

# UUWR\_79

## PR24 Draft Determination: Enhancement Case

# Village Drains - Enhancement Case

**August 2024**

This document sets out the service enhancement expenditure and activity that we will undertake through AMP8 and supports our draft determination response documents, UUWR\_75 and UUWR\_77.

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Enhancement submission													
Title:	UUWR_79_Village Drains Enhancement Case												
Price Control:	Ww Network +												
Enhancement headline:	<p>Enhancement expenditure to provide adequate treatment to three village drains to meet the needs of the AMP8 WINEP following the inclusion of deliverables on a new version of the WINEP issued on the 5<sup>th</sup> July 2024.</p> <p>This document sets out where the Environment Agency require us to enhance service standards in order to deliver environmental benefits which they will enforce through environmental permits.</p> <p>This enhancement investment is driven by the following statutory drivers:</p> <ul style="list-style-type: none"> <li>The Water Environment (Water Framework Directive) Regulations 2017</li> </ul>												
Enhancement expenditure (FY23 prices)	<table border="1"> <thead> <tr> <th>Village Drains</th> <th>AMP8 Capex inc TI (£m)</th> <th>AMP8 Opex (£m)</th> <th>AMP8 Totex (£m)</th> </tr> </thead> <tbody> <tr> <td>Pre RPE and Frontier Shift</td> <td>7.8</td> <td>1.2</td> <td>9.0</td> </tr> <tr> <td>Post RPE and Frontier Shift</td> <td>7.7</td> <td>1.2</td> <td>8.9</td> </tr> </tbody> </table> <p>The table above shows the total expenditure on both a pre-efficiency (i.e. pre frontier shift and real price effects basis, consistent with the cost data tables), and a post efficiency and RPE basis (i.e. consistent with the value we propose to be recovered from price controls). All numbers referenced hereafter in this enhancement case are on a pre efficiency and RPE basis.</p>	Village Drains	AMP8 Capex inc TI (£m)	AMP8 Opex (£m)	AMP8 Totex (£m)	Pre RPE and Frontier Shift	7.8	1.2	9.0	Post RPE and Frontier Shift	7.7	1.2	8.9
Village Drains	AMP8 Capex inc TI (£m)	AMP8 Opex (£m)	AMP8 Totex (£m)										
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This case aligns to:	<p><a href="#">UUWR 77 New WINEP</a> .</p> <p>Expenditure relating to this case can be found in data tables:CWW3.73-75 and ADD17.</p>												
PCD	<p>Incorporated into existing WINEP PCD mechanism:</p> <ul style="list-style-type: none"> <li>Sanitary Determinands representation</li> </ul>												

## 1. Enhancement case summary

Gate	Summary	Location reference
Need for enhancement investment	<p>Our base expenditure only covers the cost of meeting current Environmental Permit requirement. This enhancement investment is driven by the following statutory driver:</p> <ul style="list-style-type: none"> <li>The Water Environment (Water Framework Directive) Regulations 2017</li> </ul>	Section 3
Best option for customers	We have undertaken an exercise to identify the most cost effective way of meeting the need and the likely future permit requirements associated with that solution.	Section 4
Cost efficiency	To ensure robust and efficient costs in our programme we have used an estimating approach based on data collected over a number of AMPs (AMP3 to AMP7) updated to reflect present market conditions under which we and the UK Water Industry are operating. We have reviewed our costs against industry data.	Section 5
Customer protection	<p>Customers are protected from non-delivery through the following ODIs:</p> <ul style="list-style-type: none"> <li>Pollution ODI – if we fail to deliver improvement to our discharges on time we would expect the Environment Agency to classify this as pollution as sewage is potentially being discharged to a surface water without treatment.</li> <li>Discharge permit compliance ODI – if we fail to deliver improvements to our discharges on time we would expect the Environment Agency to issue permits for our preferred solution which we would fail to achieve.</li> </ul> <p>Additional consequences of non-delivery include:</p> <ul style="list-style-type: none"> <li>Prosecution and fines due to non-compliance with permits</li> <li>Reputational impact of reducing Environmental Performance</li> <li>Loss of trust with customers and stakeholders</li> <li>Loss of trust with the Environment Agency leading to less support for innovative approaches to delivering environmental improvement</li> </ul>	Section 6
Price Control Deliverable	<p>Price control deliverables applied to this enhancement case:</p> <ul style="list-style-type: none"> <li>Treatment for tightening of sanitary parameters (WINEP/NEP) wastewater totex</li> </ul>	Section 6

## 2. Introduction

### 2.1.1 This document sets out the enhancement case for £9m totex to allow UW to deliver adequate treatment to 3 village drains as a result of drivers in the AMP8 WINEP.

- 2.1.2 This enhancement case covers 3 additional drivers which have been included in the WINEP since our initial business plan submission in October 2023. Details of other changes to the WINEP are summarised in [UWWR 77 – New WINEP](#).
- 2.1.3 The development of the WINEP has been informed by the key regulatory guidance including; the WINEP methodology, WINEP options development guidance, WINEP options assessment guidance, WINEP driver and supporting guidance. Our approach reflects the specific context within which we operate in the North West of England.
- 2.1.4 Hilton village drain is a legacy asset which has recently been identified. It is a sewer previously thought to be privately owned, with a number of properties connected to it, some with private pre-treatment, which discharges directly to surface water. This does not constitute adequate treatment which is required under The Water Environment (Water Framework Directive) Regulations 2017.
- 2.1.5 Following identification of the Hilton Village Drain it is understood that the sewer should vest to UW as it is believed to have been constructed prior to 1937.
- 2.1.6 Following the identification of the asset in Hilton, a regional review was done to identify where else may have a similar arrangement. This identified a number of other village drains including in the villages of Knock and Grinsdale.
- 2.1.7 The Environment Agency included Hilton, Grinsdale and Knock village drains in the WINEP issued on 5<sup>th</sup> July 2024 under WFD\_IMPg driver to deliver adequate treatment by 31<sup>st</sup> March 2030. The permit which will be issued is dependent on the solution proposed and therefore specific limits have not been included in the WINEP at this point.
- 2.1.8 For Hilton, the preferred solution is a new sewer and treatment facility discharging to Hilton Beck, a tributary of the River Eden. A pre-application has been submitted to the Environment Agency on this basis to confirm the likely permit limits and we are awaiting their response. The solution included in this submission has been designed based upon what we believe to be the likely permit limits, detailed in Table 1.
- 2.1.9 For Grinsdale, the preferred solution is a new sewer and treatment facility discharging to the River Eden, downstream of Carlisle. A pre-application has been submitted to the Environment Agency on this basis to confirm the likely permit limits and we are awaiting their response. The solution included in this submission has been designed based upon what we believe to be the likely permit limits detailed in Table 1.
- 2.1.10 For Knock, the preferred solution is to transfer the village drain and combine it with Knock Wastewater Treatment Works (WwTW). Knock WwTW was already included in the WINEP with HD\_IMP and U\_IMP7 drivers and the preferred solution to meet these at business plan submission was a full site rebuild. The new preferred solution is an integrated one rebuilding and upsizing Knock WwTW to accommodate the village drain. The proposal is to rebuild the site in a slightly different location to allow the properties served by the village drain to drain by gravity.
- 2.1.11 Table 1 below shows the anticipated limits for the treatment facilities within this business case, these limits are not included in the ADD17 or CWW19 tables as the limits have not been formally confirmed in the WINEP. These limits are a UW assessment and have been used as indicative limits for solution design.

**Table 1: Anticipated permit limits for treatment facilities receiving Village Drains**

Village Drain	Receiving WwTW	BOD (mg/l)	Suspended Solids (mg/l)	Ammonia (mg/l)	Phosphorus (mg/l)
Hilton	New facility	8	20	1	0.25
Grinsdale	New facility	30	45	15	-
Knock	Knock WwTW	40	60	-	3

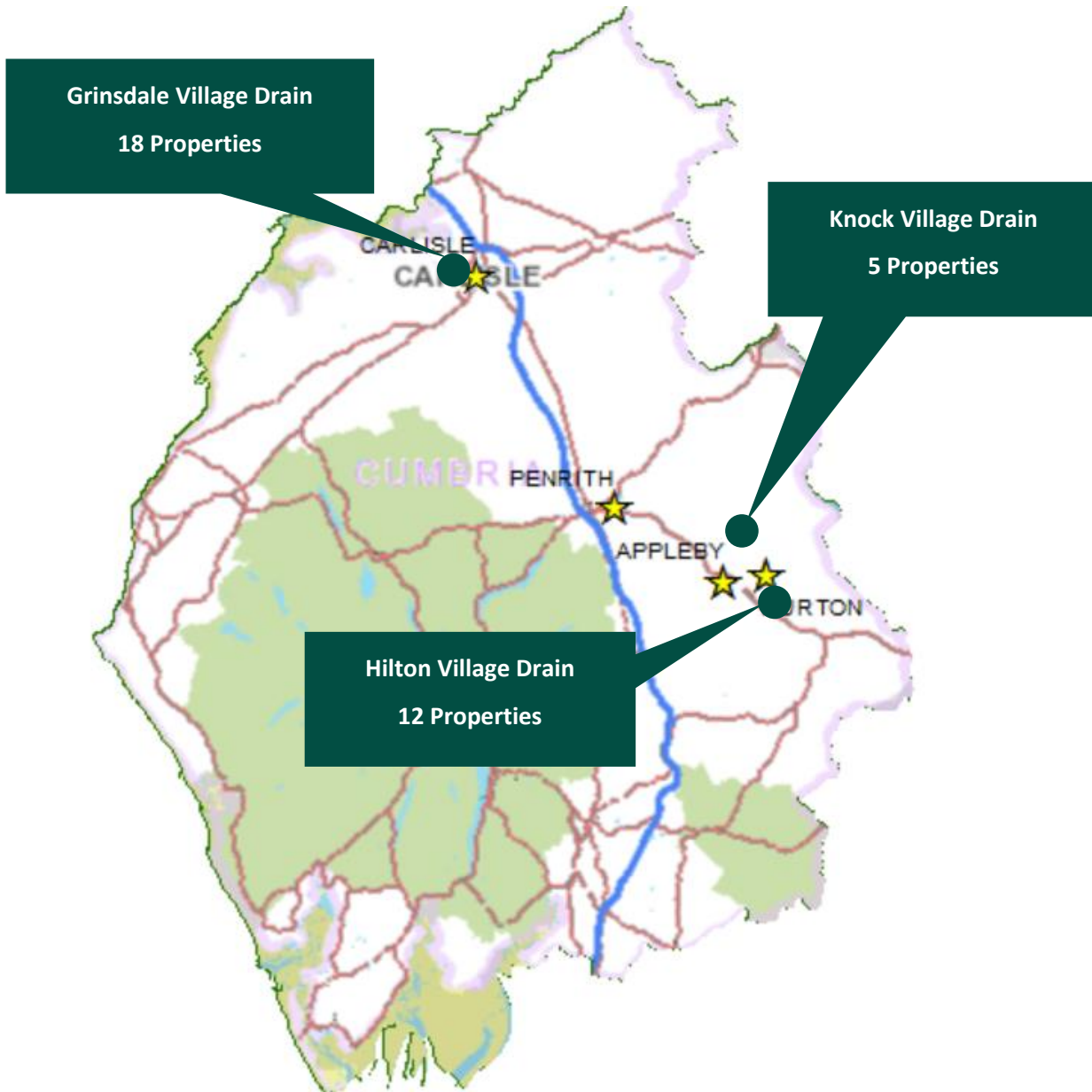
2.1.12 The enhancement costs and performance improvements can be found in relevant PR24 data tables: CWW20, ADD17.

### 3. Need for enhancement investment

#### 3.1 Environmental needs

- 3.1.1 This section details the environmental driver and legislation which supports the need for this investment and our approach to addressing these requirements.
- 3.1.2 Under The Water Environment (Water Framework Directive) Regulations 2017, we have a duty to provide adequate treatment.
- 3.1.3 Investigations since the submission of our business plan have identified 3 villages in Cumbria with a village drain arrangement (Figure 1). A village drain is a sewer which receives foul or surface water from a number of properties in the village and conveys it to a surface water for discharge.

*Figure 1: Three village drains have been identified in Cumbria*



- 3.1.4 A review has confirmed that responsibility for these village drains lies with UUW.
- 3.1.5 Some of the properties discharging into the village drains have private septic tanks or soakaways but not all do and so sewage is being discharged untreated via the village drain to a surface water. Due to this the Environment Agency has included 3 lines on the AMP8 WINEP under a statutory WFD\_IMPg driver

code. We are required to treat the effluent before it discharges to the environment. The regulatory dates for these drivers is the 31<sup>st</sup> March 2030.

3.1.6 The preferred solutions to this need vary due to the differing locations of each of the village drains.

## 3.2 Hilton Village Drain

3.2.1 Hilton is a small village in the Eden Valley in Cumbria. There are 69 properties in total, of which 12 are served by the village drain. 4 of these discharge directly into the drain and 8 of these discharge via septic tanks.

3.2.2 To ensure adequate treatment is provided it is necessary to provide secondary treatment to the effluent in the village drain.

3.2.3 There is no existing sewage treatment facility in Hilton and so a new treatment facility will be required with a discharge most likely into Hilton Beck. We have submitted a pre-application to the Environment Agency to understand what permit limits they would permit in this situation.

3.2.4 Due to Hilton Beck being in the Upper Eden Special Area of Conservation we anticipate that if the EA were to permit a discharge it would have the following tight limits: BOD – 8mg/l, ammonia – 1mg/l, phosphorous – 0.25mg/l. To meet these limits, the new treatment facility would likely consist of a package plant and reactive media asset to meet the phosphorous limit. This approach would be modular to allow for the facility to be expanded in the future if we were to receive a first time sewerage application from some of the other properties in the village which do not discharge to the village drain.

## 3.3 Grinsdale Village Drain

3.3.1 Grinsdale is a small village near Carlisle in Cumbria. There are 58 properties in Grinsdale of which 18 are served by the village drain. 11 properties discharge via private septic tanks and 7 via package works.

3.3.2 There is no existing sewage treatment facility in Grinsdale and so a new facility will be required with a discharge to the River Eden downstream of Carlisle WwTW. We have submitted a pre-application to the Environment Agency to understand what permit limits they would permit in this situation.

3.3.3 As the River Eden is large there will be significant dilution we anticipate that if the EA were to permit a discharge it would have the following limits: BOD – 30mg/l, suspended solids – 45mg/l, ammonia – 15mg/l. To meet these limits, a package plant could be installed. This approach would be modular to allow for the facility to be expanded in the future if we were to receive a first time sewerage application from some of the other properties in the village which do not discharge to the village drain.

## 3.4 Knock Village Drain

3.4.1 Knock is a small village in the Eden Valley in Cumbria. Most of the village is served by an existing sewerage provision and treatment works (Knock wastewater treatment works). However, 5 properties are served by a village drain.

3.4.2 Knock Wastewater Treatment Works has 2 separate drivers included in the AMP8 WINEP: HD\_IMP and U\_IMP7. This requires us to upgrade the septic tank facility to provide secondary treatment capable of achieving a permit of 40mg/l BOD, 60mg/l suspended solids and 3mg/l phosphorous.

3.4.3 The preferred solution to address both the village drain and the drivers at Knock WwTW is to build a new treatment works at a new site which both the properties served by the village drain and the existing treatment works can drain to by gravity.

## 3.5 Customer support

3.5.1 Customer research indicates protecting the environment is a key priority in the North West. Research for DWMP identified that 76% of customers said, 'protecting lakes, rivers, reservoirs, fish and other



aquatics plants and wildlife is really important to me'. This was also echoed by our PR24 research where customers identified that they wanted UUW to go further with our plans for addressing pollution and also requested area specific interventions to tackle local issues, more details can be found within our PR24 supplementary document Affordability and Acceptability Testing Research UUW22.

- 3.5.2 United Utilities Water (UUW) hold a library of customer insights for projects we have delivered within AMP 7 (currently in progress from 2020 – 25). Each insight and research project has used an appropriate method to capture a variety of customer and stakeholder opinions, ensuring a representative view of the diverse customer base across the North West. This insight has been incorporated in to the options development and selection process undertaken. Further information can be found in the UUW's WINEP approach to WINEP development and our insight and research library.

### **3.6 Management Control**

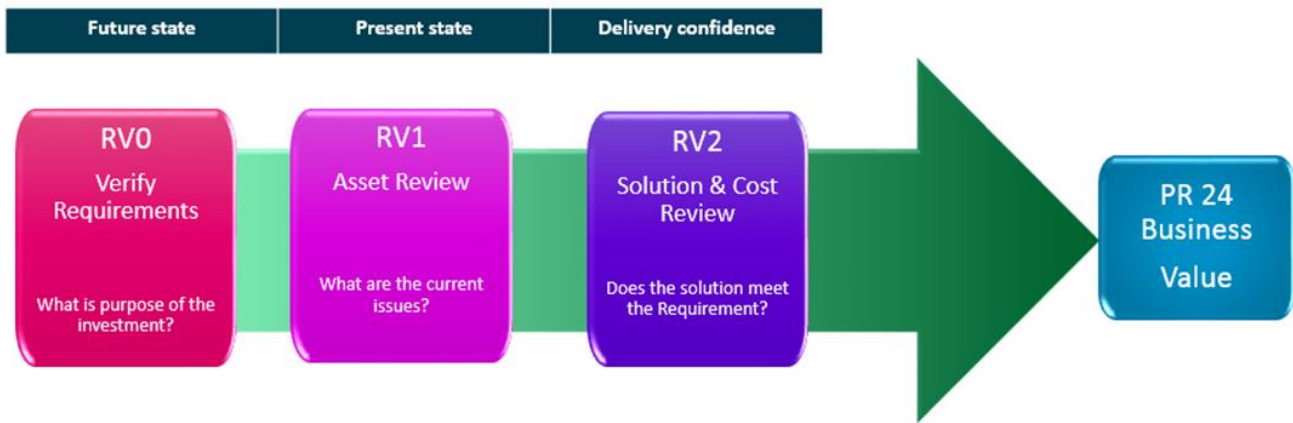
- 3.6.1 Statutory enhancements to performance included in the WINEP are outside of management control. Base totex allowance maintains compliance with current permits but in this case none of the village drains are covered by a permit due to no historic environmental driver.
- 3.6.2 Historically, these assets had not been identified as water company assets. A review has recently been conducted and confirmed that due to the likely construction date these sewers should vest to United Utilities.
- 3.6.3 Had the village drains have been identified previously by United Utilities or the Environment Agency they would have been included in previous National Environment Programmes.

## 4. Best option for customers

### 4.1 Approach to options development

- 4.1.1 PR24 options development followed the fundamental principles of the UUW defined value management process. Risk and Value for PR24 (RV) was a three stage process (Figure 2), aimed at positively challenging our projects to ensure we have sufficient evidence behind decisions. It provides UUW with confidence that we are proposing the right projects for the AMP8 Programme and therefore managing and maximising the value for customers from their investments. It also ensures that we adopt the correct approach to option identification, development and selection to maximise the realisation of benefits associated with these investments.
- 4.1.2 Due to the late addition of these schemes to the WINEP, we have not been able to assess the scope and develop interventions through the standard process, although the principles of this process have been followed, ensuring we have adopted the correct approach to option identification, development and selection to maximise the realisation of benefits.

**Figure 2: PR24 Risk and Value approach**



- 4.1.3 In our options development for village drains, we first considered and confirmed the requirements of the environmental drivers. Connectivity to the drain was investigated but as there are no existing treatment assets a conventional review of the assets was not possible. Therefore the next stage was the identification of possible options against the generic high level solutions (GLHS). This included the identification of potential permit limits for solutions where a new treatment facility and discharge was required.
- 4.1.4 Options to address PR24 requirements passed through a series of stages before the agreed solution was confirmed, from an initial ‘un-constrained’ list of options through to confirmation of the defined and estimated scope associated with a preferred solution.
- 4.1.5 Within the options development process, un-constrained options were identified against a list of GHLS categories. If un-constrained options were deemed viable then due to time constraints they were passed through for detailed scope development and estimating. Class A estimates were produced for all unconstrained options.
- 4.1.6 In developing feasible options the engineering teams always consider which solution will represent the best value to the customers.

## 4.2 Options considered for Village Drains

- 4.2.1 As the process described a variety of solutions were considered for each of the Village drains before the selection of the preferred option. In all cases, the best value option was selected and this also happened to be the lowest whole life cost option.
- 4.2.2 Engineering studies considered a range of solutions for each village drain. For Hilton these options included:
- Transferring flows to Murton Wastewater Treatment Works, the nearest existing treatment works and upgrading that facility to accommodate additional population;
  - New package plant facility with capacity to serve the whole village;
  - New package plant facility with capacity to serve only those connected to the village drain and
  - Installation of a cess pit and operational tankering.
- 4.2.3 For Grinsdale, the same options were considered but with a transfer to Carlisle Wastewater Treatment Works.
- 4.2.4 Additional options were considered for Knock Village Drain due to the separate environmental drivers at Knock Wastewater Treatment Works (WwTW) driving significant investment anyway. Therefore as well as considering transferring flows into Knock WwTW via a pumping station an alternative option was also considered of rebuilding Knock WwTW somewhere else where all flows could drain by gravity. In the end this was the preferred solution.

## 4.3 Innovation

- 4.3.1 Throughout AMP7 United Utilities has undertaken rapid learning from the deployment of AMP6 innovation (such as that demonstrated with Nereda and Typhon) and has developed a new Technology Approval Process. This process identifies opportunities for innovative technologies and nature-based solutions. It provides a methodical approach to due diligence, innovation risk identification and mitigation planning. The approved technologies and solutions include:
- those we have identified directly
  - those suggested by our construction partners
  - those identified by other WaSCs but not yet progressed by United Utilities in AMP7 i.e. I-PHYC Algal bioreactors
  - global innovation insights such as that secured through our engineering service provider Jacobs and other consultants such as Stantec.
- 4.3.2 Our Technology Approval Process has allowed us to progress technologies into approval without the need to trial and we have incorporated the technologies that have now secured “Approved” status into our Process Decision Support Tool which was used to identify innovation opportunities by driver and site details. Where these innovation opportunities present the best value solutions they have been selected to be taken forward as the preferred solution. Alongside this we will continue to review those innovations / solutions not yet approved but relevant to AMP8 drivers and progress these through our Technology Approval Process and, where deemed truly necessary, deliver specific Innovation trials. We believe this sets United Utilities in good standing in terms of understanding the key opportunities that innovation can deliver within our PR24 submission but will also allowing for further efficiency driven by our Innovation programme.
- 4.3.3 We continue to explore innovative ways to achieving lower phosphorus limits at small WwTW. While permit limits have not been confirmed following our pre-application for the new treatment works at Hilton, we anticipate a low phosphorus limit.

- 4.3.4 Following identification of an innovative technology on the conference circuit, United Utilities has funded an innovation trial to investigate the potential of a highly novel, Japanese technology and its applications on very small WwTWs as an alternative to septic tanks. This technology is a chemical free, package plant treatment system which is capable of removing phosphorus, suspended solids, BOD, ammonia and total nitrogen. Predominantly used in the domestic sector, our innovation trial has proven that the technology is also applicable in municipal settings. Through a pilot trial, hosted at Glazebury WwTW, results suggest that the technology could achieve an average phosphorus concentration of 0.5 mg/l, as well as excellent performance for suspended solids, BOD and ammonia. Trial data also suggests that the technology is capable of treating for Total Nitrogen, though the trial was not specifically designed to test this parameter. As well as the excellent performance, the technology also brings a number of other benefits:
- Standard product; modular installation
  - Low power consumption: potential to be powered renewably
  - Long desludge period; reduced OPEX and customer impact
  - Chemical free phosphorus removal; no requirement for deliveries, reduced H&S risk.
- 4.3.5 United Utilities has moved at pace to adopt this technology, and has already got 1 unit installed at Calverhall Prees Rd, though this model (CEN) is not capable of removing phosphorus. Performance has been excellent since being installed in December 2023, and has resolved a long standing customer issue. In AMP7, 2 of these units will be installed at Whitegate WwTW to meet the regulatory Phosphorus driver (1 mg/l) by December 2024. In addition, orders have been placed for an additional 9 units to be applied across our geographical patch. All data from the pilot trial is limited and does not provide evidence of performance under all scenarios.
- 4.3.6 The trial concluded that the technology has potential for widescale adoption and benefits across the AMP8 capital programme and the wider UU asset base but it is not without risk.

## 5. Cost efficiency

### 5.1 Introduction

5.1.1 This section sets out how we have calculated the value of this enhancement case, how we have challenged our assumptions to develop efficient costs and how these have been benchmarked and assured.

### 5.2 Approach to cost build

- 5.2.1 Costs for each of these projects have been assessed using location specific information. Our UUW engineering team have developed solutions for each Village Drain based on assumptions of the likely permit limits we would receive. A pre-application has been submitted to the Environment Agency where a new works is the preferred option to confirm likely limits.
- 5.2.2 To develop robust and efficient costs we have used an estimating approach based on data collected over a number of AMPs (AMP3 to AMP7), updated to reflect present market conditions under which we and the UK water industry are operating. We have partnered with Mott Macdonald who provide us and other UK water and sewerage companies with an estimating service, which allows them to provide a benchmarked approach to our PR24 capital cost estimates.
- 5.2.3 Our Investment Programme Estimating System (referred to as the PR24 Estimating Database / IPES) is an in-house estimating tool which is used to provide costs for the Price Review and scheme development. The system is a robust repository for data from previous AMP periods, which sits alongside estimated data, to allow us to develop project and programme estimating.
- 5.2.4 Mott MacDonald has provided us with a specialist estimating function utilising costing data derived from our construction data, which supports our scheme estimates. Post business plan submission, to give us additional confidence that our cost estimates produced by Mott MacDonald were accurate, we undertook a self-assurance exercise by appointing ChandlerKBS. We asked ChandlerKBS to price up a selection of our projects using their Cost Intelligence Database (CID). ChandlerKBS are an international commercial company who have provided estimating services to a number of UK infrastructure businesses, including a number of water companies. Their CID contains data derived from their clients over 20 years, including tens of thousands of cost curves and capital projects.
- 5.2.5 The outcome of this review was that an overall variance of 3% against the Mott MacDonald estimate shows a close level of correlation and gives us confidence in the costs we have developed for our schemes. This was backed up by the output report: "The overall ChandlerKBS estimate total for the fourteen projects is 3% lower than the UU PR24 estimates. ChandlerKBS consider the UU PR24 estimates to be comparable with our industry cost data" (ChandlerKBS 2024).
- 5.2.6 There are several aspects of project costs, which are impacted by the scale of the programme and thus as the AMP8 programme matures, they may be subject to change. At the moment the following assumptions are included in our costs Corporate Overhead: we have currently estimated 7% allowance for Corporate Overhead. This is estimated on anticipated high level organisational structures to support the programme. This has been calculated based on current delivery assumptions, which is a largely outsourced design and build basis.
- 5.2.7 We commissioned Arup to run an independent scrutiny and challenge process on the development of the PR24 WINEP before the Village drains were identified for investment. Arup spent time working with specialists across UUW to understand how we had arrived at the scope, the approach to developing costs and whether the programme had been appropriately optimised.
- 5.2.8 Feedback from Arup 'Overall, we note the very significant amount of work that was done by UUW in the short time between our reviews... We found that UUW responded positively to the challenge and scrutiny applied to it from Arup and the Panel members, with a very significant amount of work

undertaken after our initial review. We observed that progress had been made by UWW in many areas that we highlighted in our original review. As part of this, we also noted a strong push across the leadership and the operational teams on trying to ensure that the programme achieves a balance of solutions across traditional engineered approaches and alternative solutions where these are feasible and appropriate.’

- 5.2.9 Following the initial review by Arup we incorporated their feedback into our plan and process for developing solutions. Particularly relevant to this case is the cost estimating methodology which following the second review they concluded that UWW costing methodologies largely comply with the requirements of WINEP guidance as well as standard industry practice. However, they did raise concern that “across a broad programme the level of risk allowance is at the lower end of the range we would expect’ we have further developed our plan to ensure concerns raised are addressed within the final estimates.
- 5.2.10 We have run internal cost challenge processes since the 5th July ’24 WINEP, but a full cost challenge and assurance has not been possible in the time available.

### 5.3 Third party assurance of our cost estimates

- 5.3.1 UWW put in place a robust process to identify, scope and cost all solutions proposed within our business plan. This process is set out in detail in October’s main business plan submission<sup>[1]</sup> along with supporting supplementary documents<sup>[2]</sup>.
- 5.3.2 This process was subject to third party assurance during the development of our business plan. Full details of UWW’s approach to assuring our business plan was set out in our October submission<sup>[3]</sup>. As set out within this submission, a number of third party organisations were involved in providing assurance including Deloitte, PWC and Faithful & Gould.
- 5.3.3 UWW’s Board provided assurance that the solution development process underpinning our plan was appropriate, included extensive optioneering and that resulting expenditure forecasts were robust and efficient<sup>[4]</sup>.
- 5.3.4 The scope and associated costs set out within this enhancement case have been developed using the same process described and assured in the above documents. This enhancement case has also set out specific evidence to support the unique aspects of this particular investment proposed. As such, we consider this to represent compelling evidence that the forecast costs set out within this case are robust and efficient.

### 5.4 Benchmarking UWW’s capital costs

- 5.4.1 In July 2024 United Utilities commissioned Mott MacDonald to carry out a benchmarking exercise of United Utilities major capital construction costs.
- 5.4.2 The benchmarking of costs between companies is a challenging task, as such costs are often commercially sensitive, and are not readily shared. The sharing of out-turn costs could affect market competition between contractors and suppliers.

<sup>[1]</sup> UWW (2023) *UUW08: Delivering at efficient cost*. Available here:

[https://www.unitedutilities.com/globalassets/z\\_corporate-site/pr24/main-documents/uuw08.pdf](https://www.unitedutilities.com/globalassets/z_corporate-site/pr24/main-documents/uuw08.pdf)

<sup>[2]</sup> UWW (2023) *UUW45: Our approach to best value totex*. Available here:

[https://www.unitedutilities.com/globalassets/z\\_corporate-site/pr24/supplementary-documents/uuw45.pdf](https://www.unitedutilities.com/globalassets/z_corporate-site/pr24/supplementary-documents/uuw45.pdf)

<sup>[3]</sup> UWW (2023) *UUW76: Confidence and assurance of the submission*. Available here:

[https://www.unitedutilities.com/globalassets/z\\_corporate-site/pr24/supplementary-documents/uuw76.pdf](https://www.unitedutilities.com/globalassets/z_corporate-site/pr24/supplementary-documents/uuw76.pdf)

<sup>[4]</sup> UWW (2023) *UUW11: Board Assurance Statement*. Available here:

[https://www.unitedutilities.com/globalassets/z\\_corporate-site/pr24/main-documents/uuw11.pdf](https://www.unitedutilities.com/globalassets/z_corporate-site/pr24/main-documents/uuw11.pdf)

- 5.4.3 Mott MacDonald provide engineering and capital delivery services to three UK water and wastewater companies, and were able to determine the costs incurred by those companies in the delivery of their major capital programme. United Utilities costs were compared to the other two water and wastewater companies (whose identity was not revealed to United Utilities, and who were referred to as “Benchmark 1” and Benchmark 2”) and the outcome of this comparison was shared.
- 5.4.4 United Utilities provided cost breakdowns for high value construction projects, for use in the benchmarking exercise. The comparable project costs included elements such as materials, construction costs, and so on.
- 5.4.5 The benchmarking exercise found that all companies were most expensive for some line items, and least expensive for other line items.
- 5.4.6 When comparing all of the most expensive line items from across the three companies, and all of the least expensive line items (the max of maxs, and min of mins), United Utilities costs were 18% below the max of max, and 19% above the min of mins.
- 5.4.7 Looking at overall average costs, United Utilities was 2% above Benchmark 1 costs, and 3% below Benchmark 2 costs, with an average variance of 1%.
- 5.4.8 This indicates that United Utilities costs are comparable to other companies in the sector, and that we are not high cost outliers. We will continue to work with contractors and partners to secure cost efficiencies as we move into the delivery phase of the programme.

## 6. Customer protection

### 6.1 Summary

- 6.1.1 It is important that customers have confidence that we will deliver the enhancement schemes that get reflected in our PR24 final determinations and they are suitably protected in the event of non-delivery, or if there are material changes to deliverables (including changes to dates), which leads to a change in cost (including changes in the timing of required expenditure). Ofwat proposes that, if companies fail to deliver or are late delivering improvements to customers, then price control deliverables (PCDs) should, where appropriate, be used to compensate customers. In our PR24 October 2023 business plan submission *Chapter 8 – Delivering at Efficient Cost, section 8.8.9* we have proposed an approach to PCDs that aims to provide customer protection, such that customers are fairly compensated for non-delivery (such as due to a change in regulatory requirements) or late delivery (including as a result of a change to a regulatory date), between PCDs, any related ODI underperformance payments, and cost sharing arrangements.
- 6.1.2 For enhancement requirements that have been added to the WINEP post submission of our PR24 plan, we propose that they should be incorporate within the relevant price control deliverable (PCD).
- 6.1.3 For the additional Village Drain schemes we believe the following PCD should be updated to reflect the new additional enhancement requirements:
- Sanitary parameters
- 6.1.4 Further details on this can be found in ADD17.



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**Water for the North West**