Welsh Water – Measures of Success
Performance Testing Research

Qualitative & Pilot
Contents

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1 Research background
## DCWW Customer engagement

### Background
As part of DCWW Customer Engagement Programme for PR19, there is a requirement to ensure a comprehensive understanding of customer views on the performance measures

### Core Objective
Explore customer valuations across a range of measures within context of a) impact on bills of improved performance, b) historical performance levels achieved, c) comparisons with other companies’ performance and d) allow for trading off of improvements across measures within a fixed bill profile

### Desired Outcome
Insight should help DCWW decide the performance targets for the PR19 Measures of Success (MOS)

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Innovative customer engagement programme required
### Four large scale deliberative workshops lasting 4.5 hours

50 respondents in each location

<table>
<thead>
<tr>
<th>Location</th>
<th>Pre-Family</th>
<th>Family</th>
<th>Older children/Empty nester</th>
<th>Retired</th>
<th>Business</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiff</td>
<td>AB</td>
<td>C1</td>
<td>C2</td>
<td>DE</td>
<td></td>
</tr>
<tr>
<td>Haverfordwest</td>
<td>AB</td>
<td>C1</td>
<td>C2</td>
<td>DE</td>
<td></td>
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<td>Colwyn Bay</td>
<td>AB</td>
<td>C1</td>
<td>C2</td>
<td>DE</td>
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<tr>
<td>Hereford</td>
<td>AB</td>
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<td>C2</td>
<td>DE</td>
<td></td>
</tr>
</tbody>
</table>

Weekend events (Saturday and Sunday) to ensure inclusivity
Deliberative events including WW staff

Each event provided opportunity for detailed discussion, customer led debates and voting

Welcome presentation to all 50 customers

Moderator led deliberative session (10 customers – Cohort 1)
Moderator led deliberative session (10 customers – Cohort 2)
Moderator led deliberative session (10 customers – Cohort 3)
Moderator led deliberative session (10 customers – Cohort 4)
Moderator led deliberative session (10 customers – Cohort 5)

Cohort spokesperson presents individual measure for discussion in the round

Individual voting

Repeat to cover 15 measures
Link sent to respondents after the events - questionnaire with trade off model within bill profile

<table>
<thead>
<tr>
<th>Issue</th>
<th>Option A (same as now)</th>
<th>Option B</th>
<th>Option C</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discoloured Water</td>
<td>□</td>
<td>□</td>
<td>✓</td>
<td>No change to your bill</td>
</tr>
<tr>
<td>Affected customers</td>
<td>3,000</td>
<td>2,000</td>
<td>1,500</td>
<td></td>
</tr>
<tr>
<td>Water taste/smell not ideal</td>
<td>□</td>
<td>□</td>
<td>✓</td>
<td>+£2.50 every year for 5 years</td>
</tr>
<tr>
<td>Affected customers</td>
<td>2,000</td>
<td>1,500</td>
<td>1,000</td>
<td></td>
</tr>
<tr>
<td>Unexpected interruptions</td>
<td>✓</td>
<td>□</td>
<td>□</td>
<td>+£10.00 every year for 5 years</td>
</tr>
<tr>
<td>Affected customers</td>
<td>100,000</td>
<td>80,000</td>
<td>60,000</td>
<td></td>
</tr>
<tr>
<td>Persistent low pressure</td>
<td>□</td>
<td>□</td>
<td>✓</td>
<td>-£2.50 every year for 5 years</td>
</tr>
<tr>
<td>Affected customers</td>
<td>200,000</td>
<td>150,000</td>
<td>100,000</td>
<td></td>
</tr>
</tbody>
</table>

Your choices result in:
Total change = +£10.00 every year for 5 years from £214 in 2019 to £264 in 2024
Your customers loved the event

Fabulous feedback from your customers at the end of long engagement sessions

When’s the next one!!
Colwyn Bay

What a lovely way to spend a Sunday
Hereford

I didn’t think we would be able to talk about water for 5 hours but you do so much
Haverfordwest

It was great – thanks so much. I thought it would be boring but it wasn’t!
Cardiff
Sample Observations
The Welsh Factor

Customers are proud of their country and uniquely protective of their water company

- Pride in Wales tends to mean customers are protective of all things Welsh
- Understand that their rural, coastal geography presents challenges
- Recognise the difficulties in resourcing
- BUT feel Wales is abundant in natural resources

The thing is they have such a vast area so the pipework is much more complicated

Haverfordwest, Business
Not for profit is new news for many

Welcome the news but still want DCWW to spend responsibly and wisely

- Good context for customer valuations
- Minimises conversations about privatization and shareholder dividends
- Focus is still on whether this is a worthy investment
- Customers still very rigorous about evaluating investment options

I was really surprised by that. It's great but I still don't think the bills should rise too much in today's economic climate.

Hereford, AB

Not for profit status does not mean carte blanche for raising bills
Response to measures
Overview of measures

From the measures explored in the deliberative events there is some appetite for further improvements for some measures

**Invest +**
- Leakage
- Preventing pollution
- River water improvements
- Worst served – sewage in the home
- Reducing fossil fuel dependency
- Resilience of wastewater networks to storms

**Invest ++**
- Sewage in the home
- Help for disadvantaged

**Stay the same**
- Drinking water acceptability
- Drinking water availability
- Sewage in the street
- Worst served – low pressure
- Worst served – interruptions to supply

Asset health (sewers), bill collection and customer service seen as very important
Asset health (mains burst), education/recreation seen as important
Understanding more about the Invest ++ Measures

**Invest ++**
Sewage in the home
Help for disadvantaged
Sewage in the home

MEASURE D3

Sewage in the home

- Sewer flooding occurs when sewage escapes from a pipe, through a manhole, from a drain or by backing up in a toilet
- The flooding can be caused by:
  - A blockage within the sewerage system. For example, this could be because people flush the wrong things down the drain (fat, grease, rags, sanitary items) or because the sewer is damaged by tree roots or collapses
  - Equipment failure
  - Hydraulic overload, i.e. the sewer cannot cope with the amount of sewage and rainwater flowing through it, often in times of rain storms
  - Sewer collapse, i.e. the sewer pipe has collapsed blocking the flow of sewage
- Welsh Water are committed to addressing these problems by reducing the number of properties that are at repeated risk of sewer flooding as well as taking mitigating measures to either reduce the risk or deal with the severity of the flooding where permanent solutions aren’t economically feasible

dwrwymru.com

Welsh Water Historic Performance

Properties Flooded per Year

- 2013-2014: 350
- 2014-2015: 300
- 2015-2016: 250

dwrwymru.com

Welsh Water Performance in Comparison to Other Companies (2015)

- Worst: 3.5
- Welsh Water: 2.5
- Average: 2
- Best: 1.5

dwrwymru.com
Sewage in the home

Majority prepared to pay the highest amount to see substantial improvements in this measure

Q4; Base: all participants (180)
Sewage in the home

Considered to be a low bill annual increase to help 45 properties

Overall response
- Critical importance - this feels like one of the worst things to happen to anyone
- Key for DCWW to replace old sewage infrastructure/drains
- Felt also to be a customer responsibility
  - Need to educate customers (horrified at the stories about customers flushing nappies)
  - Need to have penalties for customers
- Need to be restrictions on manufacturers who market ‘flushable wipes’
- Business customers concerned about the impact this may have on customers and business sustainability e.g. smell

Investment
- WTP = high
- £0.45 increase in the bill feels very small compared to the negative emotional and practical impact of sewage in the home
- Background data is very encouraging
  - Better than average
  - Incidents are reducing
  - Both of these suggest that DCWW have good initiatives that could be extended further to reduce the amount of properties affected
- Those opposed to any increase feel that improvement have already been made
Sewage in the home

This should be a NEVER event
Haverfordwest, AB

This could spread disease. Its disgusting especially if there are children in the home
Hereford, C1

This is such an awful thought – its so important
Cardiff, Empty Nester

It just feels like something for home and businesses that should be sorted – you know it’s the smell
Colwyn Bay, Business
Help for disadvantaged customers

MEASURE E2 Help for disadvantaged customers

- HelpU – Customers whose combined household income is less than £15,000 can apply for a reduced tariff. There are four tiered bands which have a fixed rate tariff offering an annual saving of up to 55%. This tariff is available to both metered & unmetered customers.

- WaterSure Wales – Measured customers on a qualifying benefit with either a medical condition requiring additional water usage or having three children under the age of 19, can apply for this tariff. The water charges for the property are fixed.

- Welsh Water Assist – From the 1 April 2015 this tariff ceased to exist for new claimants. However, we still have customers benefiting from the reduced tariff as we transition them onto other affordability tariffs. Both metered & unmetered customers on a qualifying benefit with either a medical condition requiring additional water usage or having three children under the age of 19, used to be able to apply for this tariff. The water charges for the property are fixed.

Show video: http://www.wearewelshwater.com/#/content/helping-our-customers

Social tariffs provide assistance to those who are struggling to pay their bills

This is a particular problem in the Welsh Water area as around 30% of our household customers spend more than 3% of their disposable income on their water and sewerage bill and almost 15% of our customers spend more than 5% of their income on their bill.

There are six social tariffs/schemes that provide help for disadvantaged customers or those with a disability or medical need and who are struggling to pay their water and sewerage bills.

These are six different schemes: HelpU, WaterSure Wales, Welsh Water Assist, Water Direct, Customer Assistance Fund, Water Collect

By 2019 there are expected to be 100,000 being assisted on one of these schemes.

dwr.cymru.com

— Water Direct – Customers on a qualifying benefit and with arrears greater than £75 can have their water charges paid directly by deduction from their benefits. A small amount is deducted weekly to clear the arrears plus current year’s charges. The customer receives a discount of £25 off their current year’s charges

— Customer Assistance Fund – Customers in severe financial hardship can apply for this scheme. If a customer pays their current charges for 12 months the arrears are cleared, encouraging the customer to pay future charges on a regular basis.

— Water Collect – As part of an agreement with us, two Registered Social Landlords who bill and collect water charges on our behalf, provide a £10 discount to their unmeasured tenants off their current year’s charges.

dwr.cymru.com
Help for disadvantaged customers

Strong positive response to helping disadvantage customers

Six in ten participants are willing to see a £0.33 increase in annual bill to help disadvantaged customers

Q5; Base: all participants (180)
## Help for disadvantaged customers

### High WTP to support vulnerable customers with established schemes that are already in place

<table>
<thead>
<tr>
<th>Overall response</th>
<th>Investment</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Strong social conscience across groups esp. supporting older people (might leave the tap running and run up a big bill, etc)</td>
<td>• WTP = high</td>
</tr>
<tr>
<td>• Bills and detail of tariffs can be confusing for vulnerable customers</td>
<td>• Encouraged to see the type of schemes Welsh Water have in place although potential to confuse</td>
</tr>
<tr>
<td>• Fear that debt can escalate if its not dealt with</td>
<td>• ‘Why not just have one tariff?’</td>
</tr>
<tr>
<td>• Some concerns that the existing schemes are open to abuse</td>
<td>• 2019 predictions of 100k customers is high and suggests immediate action needed</td>
</tr>
<tr>
<td>• AND criteria might not be quite right e.g. just because you have 3 children and are on benefits doesn’t mean you need support</td>
<td>• Feel that Welsh Water need to proactively put customers on these schemes</td>
</tr>
<tr>
<td>• AND that the schemes are just not visible enough</td>
<td>• 33p feels very little and some groups (pre-kids, Colwyn Bay) looking for this to be increased further</td>
</tr>
<tr>
<td>• Need better marketing and access to online calculators to check eligibility</td>
<td></td>
</tr>
</tbody>
</table>
Help for disadvantaged customers

This is very important and people need access to help
Colwyn Bay, Pre-Family

Older people need support – its morally right. It can nip any stress in the bud
Cardiff, Retired

Given that they are a not for profit organisation, they should support
Colwyn Bay, Pre-Family

With the political situation as it is, it could happen to any one of us
Haverfordwest, C1

Its important that they are proactive and capture people before they fall into debt
Haverfordwest, C1
Understanding more about the Invest + Measures

**Invest +**
- Leakage
- Preventing pollution
- River water improvements
- Worst served – sewage in the home
- Reducing fossil fuel dependency
- Resilience of wastewater networks to storms
Leakage

MEASURE F2

Welsh Water have to produce a Water Demand Forecast for a 25 year period and to manage demand in accordance with this plan.

A key component of this is the Sustainable Economic Level of Leakage (SELL) assessment which provides leakage targets for operational leakage management.

Leakage is often on the pipes that customers are responsible for as well as those of the company.

About 20% of water that is treated is leaked.

In order to achieve these targets and to manage the demand for water a range of activities such as repairing pipes, Water Efficiency promotion, Pressure Management and Network Flow recording activity is undertaken.

Reasons why leakage can vary is things like extreme weather conditions, age of the pipe network in a particular region, pipe material, differences in water pressure, soil conditions and corrosion, damage to pipes caused by heavy traffic which compresses the soil around the pipes.

dwrcymru.com
Leakage

Just under half of respondent are prepared to pay something more to further improve leakage.

Colwyn = significantly more choose the ‘as now’ option.

Hereford respondents are significantly more interested in reducing leakage and accepting an £1.10 increase in annual bill.
Leakage

Leakage is a hugely emotive issue and current levels feel unacceptable; significant proportion of customers WTP for improvements

**Overall response**
- Critical importance
- Huge emotional response – wasteful, immoral, unfair, unforgiveable of DCWW when some global areas are water stressed
- ELL understood but environmental vs. £££ arguments made – just a sense that something needs to be done to protect precious resource
- Recognise that Welsh Water’s rural landscape makes detection and replacement challenging
- Want reassurance that new materials are sustainable

**Investment**
- WTP = just under a half WTP for improvements esp. Hereford where 3/4s would pay highest amount £1.10 (and younger generation)
- Historical data is very encouraging
- £1.10 seems a very small amount to tackle this problem
- However, those against feel that a 7 litre reduction doesn’t feel significant (worth scaling up 7 litres x 1.3m houses x 365 days)
Leakage

This is a staggering figure – 125 litres per property per day
Haverfordwest, Business

It's not a great difference - 7 litres
Cardiff, Pre-Family

They just need to be far more ambitious with this
Cardiff, Pre-family

It sounds like they are doing this already with the pipe replacement programme
Colwyn Bay, Business

How can you possibly ask people to save water when you are leaking so much?
Hereford, DE
Preventing Pollution

MEASURE B3  Preventing Pollution
Dwr Cymru
Welsh Water


- Pollution incidents are classified into four categories. Welsh Water report the highest three categories caused by our assets which are those which affect the environment, category 1 being the most serious
  - Category 1 – major, serious, persistent and/or extensive impact or effect on the environment, people and/or property
  - Category 2 – significant impact or effect on the environment, people and/or property
  - Category 3 – minor or minimal impact or effect on the environment, people and/or property

- We have 4,600 miles of classified rivers within our area and a 1,000 mile coastline. By operating our assets effectively we are able to treat sewage so as to protect wildlife, habitats and other users of these waters.

dwrcymru.com
Preventing pollution

Majority want to see a reduction in pollution incidents and tend to be willing to see a £2.50 increase or higher in annual bill for lower levels of pollution.

As now: 103 minor pollution incidents, current bill
90 minor pollution incidents, £2.50 increase in annual bill
70 minor pollution incidents, £7.50 increase in annual bill

<table>
<thead>
<tr>
<th>Location</th>
<th>Current Bill</th>
<th>£2.50 Increase</th>
<th>£7.50 Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hereford</td>
<td>24</td>
<td>71</td>
<td>5</td>
</tr>
<tr>
<td>Colwyn</td>
<td>33</td>
<td>49</td>
<td>19</td>
</tr>
<tr>
<td>Haverfordwest</td>
<td>25</td>
<td>68</td>
<td>7</td>
</tr>
<tr>
<td>Cardiff</td>
<td>40</td>
<td>45</td>
<td>15</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>31</strong></td>
<td><strong>57</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>
Preventing pollution

Seen as a key area to address as the impact of pollution is damaging for people and the environment.

**Overall response**
- Very important area to address
- Fears over impact of this on health and lifestyle
- Recent flooding incidents (Carmarthen) make this very real for people
- Idea of sewage or industrial pollution in rivers is upsetting for many and detrimental to business
- Personally use many local paths/rivers without thinking about this e.g. Taff Trail in Cardiff – would be terrible to have to avoid areas
- Looking for real examples of where DCWW have made a difference

**Investment**
- WTP = majority accept a small increase to reduce number of pollution incidents below 100
- £7.50 seems like a large increase in the annual bill and difficult to justify (ok in Haverfordwest/Hereford)
- £2.50 acceptable starting point and then for DCWW to prove they are dealing with this
- Historical data is very encouraging and shows that DCWW are addressing this issue
- Keen to know what they are actually doing that is successful
Preventing pollution

This is one that you really need to future proof against rain floods because they create huge damage.
Haverfordwest, DE

You want to leave it in a good place for your kids.
Colwyn Bay, Empty Nesters

It looks like they are already doing well. I don’t think about sewage pollution but now you’ve said it....
Cardiff, Family

They need to prove that they can do level 2 and then we can go from there.
Hereford, Business
River water improvements

MEASURE X1 River Water Improvements

Welsh Water

- Show video [http://www.wesnewhaiswater.com/#!/content/save-waste-water](http://www.wesnewhaiswater.com/#!/content/save-waste-water)
- This measure is about the quality of the river water in the areas of Wales and England where we operate
- There are 705 water bodies in Wales and for the majority of these Welsh Water share responsibility with other parties to ensure these meet the necessary requirements
- Some are affected by farming and/or pollution from abandoned mine workings and/or physical modifications, such as barriers preventing fish passage. Where a river isn’t as good as it could be it’s usually due to a combination of factors.

MEASURE B3 Preventing Pollution

Welsh Water

- There are two different types of pollution. One is called “significant” pollution, and the other is “minor” pollution
- Significant pollution incidents would be where there is “significant visible pollution”. This would cause the death of 10-99 fish, and/or it would significantly affect agricultural or commercial activities
- Minor pollution incidents would be where there is “minor visible pollution” and there would be, limited damage. This would cause fewer than 10 fish to die, and would affect agricultural or commercial activities in some way

MEASURE X1 River Water Improvements

Welsh Water performance

<table>
<thead>
<tr>
<th>Classification</th>
<th>Length (m)</th>
<th>% Length</th>
<th>Number of Waterbodies</th>
<th>% Waterbodies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>2,622,199</td>
<td>35.8%</td>
<td>264</td>
<td>37.4%</td>
</tr>
<tr>
<td>Moderate</td>
<td>4,003,384</td>
<td>54.7%</td>
<td>375</td>
<td>53.2%</td>
</tr>
<tr>
<td>Poor</td>
<td>635,736</td>
<td>8.7%</td>
<td>62</td>
<td>8.8%</td>
</tr>
<tr>
<td>Bad</td>
<td>56,415</td>
<td>0.8%</td>
<td>4</td>
<td>0.6%</td>
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<tr>
<td>Grand Total</td>
<td>7,317,734</td>
<td></td>
<td>705</td>
<td></td>
</tr>
</tbody>
</table>

MEASURE B3 River Water Improvements

Welsh Water

Reasons for not achieving GOOD status

- Physical modifications
- Pollution (abandoned mines)
- Pollution (loss areas)
- Pollution (waste water)
- Pollutants (other)
- Changes in flow & vett level

![Diagram showing reasons for not achieving GOOD status](image-url)
River water improvements

As with pollution incidents, majority want to see some improvements but not prepared for big increase

£2.50 increase most likely option to be chosen especially in Colwyn and Haverfordwest

‘As now’ significantly more likely to be chosen in Cardiff and Hereford than other locations

Discrepancy – stim says 7.50 but tabs (questionnaire) say 3.75
# River water improvements

## Key areas to address as impact of pollution is so damaging for people and the environment

**Overall response**
- Important to protect countryside and rivers:
  - Protect income from tourism
  - Local population recreation
  - Wildlife
  - Health and wellbeing
- Sense that considerable improvements have been made over last 25 years
- ‘Significant visible pollution’ is abhorrent
- Keen to see DCWW working with local farmers to reduce spraying, etc
- Need to prioritise which rivers to improve e.g. some extreme rural areas feel less important as less people will use/enjoy them

**Investment**
- WTP = less appetite to increase bills in Cardiff and Hereford
- £2.50 feels like relatively small amount for high KM of rivers improvements (150km)
- Background data shows only 35% of rivers achieve ‘good’ status and that doesn’t feel high enough
- Reasons for not achieving good status indicates that this is a wider issue and responsibility should be shared by local authorities and developers
River water improvements

We go canooing and fishing – it’s just part of the lifestyle and culture here
Hereford, C1

River through the town here is not great – you really need to be educating farmers
Haverfordwest, AB

I think we’ve already seen a visible improvement in that it’s safer to swim and stuff – there used to be dead sheep in there!
Cardiff, Empty Nester

This feels like an area that local authorities should also be responsible for
Haverfordwest, AB

There are lots of things that are out of their control like intensive farming
Hereford, C1
Reducing fossil fuel dependency

MEASURE C2 Reducing Fossil Fuel Dependency

- Supplying high quality drinking water and removing and treating waste water uses a great deal of energy
- The topography of our area means that we have to pump large quantities of water and wastewater around our network and the volume of surface water entering our sewers adds to the problem
- Whilst we do what we can to minimise costs and mitigate the impact, e.g. through promoting sustainable drainage schemes, there are still some significant pressures
- With electricity becoming more expensive and sources of energy becoming less secure it is important that we maximise the opportunities to generate electricity from renewable sources
- We have already built wind turbines, solar panels, hydro turbines and generate electricity in our wastewater treatment process

dwrscymru.com

Reducing Fossil Fuel Dependency

Welsh Water Historic Performance

![Graph showing Renewable Energy Use as Percentage of Total Use from 2011-2012 to 2015-2016.](dwrscymru.com)

Reducing Fossil Fuel Dependency

Welsh Water performance in comparison to other companies (2015):

![Bar graph showing Greenhouse Gas Emissions for Water and Sewerage for Best, Welsh, Average, and Worst companies.](dwrscymru.com)
Reducing fossil fuel dependency

Over two thirds want to see some increased investment

However, those in Cardiff significantly more likely than other areas to choose ‘as now’ while Colwyn participants significantly more likely to choose highest level
Reducing fossil fuel dependency

Majority accept some WTP – recent positive performance suppresses some further WTP for some

Overall response
• Important to be future focused
• Sensible to use Wales’ rich natural resources
• Investment to reduce fossil fuel dependency seen to be good for Welsh Water brand
• Regeneration schemes are worth investment as they do so much more than produce energy
  • Great for communities
  • Generate jobs
  • Educate customers
• Would like to see Welsh Water supporting community/household schemes
• Eventually want to see some savings passed on to consumers

WTP
• High for most (Pre-Kids, Colwyn Bay)
• Supporting information shows excellent recent performance
  • Encouraged by innovation (video)
• Good to see that Welsh Water are better than average
  • More of the same please
• Some reluctance to pay for further improvements
  • Doing enough already
  • Better than average
  • Global vs. local problem
Reducing fossil fuel dependency

Surely they should be looking at rainwater harvesting and using grey water
Colwyn Bay, Pre-Kids

For just an extra 10%, it doesn’t feel worth it
Cardiff, Retired

Really really important for the future health of our country. You have to think long term
Colwyn Bay, Pre-Kids

We do much more than the younger generation already
Cardiff, Retired

Green is good – they could install a microhydro and sell it back to the grid
Colwyn Bay, Pre-Kids

Welsh Water are the 5th biggest company in Wales so they have to think outside the box
Haverfordwest, Business
MEASURE C1 Resilience of Wastewater Networks to Storms

Show video [link](http://www.wearewelshwater.com/#/content/rainscaping)

With more extreme weather events forecast due to climate change, plus the growing pressure from urbanisation and development, the volume of rainwater entering our sewers is increasing

As much of our ageing sewer network wasn’t designed for today’s demands it is important that we consider innovative ways of ensuring that our sewers aren’t overloaded, especially by surface water draining from roofs, paved areas and roads

If left unchecked, the additional volume of surface water draining to sewers will increase

dwr/cymru.com

Benefits:

- Local environments will become more attractive and new habitats will be created
- Reduces the risk of sewer flooding
- More sustainable and cheaper than traditional methods – helping us to keep customer bills low
- Helps our communities to become more resilient to climate change

dwr/cymru.com

MEASURE C1 Resilience of Wastewater Networks to Storms

The wastewater flowing through most sewers contains a mixture of foul sewage and rainwater, any surplus flow which escapes the network can pollute rivers and affect coastal areas such as bathing waters or lead to sewer flooding at our customers’ properties

Pumping surface water also increases our energy use and associated carbon emissions and can be costly

Increasing the size of our sewers to deal with more rainwater can be expensive and cause significant disruption

By adopting a more innovative approach to surface water management we will deliver a number of benefits and will deal with an escalating problem in a sustainable way:

dwr/cymru.com

Welsh Water Historic Performance

![Welsh Water Historic Performance Graph](image)
Resilience of wastewater networks to storms

Overall, a £3.03 increase in annual bill for 40,000 Rainscape schemes is preferred. Colwyn Bay and Haverfordwest participants are significantly more likely to choose this option while those in Hereford and Cardiff are significantly more likely to choose the ‘as now’ option but equally likely to choose the £3.03 increase.

Q6; Base: all participants (180)
## Resilience of wastewater networks to storms

Innovative ways of reducing surface water are exciting and drive appetite for some improvements

### Overall response
- Flooding risk is recognised as an area of concern
- Climate change and excessive water feeding the drains seen to elevate the risk
- Environmental and community benefits of rainscape schemes feel really worthwhile
- Encouraged by innovation and feel like Welsh Water are taking a long term view
- Feel that Welsh Water should be working with households and communities to advise/educate about simple and more complex systems
  - Water butts
  - Impact of paving drives, etc
  - Community underground storage tanks

### WTP
- Some appetite for improvements
- Historical performance shows that at current bill levels Welsh Water are investing and improving
- £7.06 feels a considerable increase on the bill for a long term benefit
  - Just too high for many
- £3.03 acceptable for many who feel this cannot be ignored without storing up significant future flood risks
Resilience of wastewater networks to storms

This feels like a growing problem with people paving their gardens. There are flashpoints in Cardiff and we need something to be done.
Cardiff, Business

I agree it needs doing but we just can't afford to fund this.
Haverfordwest, C2

This feels like a responsibility that should be shared amongst customers and Welsh Water.
Hereford, AB

Surely they also need to address the ageing sewers not just the surface water.
Colwyn Bay, Family

The school scheme looks great – it's much nicer to look at.
Colwyn Bay, Family
Understanding more about the ‘Stay the Same’ Measures

- Drinking water acceptability
- Drinking water availability
- Sewage in the street
- Worst served – low pressure
- Worst served – interruptions to supply
Drinking water acceptability

MEASURE A2 Drinking Water Acceptability
- This measure of success is derived from the number of contacts received from customers in the calendar year regarding the appearance, taste and odour of drinking water per 1,000 population
- DCW report the number of contacts to the Drinking Water Inspectorate who publish this information as an industry comparator
dwrcymru.com

MEASURE A2 Drinking Water Acceptability
The reason for the contacts being higher in Wales (and the North West of the UK) is related to type of source water - typically soft and high in manganese
External research corroborates this

MEASURE A2 Drinking Water Acceptability
Welsh Water Historic Performance

MEASURE A2 Drinking Water Acceptability
Welsh Water Performance in Comparison to Other Companies (2015)

MEASURE A2 Drinking Water Acceptability
Welsh Water Performance in Comparison to Other Companies (2015)
Drinking water acceptability

Important issue but current levels of drinking water appearance, taste and odour are acceptable for the vast majority of participants.
Drinking water acceptability

Generally positive experience means most happy with status quo

**Overall response**
- Critical importance
- Generally positive experience
- Welsh water tastes and looks good
- Trust Welsh Water to deliver high quality product
- Recognise Welsh Water’s rural footprint – more challenging than other water companies
- Therefore even with comparatively poorer performance (map and graphs), customers are satisfied

**Investment**
- WTP = very limited
- Happy with status quo
- 2.3 out of 1,000 households feels very low
- Historic performance shows reduction in contacts
- Proportional decrease in contacts for significant bill rises are unjustified
- Minority in Hereford, where limescale was a concern, would accept an increase
Drinking water acceptability

No-one should have to worry about water quality
Cardiff, Pre-Family

I have never had any issues with my water and I don’t know anyone who has
Haverfordwest, Business

I always feel glad to get back to Wales because of the water
Haverfordwest, Business

Not a big issue and some people just like to complain because they have nothing to do
Hereford, DE

I have never had any issues with my water and I don’t know anyone who has
Haverfordwest, Business
Drinking water availability

Drinking water availability is a measure of how reliable our service to customers is. Welsh Water record all interruptions to supply greater than 3 hours, and the total number of minutes lost is then averaged across the total number of customers supplied to give us the average minutes lost per customer. This includes interruptions to supply which are planned, unplanned or caused by third parties. Reasons why supply can be interrupted can be due to leaking or burst pipes. Hot and dry or freezing cold weather can make the ground expand or contract around water mains pipes, making them more likely to burst. In some cases it can take a long time to repair or replace the pipe because they are in built up areas and are difficult to get to. Sometimes it can also take time to find the exact part of the pipe which is broken as it is deep underground.

dwr.cymru.com

Welsh Water historic performance

Welsh Water performance in comparison to other companies (2015):
A continuation of current service levels is favoured by the overall majority of participants.
## Drinking water availability

Current levels are good, measuring only 3 hours plus also feels acceptable

### Overall response
- Continuous supply is critically important
- Business and vulnerable customers need zero interruptions and general households require minimal interruptions
- Generally positive experience
- Minority had unplanned interruptions for 4-6 hours but purchased bottled water, went to friends, etc
- Up to 3 hours planned = no problem to get by e.g. fill buckets, buy bottled water
- Welcome text messages with estimates or advice e.g. run tap for a while once back on

### Investment
- WTP = very limited
- 12.2 minutes to 10 minutes = £5 for 2 minutes improvement feels unjustified
- Some concerns about expressing this as an average
  - Loses meaning
  - Up to 3 hours = acceptable
  - More than 12 hours = unacceptable
- Expect future technology to eradicate supply interruptions e.g. self mending pipes, etc
Drinking water availability

We are just a bit spoiled in this country. I mean managing without water for 3 hours, even a day would be possible. Hereford, AB

This feels a bit of a non issue! Haverfordwest, C2

It looks like its improved over time. Cardiff, Business

I think it would probably depend on time of day but 3 hours is just an inconvenience…not a real problem. Colwyn Bay, Family
MEASURE X14

Sewage in the Street

Welsh Water Performance in Comparison to Other Companies (2015)

Welsh Water Historic Performance

Show video: http://www.wearewelshwater.com/#/content/reducing-blockages-on-our-wastewater-network

The number of incidents of sewage in the street, flooding to gardens, highways, fields, car parks

Reasons for external sewer flooding include climate change, heavy storms, population growth, paving over of soakaways, people putting unsuitable products down the sink

Welsh Water is committed to reducing the risk of sewage flooding as one of our highest priorities as it has an unacceptable impact on our customers, implications for public health and the environment

About 5% of floods are counted as severe, 65% are in gardens and on drives, 22% are in highways.
Although this is felt to be shocking, majority would keep the bill as it is now and see a continuation of current service levels.

66% in Haverfordwest are willing to see their bill increase by £1 for fewer properties to be affected by sewage in the street - significantly more than in other locations.
Sewage in the street

Low WTP for improvements and feel that this is about customer responsibility and education

Overall response
- Important area but not as bad as sewage in the home
  Considered to have emotional, practical and health implications
- Combination of education, network investment and working with local authorities/construction companies to reintroduce soakaways
- As with sewage in the home, more pressure on manufacturers to be responsible
- Introduce statutory stickers/regulation on public conveniences e.g. pubs, restaurants, parks

Investment
- WTP = low
- Looks like DCWW are making small improvements already
- Although £1.00 is small amount, it doesn’t feel like it makes a big enough impact on the number of properties affected (only 200)
- Only 5% of floods are severe – so is it a key concern?
- More about encouraging behavioural change than spending money if 30% of the blockages are on customers private pipes
Sewage in the street

You probably need more graphic images of the impact of fat in the drains.
Haverfordwest, C1

You need to manage the soakaways as all this rainwater is going into the drains and then they flood back.
Haverfordwest, C1

It's important but better in the garden than in the house.
Cardiff, Retired

You should keep the bills the same but threaten people who put fat down the drains with an increase in bill.
Colwyn Bay, Pre-Kids

You just need to educate people. I mean you wouldn't dream of doing this abroad.
Colwyn Bay, Pre-Kids
Worst served customers

MEASURE D2

Worst Served Customers

- Unfortunately, a small number of our customers do not experience the high level of service that most of our customers enjoy.
- These are the customers who suffer from repeat problems with the services that Welsh Water provides for example:
  - Repeated interruptions to supply
  - Sewer flooding (in the home or adjoining properties)
  - Significantly low water pressure
- The aim is to reduce the number of customers affected repeatedly by poor service
dwcmhc.com

MEASURE D2

Worst Served Customers

Welsh Water Historic Performance

- Customers on At Risk Register
- Worst Served Customers

Number of Customers

MEASURE D2

Worst Served Customers

Persistent Low Water Pressure

- This affects taps, showers and boilers. For example, it could take a long time to fill a sink or bath and a normal shower system may not work properly.
- It happens persistently. For example, it always at peak times such as weekday breakfast times, and may particularly affect people at the top of tall buildings or properties at tops of hills
- We are only talking here about where pressure is low in Welsh Water’s pipes. Households may receive inadequate pressure because, for example, they share a supply with one or more other properties and this is a problem with their private pipes. This is not Welsh Water’s responsibility.
- There are currently 35 properties affected by persistent low water pressure due to low pressure in Welsh Water’s pipes
dwcmhc.com

MEASURE D2

Worst Served Customers

Repeated Risk of Sewer Flooding

- Sewer flooding occurs when sewage escapes from a pipe, through a manhole, from a drain or by backing up in a building.
- The flooding can be caused by:
  - A blockage within the sewerage system. For example, this could be because people flush the wrong things down the drain (fat, grease, mosses, sanitary items) or because the sewer is damaged by tree roots or collapse
  - Equipment failure
  - Hydraulic overload, i.e. the sewer cannot cope with the amount of sewage and rawwater flowing through it, often in times of rain storms
  - Sewer collapse, i.e. the sewer pipe has collapsed blocking the flow of sewage
- Welsh Water are committed to addressing these problems by reducing the number of properties that are at repeated risk of sewer flooding as well as taking mitigating measures to either reduce the risk or deal with the severity of the flooding where permanent solutions aren’t economically feasible
dwcmhc.com

MEASURE D2

Worst Served Customers

Sewer Flooding

Welsh Water’s Historic Performance

- Drinking water availability is a measure of how reliable our service to customers is
- Welsh Water record all interruptions to supply greater than 3 hours
- A small number of properties experience 3 or more such interruptions each year
- These properties are affected for a number of very local issues such as problems is small pumping stations or short sections of pipes that are difficult to fix
- There are currently 1,400 properties affected in this way
dwcmhc.com
Worst served customers – persistent low water pressure

Just over half of participants would choose the status quo for worst served customers with regard to persistent low water pressure.

Those in Haverfordwest are significantly more willing to see a 35p increase in bill to lower the number of properties affected.

---

As now: 35 properties affected by persistent low water pressure due to low pressure in Welsh Water’s pipes, current bill
10 properties affected by persistent low water pressure due to low pressure in Welsh Water’s pipes, £0.25 increase in annual bill
No properties affected by persistent low water pressure due to low pressure in Welsh Water’s pipes, £0.35 increase in annual bill

<table>
<thead>
<tr>
<th>Location</th>
<th>As now</th>
<th>35p increase</th>
<th>No properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hereford</td>
<td>74</td>
<td>8</td>
<td>18</td>
</tr>
<tr>
<td>Colwyn</td>
<td>77</td>
<td>7</td>
<td>16</td>
</tr>
<tr>
<td>Haverfordwest</td>
<td>23</td>
<td>5</td>
<td>73</td>
</tr>
<tr>
<td>Cardiff</td>
<td>56</td>
<td>15</td>
<td>29</td>
</tr>
<tr>
<td>Total</td>
<td>57</td>
<td>9</td>
<td>34</td>
</tr>
</tbody>
</table>

Q8; Base: all participants (180)
The majority of participants feel that the current number of properties affected by interruptions (at least 3 times a year) is acceptable.

Significantly more in Colwyn than in other areas are willing to accept a £4.00 increase in annual bill to reduce the number of properties affected.

<table>
<thead>
<tr>
<th>Area</th>
<th>Willing to Accept £4.00 Increase</th>
<th>Willing to Accept £6.00 Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hereford</td>
<td>95</td>
<td>5</td>
</tr>
<tr>
<td>Colwyn</td>
<td>44</td>
<td>9</td>
</tr>
<tr>
<td>Haverfordwest</td>
<td>89</td>
<td>2</td>
</tr>
<tr>
<td>Cardiff</td>
<td>89</td>
<td>11</td>
</tr>
<tr>
<td>Total</td>
<td>79</td>
<td>18</td>
</tr>
</tbody>
</table>

- As now: 1,400 properties affected by interruptions of over three hours to their supply at least three times a year, current bill
- 1,000 properties affected by interruptions of over three hours to their supply at least three times a year, £4.00 increase in annual bill
- 800 properties affected by interruptions of over three hours to their supply at least three times a year, £6.00 increase in annual bill
Across all participants, current levels of service are slightly favoured over a smaller amount of properties affected by sewer flooding for a £3.98 increase in annual bill.

However, the vast majority of Hereford based participants feel that current levels of sewer flooding are favourable to an increase in bill.
Worst served customers

Persistent sewer flooding drives some WTP amongst households; interruptions and pressure are not such a concern

Overall response
- Generally seen to be a concern if you are one of the minority affected by persistent service failures
- However, no-one considered themselves to be ‘worst served’
- Why are these events happening?
  - Poor building regulations e.g. flood plains, too many properties
- Interruptions/Pressure = inconvenient vs. life changing or particularly challenging
  - Only 35 properties affected (pressure)
- Sewer flooding – response similar to sewer in home

Investment
- WTP for Pressure and Interruptions = overall low
- Improvements made year on year
- Greater WTP for sewer flooding driven by more significant impact on lifestyle AND concerns over rising external sewer figures – why?
- Numbers do feel high though - £6.48 per year, per household to help 648 properties

Sewer flooding is the most powerful measure to use for worst served; once every 5 years feels ok
Persistent pressure feels like a non issue; Interruptions to supply could be increased to 5 interruptions
Worst served customers

God the look of that stuff in home and garden is disgusting. Why is it getting worse?
Haverfordwest, DE

The pressure is inconvenient but not as bad as the waste
Haverfordwest, DE

Selfishly I couldn’t care less
Cardiff, Family

Interruptions aren’t a health issue so you just have to live with it – 3 per year is an issue but it’s not persistent
Hereford, Business

They chose to live at the top of a hill so they have to live with it
Colwyn Bay, Empty Nester
Understanding more about the Importance Measures

- Protecting your service in extreme events
- Bills collected
- Asset health
- Recreational facilities
- Customer service
Protecting your service in extreme events

MEASURE F3 Protecting Your Service in Extreme Events

- Resilience is the ability of Welsh Water assets, networks and systems to anticipate, absorb, adapt, rapidly recover and/or bounce back from a disruptive event.
- This enables the company to protect customers from service disruption in the face of short term shocks and long term pressures.

Even though our assets are designed to withstand inclement weather and other known risks, we constantly face other threats such as those posed by increasingly challenging and volatile climatic conditions, (e.g. flooding, coastal erosion and power failures) as well as crime and terrorism.

There is evidence that the frequency and severity of some of these hazards may be increasing due to the effects of climate change.

Although these risks are beyond our control, we recognise that they can adversely affect the services we provide to our customers and the impact we have on the environment.

Improving the resilience of our assets to the risks associated with such extreme events is therefore a key element of our programme.

Our score looks at our most critical assets and their ability to withstand a set of risks to ensure services continue.


- Asset Resilience Score
- Average resilience score
- Water
- Waste
- 2014-2015

dwrcymru.com
Protecting your service in extreme events

The majority of participants felt this was important and there were no differences by location. In Cardiff where they were given an asset resilience choice option, nine out of ten chose the current bill option.

Cardiff:
- As now: An asset resilience score of 84%, current bill
- An asset resilience score of 87%, £1.25 increase in annual bill
- An asset resilience score of 90%, £3.75 increase in annual bill

<table>
<thead>
<tr>
<th>Location</th>
<th>Very important</th>
<th>Important</th>
<th>Neither unimportant or important</th>
<th>Unimportant</th>
<th>Very unimportant</th>
<th>Not stated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hereford</td>
<td>24</td>
<td>63</td>
<td>5</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colwyn</td>
<td>26</td>
<td>60</td>
<td>9</td>
<td>2</td>
<td></td>
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<tr>
<td>Total</td>
<td>25</td>
<td>62</td>
<td>7</td>
<td>1</td>
<td>4</td>
<td>1</td>
</tr>
</tbody>
</table>

Q21; Base: all participants (180)
Protecting your service in extreme events

Whilst this is important, it is the focus on climate change and flooding that are seen as the real risks

Overall response
• Critical as a business to protect assets
• Important to be aware and prepare for risks
• Climate change is a recognised concern and recent flood coverage in national media makes this real
• Looking for Welsh Water to consider more innovative ways of protecting assets e.g. resilient materials

Importance
• Very/Quite = majority
• Minority who think Welsh Water should not be too future focused
  • Planning for things that don’t happen costs money
  • Some of these feel like low probability events
  • Need to ensure current issues are prioritised e.g. delivery of basics
Protecting your service in extreme events

- Terrorism feels a bit of a red herring
  Colwyn Bay, Family

- They do need to focus on climate change because that going to happen
  Colwyn Bay, Family

- You need to plan ahead and can’t be complacent but there haven’t been any real problems
  Hereford, AB

- I think there should be more focus on flooding than terrorism as there is a limit to what can be done about that

- It’s not majorly important
  Hereford, AB

- The infrastructure should be improved to protect against climate change
Bills collected

- It is illegal for water companies to disconnect a person for not paying their water bill
- Customer debt across the country is increasing
- All water companies need to follow guidelines for debt recovery and send two prompts before progressing to debt recovery action

Welsh Water Historic Performance

Welsh Water Performance in Comparison to Other Companies (2015/16)
Bills collected

90% of all participants consider it important for Welsh Water to focus on ensuring bills are paid; 64% say this is very important.

Q11; Base: all participants (180)
## Bills collected

### Importance of this measure driven by need for WW to control cashflow and for a fair bill system

#### Overall response
- Collecting bills is fundamental part of the business
- Need to separate can’t pay from won’t pay
- Schemes in place for can’t pay so need to be assertive
- More encouragement to start with – carrot vs. stick
- Then important stringent in recovery – and would like to see this speeded up
- Reassured by the debt collection process
- Concerns about the cost of recovering debt – important to contextualise that WW won’t spend more recovering the debt than the debt is worth
- Content that Welsh Water will only chase debts where it makes financial sense

#### Importance
- Very important for majority
  - Efficiency of the business
  - Fairness for all
- Some feel less important
  - Comparative data shows that Welsh Water are doing well compared to other companies
Bills collected

I think it's good that the debt recovery costs are added to the debt. Hereford, C1

Surely repeat non-payers should be disconnected. We are already paying for the disadvantaged. Colwyn Bay, Business

It's not good subsidising people who won't pay. Hereford, C1

Why should we pay when others don't? Cardiff, Empty Nesters

Why should they get away with it? Haverfordwest, AB
MEASURE X31  Recreational Facilities

**Welsh Water**
- Welsh Water have four education centres - Brenig (North East), Cilfynydd (Rhondda Valleys), Elan Valley (Central), Cog Moors (South East)
- These are free of charge and can be used by schools for educational visits
- They are fully equipped with indoor and outdoor classrooms and can be used for experiments
- Welsh Waters aim is to encourage health and enjoyment through outdoor recreation and environmental and conservation education and this is measured by
  - Number of visitors to recreational facilities
  - Satisfaction of visitors with the recreational facilities
  - Number of customers involved in our education programme
- Any three of these could be the measure used...........

dwrcymru.com

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**Welsh Water performance**
- 1 million visitors to our reservoir sites and visitor centres each year
- Over 164,000 children visited our education centres to date

dwrcymru.com
Participants consider it important that Welsh Water focuses on recreational and educational facilities, with 87% finding it either very important or important.

Significantly fewer in Colwyn see this as very important.
Recreational and educational facilities

Majority think this is important but feel it would be useful to separate this measure into education and recreation

**Overall response**
- Education more important than recreation (children and adults)
- Real sense that need to engage with the next generation of water users e.g. Water cycle/history of water plants
- Measuring recreational by number of visitors is key
  - Many unaware of these facilities – although they do talk about children/grandchildren going on school trips ‘somewhere’
  - Satisfaction could be high but of very small base
- Measuring educational element separately
  - Number of children reached including interactive projects with schools
- Potential to monitor visitor numbers and experience via an app

**Importance**
- Very/Quite important for majority
- Supporting information is really exciting
- Education content shows so many interesting things regarding school children
- Some feel that more could be done with Visitor Centres as tourist attractions e.g. decent cafes, etc
Recreational and educational facilities

If you educate kids it sets patterns for future behaviour
Hereford, DE

Definitely important but the educational stuff is more so than the recreational
Haverfordwest, C1

The recreational side is important for the local community and tourism
CAITLYN WHERE?

The thing is we didn’t know anything about these and we are the target market
Hereford, DE

It sounds all very positive but it would be useful to split these out
Cardiff, Pre-Kids
Asset health: damage to sewers

**Asset Health – Introduction**

- Most of what we are talking about today is making improvements to the service you receive.
- Another important priority is maintaining the assets we currently manage which include:
  - 26,500km of water mains
  - Over 30,000km of sewers
  - 838 sewage treatment works
  - 63 water treatment works
  - 66 impounding reservoirs
- We manage the condition of these assets using risk analysis but have choices to make about how fast to invest in asset health. We could take more risk and spend more money on making improvements but then there would be a chance that this area needs extra investment sometime in the future.
- There are two potential measures – mains bursts and damage to sewers.

dwrcymru.com

**Welsh Water Historic Performance**

**Welsh Water Performance in Comparison to Other Companies (2014-2015)**

- This measure is about the number of collapses per length of sewer.
- This is defined as any part of the network that has suffered 50% loss which results in:
  - Sewer flooding in the home;
  - Sewer flooding in the street;
  - Pollution;
  - Loss of service;
  - Odour.

dwrcymru.com
Asset health: damage to sewers

The majority of participants consider it very important that Welsh Water focuses on damage to sewers.

Q15; Base: all participants (180)
Asset health: mains burst

Pipes can burst for many reasons, which can vary over time and between different regions.

- Hot and dry or freezing cold weather leads to the ground expanding or contracting around water pipes, resulting in bursts.
- Older pipes will tend to burst more, and soil conditions can lead to some pipe materials being eaten away.
- In cities and towns, heavy traffic compresses the soil around the pipe and this can damage the pipe.

Welsh Water performance in comparison to other companies (2014-2015):

Welsh Water historic performance:

Welsh Water performance in comparison to other companies (2014-2015):
Most rate a focus on mains bursts as very important – especially likely to be the case in Haverfordwest
Asset health

Considered very important by most customers

**Overall response**

- Important area as this is Welsh Water’s core estate and operational equipment
- Recognise that dealing with very old infrastructure and pipework AND in a much more volatile climate
- Balance needed between new builds and repairs of existing assets
- Advantage of new builds is innovative materials that are more environmentally friendly and sustainable e.g. new pipe work might be more resistant to freezing weather
- BUT essential work needs to be done on ongoing repairs (in partnership with local authorities to minimise disruption)

**Importance**

- Important and want to see Welsh Water investigating more innovative and future proof materials
- Sewer flooding of greater importance than mains bursts
- Sewer flooding = health implication
- Mains bursts = loss of water
- Sewer flooding = getting worse so looks like an urgent issue
- Mains bursts= getting better over time
Asset health

I think you are looking for Welsh Water to invest in predictive tools that identify and repair pipework
Cardiff, Family

That looks like there are more sewer collapses this year than last year – that’s not good
Haverfordwest, DE

You can’t really do anything about the weather
Cardiff, Family

This is a massive issue with all that Victorian infrastructure
Haverfordwest, DE

Mains burst are definitely less important than sewage as that has health implications
Cardiff, Family
Welsh Water aim to provide the best quality service and delivery our vision “to earn the trust of customers every day”.

We measure a number of metrics to monitor and improve the service we provide customers.

- We have recently been using ‘Pain Points’ to identify and measure areas where we could improve customer service. These are split into:
  - Wastewater
  - Clean water
  - Retail (where customers have issues or feel they aren’t getting the help they need)

In 2015-16, of the approx. 3 million calls we had from customers, 300,000 of those who called us had their issue dealt with during their first contact.

Of the 3 million calls approx. 400,000 customers had to call us back to chase us on progress or get an update.

---

**Welsh Water Historic Performance**

**Service Incentive Mechanism (SIM)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013-14</td>
<td>40</td>
</tr>
<tr>
<td>2014-15</td>
<td>45</td>
</tr>
<tr>
<td>2015-16</td>
<td>50</td>
</tr>
</tbody>
</table>

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**Welsh Water Performance in Comparison to Other Companies (2015-16)**

<table>
<thead>
<tr>
<th>Company</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welsh Water</td>
<td>40</td>
</tr>
<tr>
<td>X Company</td>
<td>41</td>
</tr>
<tr>
<td>Y Company</td>
<td>42</td>
</tr>
<tr>
<td>Z Company</td>
<td>43</td>
</tr>
</tbody>
</table>

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**Pain Points Waste Water**

**Impact on Customers (Serious)**

Impact on Customers (Negligible)

---

**Pain Points Water**

**Impact on Customers (Serious)**

Impact on Customers (Negligible)

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**Pain Points Retail**

**Impact on Customers (Serious)**

Impact on Customers (Negligible)
Customer service

There are very few who don’t feel that a focus on customer service is important. Those in Hereford are especially likely to see this as very important.
Customer service

Although many have limited experience of contacting Welsh Water, maintaining service levels is felt to be of considerable importance.

**Overall response**
- Context is high levels of trust in Welsh Water
- Believe that they would receive ‘good’ service if they needed to call
- Delivering good customer service is seen to be a hygiene factor for any business
- Water is such an essential service that dealing with problems efficiently and effectively is critical
- Surprised by some of the figures – only on a par with competitors AND dealing with calls first time (200k out of 1m) feels like a low ratio
  - Why can these not be resolved first time?
- JLP, Amazon, Apple all cited as trustworthy who deliver basics and surprise and delight factors

**Importance**
- Seen as important
- Doing about the same as other companies BUT would have expected DCWW to be better than average
- For the future:
  - Maintain local call centre with local staff who have knowledge of the geography
  - Improve number of issues resolved 1st time
  - Develop livechat facilities and easy to navigate website options e.g. current works/supply interruptions
Customer service

It’s super important to offer a good basic level of customer service
Hereford, Business

You just need to stick with human interaction because if it’s a water issue we will want to speak to someone
Haverfordwest, C2

I find companies like BT just so frustrating when you are put on hold all the time
Hereford, Business

Its companies like Joh Lewis who seem to have this nailed
Colwyn Bay, Empty Nesters

Its companies like Amazon that are great – they deliver when they say they will and have really good information
Colwyn Bay, Family
Customer Valuations – Pilot Data
## Attributes and levels

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Unit</th>
<th>Base</th>
<th>+1</th>
<th>+2</th>
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</thead>
<tbody>
<tr>
<td>Drinking water acceptability</td>
<td>Contacts per 1,000 population</td>
<td>2.3</td>
<td>2</td>
<td>1.6</td>
</tr>
<tr>
<td>Drinking water availability</td>
<td>Average minutes lost</td>
<td>12.2</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>Leakage</td>
<td>litres/property/day</td>
<td>121</td>
<td>117</td>
<td>114</td>
</tr>
<tr>
<td>Preventing pollution</td>
<td>#incidents(Cat 3)</td>
<td>103</td>
<td>90</td>
<td>70</td>
</tr>
<tr>
<td>River water improvements</td>
<td>km improved</td>
<td>0</td>
<td>150</td>
<td>225</td>
</tr>
<tr>
<td>Sewage in the home</td>
<td>Properties</td>
<td>225</td>
<td>200</td>
<td>180</td>
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<tr>
<td>Sewage in the street</td>
<td>Properties</td>
<td>6500</td>
<td>6300</td>
<td>6100</td>
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<tr>
<td>Worst served customers - low pressure</td>
<td>Properties</td>
<td>35</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>Worst served customers - interruptions to supply</td>
<td>Properties</td>
<td>1400</td>
<td>1000</td>
<td>800</td>
</tr>
<tr>
<td>Worst served customers - sewer flooding</td>
<td>Properties</td>
<td>1648</td>
<td>1250</td>
<td>1000</td>
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<tr>
<td>Help for disadvantaged customers</td>
<td>No. customers on social tariffs</td>
<td>100,000</td>
<td>150,000</td>
<td>200,000</td>
</tr>
<tr>
<td>Resilience of wastewater networks to storms</td>
<td>Roof equivalents</td>
<td>25000</td>
<td>40000</td>
<td>60000</td>
</tr>
<tr>
<td>Reducing fossil fuel dependency</td>
<td>% of total energy use</td>
<td>30%</td>
<td>35%</td>
<td>40%</td>
</tr>
<tr>
<td>Protecting your service in extreme events</td>
<td>% Resilience</td>
<td>84%</td>
<td>87%</td>
<td>90%</td>
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</tbody>
</table>
Please select for each element shown the level of improvement you would like to see from Welsh Water.

<table>
<thead>
<tr>
<th>Element</th>
<th>Option A</th>
<th>Option B</th>
<th>Option C</th>
<th>None</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drinking water acceptability (Contacts per 1,000 population)</td>
<td>☑️ 2.3</td>
<td>☐️ 2</td>
<td>☐️ 1.6</td>
<td>☐️</td>
<td>No change to your bill</td>
</tr>
<tr>
<td>Drinking water availability (Average minutes lost)</td>
<td>☐️ 12.2</td>
<td>☑️ 10</td>
<td>☐️ 7</td>
<td>☐️</td>
<td>+£5 every year for 5 years</td>
</tr>
<tr>
<td>Leakage (Litres/property/day)</td>
<td>☐️ 121</td>
<td>☐️ 117</td>
<td>☑️ 114</td>
<td>☐️</td>
<td>No change to your bill</td>
</tr>
<tr>
<td>Preventing pollution (Number of cat 3 incidents)</td>
<td>☐️ 103</td>
<td>☑️ 90</td>
<td>☐️ 70</td>
<td>☐️</td>
<td>+£2.5 every year for 5 years</td>
</tr>
<tr>
<td>River water improvements (km improved)</td>
<td>☑️ 0</td>
<td>☐️ 150</td>
<td>☐️ 225</td>
<td>☐️</td>
<td>No change to your bill</td>
</tr>
<tr>
<td>Sewage in the home (Properties)</td>
<td>☑️ 225</td>
<td>☐️ 200</td>
<td>☐️ 180</td>
<td>☐️</td>
<td>No change to your bill</td>
</tr>
<tr>
<td>Sewage in the street (Properties)</td>
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<td>☐️ 6300</td>
<td>☑️ 6100</td>
<td>☐️</td>
<td>+£2 every year for 5 years</td>
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<tr>
<td>Worst served customers - low pressure (Properties)</td>
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<td>☐️ 10</td>
<td>☑️ 0</td>
<td>☐️</td>
<td>+£0.35 every year for 5 years</td>
</tr>
<tr>
<td>Worst served customers - Interruptions to supply (Properties)</td>
<td>☑️ 1400</td>
<td>☑️ 1000</td>
<td>☐️ 800</td>
<td>☐️</td>
<td>+£4 every year for 5 years</td>
</tr>
<tr>
<td>Worst served customers - sewer flooding (Properties)</td>
<td>☑️ 1648</td>
<td>☑️ 1250</td>
<td>☐️ 1000</td>
<td>☐️</td>
<td>+£3.08 every year for 5 years</td>
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<tr>
<td>Help for disadvantaged customers (No. customers on social tariffs)</td>
<td>☐️ 100,000</td>
<td>☐️ 150,000</td>
<td>☑️ 200,000</td>
<td>☐️</td>
<td>+£0.33 every year for 5 years</td>
</tr>
<tr>
<td>Resilience of wastewater networks to storms (Roof)</td>
<td>☑️ 25000</td>
<td>☐️ 40000</td>
<td>☐️ 60000</td>
<td>☐️</td>
<td>No change to your bill</td>
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</tbody>
</table>
## Costs (£/hh/yr)

<table>
<thead>
<tr>
<th>Attribute</th>
<th>+1</th>
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<tbody>
<tr>
<td>Drinking water acceptability</td>
<td>£6.00</td>
<td>£16.00</td>
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<tr>
<td>Drinking water availability</td>
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<tr>
<td>Leakage</td>
<td>£0.66</td>
<td>£1.10</td>
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<tr>
<td>Preventing pollution</td>
<td>£2.50</td>
<td>£7.50</td>
</tr>
<tr>
<td>River water improvements</td>
<td>£2.50</td>
<td>£3.75</td>
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<tr>
<td>Sewage in the home</td>
<td>£0.25</td>
<td>£0.45</td>
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<tr>
<td>Sewage in the street</td>
<td>£1.00</td>
<td>£2.00</td>
</tr>
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<td>Worst served customers - low pressure</td>
<td>£0.25</td>
<td>£0.35</td>
</tr>
<tr>
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<td>£4.00</td>
<td>£6.00</td>
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<tr>
<td>Worst served customers - sewer flooding</td>
<td>£3.98</td>
<td>£6.48</td>
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<td>Help for disadvantaged customers</td>
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<td>£0.33</td>
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<tr>
<td>Resilience of wastewater networks to storms</td>
<td>£3.03</td>
<td>£7.06</td>
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<tr>
<td>Reducing fossil fuel dependency</td>
<td>£1.25</td>
<td>£2.50</td>
</tr>
<tr>
<td>Protecting your service in extreme events</td>
<td>£1.25</td>
<td>£3.75</td>
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</tbody>
</table>
## Overall summary – £11.19 overall bill impact

<table>
<thead>
<tr>
<th>Description (Details)</th>
<th>Option A</th>
<th>Option B</th>
<th>Option C</th>
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<td>Sewage in the home (Properties)</td>
<td>☐ 225</td>
<td>☑ 200</td>
<td>☑ 180</td>
<td>☐</td>
<td>+£0.45 every year for 5 years</td>
</tr>
<tr>
<td>Sewage in the street (Properties)</td>
<td>☐ 6500</td>
<td>☑ 6500</td>
<td>☐ 6100</td>
<td>☐</td>
<td>+£1 every year for 5 years</td>
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<tr>
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</tr>
</tbody>
</table>

**Your choices result in total bill change of +£11.19**
(This would take your bill from £520 to £531.19)
Survey performance statistics very good

Did you generally feel able to make comparisons between the options presented to you?

- Yes: 95.8%
- No: 4.2%

Did you find each of the levels of service we described easy to understand?

- Yes: 97.2%
- No: 2.8%

Were any of the service levels we showed you so low or so high that you felt they were unrealistic?

- Yes: 5.6%
- No: 94.4%

- The vast majority generally felt able to make comparisons in the SP exercises
- …and found each of the levels easy to understand.
- Very few found any levels to be unrealistically low or high.
A package costing £11.19/hh/yr was chosen on average, with:

- +1 improvements to ‘leakage’, ‘preventing pollution’, ‘river water improvements’, ‘sewage in the street’, and ‘protecting your service in extreme events’
- +2 improvements to ‘sewage in the home’, ‘help for disadvantaged customers’ and ‘reducing fossil fuel dependency’
- Base service level chosen for all others.

Issues rated as very important by most included bills collected, customer service, and the two asset health measures. Educational and recreational facilities were rated as at least quite important by most.
Any questions please contact us
0208 742 2211