

# Enhancement expenditure: Water Resources\* - WINEP



## Chapter 7: Supplementary document

### Document Reference: S6021

This document sets out the service enhancement expenditure and activity that we will undertake, through our 2020-2025 business plan, to discharge our regulatory obligations under the Water Industry National Environment Programme (WINEP). This plan only explores the areas of the WINEP that fall within the Water Resources price control business area.

The WINEP is comprised of a schedule of environmental management actions, (set by the Environment Agency and Natural England), the delivery of which will enable us to meet environmental regulations, which will lessen the environmental impact of our operations, and which will improve the natural environment of the North west for customers now and in the future.

\* Note: This enhancement area predominantly relates to Water Resources although some costs, as indicated, are allocated to Water Network Plus.

Name of enhancement area	WINEP	
	Water Resources	Water Network Plus
Price control(s) the enhancement relates to		
Total value of enhancement for AMP7	£25.027m	£5.845m
Total opex of enhancement for AMP7	£1.461m (Note: Table WS2 includes £0.070m of AMP6 Opex carried forward)	£5.845m (Note: Table WS2 includes £0.029m of AMP6 Opex carried forward)
Total capex of enhancement for AMP7	£23.566m	-
Remaining capex required after 31 March 2025 to complete construction	No planned carry over	
Is the enhancement likely to feature a Direct Procurement for Customers (DPC) scheme? (please tick)	Yes	No
		x

	Brief summary of evidence to support enhancement requirements	Page
Need for investment/ expenditure	<p>WINEP is a regulatory obligation, developed as a framework for water companies to deliver the requirements of;</p> <ul style="list-style-type: none"> <li>• The EU Water Framework Directive,</li> <li>• The Habitats Directive,</li> <li>• The Eels and Elvers Regulations</li> </ul> <p>And other environmental regulations.</p>	7
Outside management control	We have negotiated with regulators to minimise the impact on customer bills. We presented regulators with a well evidenced challenge, that enabled us to reduce the number of WINEP schemes from 167 in WINEP1 at March 2017 to 49 in WINEP3 in March 2018.	5
Best option for customers	<p>96% of customers acknowledged the importance of investment in environmental protection.</p> <p>To minimise the impact on customer bills we have negotiated with regulators to minimise the number of WINEP projects required.</p>	8
Robustness and efficiency of costs	<p>Costs are based on our historic experience of delivering similar projects in AMP6.</p> <p>We are seeking partnership delivery approaches, where that can deliver efficiencies for customers. We are already negotiating a partnership delivery approach at Bleawater in the Lake District, which is expected to deliver efficiencies of £0.6m.</p>	8

<b>Customer protection</b>	<p>Customers are protected as we will face regulatory enforcement if we fail to deliver WINEP projects.</p> <p>We also propose a performance commitment and outcome delivery incentive that will incentivise early or on time delivery of scheduled WINEP projects. This will ensure that customers receive WINEP benefits early or according to the agreed regulatory schedule.</p>	9
<b>Affordability</b>	<p>Customer research indicates that application of the proposed cost adjustment is capable of being incorporated within a plan that is affordable, financeable and acceptable. Affordability of the plan in the round is evidenced in the final business plan.</p>	9
<b>Board assurance</b>	<p>The development of the cost proposals within our United Utilities business plan 2020-2025, including proposed cost adjustment claims, has been subject to robust 'three lines of defence' assurance as defined within the UUW PR19 Assurance Framework (see section 10.3 of our business plan). The UUW Board Statement confirms that the business plan includes well evidenced, efficient and challenging cost forecasts, including cost adjustment proposals which are conditional on the nature and basis of Ofwat's final cost models.</p>	9

## Water Resources – WINEP

**Table and line no(s):** WS2 Line 1, 2, 3, 13, 17, 19, 40, 41, 42, 52, 56 and 58

For a detailed breakdown of the projects underpinning these lines see supplementary document S6004 AMP7 Totex enhancement project list and Appendix 1 of this document.

This enhancement area predominantly relates to Water Resources although some costs, as indicated, are allocated to Water Network Plus.

## Executive summary

This enhancement expenditure relates to delivery of environmental management projects that fall within the United Utilities Water Resources price control. The projects described will protect and enhance the environment for the benefit of customers now and in the future. Delivery of these projects will discharge our regulatory obligations.

We have spoken to customers about environmental management. Customers are clear that they support environmental management actions, but they are not willing to see an increase in water bills to deliver these actions. We have offered our regulators (the Environment Agency and Natural England) a robust, evidence based challenge, to minimise the scope of our WINEP programme. This challenge has resulted in a significant reduction in the number of WINEP projects between WINEP2 in March 2017 to WINEP3 in March 2018. We have also engaged with contractors, suppliers, and the wider market to secure efficiencies regarding how we procure and deliver projects. This drive for efficiency means that we are currently aiming to deliver our AMP7 WINEP programme for 25% less than our comparable AMP6 NEP programme.

## Introduction

United Utilities manages significant land holdings across North West England. We manage land from which we secure water supplies for our customers. The land we manage includes areas in two National Parks. A number of the water bodies in the North West are home to protected habitats. We recognise that our activities have altered the environment of the North West. Structures such as reservoirs and river intakes have changed the original natural environment, and provide both a challenge to the natural world and an environmental opportunity for rare and endangered species.

We know from our conversations with customers that customers place a high importance on environmental management. Our research tells us that 92% of customers believe that protecting lakes, rivers and reservoirs is important, in order to protect and enhance the environment for customers now and in the future. Customers believe that we should play an active role in managing the environment, with 96% saying that it was important for us to invest in environmental initiatives. However, we also know that many customers in the North West find paying their utility bill a challenge, and only 51% of customers were willing to see a bill increase to fund environmental initiatives. We have therefore developed our plans to ensure that we make a positive contribution to environmental management, without impacting on customer bills.

Protection of the environment is well regulated in the UK, and we work closely with environmental regulators to understand our impact on the environment. The obligations placed on us by environmental regulations are described in the Water Industry Strategic Environmental Requirements (WISER) for PR19 which is issued jointly by the Environment Agency and Natural England. A key objective for water companies stated in the WISER is 'Enhancing the Environment'. This is stated to include:

- Improving, managing and conserving water as a valuable resource for business, people and wildlife
- Protecting and enhancing the water environment by contributing to the achievement of water and biodiversity objectives

The specific details of the environmental management actions that we are expected to take are set out in the Water Industry National Environment Programme (WINEP), issued by the Environment Agency. We work

closely with the Environment Agency to define this programme and work to balance the expectations of our regulators with the impacts on customer bills.

We will seek to deliver our environmental obligations at a pace which is affordable to customers, maximising value for money as far as possible by challenging the need and applying efficiency and innovative opportunities. In particular, we are seeking the development of partnerships with third parties (such as Rivers Trusts) to deliver long-term sustainable solutions whilst increasing efficiency.

This enhancement document relates to the delivery of WINEP environmental management actions relating to the activities that fall within the United Utilities Water Resources price control.

#### Cost of the enhancement

Our cost estimate for this programme in AMP7 is a gross Totex value of £30.872m. Based on £7.306m Opex and £23.566m Capex.

#### Management Control

This enhancement expenditure relates to regulatory obligations arising under the Water Industry National Environment Programme (WINEP). This document relates only to the regulatory obligations that fall on the structures and operations of the United Utilities Water Resources price control.

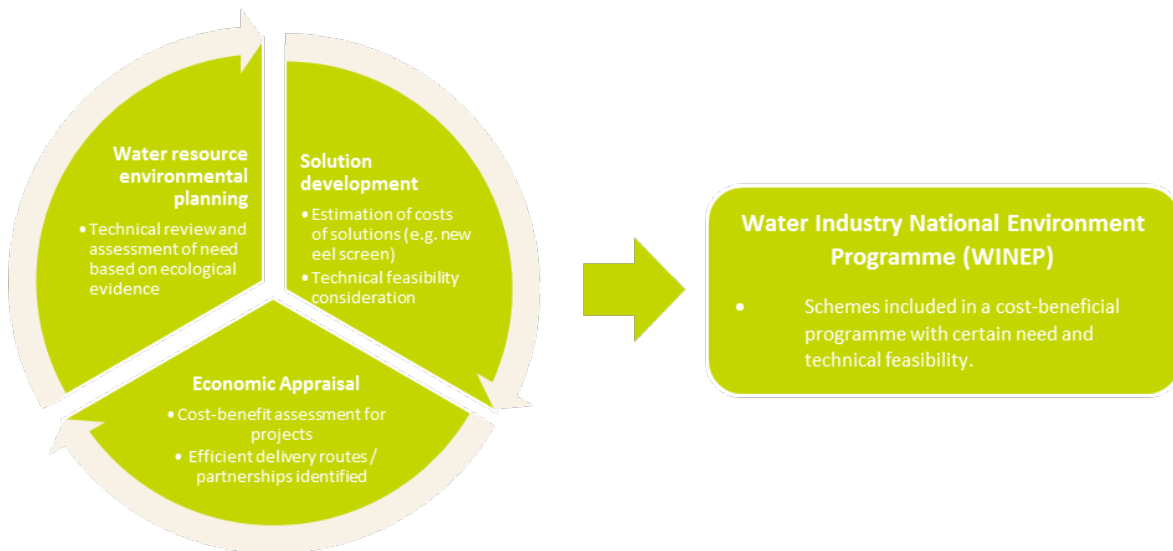
As WINEP is a government led regulatory obligation, management control with regard to delivering this programme is limited. The WINEP is issued by the Environment Agency and defines the Agency's and Natural England's programme of obligations in AMP7.

The main areas of legislation impacting our Water Resources business for through the WINEP are:

- The Water Framework Directive = 27 projects
- The Habitats Regulations = 8 projects
- The Eels Regulations = 6 projects
- Invasive Non Native Species Regulations = 4 projects
- Wildlife And Countryside Act (SSSI) = 3 project
- Natural Environment & Rural Communities Act = 1 project

Details of these projects are shown in Appendix 1.

We have engaged in negotiation with the Environment Agency, to ensure that any regulatory requirements to improve the performance of our assets are based on robust evidence of environmental issues. This collaboration has not simply been an opportunity for us to avoid future projects, but to ensure we are prioritising and investing in areas which have a well evidenced environmental need, and to ensure that we meet those needs in the most efficient way.



**Figure 1: WINEP programme development**

### Water Framework Directive

Whilst the WINEP is developed by the Environment Agency as part of its approach to implementing the Water Framework Directive through River Basin Management Planning, we can influence the scope and scale of Water Framework Directive commitments in the WINEP. Cost Benefit Assessment was used to help inform the schemes included in the Business Plan for 2020-2025 programme.

The results of the cost benefit analysis, and our robust technical challenge to the scope of the Water Framework Directive (WFD) driven projects we were able to reduce the scale of WFD projects on the WINEP from 136 projects included in WINEP1 in March 2017 to 27 WFD projects in WINEP3 in March 2018.

### Habitats Regulations

In Business Plan period 2020-2025 many of our Habitats Regulations commitments are related to the decommissioning of redundant infrastructure at sites where our abstractions will cease in 2022 following the completion of the Thirlmere Transfer Scheme.

Removing infrastructure has the potential to provide wide ecological benefits, as well as benefits to landscape and visual amenity associated with removal of man-made structures with the Lake District National Park and World Heritage Site.

In addition, removing the infrastructure at these sites will have financial benefits associated with removal on ongoing responsibility and liability for maintenance of compensation flows, fish passes, dams, and all associated infrastructure at these sites.

We challenged regulators in order to minimise the scope of WFD driven WINEP projects, in order to minimise the impact of these projects on customers. We successfully negotiated a reduction in the number of WFD projects from 24 in WINEP1 to 8 in WINEP3.

### Eels Regulations

The Environment Agency has powers in relation to the Eels Regulations and may serve a notice on owners/operators to construct an eel pass or make improvements to existing passes and/or install an eel screen at an abstraction intake or outfall.

The Eels Regulations impose significant additional burden on abstraction activities, as eel screens are substantially smaller (have smaller apertures) than the traditional fish screens that are in place at most of our

abstraction locations. This additional requirement is due to the small physical size of certain stages in the eel lifecycle.

The Environment Agency assessed our abstraction locations, and classified them as low, medium or high priority sites for eel protection. We judged that installing eel screens at every low, medium and high site would be an unreasonable financial burden for our customers. We took an industry leading position to commission hydroecological research, to assess the level of benefit that the implementation of the Eels Regulations would deliver. United Utilities were key members of the steering group for a UK Water Industry Research project which reviewed the implementation of the Eel Regulations and critiqued the Cost-Benefit-Analysis model applied by the Environment Agency. Water UK challenged the cost-benefit approach used by the Environment Agency, and subsequently the Environment Agency have confirmed a change of approach to implementation in their PR19 Eel Regulations guidance. The Environment Agency will now only expect eel screens to be installed at high priority Eels Regulations sites.

This challenge significantly reduced the expectations on us, as we had over 100 candidate low and medium risk Eel Regulation sites, which were successfully removed from the Eels Action Plan leaving just 6 Eels projects for our AMP7 WINEP programme. This is an example of how we have used robust scientific evidence to challenge regulatory expectations, and to secure cost efficient and fair outcomes for customers.

### **Invasive Non-Native Species**

Under the non-native species regulations we have been required to carry out investigations into the risk of transferring invasive species from one location to another, during our raw water transfer operations. This data will assist us with the design and operation of any future nationwide water trading operations that we engage in.

### **Need for investment**

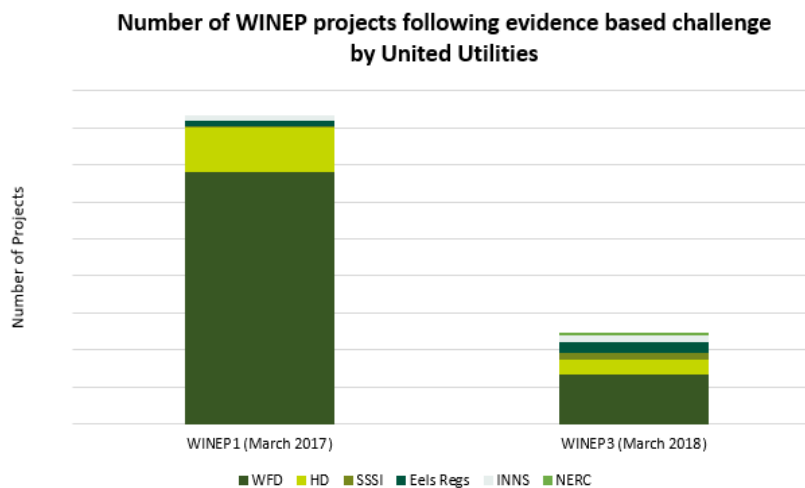
The need for investment in this area is driven by regulation. United Utilities does not have a 'do nothing' option, as this would place us at risk of prosecution.

However, we have engaged with regulators to ensure that the impact of the WINEP programme on customers is minimised. We used robust scientific data to challenge assumptions being made by the regulator, and demonstrating that environmental benefits could be delivered more efficiently with a more refined programme.

Through our challenge we have been able to reduce the number of schemes on the WINEP from 167 at WINEP1 in March 2017 to 49 at WINEP3 in March 2018.

As a responsible systems operator we will ensure that we minimise the environmental impact of our operations, whilst protecting customer services and keeping bills affordable.

**Figure 2: Reduction in WINEP scope thanks to evidence based challenge**



### Best option for customers

We recognise the importance of balancing the need to provide water for public supply with the potential impact of those activities on the environment and the need to understand customers' perspective to inform our business plans. We have spoken to customers about their expectations of our responsibilities to protect the environment.

Customers told us that ensuring environmental protection is very important, 96% of customers acknowledged the importance of investing in environmental initiatives. Almost all think it is important for UU to invest in related initiatives, primarily to secure water supplies now and in the future.

We have worked to balance the expectations of our regulators and other stakeholders whilst minimising the impacts on customers' bills. We propose to have a performance commitment related to the delivery of our WINEP programme, measured through an Outcome Delivery Incentive with a reward and penalty incentive rate, based on the pace of delivery against the schedule agreed with the Environment Agency.

Early delivery of projects will offer additional (earlier) benefits for the environment and customers, and will therefore earn a reward. Late delivery against the schedule will mean that the environment and customers will wait longer for benefits to be realised, and will therefore incur a penalty. This system will incentivise us to deliver the WINEP on time or early.

### Robustness and efficiency of costs

As set out in Chapter 7 of our PR19 business plan, we have undertaken significant improvements in our delivery of efficient totex solutions:

- We have embraced the totex and outcomes approach, delivering significant improvements from innovative approaches and technologies
- Through our Market Engagement Methodology (MEM), we have improved the sophistication with which we engage with markets to deliver more efficient solutions and services
- We have improved our approach to totex, by better challenging both needs and solutions

The introduction of a risk and value (R&V) assessment across all our major projects has supported better challenge of our expenditure requirements, including enhancements. This ensures that when we decide projects are necessary, we only do what we need to do, that our decisions are based on strong evidence, and the value of both business and customers is clear. The process ensures that we keep challenging and validating both the need for our projects and the way we deliver them.

Full details of market testing activity are given in the Market Engagement Methodology supplementary document to our main Price Control submission.

We have delivered environmental enhancement projects on the WINEP, and its predecessors (the National Environment Programme) since AMP3. During this period we have developed a comprehensive understanding of the costs of delivering environmental enhancement projects, and the challenges and opportunities that these projects can present.

Whilst we have a long track record of delivery, we are continuously exploring ways to increase efficiency. For AMP7 we have sought innovative delivery mechanisms to enable us to increase our efficiency and pace. For example, in AMP7 we have a WINEP commitment to remove the impounding structure at Bleawater. Abstraction from Bleawater ceased many years ago, and we now have a WINEP obligation to remove the weir, and re-naturalise the valley.

We initially estimated the cost of weir removal at £1.2m. However, we have agreed a partnership approach through which Natural England will manage the weir removal project, utilising their local contractors, and securing the efficiencies that their local contacts can bring. Through this partnership approach, we have been able to reduce the estimated cost of delivering this project to £0.60m.

Through the AMP we will continue to explore efficient delivery methods, and we will explore further partnership delivery approaches wherever that can achieve an efficiency.

#### Customers are protected

Customers will be protected through an outcome delivery incentive related to our performance commitment. We have committed to deliver every project listed on the WINEP, (delivered to the satisfaction of the Environment Agency) by the date specified in the WINEP schedule.

Early delivery (at no extra cost to customers) will mean that the environment and customers receive additional, earlier benefits, and will attract a reward. Late delivery will mean that customers and the environment will spend longer without the benefits of the project, and a penalty will be applied.

This process will incentivise United Utilities to deliver on time, or early, ensuring that customers receive the benefits of our project on or before the date specified.

If we fail to deliver WINEP projects to the standard required by the Environment Agency, by the date specified, then we are open to prosecution and fines by the regulator. Again this incentivises effective and timely delivery, and ensures that we meet our regulatory obligations.

A further level of customer protection is based on the regulatory enforcement framework that supports environmental regulations. If we failed to deliver our environmental obligations, then we would be at risk of prosecution by the relevant regulators, potentially leading to significant fines and reputational damage.

#### Affordability

We presented proposed AMP7 bill impacts to residential customers, alongside a description of proposed service improvements. The substantial majority, 82% of customers, have told us that they believe service and bill proposals are acceptable. This is a 6 percentage point increase from equivalent AMP6 acceptability results, and a substantial indication of customer support.

#### Board assurance

The development of the cost proposals within our UUW business plan 2020-2025, including enhancement expenditure, has been subject to robust 'three lines of defence' assurance as defined within the UUW PR19 Assurance Framework (see section 10.3 of our business plan). This includes broad and deep reviews by independent assurance partners of the processes and governance over the development of the cost and efficiency proposals. Deloitte has also conducted a specific review of the enhancement expenditure proposals.

The UUW Board Statement confirms that the business plan includes well evidenced, efficient and challenging cost forecasts.

## Appendix 1

Project	Capex (£m)	Opex (£m)	Totex (£m)
SCaMP Programme (WR)	2.553	1.461	4.015
SCaMP Programme (WN+)	0.000	5.845	5.845
River Ehen Compensatory Measures - phase 1 infrastructure removal Overwater	2.872	0.000	2.872
River Ehen Compensatory Measures - infrastructure removal Crummock Water	3.852	0.000	3.852
River Ehen Compensatory Measures - infrastructure removal Chapel House	2.905	0.000	2.905
HMWB Stage 3s under investigation by UU in 2016/17: compensation flow change at Dean Clough	0.098	0.000	0.098
HMWB Stage 3s under investigation by UU in 2016/17: compensation flow change at Clowbridge	0.076	0.000	0.076
Investigation of work to improve river morphology and minimise the impact of Stocks Reservoir on the River Hodder HMWB downstream.	0.030	0.000	0.030
Blea Water - weir removal implementation	0.600	0.000	0.600
Yearl weir improvement to geomorph and fish passage	2.797	0.000	2.797
HMWB Stage 2s still with the EA (for Stage 3 assessment by UU in 2019) - flow change at Grizedale	0.093	0.000	0.093
Investigation of fish passage solution at Hug Bridge abstraction weir, River Dane	0.050	0.000	0.050
Taxal gauging weir fish passage	0.050	0.000	0.050
Common Standards Monitoring Guidance (CSMG) changes	0.200	0.000	0.200
Ennerdale Water - weir removal investigation and options appraisal	1.000	0.000	1.000
River Calder intake fish passage (new entry on WINEPv3)	0.050	0.000	0.050
Pre and post flow change monitoring	0.100	0.000	0.100
Adaptive Management schemes under investigation in AMP6: Castleshaw and Fernilee	0.186	0.000	0.186
WFD no-deterioration investigation	0.600	0.000	0.600
Eel Regulations sites under investigation in 2016-17: River Dee: Huntington	2.508	0.000	2.508
Eel Regulations sites under investigation in 2016-17: River Lune at LCUS (Halton)	2.400	0.000	2.400
Eel Regulations sites under investigation in 2016-17	0.180	0.000	0.180
INNS biosecurity e-learning package	0.005	0.000	0.005
INNS investigation and pathways option appraisal for mitigation measures	0.360	0.000	0.360
<b>Total</b>	<b>23.566</b>	<b>7.306</b>	<b>30.872</b>
AMP6 Opex (Water Resources)	0.000	0.070	0.070
AMP6 Opex (Water Network Plus)	0.000	0.029	0.029

Included in our enhancement expenditure on water catchment driven by the WINEP there is £312,191 of enhancement expenditure related to drivers included in the Water Industry Strategic Environmental Requirements (WISER) document and our Long Term Drinking Water Quality Plan. These include measures to improve taste, odour and colour at sites identified in the Long Term Drinking Water Quality Plan and

supported by the Drinking Water Inspectorate but not supported in the WINEP, and measures to address raw water deterioration at sites where we have identified an emerging risk through the Drinking Water Safety Plan process and have a plan agreed with partners to deliver actions in AMP7. The costs associated with these DWI driven projects, (£312,191) are therefore included in this enhancement cost adjustment business case for completeness, and form part of the £28.964m total value of this business case.