

Draft Water Resources Management Plan

Appendix G: Our preferred plan

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Appendix G: Our preferred plan

As all our water resource zones are in surplus we have no driver to build more supply side options.

We have therefore focussed our efforts on improving the environment by:

- Reducing leakage
- Helping customers use less water
- Supporting private water supplies
- Implementing catchment level improvements to eco-systems and biodiversity

G1 Reducing Leakage

Leakage currently makes up 22% of the total amount of water we put into supply (around 13MI/d). While there is no supply / demand driven need to reduce leakage, we aim to reduce leakage by 50% by 2050 because:

- Our customers told us they think too much water is being lost through leakage;
- Throughout our pre-consultation process, we have heard that leakage is a key concern and that we should do more to reduce it. At the same time, Ofwat and other key stakeholders have given a clear message to the water industry that they expect to see ambitious and innovative leakage reduction programmes in the next water company business plans in PR24;
- It will help us in achieving our goal of being Net Zero by 2030 as we would need to treat less water to put into supply, reducing our energy use for pumping and through the treatment process and reducing our carbon footprint, and;
- Abstracting less water to treat and put into supply will leave more in the environment, helping to improve the aquatic environment.

We are committed to achieving our long term ambition of a 50% reduction. However, as we have a supply demand surplus, we have a choice over the pace of reduction over the short term (2025 to 2030).

We explored options to reduce leakage by 5%, 10% and 15% by 2030 and concluded that a 10% reduction (shown in Figure G1.1) by 2030 strikes the right balance as:

- All our water resources zones are projected to remain in supply / demand balance surplus during the current water resources planning horizon, even without further leakage reduction;
- Our customers want us to be ambitious and reduce leakage;
- A 10% reduction is stretching and beyond the sustainable economic level of leakage and we have other areas of risk that require investment.

We have reduced leakage by 6%, or 1 MI/d, between 2019 and 2022 putting us in a good place to achieve our 15% leakage reduction target by 2025.

Our current strategy to drive down leakage through a mix of active leakage control, pressure management and mains renewal will continue. Initial modelling indicates that activity levels will need to step up as we drive leakage lower. We have included costs in our plan to achieve the 10% reduction by 2030.

In the longer term we will need to find a better way to reduce leakage on our customer owned service pipes (which currently accounts for 25% of total leakage). This may mean implementation of smart meters and

transfer of ownership so that we may efficiently renew them. We will set out these options as part of our PR24 adaptive planning process.

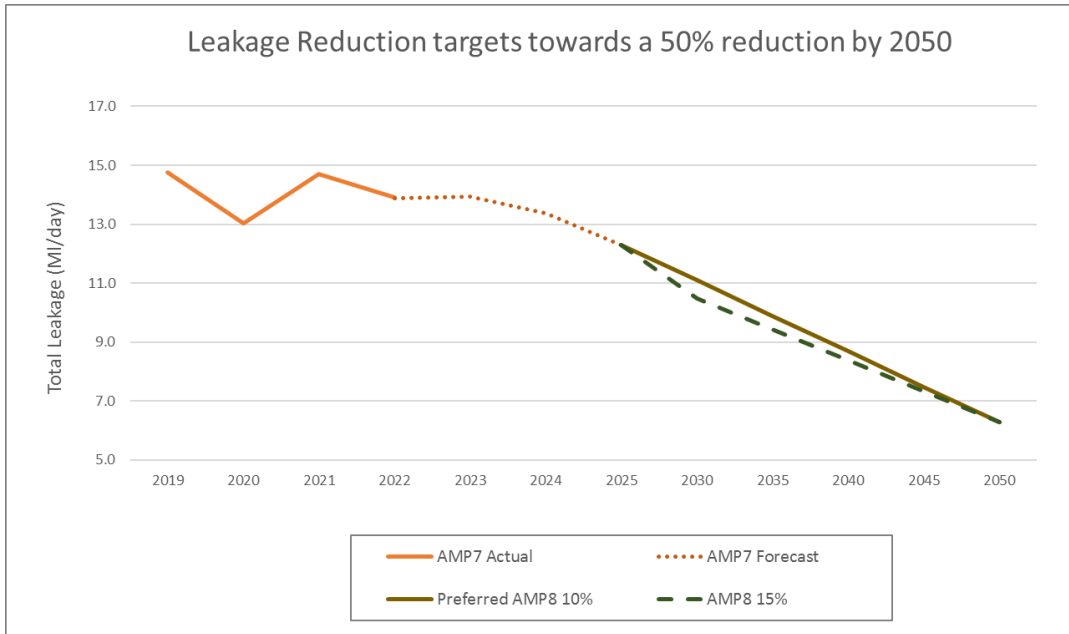


Figure G1.1: Proposed glidepath to achieve the 50% leakage reduction by 2050

Table G1.1 shows our proposed glidepath for achieving 50% leakage reduction by 2050.

Table G1.1: Leakage reduction in each five year period

2030	2035	2040	2045	2050
10%	12%	12%	14%	15%

G1.1 Cost of leakage plan

We have used our new whole life cost model (WiSDM) (for more detail on this see Appendix G) to assess the amount of investment required in active leakage control, pressure management and mains renewal to achieve our long term leakage reduction targets. The outcome of this analysis is shown in the Figure G1.2, with full costs shown in WRMP Table 8.

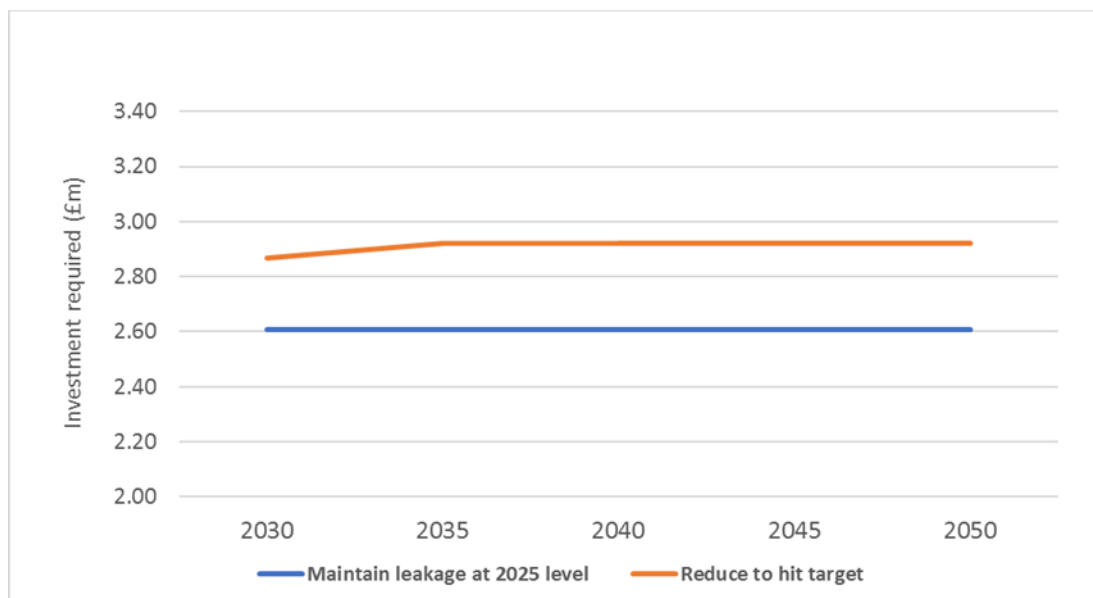


Figure G1.2: Cost of achieving 50% leakage reduction vs maintaining leakage at current level

G2 Helping customers use less water

Our plan focusses on education, enhanced water efficiency support and our free meter optant programme.

G2.1 Water Efficiency

During 2020 to 2025 we plan to deliver a 4.2% reduction in per capita consumption in our region. In 2025 to 2030 and beyond we will implement a baseline water efficiency programme in line with our understanding of the requirements of our statutory water efficiency duty (Section 93A of the Water Industry Act) and the expectations of NRW and Welsh Government.

In developing our plan, we have considered the relevant guidance and sought out evidence from other groups, for example:

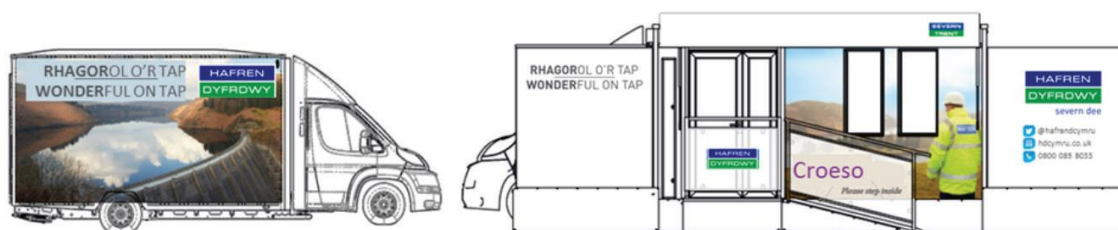
- Waterwise Evidence Base Reports
- Data and insight from our own water efficiency programmes, also utilising data from Severn Trent
- Evidence from other water industry reports and from third parties.

We have included the following options in our water efficiency programme:

- Provide free and subsidised water saving devices to our customers. We currently offer a range of devices to our customers and expect this approach to continue, with additional devices added to our range. In the past year we have added: toothy timer, garden kits and kitchen swivel tap aerators.
- Social housing home water efficiency checks - working with housing associations where we will carry out an assessment of current use within a customers' property to include:
 - Engagement on how the customer can reduce their water use through simple changes of behaviour
 - Installation of water saving devices
 - Repair of leaks on internal fittings where it is simple to do so.

- Schools Education – as part of our ongoing schools’ education programme we visit schools across our area to talk to pupils about water and how to use it more wisely. We offer in person assemblies and classroom sessions which we can also offer remotely if required. This option was developed during Covid-19 but is still offered if required. We also offer interactive content on our website.
- General customer education – we continue to engage customers at events and through our regular comms messaging which we intend to increase to understand if this will drive more traffic to our website and increase uptake of water efficiency devices.

We propose to introduce a community vehicle to help engage more customers on the services we offer including the availability of water efficiency advice and products.



G2.2 Cost of our water efficiency proposals

Some of this activity is contained in our base plan so we have included only what we consider to be enhancement activity.

This is made up of

- Social housing home water efficiency checks - in partnership with local councils and housing associations at an assumed cost of £40,000 per year, and;
- Purchase and kitting out of a community engagement and education vehicle at an assumed cost of £73,000

G2.3 Metering

As all of our water resource zones are in surplus and we are not considered to be an area under severe water stress, we lack the necessary authority to install smart meters for all our customers. Our customer research shows limited appetite from our customers to universal metering.

We may undertake a limited trial of smart meter technology between 2025 to 2030 to understand what smart metering technology would work in upland rural areas with limited access to power and telecoms.

We will continue to offer our customers the free meter option and will continue with our maintenance strategy to replace old or broken meters reactively.

Our metering plan (as reported in our accompanying WRMP Table 8) is limited to offering free meters to customers who wish to have a water meter installed. By 2050 we expect this approach to increase the number of customers metered to approximately 70%. The number of households we forecast to request a free meter over the next 25 years is shown in Table G2.1.

Table G2.1: Forecast number of meter optants installed in each five year period

2030	2035	2040	2045	2050
2,068	1,957	1,852	1,752	1,658

We do not factor in any consumption reduction from this activity as the customers who switch tend to be low water users.

At a unit cost of £247, this programme will cost approximately £510,000 between 2025 and 2030.

G3 Private water supplies

Welsh Government policy guidance is to “consider local multi-sector needs, such as agriculture and businesses, that have ability to switch to mains during peak demand periods and how you could support, where reasonably practicable, private water supplies during times of peak demand such as dry weather/ freeze thaw”

A report for Welsh Government entitled ‘Reducing uncertainty in private water supply demands in Wales’ (May 2021) identified that the highest number of private water supplies are in the mid Wales region, as shown in Figure G1.3. It estimated that the total water consumed is equivalent to 7% of our total company distribution input (the amount of water we put into supply) but is 15% if considering our Powys area in isolation.

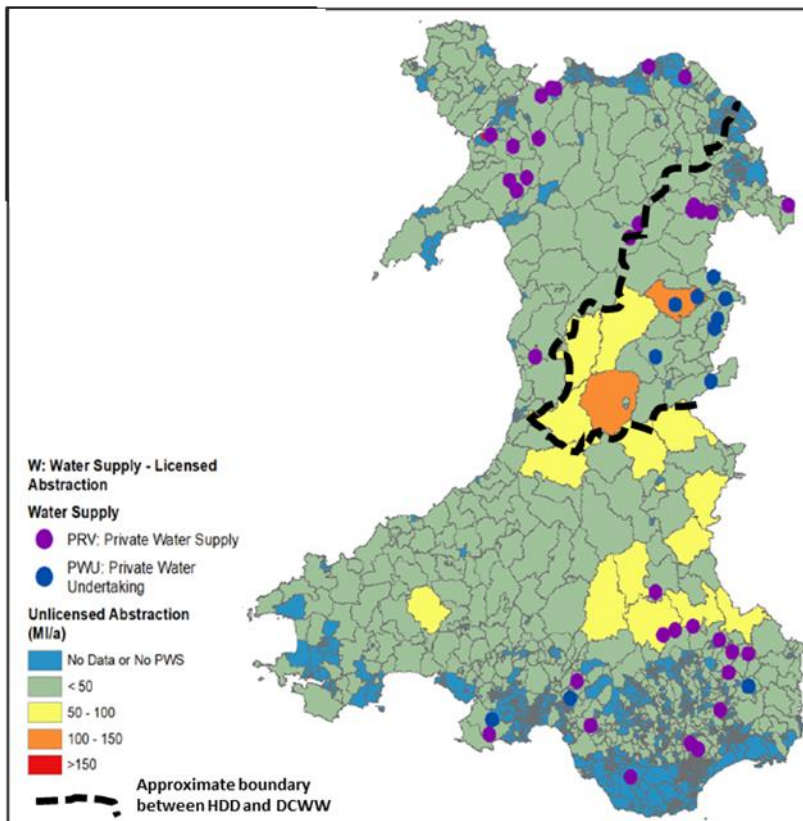


Figure G1.3: Location and estimated volume of private supplies (Arup 2021)

Our emerging investment plan will cover:

- **Support with alternative supplies** – tanks, access to raw water reservoirs for the farming community to use in times of agricultural drought
- **More granular analysis** using GIS to identify possible low cost opportunities to connect domestic private supplies from 2030 onwards.

We aim to engage with communities relying on private supplies to understand their experiences, aspirations and whether we can learn anything from our water efficiency work.

We continuing to investigate options and their costs. Our latest estimate of costs is £300,000.

G4 Implementing catchment level improvements to eco-systems and biodiversity

Over the last few years, there has been significant investment by the water industry and other large scale abstractors to protect and improve the environment by reducing the adverse impact of abstractions on ecosystems. However, our ecosystems are facing unprecedented challenges, which is reflected in the declaration of a climate emergency by Welsh Government in addition to the over-whelming evidence for biodiversity decline in Wales. By setting an ambitious strategy for ecosystem resilience we can work with regulators to help enhance biodiversity through our water resources activities whilst ensuring a plentiful supply to customers – this strategy is also known as our environmental destination.

NRW have set out a clear set of principles that we will follow in developing our environmental destination:

- Deliver demonstrable benefit for the environment;
- Consider the appropriate scale (spatial and temporal);
- Consider multiple benefits;
- Use a collaborative approach;
- Take account of all relevant evidence, and;
- Adaptive management.

Details of our environmental destination programme can be found in Appendix D. We are not proposing to build any water resources schemes as part of our environmental destination programme and have therefore not included any costs for it in this dWRMP. We will provide cost details in our PR24 business plan.