



Welsh Water 2050

CONSULTATION SUMMARY | MARCH 2018



WELSH WATER 2050 – TO BECOME A TRULY WORLD CLASS, RESILIENT AND SUSTAINABLE WATER SERVICE FOR THE BENEFIT OF FUTURE GENERATIONS



CONTENTS

- FOREWORD: PLANNING AHEAD TO 2050 | 04
- INTRODUCTION | 12
- THE DEVELOPMENT OF WELSH WATER 2050 | 16
- FUTURE TRENDS | 18
- OUR STRATEGIC RESPONSES | 22
- THE FUTURE OF WELSH WATER | 34
- VALUE TO CUSTOMERS | 40



FOREWORD:

PLANNING AHEAD TO 2050 TO ENABLE US TO EARN THE TRUST OF FUTURE GENERATIONS OF CUSTOMERS

AT WELSH WATER,
OUR VISION IS SIMPLE;



TO EARN
THE TRUST
OF OUR
CUSTOMERS,
EVERY DAY



That vision reflects our unique ownership structure: We have no shareholders and so can concentrate solely on delivering the best possible value for money to our customers. All the profits that we make are reinvested in the business to improve outcomes for our customers and the natural environment, or are used to benefit customers, for example in helping to fund lower prices for over 100,000 of our most disadvantaged households.

We believe that a further benefit of our “not for profit” ownership model is that it makes it easier for us to really focus on the long-term, which is particularly important for us as the provider of an essential public service, with very long lived assets.

This opportunity to plan for the next thirty years differentiates us from the water sector as a whole, which traditionally only plans for the next five years. This long-term focus is not new for us at Welsh Water. Back in 2008, we published a long-term vision document “Our Sustainable Future”, to guide our future business planning.

This document sets out, for example, our innovative RainScope approach, which has the challenging aspiration of preparing urban sewerage systems across the area we serve for the flooding challenges that they will face in future due to the effect of climate change.

Guided by the RainScope strategy, we are now nearly ten years into a programme of retrofitting sustainable urban drainage solutions (SUDs) into post-industrial communities such as Llanelli, western Swansea and the Grangetown area of Cardiff.

Whilst this internationally recognised work will need to continue for at least a further generation, it well demonstrates the importance of making a start to address such long-term emerging challenges, so that we do not store up problems for future generations, just because they cannot be fully addressed in any single investment planning period.



OVER 20,000
CUSTOMER RESPONSES
TO OUR SURVEY



BUILDING ON THIS LONG-TERM APPROACH, IN 2016 THE BOARD OF WELSH WATER TOOK THE DECISION TO ACCEPT A NEW CHALLENGE:



WELSH WATER 2050 –
TO BECOME A TRULY
WORLD CLASS, RESILIENT
AND SUSTAINABLE WATER
SERVICE FOR THE BENEFIT
OF FUTURE GENERATIONS



We published a detailed “Welsh Water 2050 Consultation Document” in the spring of 2017, following an extensive review of international best practice in resilience planning, aided by independent consultants Arup and by Cardiff University.

An important output of this preparatory work had been the formulation of a bespoke Welsh Water Resilience Framework (the “Resilience Wheel”) which captures all aspects of what it is to be a truly resilient and sustainable water service for the long-term.

We have had a great response to our Welsh Water 2050 consultation exercise and we are really grateful to all those customers and institutions who took the time to share their views with us.

WE RECEIVED:

- Over 20,000 customer responses to our survey, through an innovative variety of digital and face to face methods
- Detailed and ongoing input from customers through our online community, a range of customer focus groups and our new ‘Youth Board’;
- A very successful Stakeholder launch event, and another involving around 50 of the Members of Glas Cymru, and
- 17 detailed responses from Stakeholder Groups and other interested parties.

We have been able to discuss all of this input over the period with our Customer Challenge Group and we are particularly grateful for their time and input into this complex process.

Through this engagement process, we have received a wide variety of very useful feedback. The overwhelming response from customers is that they do support us in taking a long-term approach to planning for the future of the water service we provide.

As they become more engaged with the potential issues, most customers do expect Welsh Water to be taking the right long-term decisions today, so as to protect the public health and natural environment that will be enjoyed by future generations of customers.

In most, but not all cases, this is seen as a higher priority than minimising the cost of the water service to current customers.

However, customers do rightly expect us to be as efficient and innovative as possible in planning future investment in the business, so that we can minimise any future increased cost to customers.

A clear theme amongst customers is that they generally have very high levels of trust in Welsh Water, in part due to our “not for profit” ownership model, which in turn is reflected in generally high levels of support for our long-term plans.

We have also taken on board very useful specific feedback from customers and stakeholders, so that our final document reflects the key themes raised by respondents; it:

- Explains the eight key challenges and opportunities (“trends”) that we need to respond to in our long-term planning
- Sets out 18 Strategic Responses (including three additional ones following consultation) that we will need to pursue over the coming decades to meet these challenges and take advantage of these opportunities; grouped around the water cycle elements of “drinking water”, “customer and communities” and “environment”

- Makes clear the importance attached to aspects of particular importance to stakeholders, including affordability, serving customers in circumstances which can make them vulnerable, and our role in helping to promote healthy ecosystems and biodiversity,
- Demonstrates the crucial role of efficiency and innovation, if we are to be able to invest at the rate necessary to meet our long-term challenges, whilst keeping future bills affordable for customers, and

- Illustrates the crucial importance of working with others to help us deliver our responsibilities more efficiently and also to help us play our part in helping to deliver wider social “Well-being Goals”, as set out in the Welsh Government’s Well-being of Future Generations Act.

The final Welsh Water 2050 document now sets out our vision of what a truly resilient and sustainable water service might well look like in 2050.

KEY DELIVERABLES FOR CUSTOMERS WITHIN THAT VISION INCLUDE:

- Good value for money for customers as a whole – with any increase in bills being affordable in relation to average household disposable incomes;
- Affordable services for all, with every household receiving a bill which is fair and which they can afford; and
- A fully resilient business – in terms of its people, assets, governance, finance and culture – which is ready to meet the challenges beyond 2050.

Welsh Water 2050 now provides a clear, long-term framework for our future business planning. The next step for Welsh Water is to publish our Business Plan for the next three, five-yearly Asset Management Periods (AMPs), with particular detail and emphasis on our plans for customers in the five years to 2025.

Each AMP plan will need to set out clear deliverables which demonstrate appropriate progress towards the achievement of the 18 strategic responses set out in Welsh Water 2050, in a way that is prioritised by the issues of greatest risk or importance to customers, and at a rate of improvement which is affordable for customers given the expected financial environment over that period.



WELSH WATER 2050 NOW PROVIDES A CLEAR, LONG-TERM FRAMEWORK FOR OUR FUTURE BUSINESS PLANNING



The Business Plan will include a wide ranging suite of Measures of Success (MOSs), which will measure the progress that we are making against each strategic response and also against each segment of the "Resilience Wheel".

We will be publishing an annual performance report to customers, showing outturns for each of these measures against the targets contained in our Business Plan, so that customers and observers can form their own judgement as to how well we are doing in making progress towards our Welsh Water 2050 objectives.

We also envisage a substantial exercise each five years to review our long-term vision and resilience model, with specialist independent input and a wide-ranging

opportunity for customers and other stakeholders to get involved and influence our decision making.

THIS WIDE RANGING REVIEW WILL NEED TO INCLUDE, IN PARTICULAR:

- How is international best practice in resilience planning developing?
- How are the challenges and opportunities first identified in Welsh Water 2050 evolving?
- Do we still have the correct Strategic Responses?
- What progress have we made towards the achievement of those strategic responses and how do we now benchmark our overall business resilience against the attributes of the "Resilience Wheel"?

- What should be our priorities for progress in the then forthcoming investment periods? and
- What is an affordable rate of progress over the coming period, in light of the views of customers?

Welsh Water is committed to this ongoing process of consulting, reviewing, adapting and improving our long-term vision and plans.

On that basis, we will be able to say with confidence to our customers that they can place their trust in us to provide them with a good value, resilient public service, both now and long into the future.



C.A. Jones

CHRIS JONES

Chief Executive
Welsh Water



INTRODUCTION

Welsh Water is proud to provide essential public services in the management of the water cycle to over three million people across most of Wales and some adjacent parts of England.

AS AN ESSENTIAL PUBLIC SERVICE PROVIDER, WE MUST:

- Plan for the very long-term, so that we can aim to protect future generations from potential challenges (such as climate change) and take full advantage of potential opportunities (for example, new technology and data analysis);
- Be customer-led in everything we do – both in terms of our day to day activities and also in developing our plans for the future;
- Work in partnership with many other organisations, to ensure that we play our part in delivering society's wider goals;

- Have the best people to deliver the best outcomes for our customers;
- Constantly look for opportunities for research, innovation and adoption of best practice to help us deliver a better and more efficient service to our customers;
- Provide a high quality service in which all of our customers can place their trust in; and
- Ensure that this service represents good value for money and is affordable for our customers.

IN 2013, FOLLOWING INVOLVEMENT OF 1,000 OF OUR COLLEAGUES, WE ADOPTED A CLEAR VISION FOR OUR BUSINESS, WHICH IS:



TO EARN
THE TRUST
OF OUR
CUSTOMERS,
EVERY DAY



This strategy, Welsh Water 2050, is part of our plan to realise this vision in a rapidly changing world.

From our extensive customer research and continued tracking of customer sentiment, we understand that we serve many differing groups of customers, with individual wants, needs and expectations of our services.

WE HAVE DEVELOPED SIX CUSTOMER PROMISES TO REFLECT THE SERVICE WE SHOULD PROVIDE TO ALL OF OUR CUSTOMERS:

Safe, clean water for all

Safeguard our environment for future generations

Put things right if they go wrong

Personal service that's right for you

Fair bills for everyone

A better future for all our communities

Above all, customers place a particular emphasis on the reliability of essential services – the provision of safe drinking water, and the protection of the environment.

They expect us to protect them against short-term shocks (for example, extreme storms or unexpected technical failures in assets) and longer-term stresses (for example, population change and climate change).

They also need to know that they can trust us to anticipate future trends that present challenges to service reliability, and opportunities to improve it. They want to be sure that we are taking the necessary action to ensure that the services we provide are resilient to future trends.

We have developed Welsh Water 2050 to respond to these customer priorities, and to ensure that we can continue to deliver our customer promises and achieve our vision in the context of a changing world.

THIS IS ENCAPSULATED IN OUR WELSH WATER 2050 MISSION STATEMENT:



WELSH WATER 2050 – TO BECOME A TRULY WORLD CLASS, RESILIENT AND SUSTAINABLE WATER SERVICE FOR THE BENEFIT OF FUTURE GENERATIONS



WELSH WATER 2050 IS BUILT ON FIVE KEY ELEMENTS:

- The Welsh Water customer promises;
- A review of future trends;
- The Welsh Water Resilience Wheel and assessment;
- Welsh Government policy and strategy – with particular alignment to the Well-being of Future Generations Act; and
- Extensive feedback from customers and stakeholders collected during the Welsh Water 2050 consultation in summer 2017.



THE DEVELOPMENT OF WELSH WATER 2050

The process used to develop this strategy is based on global resilience best practice set in the context of Welsh Water's operating area, including the legislation and policy of the Welsh Government.

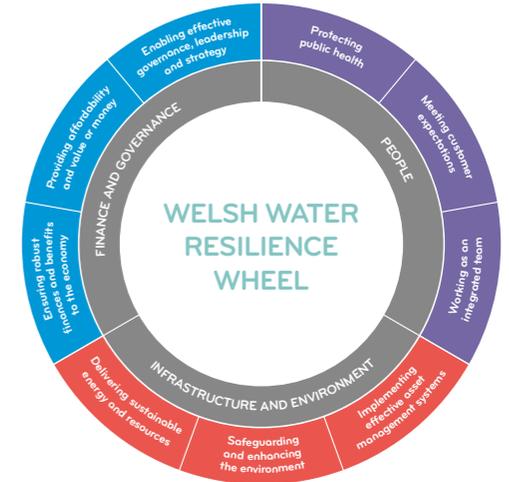
Working with Arup (a global multi-disciplinary consultancy firm) and Cardiff University, we have undertaken horizon scanning to identify significant future trends for our customers and our business, and developed a Resilience Wheel.

In this context, resilience encompasses all aspects of our business, including assets, systems, people and governance.

The Resilience Wheel was developed by drawing on best practice from a range of institutions and cities around the world, including existing resilience guidance, methodologies, frameworks and strategies.

This included the City Resilience Index, developed by Arup with support from the Rockefeller Foundation, and Ofwat's Towards Resilience, developed to challenge the water utilities sector and to inform Ofwat's work.

The Resilience Wheel provided an independently facilitated assessment of Welsh Water's current resilience performance, and forms the basis for the strategic responses identified in Welsh Water 2050. We will regularly assess our progress against this Wheel, and set ourselves objectives to improve our resilience in line with the Welsh Water 2050 mission statement.



The Welsh Water Resilience Wheel © Welsh Water



FUTURE TRENDS

There is a great deal of uncertainty around the future environment within which we will be operating, but there are several foreseeable future trends that are likely to have a significant impact on our service provision.

It is essential that we consider the challenges and opportunities presented by these trends in Welsh Water 2050, so that we can continue to meet our customer promises into the future.

THE FUTURE TRENDS ARE:



DEMOGRAPHIC CHANGE

Population growth will lead to increased water demand in certain areas and an ageing population may lead to more customers in vulnerable circumstances. However, opportunities will emerge to develop a more diverse age profile in the workforce.



CLIMATE CHANGE

Climate change will result in more extreme rainfall events, which could lead to an increased risk of flooding and pollution. Drier, hotter summers are projected, which could result in water supply deficits and the potential for increased water demand.



CHANGE IN CUSTOMER EXPECTATIONS

Customer expectations are likely to change dramatically with a desire for a more personalised service and control over their use of services and less tolerance of service outages. This will particularly be the case for business customers.



CHANGES TO THE STRUCTURE OF THE ECONOMY

The growth of the digital, knowledge based economy will create opportunities to provide services in more efficient ways. However, it could also have an impact on the nature of society, and present a challenge to continuing to meet the needs and expectations of our customers.



THERE IS A GREAT DEAL OF UNCERTAINTY AROUND THE FUTURE ENVIRONMENT



Porthcawl. By Gareth Thompson, Creative Commons License (CC BY 2.0)



ENVIRONMENTAL CHANGE

Invasive species, land use change and an increased risk of environmental pollution may lead to a reduction in water quality and biodiversity. However, co-operative approaches for the delivery of enhanced ecosystems services could lead to better environmental outcomes.



PROTECTING ESSENTIAL INFRASTRUCTURE

Ageing infrastructure, a limited supply chain and cyber security are key concerns for future service provision. Technological advances could lead to significant efficiencies in the planning, delivery and operation of new assets.



POLICY AND REGULATORY CHANGE

Changes in policy and regulation are expected due to the UK leaving the European Union, devolution and changing quality standards; this creates uncertainty, but provides the opportunity for us to help shape future policy. Improved regulatory methods and innovative policy developments could lead to more efficient delivery of services to our customers.



PROTECTING PUBLIC HEALTH

Regulatory standards to protect drinking water quality are likely to continue to tighten in the future. We will have a role to play in promoting healthier and more sustainable lifestyles for our customers.

OUR STRATEGIC RESPONSES



WE WILL REVISIT THIS STRATEGY
EVERY FIVE YEARS

Our future trends identify challenges and opportunities that we expect to face between now and 2050.

We have developed 18 strategic responses (shown overleaf in Table 1) which show what we will do to respond to these challenges and opportunities

THE 18 STRATEGIC RESPONSES ARE GROUPED INTO THREE KEY AREAS, WHICH ALIGN WITH THE WATER CYCLE:

- Drinking water,
- Customers and community; and
- Environment.

These strategic responses were further developed following feedback from our customers and stakeholders.

In particular, we developed four new strategic responses, reflecting views that these issues were not prominent enough in the previous version. **THESE ARE:**

- Ensuring affordability of services delivered to customers;
- Supporting customers in vulnerable circumstances;
- Working with customers and communities; and
- Supporting ecosystems and biodiversity.

STRATEGIC RESPONSES

For each strategic response we have considered a range of possible actions, from research to investment, and set out a direction of travel. This direction of travel indicates the types of actions that we will focus on in the future, along with a range of likely investment.

However, it acknowledges that we need to be flexible and adapt our actions as future challenges and opportunities evolve.

It also acknowledges that we must monitor the effectiveness of our actions and adjust our approach accordingly.

For each strategic response, we outline the outcomes that we expect to achieve by 2050, the investment required and how the outcomes meet the customer promises and the goals of the Well-being of Future Generations Act.

There is huge uncertainty when considering future trends as far out as 2050, particularly in respect of future technological advances and future customer expectations.

Therefore, our approach in Welsh Water 2050 puts emphasis on maintaining flexibility in how we respond to trends, and in making 'no regrets' decisions, taking first those steps which address the urgent priorities of our customers, whilst targeting research to address longer term potential challenges and opportunities.

In addition, we will revisit this strategy every five years, to review the suitability of each of the strategic response's direction of travel, our progress against the direction of travel, and new arising trends which we need to respond to.

At each review we will then map out our planned activities and priorities for research and innovation for the coming 15 years.

There are many synergies between the activities and outcomes of different strategic responses. For example, working with customers and communities to reduce water demand, will support the strategic response focused on providing enough water for everyone.

As we put the strategy into action, we will be conscious of these secondary effects that activities have on other strategic responses, and take them into account as we update our strategy in the future.

To respond to the challenges and opportunities that the future trends present us, we have developed 18 strategic responses (Table 1).

OUTLINES OF EACH OF THE STRATEGIC RESPONSES ARE INCLUDED OVERLEAF.

Table 1: Responding to the future trends

- + Opportunities associated with this future trend are harnessed by the strategic response
- Challenges associated with this future trend are mitigated by the strategic response

		FUTURE TRENDS							
		DEMOGRAPHIC CHANGE	CLIMATE CHANGE	CHANGES IN CUSTOMER EXPECTATIONS	CHANGES TO THE STRUCTURE OF THE ECONOMY	ENVIRONMENT CHANGE	PROTECTING ESSENTIAL INFRASTRUCTURE	POLICY AND REGULATORY CHANGE	PROTECTING PUBLIC HEALTH
STRATEGIC RESPONSES									
DRINKING WATER	1: Safeguarding clean drinking water through catchment management		-		+ -	+ -		+ -	+ -
	2: Enough water for all	-	+ -		+ -	-		-	
	3: Improving the reliability of drinking water supply systems		-			-	-		
	4: Protecting our critical water supply assets		-		-	-	+ -		+
	5: Achieving acceptable water quality for all customers	-	-				-		
	6: Towards a lead free Wales		-	+ -			-	+ -	+ -
CUSTOMERS AND COMMUNITIES	7: Working with customers and communities	-		-		+			
	8: Ensuring affordability of services delivered to customers	+ -		-	+ -	-		+	-
	9: Supporting customers in vulnerable circumstances	+ -		+ -	+ -				+
	10: Addressing our 'worst served' customers	-	-	-	+		+ -		
	11: Employer of choice	+ -		+ -	+ -			+ -	
	12: Leading edge customer service	-		+ -	+ -				+
	13: Smart water system management	+ -				+	+ -	+ -	
ENVIRONMENT	14: Supporting ecosystems and biodiversity		-			+ -		+ -	
	15: Using nature to reduce flood risk and pollution	-	-		-	-	+ -	+ -	
	16: Cleaner rivers and beaches	-	-		+ -	-		+ -	+ -
	17: Protecting our critical wastewater assets		-	-	-		+ -		+
	18: Promoting a circular economy and combatting climate change		-	+	+ -			+ -	

DRINKING WATER

1



SAFEGUARDING CLEAN DRINKING WATER THROUGH CATCHMENT MANAGEMENT

Catchments as a first line of defence: we will face increased levels of pesticides, fertilisers, nutrients and pathogens in raw water, and increased turbidity of water reaching our water treatment works due to the intensification of agriculture and greater intensity of storms. We will co-create an extensive, innovative programme of catchment management with landowners and partners.

2



ENOUGH WATER FOR ALL

Confronted with an increasing water supply demand gap due to population growth and drier summers due to climate change, we will use our Water Resource Management Plan to ensure the water supply demand balance to 2050. We propose to implement water transfers, demand management measures and leakage reduction programmes to address any deficits, whilst recognising the possible need to support other parts of the UK.

3



IMPROVING THE RELIABILITY OF DRINKING WATER SUPPLY SYSTEMS

Faced with an increased risk of outages due to agricultural run-off, extreme weather events, terrorism, and cyber attacks, we will build more flexibility and integration into our water treatment and supply systems.

4



PROTECTING OUR CRITICAL WATER SUPPLY ASSETS

With increasing risks of disruption (for example, from severe weather events resulting from climate change and increased reliance on technology) and limited customer tolerance of supply outages, we will improve the resilience of critical water assets which have high consequences of failure.

5



ACHIEVING ACCEPTABLE WATER QUALITY FOR ALL CUSTOMERS

Ageing water mains and more extreme weather events increase the risk of supplying water which is discoloured or has a poor taste. This will be addressed through a targeted replacement of iron mains.

6



TOWARDS A LEAD FREE WALES

We have the opportunity to help improve public health, and propose a targeted replacement of lead supply pipes, as part of a wider societal effort to address lead in drinking water.

CUSTOMERS AND COMMUNITIES

7



WORKING WITH CUSTOMERS AND COMMUNITIES

We will work with customers and communities to co-create solutions, share knowledge, and support initiatives which reduce water use, prevent sewer abuse, and provide wider benefits for communities and the environment.

8



ENSURING AFFORDABILITY OF SERVICES DELIVERED TO CUSTOMERS

With inequality, debt, and poverty on the rise we aim to ensure that our services remain affordable for all customers: both in terms of average bills and for those on social tariffs. We will ensure that we continue to provide the best service in increasingly innovative and efficient ways and pass these savings on to our customers.

9



SUPPORTING CUSTOMERS IN VULNERABLE CIRCUMSTANCES

We need to use data effectively, provide personalised customer service and work in partnership with other service providers to give appropriate and effective support to customers in vulnerable circumstances.

10



ADDRESSING OUR 'WORST SERVED' CUSTOMERS

Faced with increasing customer expectations for a good service at all times, we will address the longstanding service complaints of 'worst served customers' to ensure that everyone receives an acceptable level of service.

11



EMPLOYER OF CHOICE

With an ageing population, an increasing shortage of technically skilled employees and increasing demand for more flexible approaches to working, we will need to continue to be an employer of choice; attracting, developing and inspiring people from a diverse range of backgrounds, to deliver an excellent service for our customers.

12



LEADING EDGE CUSTOMER SERVICE

Changing customer expectations, the digital revolution and demographic and lifestyle change are all leading Welsh Water to further develop our customer service culture. We will harness technological change to provide a personalised service for customers through their preferred contact channel.

13



SMART WATER SYSTEM MANAGEMENT

With the opportunity to capitalise on technological advances, we will improve the service performance and resilience of our assets through remote sensing, data analysis and automation; solving problems before they impact on our business, our customers, or the environment.

14



SUPPORTING ECOSYSTEMS AND BIODIVERSITY

Biodiversity faces threats including habitat loss, fragmentation and over-exploitation. In the longer term, temperature and changed rainfall patterns will also impact biodiversity. We will look for ways to help nature, enhance biodiversity and promote ecosystem resilience while we carry out our water and sewerage activities. Welsh Water has a duty under the Environment (Wales) Act (2016) to enhance biodiversity and promote the resilience of ecosystems in the exercise of our functions.

15



USING NATURE TO REDUCE FLOOD RISK AND POLLUTION

RainScaping our communities: confronted with urban creep due to demographic change and increased intensity of rainfall due to climate change, Welsh Water is proposing to reduce the risk of sewer flooding and pollution through sustainable urban drainage systems.

16



CLEANER RIVERS AND BEACHES

With increasing pressure on the natural environment from increased population, changing land use, climate change and new sources of pollution, we will improve our wastewater assets to do our part to help achieve 'good' environmental status for our rivers, lakes and coastal waters.

17



PROTECTING OUR CRITICAL WASTEWATER ASSETS

Faced with an increased risk of disruption, for example, from an increase in severe weather as a result of climate change, and reduced customer acceptability of pollution events, we will improve the resilience of our critical wastewater assets, which have high environmental and customer impacts of failure.

18



PROMOTING A CIRCULAR ECONOMY AND COMBATTING CLIMATE CHANGE

Faced with a changing climate and increased energy costs, we will aim to become an energy neutral business, whilst maximising the opportunities to reuse treated water and other potentially valuable natural materials, contributing to the circular economy in our local region.

THE FUTURE OF WELSH WATER

Table 2: Links between Well-being goals in the Well-being of Future Generations Act and our strategic responses

	WELL-BEING GOALS						
	A resilient Wales	A prosperous Wales	A healthier Wales	A more equal Wales	A Wales of cohesive communities	A Wales of vibrant culture and thriving Welsh language	A globally responsible Wales
1: Safeguarding clean drinking water through catchment management							
2: Enough water for all							
3: Improving the reliability of drinking water supply systems							
4: Protecting our critical water supply assets							
5: Achieving acceptable water quality for all customers							
6: Towards a lead free Wales							
7: Working with customers and communities							
8: Ensuring affordability of services delivered to customers							
9: Supporting customers in vulnerable circumstances							
10: Addressing our 'worst served' customers							
11: Employer of choice							
12: Leading edge customer service							
13: Smart water system management							
14: Supporting ecosystems and biodiversity							
15: Using nature to reduce flood risk and pollution							
16: Cleaner rivers and beaches							
17: Protecting our critical wastewater assets							
18: Promoting a circular economy and combatting climate change							

LONG-TERM INVESTMENT TO ACHIEVE WELSH WATER 2050

For each of the strategic responses, we have set out a direction of travel over the coming decades, giving a sense of the range of possible actions that may be required as our experience develops.

Whilst it is difficult to be certain at this stage of the precise actions required over the next 30 years, it is clear that significant capital investment will be needed to deliver many of the strategic responses, notably to:

- Improve water catchments, in partnership with other landowners;

- Make our upland reservoirs safe and our supply systems resilient, in the face of a changing climate and customer demand;
- Join up supply systems to reduce the number of customers that can only be served from one supply source;
- Undertake a “generational” programme to replace aged iron mains and other pipes in an unsatisfactory condition;
- Equally, embark on a “generational” shift to Sustainable Urban Drainage Systems (SUDs), upgrading the combined foul and surface water systems of the past; and,

- Upgrade our wastewater treatment works and reducing outflows from our sewerage network, where these have a material role to play in achieving good ecological quality for our rivers and beaches.

However, for many of the strategic responses, there will also be offsetting efficiency savings once investment has been made to upgrade the infrastructure.

For example, more reliable assets will have lower breakdown and maintenance costs, and cleaner upland catchments can reduce treatment costs at water treatment works.

For each strategic response, we give an indication of the net cost (investment less future efficiencies) that might

accrue over the next 30 years, depending on how far along the direction of travel we ultimately go.

Overall, a net cost over 30 years of between £4.5 billion and £9 billion may be required. To put this in context, we presently spend in the order of £0.5bn to £1bn in each five yearly period on improving our services and resilience and have held price rises for households at or below (RPI) inflation for nine consecutive years.

Therefore, the direction of travel set out in Welsh Water 2050, whilst ambitious, is not implausible. Appendix B in the full consultation document sets out an analysis of potential costs against the backdrop of future bills.

CONTINUING TO DELIVER AFFORDABLE SERVICES FOR CUSTOMERS

Through the wide ranging feedback to our Welsh Water 2050 consultation exercise, it became clear that there is overall strong support amongst customers for the need to invest to address long-term challenges.

Customers are concerned about the future state of the environment and essential public services that they will leave for future generations, and this generally has a higher importance for most but not all customers than minimising the current level of bills.

This response was also echoed by most stakeholders and reflects the long-term approach to securing the

well-being of future generations that is enshrined in the policy framework in Wales in particular. However, it was also very clear that customers expect Welsh Water to be as efficient and transparent as possible in investing on behalf of its customers, so that they can trust us to keep down the future cost to customers and they can see where their money is being spent.

Welsh Water 2050 is designed to meet this challenge from customers, so that we can continue to earn their trust as we invest to deliver the future well-being outcomes that we all desire.

We will need to be flexible and prioritised in our future expenditure plans, so that we can keep the overall level of bills affordable for customers, in

light of potential but uncertain increases in society's wealth over the period.

We will also need to drive significant further efficiencies into our business activities, in order to keep costs down to the sorts of levels set out in this document.

We will need to be flexible in the pace of improvement, putting an emphasis on “no regrets” decisions at early stages, together with prioritised research and innovation to help address some of the biggest challenges in a more cost effective manner in the future.

We will also need to ensure that every household faces a bill which is affordable, recognising that it is already difficult to afford the water bill

today for many households in financial or other vulnerable circumstances. Research and engagement have shown consistent support amongst household customers for giving financial support to those disadvantaged households who will struggle to pay their equal contribution to the cost of delivering the improvements to service, resilience and the environment that are desired by society as a whole.

Crucially, this financial support through lower social tariffs for some customers is funded by contributions from other customers and also directly by Welsh Water itself, reflecting our unique non-shareholder ownership model.

RESEARCH AND INNOVATION

The costs of mitigating the challenges and harnessing the opportunities from now until 2050 will only be affordable for our customers if we are committed to innovation.

The rapid pace of technological change offers the prospect of providing services more efficiently and reliably in the future. Moreover, new methods of working together, including co-creation between water companies, their customers and other organisations could enable society to deliver its goals more efficiently.

One of the primary purposes of Welsh Water 2050 is to help us shape and prioritise our long-term science and research agendas, to ensure that the considerable expenditure that we make is focused and efficiently invested on the issues that will matter most to our customers in the long-term.

CONTRIBUTING TO THE FUTURE OF WALES

Welsh Water 2050 considers both the direction for our own business and outlines the impact we want to have on the people, economy and natural environment of our operating area in Wales and England in the long-term.

Welsh Water 2050 contributes to the wider goals of the Well-being of Future Generations Act 2015, the Environment (Wales) Act, and the Water Strategy for Wales.

It also contributes to addressing the risks and opportunities outlined in the State of Natural Resources Report.

CO-CREATING OUR RESPONSES WITH CUSTOMERS AND STAKEHOLDERS

We know that we can't respond to the huge challenges facing us and the wider world alone. We will work closely with our customers and our stakeholders to create affordable solutions to challenges.

We know that this is particularly true at a catchment level. Equally, our actions can have wider benefits to other societal agendas with our commitment to recreation and education services contributing to public health and well-being. Again, this cooperative and catchment based approach to solving society's potential issues is very much in line with the approach set out in the Environment Act (Wales) 2016 and could make a significant

contribution towards delivering the environmental improvements discussed in the first State of Natural Resources Report (published by Natural Resources Wales in 2016).

OUR NEXT STEPS AND BUSINESS PLANNING

Following the consultation period, we have published this final version of Welsh Water 2050. The final Welsh Water 2050 document sets out a vision of what a truly resilient and sustainable water service might look like in 2050 and it provides a long-term framework for our future business planning.

The next step for Welsh Water is to publish our business plans for the next three Asset Management Periods (AMPs), covering the period 2020-2035. These will be submitted to Ofwat in September 2018. Each AMP plan will set out clear deliverables which contribute towards the progress of the 18 strategic responses set out in Welsh Water 2050.

Over the next 30 years, we intend to use our Measures of Success (outlined in our business plan) to monitor progress annually against each of the strategic responses in Welsh Water 2050 and against each segment of the "Resilience Wheel" and we will publish the results in an annual performance report to customers. Every five years, we will carry out a review of our long-term vision and, where necessary, revise our strategic responses as the future trends evolve.

At each review we will then map out our planned activities and direction of travel for the coming 15 years, reflecting further input from our customers and wider stakeholders.



VALUE TO CUSTOMERS



OUR AIM IS TO DELIVER VALUE
TO OUR CUSTOMERS BOTH NOW
AND IN THE FUTURE



This final Welsh Water 2050 document sets out our current view of what our customers can expect from us over the course of the next 30 years, so that we are able to earn the trust of future generations of customers.

Ultimately, through Welsh Water 2050 our aim is to deliver value to our customers both now and in the future.

THE OUTCOMES OF WATER 2050 WE ASPIRE TO ACHIEVE INCLUDE:

- Good value for money for customers as a whole – with any increase in bills being affordable in relation to average household disposable incomes;
- Affordable services for all, with every household receiving a bill which is fair and which they can afford;
- A fully resilient business – in terms of its people, assets, governance, finance and culture – which is ready to meet the challenges beyond 2050;
- All customers will receive a defined, acceptable service for drinking water supply and drainage – or else they won't have to pay for that service;
- Individualised customer service delivery, reflecting their preferences and choices as to the services that they wish to receive – integrated with other essential services to contribute to smart homes and smart cities;
- Business customers will receive a range of high quality services that match the best available in the rest of the UK and beyond;
- Good ecological quality for all water bodies affected by our activities, with a wider contribution to enhance biodiversity and promote the resilience of ecosystems;
- A business that is adapted to meet the challenges of climate change (from droughts to flooding);
- All key assets meet prescribed resilience standards to maintain service to customers irrespective of shocks and stresses and the potential for increased outages in the future;
- Smart network management for our assets, that pro-actively identifies problems and deals with them before customers are affected;
- Exposure of the public to lead in drinking water is significantly reduced, particularly for the young;
- A circular economy business that will make full use of wastewater and other opportunities to maximise energy generation and the recycling of valuable materials;
- A business which uses its land holdings and other assets to maximise the well-being of its customers, encouraging healthy lifestyles and recreation, and supporting biodiversity and ecosystems; and
- A business which contributes to Welsh society and the local economy, by providing high quality jobs, both directly and through its supply chain.





Dŵr Cymru
Welsh Water