigate the impact of bills increases on water poverty. In

practice, it is difficult if not impossible to insulate all households at risk of water poverty from increases in charges.

- 6.10 This is primarily because of difficulties in targeting support at the households in water poverty. Existing social security benefits are not explicitly designed to target water poverty; and indeed many households in water poverty or low income poverty do not receive means tested benefits.
- 6.11 Thus whilst it is possible to increase the water bill reduction provided through the WCRS, it must be recognised that this won't mitigate affordability challenges for all households in water poverty. Nonetheless, increasing the WCRS to 50% is likely to represent a relatively cost-effective way of helping to keep bills affordable for many households in the short term, and is worthy of consideration – particularly if it coincides with efforts to raise the take-up of Council Tax Reduction.
- 6.12 Alongside this, there may be a case for introducing a 'by-application' system of water bill support which could run alongside the existing formal structures of support. This by-application support would provide a mechanism for offering reductions in charges for customers who fell below particular thresholds for income security, but who were not eligible for Council Tax Reduction. It could play an important role in filling the gaps in support that will inevitably arise with any system that relies on an existing social security benefit to target support for water affordability.
- 6.13 In the longer term, policy needs to move towards a fairer charging system with better targeted affordability policy. In the context of the 2027-2033 charging period however, fundamental reform is unlikely to be practically deliverable. Therefore, improvements to affordability policy must be pragmatically workable within the context of the existing system. An increase in the WCRS supplemented by a 'by-application' safety net are examples of such pragmatic solutions that are worthy of consideration.

Endnotes

ⁱ [Scottish-Water-Annual-Report-2024.pdf \(scottishwater.co.uk\)](#)

ⁱⁱ In Annex C of the commissioning letter for the Strategic Review of Charges 2027-2033, provided to WICS by Scottish Ministers, it is set out that the “the collection arrangements and tariff structure applying to unmetered household charges in 2021-2027 should continue for the 2027-2033 period”. In the same annex, Ministers set out that: “The charging policies contained within this document will be reviewed by the Scottish Government, in consultation with water industry stakeholders, to ensure that they continue to meet the Government’s overall policy priorities and to inform water industry policy for the period beyond 31 March 2033.”

ⁱⁱⁱ Moving to a different basis for charging would be a significant change in policy. Respondents to the Scottish Government’s recent consultation on water policy indicated a level of dissatisfaction with the current system, with approx. 53% of respondents (259 of 431 responses) disagreeing that “Council Tax Bands is the fairest way to charge for services used by households”. Although it was not the main focus of the research, Consumer Scotland’s deliberative research on climate change and adaptation within the water sector also explored the issue of billing (and particularly as an alternative used in other jurisdictions, the prospect of metering). The research agency Ipsos who managed the deliberative process noted that, alongside Combined Sewer Overflows, the introduction of water metering was one policy topic where “participants held widely differing views from one another, did not feel able to reach consensus and called for more information and evidence to be provided, reflecting the contentiousness and complexity of the issues.”

^{iv} [Scottish Water: directions 2020 - gov.scot \(www.gov.scot\)](#)

^v [Water services - charging principles: 2021 to 2027 - gov.scot \(www.gov.scot\)](#)

^{vi} See Annex A of [Water services - charging principles: 2021 to 2027 - gov.scot \(www.gov.scot\)](#) for details of the calculation

^{vii} Consumer Scotland (2023) [Action required to protect low income water consumers from debt | Consumer Scotland](#)

^{viii} [Water Sector Vision - Scottish Water](#)

^{ix} WICS (2020) Final Determination 2021-2027 [2021-27 Final Determination.pdf \(wics.scot\)](#)

^x Department of the Environment, Transport and the Regions, (1999)

^{xi} For examples of this approach, see Bradshaw and Huby (2013) for application to England and Wales [Water poverty in England and Wales in: Journal of Poverty and Social Justice Volume 21 Issue 2 \(2013\) \(bristoluniversitypressdigital.com\)](#), and more recently Consumer Council for Water

(2021). Independent Review of Water Affordability. Consumer Council for Water, Birmingham, UK.

^{xii} See Fraser of Allander Institute (2019) and Fraser of Allander Institute (2020)

^{xiii} Sylvester et al. (2023) [Water poverty in England and Wales in: Journal of Poverty and Social Justice Volume 21 Issue 2 \(2013\) \(bristoluniversitypressdigital.com\)](#)

^{xiv} Equivalisation is a standard methodology that adjusts household income to account for the different financial resource requirements of different household types. Equivalisation recognises that, for example, a household of two adults and two children requires a higher income than a household with two adults to maintain an equivalent standard of living. In this analysis, household income is equivalised using the OECD equivalence scale.

^{xv} The IPPR Tax-Benefit model is a static microsimulation model. It uses FRS and HBAI data to simulate the effects of tax and benefit policy changes on different households. It is used extensively by a number of the UK’s most prominent public policy think tanks and academic research institutes.

^{xvi} For evidence of this see pp. 33-35 of [Health Inequalities in Scotland: Trends in the socio-economic determinants of health in Scotland | FAI \(fraserofallander.org\)](#)

^{xvii} A large number of households spend around 3 per cent of income on water and sewerage, so small movements in the water charge relative to income can move them from one side of the poverty line to another. In contrast, some of the households who spend more than 5 percent of income on water and sewerage spend noticeably more than 5% of income on water and sewerage; so relatively large movements in water charges don't necessarily affect which side of the poverty line these households are on.

^{xviii} See FAI (2018) [The affordability of water and sewerage charges in Scotland | FAI \(fraserofallander.org\)](#)

^{xix} Bank of England Financial Stability Report, June 2024 [Financial Stability Report - June 2024 | Bank of England](#)

^{xx} The increase in WCRS from 25% to 35% does not result in an increase in the overall average WCRS per household because single person households are eligible for a maximum of bill reduction of 10% through the WCRS over and above their Single Person discount.

^{xxi} There are small increases in the number of WCRS recipients as the WCRS increases. This relates to the way that the WCRS for Single Person households who receive less than a 100% Council Tax Reduction. To illustrate, imagine a single person household which receives a 70% council tax reduction. If the WCRS is 35%, this household does not receive any WCRS reduction on its water bill, because 35% of 70% is less than the Single Person status discount of 25% which they would already receive. But if the WCRS increased to 50%, the household would be entitled to a reduction of 50% of 70% which is 35%. They would therefore receive, through the WCRS, a further 10 percentage points reduction on their water bill over and above the Single Person status discount.

^{xxii} [Universal credit: incomes, incentives and the remaining roll-out | Institute for Fiscal Studies \(ifs.org.uk\)](#)

^{xxiii} There have been no recent attempts to model take-up of CTR at a Scottish or GB level.

^{xxiv} [Appendix A: Smart metering in revised draft water resources management plans - GOV.UK \(www.gov.uk\)](#)

^{xxv} [How is my water bill worked out? - CCW](#)

^{xxvi} [Independent-review-of-water-affordability.pdf \(ccw.org.uk\)](#)

^{xxvii} [Independent-review-of-water-affordability.pdf \(ccw.org.uk\)](#)

^{xxviii} [Water-for-All-Water-Affordability-and-Vulnerability-Report-2019-20.pdf \(ccw.org.uk\)](#)

^{xxix} <https://www.ccw.org.uk/publication/water-mark-2023/>

^{xxx} [Independent-review-of-water-affordability.pdf \(ccw.org.uk\)](#)

^{xxxi} <https://www.water.org.uk/wp-content/uploads/2021/04/Quantitative-analysis-of-water-poverty-in-England-and-Wales.pdf>