

UUW79

Statutory Obligations Summary

October 2023

Chapter 10 supplementary document

This document sets out the evidence that demonstrates that UUW is and will continue to deliver its statutory and licence obligations and broader commitments for the AMP7 period and that its business plan for the 2025-2030 will enable the company to continue to meet its statutory and licence obligations and deliver its new PR24 expectations

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1. Statutory obligations summary

1.1 Key messages

- **We have effective governance, processes and systems:** This allows the board of United Utilities Water Limited (UUW) to sign an annual Risk and Compliance Statement, which demonstrates that we comply with our regulatory, statutory and licence obligations.
- **We will incorporate the new AMP8 obligations into our governance processes:** This will ensure that we are able to continue to provide this annual confirmation throughout the AMP8 period.
- **We are delivering against the commitments that we made in PR19:** This includes the commitments we made during the PR19 process, together with a number of subsequent commitments that have been made during the current AMP7 period.
- **We have worked with our regulators to develop our PR24 programmes of work:** The way that we have collaboratively worked with our regulators has allowed us to understand, shape and where appropriate challenge the specific regulatory obligations which will be imposed for the AMP8 period.
- **Our PR24 business plan will deliver our commitments for the AMP8 period:** This plan includes; performance commitments and price control deliverables, delivery programmes and supporting investment levels, and performance and delivery incentives that will demonstrate that we will continue to deliver our obligations and commitments during the AMP8 period.
- **Where there are opportunities to deliver better value and long term resilience through WINEP schemes we are continuing to work with regulators:** There are a small number of locations, which we have been discussing with regulators throughout the development of the WINEP and PR24 plan, where the scale of interventions needed is very significant, technical deliverability would require a timeframe beyond AMP8 and the opportunity to deliver long term value and resilience combine to result in us seeking to phase investment. This document details our approach to those investment plan variants.

1.2 Structure

- 1.2.1 The document provides detailed evidence to demonstrate that during the current (AMP7) period we are successfully meeting our statutory and licence obligations, together with the more specific commitments that we either made as part of the PR19 process, to our non-financial regulators, or that we have made following the PR19 determination.
- 1.2.2 The document is structured as follows:
- **Section 2– Statutory and regulatory obligations:** Sets out how we are we are successfully meeting our statutory and licence obligations.
 - **Section 3– Delivering AMP7 performance commitments:** Describes how we are performing to date against the AMP7 performance commitments we made through PR19.
 - **Section 4 – Delivering other AMP7 commitments:** Provides further details on the delivery of our AMP7 commitments to date for the EA, DWI, greenhouse gases and any further commitments made outside of those areas.
 - **Section 5– Meeting regulatory and statutory obligations throughout AMP8:** Sets out the governance and assurance arrangements that are in place to ensure that the company will continue to comply with its obligations and report its performance transparently.
 - **Section 6 – Meeting other AMP8 commitments:** Demonstrates how our business plan addresses other specific requirements that we will need to deliver for the AMP8 period.

1.3 Overview

- 1.3.1 As a regulated water and wastewater company UUW is subject to a number of obligations, which can be considered as falling within one of two categories:
- Statutory obligations either defined by legislation - such as the Water Industry Act 1991 - or defined through the Instrument of Appointment; or
 - Specific obligations - defined through the price review, or related cyclical processes, such as the performance commitments and the quality enhancement programmes.
- 1.3.2 This document demonstrates how we are currently delivering against our statutory and AMP7 specific obligations to 2025. It then demonstrates how our AMP8 business plan will ensure that we will be able to continue to demonstrate that we are meeting our statutory obligations throughout the AMP8 period.
- 1.3.3 The document also sets out in detail the work that we have undertaken to enable our AMP8 business plan to meet the other obligations which will be developed through the price review or other related cyclical processes
- 1.3.4 The document also provides detailed evidence to demonstrate how we have built from this strong foundation to develop a business plan for the 2025-2030 period that will enable the company to continue to meet its statutory and licence obligations and to deliver performance and environmental requirements that are in line with the expectations set out in:
- Ofwat's PR24 publication "Delivering UK government priorities for the English water sector through our 2024 price review final methodology¹";
 - The Water Industry Strategic Environmental Requirements²; and,
 - The Drinking Water Inspectorate Long term planning guidance¹.
- 1.3.5 These publications contain a mixture of statutory requirements, and non-statutory enhancements which these organisations expect water companies to deliver through their business plans for 2025-2030. All of these requirements and the plans to deliver them have been reviewed.
- 1.3.6 For all of the statutory requirements which are relevant to UUW, there is assurance that they will be met through the delivery of our AMP8 business plan.
- 1.3.7 For the non-statutory enhancements which are relevant to UUW, many are intentionally aspirational, (rather than for immediate delivery), and UUW supports them, where it is in the best interest of customers in the North West to do so.

¹ https://www.ofwat.gov.uk/wp-content/uploads/2022/12/PR24_final_methodology_UK_SPS.pdf

² <https://www.gov.uk/government/publications/developing-the-environmental-resilience-and-flood-risk-actions-for-the-price-review-2024/water-industry-strategic-environmental-requirements-wiser>

2. Statutory and regulatory obligations

- 2.1.1 As a regulated water company United Utilities Water Limited (UUW) needs to comply with a number of statutory and regulatory obligations. For the purpose of this document the obligations we need to comply with during the AMP7 period have been spilt into the following categories:
- 2.1.2 A key component of our Annual Performance Report (APR) which is published on our website each year, is the “Risk and Compliance Statement”. This statement is made by the board of United Utilities Water Limited and confirms that the company has complied with the relevant statutory, licence and regulatory obligations for the provision of services to its customers, for the relevant reporting year.
- 2.1.3 The statement sets out that the board considers that the company has applied its processes and internal systems of control in a manner that has enabled it to satisfy itself, to the extent that it is able to do so from the facts and matters available to it, that the company:
- Has a full understanding of and has complied with its relevant statutory, licence and regulatory obligations in all material respects in 2022/23;
 - Has taken appropriate steps to understand and meet customer expectations;
 - Has sufficient processes and internal systems of control to fully meet its obligations;
 - Has appropriate systems and processes in place to identify, manage, mitigate and review its risks; and
 - Has confidence that the data and information provided to Ofwat and published in the relevant reporting year was accurate and complete.
- 2.1.4 The statement within our published Annual Performance Report, sets out the detailed evidence that is used to support the board in signing each year’s statement.
- 2.1.5 Each year we set out where there are known material departures from this statement – for example, if there are ongoing significant identified legislative or licence breaches or where systemic issues arose with management controls or processes. If we identify any exceptions they are outlined in the Table of Departures.
- 2.1.6 At any given time there may be matters under ongoing discussion or investigation with regulators or others to determine whether a material departure occurred. Where relevant, these matters will generally be disclosed following the conclusion of such processes.
- 2.1.7 For full details and supporting evidence see our published Annual Performance Report (APR).

3. AMP7 performance commitments to date

- 3.1.1 Our Annual Performance Reports provide a detailed commentary on how we are performing against the performance commitments and outcome delivery incentives that were defined as part of the PR19 process.
- 3.1.2 Table 1 to 7 below show the reported performance levels for each of our performance commitments broken down into outcomes for the first three years of AMP7. Performance numbers highlighted in green are where we have passed our annual performance target, whilst those highlighted in red are where we failed the target.
- 3.1.3 In 2020/21 we achieved 80 per cent of our performance commitments. In 2021/22 we achieved 78 per cent of our performance commitments and in 2022/23 we achieved 83 per cent of performance commitments.
- 3.1.4 Your drinking water is safe and clean (Table 1). Customers want a reliable supply of high quality water that they trust. To deliver this outcome we will continue to ensure water quality is at the heart of our decision making, achieving a significant reduction in water quality events and an improvement in the aesthetic parameters that impact customers' perceptions of water quality. Our water quality vision is 100 per cent compliance with current and future drinking water quality standards, providing a reliable supply of safe, clean drinking water for future generations.

Table 1: Your drinking water is safe and clean performance summary

Your drinking water is safe and clean	Unique reference	2020/21	2021/22	2022/23
Water quality compliance (CRI)	UUW_A01-CF	2.58	3.02	3.67
Reducing water quality contacts due to taste, smell and appearance	UUW_A02-WN	17.7	17.9	14.1
Number of properties with lead risk reduced	UUW_A03-WN	0	3,525	3,487
Helping customers look after water in their home	UUW_A04-WN	13.8%	23.8%	31.6%
Reducing discolouration from the Vyrnwy treated water aqueduct	UUW_A05-WN	0.0	0.0	0.0

Source: UUW 2021 to 2023 Annual Performance Reports

- 3.1.5 You have a reliable water supply now and in the future (Table 2). Customers want to rely on us to provide enough water resources to meet our current and future needs. We want to improve supply reliability, reducing both short-term interruptions and the risk of longer-term interruptions. We are targeting a reduction in leakage and encouraging water efficiency, which research has shown to be key priorities for customers.

Table 2: You have a reliable water supply now and in the future performance summary

You have a reliable water supply now and in the future	Unique reference	2020/21	2021/22	2022/23
Leakage	UUW_B01-WN	1.9%	4.7%	5.9%
Mains repairs	UUW_B02-WN	106.63	96.0	111.6
Water supply interruptions	UUW_B03-WN	00:04:464	00:08:015	00:38:45
Unplanned outage	UUW_B04-CF	1.88%	2.07%	1.73%

³ Updated following 2020/21 in-period determination

⁴ Number updated following query (APR-IP-010).

⁵ Number updated following resolution of customer query

You have a reliable water supply now and in the future	Unique reference	2020/21	2021/22	2022/23
Per capita consumption	UUW_B05-WN	-1.7%	-1.5%	0.5%
Drought risk resilience	UUW_B06-CF	0.00	0.00	0.00
Reducing areas of low water pressure	UUW_B07-WN	1.1146	0.513	0.462
Water service resilience	UUW_B08-WN	106	915	2,198
Manchester and Pennine resilience	UUW_B09-DP	Achieved	Achieved	Achieved
Keeping reservoirs resilient	UUW_B10-WR	0.000	0.000	1.200
Thirlmere transfer into West Cumbria (AMP7)	UUW_B11-WN	99%	99%	100%

Source: UUW 2021 to 2023 Annual Performance Reports

3.1.6 The natural environment is protected and improved in the way we deliver our services (Table 3). Customers, stakeholders and regulators expect us to maintain and improve the quality of the environment. We will deliver a programme of environmental improvements and, where possible, achieve this in a more sustainable way which can be maintained over the long term and protects resources for future generations. We aim to effectively operate and maintain our assets so that we can mitigate the impact of external factors such as climate change, population growth and changing customer behaviours and reduce our abstraction from sensitive sites during periods of low flow.

Table 3: The natural environment is protected and improved in the way we deliver our services performance summary

The natural environment is protected and improved in the way we deliver our services	Unique reference	2020/21	2021/22	2022/23
Pollution incidents	UUW_C01-WWN	18.10	17.71	16.29
Treatment works compliance	UUW_C02-CF	99.75%	98.98%	98.45%
Abstraction incentive mechanism	UUW_C03-WR	-695.9	-134.4	0.00
Improving the water environment	UUW_C04-WR	0	62	80
Improving river water quality	UUW_C05-WWN	0	0	0
Protecting the environment from the impact of growth & new development	UUW_C06-WWN	0	94	6,979
Enhancing natural capital value for customers	UUW_C08-CF	0.00	2.508	0.000
Recycling biosolids	UUW_C09-BR	99.87%	100%	100%
Better air quality	UUW_C10-BR	1.30	1.19	1.07

Source: UUW 2021 to 2023 Annual Performance Reports

3.1.7 You are highly satisfied with our service and find us easy to do business with (Table 4). We are committed to delivering the best possible service for customers. We seek to offer customers the services that they want and value. We actively promote support for customers in vulnerable circumstances. We provide assurance that the quality of support for customers in vulnerable circumstances is of a leading standard by achieving and maintaining certification under ISO 22458:2022 Customer Vulnerability – Requirements and guidelines for the design and delivery of inclusive services. This standard has evolved from the British Standards Institution (BSI) accreditation for inclusive service provision.

⁶ Revised performance to comply with Ofwat reporting clarification associated with total connected properties reporting.

Table 4: You are highly satisfied with our service and find us easy to do business with performance summary

You are highly satisfied with our service and find us easy to do business with	Unique reference	2020/21	2021/22	2022/23
C-MeX	UUW_D01-HH	83.59%	82.01%	81.26%
D-MeX	UUW_D02-CF	88.44%	88.40%	87.43%
Priority services	UUW_D03-HH	4.1	5.9	9.1
Improving streetworks performance	UUW_D04-CF	10.56%	12.67%	15.44%
Priority services BSI accreditation	UUW_D05-HH	Achieved	Maintained	Maintained

Source: UUW 2021 to 2023 Annual Performance Reports

3.1.8 We will improve the way we work to keep bills down (Table 5). We aim to keep future bills down for customers by helping more people to pay and seeking to ensure that all those receiving our services are being billed. We will continue to support customers who have affordability issues by ensuring that they are on the most suitable tariff and payment plan for their circumstances and employing other non-financial assistance schemes.

Table 5: We will improve the way we work to keep bills performance summary

We will improve the way we work to keep bills	Unique reference	2020/21	2021/22	2022/23
Number of customers lifted out of water poverty	UUW_E01-HH	71,057	77,312	84,002
Non-household vacancy incentive scheme	UUW_E03-CF	7,940	14,519	6,022
Gap sites (Wholesale)	UUW_E04-CF	949	1,912	1,339
Gap sites (Retail)	UUW_E05-HH	6,349	7,455	8,996
Systems thinking	UUW_E06-CF	1	2	2
Successful delivery of direct procurement of Manchester & Pennine resilience	UUW_E07-DP	On track	On track	On track
Customers say we offer value for money	UUW_E09-HH	78%	79%	75%
Voids	UUW_E10-HH	6.01%	4.51%	4.45%

Source: UUW 2021 to 2023 Annual Performance Reports

3.1.9 Collect and recycle wastewater (Table 6). Customers rightly prioritise the removal of wastewater as a discreet service which should not interfere with their day-to-day lives. Operational issues such as blockages are the principal cause of non-hydraulic incidents of surcharging drainage systems, which can lead to flooding and pollution incidents. There is strong customer and stakeholder support for reducing both flooding and pollution incidents which we will achieve through innovative technologies and planned programmes to proactively manage our risks.

Table 6: Collect and recycle wastewater performance summary

Collect and recycle wastewater	Unique reference	2020/21	2021/22	2022/23
Sewer collapse	UUW_F01-WWN	14.61	13.70	14.13
Sewer blockages	UUW_F02-WWN	22,639 ⁷	20,697 ⁷	20,203

Source: UUW 2021 to 2023 Annual Performance Reports

3.1.10 The risk of sewer flooding for homes and businesses is reduced. (Table 7). Sewer flooding is one of the worst service failures that customers can experience and we understand the significant long term impact flooding can have on customers in the North West. Customers want us to reduce flooding incidents and our long term aspiration is to eliminate internal flooding incidents.

⁷ Restated following November 2022 Final determination of United Utilities' in-period outcome delivery incentives for 2021/22

Table 7: The risk of sewer flooding for homes and businesses is reduced performance summary

The risk of sewer flooding for homes and businesses is reduced	Unique reference	2020/21	2021/22	2022/23
Risk of flooding in a storm	UUW_G01-WWN	13.42%	13.35%	14.33%
Internal flooding Incidents	UUW_G02-WWN	4.47	2.98	2.32
External flooding Incidents	UUW_G03-WWN	6,849	6,223	5,916
Raising customer awareness to reduce the risk of flooding	UUW_G04-WWN	4.1%	17.4%	39.0%
Hydraulic internal flood risk resilience	UUW_G05-WWN	41.84	40.61	38.49
Hydraulic external flood risk resilience	UUW_G06-WWN	179.84	184.04	173.30

Source: UUW 2021 to 2023 Annual Performance Reports

3.1.11 A detailed commentary on the progress of each of these measures is provided within each years APR.

4. Delivering our AMP7 other commitments

4.1 Environmental Performance Assessment (EPA)

4.1.1 The Environment Agency (EA) introduced the Environmental Performance Assessment (EPA) in 2011 as a tool for comparing and reporting performance between water companies and monitoring performance over time. The detailed definitions and targets for each measure can be revised for each AMP period, and for AMP7 these measures are:

- Total pollution incidents per 10,000 km;
- serious pollution incidents – actual number;
- self-reported pollution incidents per cent;
- discharge permit compliance per cent (failing sites) Core metric from 2022;
- satisfactory sludge use and disposal per cent;
- WINEP scheme delivery on time per cent; and
- Supply Demand Balance index (SDBI) per cent.

4.1.2 The satisfactory sludge use and disposal measure was suspended in calendar year 2018, to review the regulatory regime for sludge treatment, storage and use and was only re-introduced for 2022. The threshold targets for some of the measures tighten over time, with the detailed methodology for these measures and the specific RAG thresholds published on the Ofwat website⁸. In addition to these metrics, the EA's annual EPA report contains a section on event duration monitoring (EDM) of storm overflows.

4.1.3 Company performance against each measure is given an annual red, amber or green (RAG) status:

- red - performance significantly below target;
- amber - performance below target; and
- green - performance better than target.

4.1.4 Overall company performance is also given a star rating, with descriptions as shown in Table 8:

Table 8: Environment Agency performance summary

Rating	Description	Assessment
4 Star	Industry leading company	5 or more green metrics no red metrics and green status for discharge permit compliance
3 Star	Good company	1 or more green metrics and no red metrics
2 Star	Company requires improvement	1 or two red metrics and or zero green metrics
1 Star	Poor performing company	More than two red metrics

Source: Environment Agency Environmental Performance Assessment (EPA) methodology (version 8) for 2021 to 2025

4.1.5 UUW's EPA performance in each year of AMP7 is shown in the table below, followed by a commentary of our performance against each of the measures.

Table 9: EPA indicators and performance

Measure	2020 performance	2021 performance	2022 performance
Total pollution incidents per 10,000km	Green	Green	Green

⁸ Environment Agency Environmental Performance Assessment (EPA) methodology (version 8) for 2021 to 2025: <https://www.ofwat.gov.uk/wp-content/uploads/2021/01/EPA-methodology-version-8-October-2020.pdf>

Measure	2020 performance	2021 performance	2022 performance
Serious pollution incidents	Green	Green	Green
Self-reported pollution incidents	Green	Amber	Green
Discharge permit compliance	Green	Green	Amber
Satisfactory sludge use and disposal	N/A	N/A	Green
WINEP scheme delivery on time	Green	Green	Green
Supply Demand Balance index (SDBI) score	Green	Green	Green
Overall	4 star	4 star	3 star

Source: Environment Agency EPA report published July 2020 to 2023⁹

Total pollution incidents per 10,000km and Serious pollution incidents

- 4.1.6 Pollution incidents can lead to the release of harmful substances into the air, land or water. UUW actively seeks to minimise the number of events from its assets and the impact these incidents may cause. The EA categorise all incidents based on their actual / potential impact:
- Category 1 incidents have a serious, extensive or persistent impact on the environment, people or property and may for example result in a large number of fish deaths;
 - category 2 incidents have a lesser yet significant impact; and
 - category 3 incidents have a minor or minimal impact on the environment, people and/or property with only a limited or localised effect on water quality.
- 4.1.7 The EA only include pollution incidents impacting water in the EPA. We have outperformed the threshold measure for both of these measures for all three years of the AMP7 period. We have only had one category 1 serious pollution incident in these three years, against an annual performance threshold of three. We anticipate that this strong performance will continue in the future.

Self-reported pollution incidents

- 4.1.8 This metric assesses the percentage of category 1 to 3 pollution incidents self-reported by a water company to the EA. Self-reporting of incidents, is where water companies tell the EA about incidents from a company's assets before a member of the public or a third party does. High levels of self-reporting of pollution incidents, indicate that the company is more likely able to identify problems quickly, instigate a rapid response and effectively implement mitigation measures.
- 4.1.9 UUW has a good record with regard to self-reporting performance. We have exceeded the target for self-reporting against our full asset base in all three years to date. Whilst in 2021 we were amber status for this measure, we improved our performance and regained green status in 2022.

Discharge permit compliance

- 4.1.10 All water companies have licences and permits to control the level of impact they are allowed to have on the environment. These vary in complexity depending on the activities concerned and the nature and sensitivity of the local environment.
- 4.1.11 It is a statutory obligation for water companies to comply with their permits. In accordance with the performance expectations set out in the WISER, water companies must have a plan in place to achieve 100 per cent compliance for all licences. They must also achieve 100 per cent compliance with "look up table" conditions. Since 2022 water companies need to achieve green EPA status for this core metric (99 per cent or above) to be able to be classified as a four star leading company, even if all other metrics were green.

⁹ <https://www.gov.uk/government/publications/water-and-sewerage-companies-in-england-environmental-performance-report-2020/water-and-sewerage-companies-in-england-environmental-performance-report-for-2020>

- 4.1.12 UUW achieved green status for permit compliance in both 2020 and 2021, although in 2022 our performance resulted in an amber classification and an overall company status of three star.
- 4.1.13 The change in performance was linked to the two unusual weather waiver claims which were submitted for two sites whose performance was impacted by the extreme and prolonged cold weather in December 2022 being rejected. As such we do not consider that this change in performance is indicative of any underlying trend or issues and anticipate that we should be able to achieve green status in the remaining years of the AMP7 period.

Satisfactory sludge use and disposal

- 4.1.14 Sludge is produced as part of our wastewater treatment processes. Sludge is either treated before being used in agriculture or land restoration projects. Sludge use in agriculture is regulated under the Sludge (Use in Agriculture) Regulations (SUiAR).
- 4.1.15 This metric measures the satisfactory disposal or use of sewage sludge by the companies and records the amount of sludge (tonnes of dry solids) that is disposed of or used in compliance with relevant environmental laws. These include the SUiAR and the Environmental Permitting (England and Wales) Regulations (EPR). Reporting also includes water company voluntary compliance with a Safe Sludge Matrix.
- 4.1.16 This measure was suspended in calendar year 2018, whilst regulators reviewed the regime for sludge treatment, storage and use, and was only re-introduced for 2022 when UUW was given a green RAG status.

WINEP scheme delivery on time

- 4.1.17 As part of the 2019 price review we worked with the EA to develop the Water Industry National Environment Programme (WINEP). Our WINEP sets out the environmental measures or actions needed to invest in and complete during the five year AMP7 period to make sure we meet environmental standards. The measures include asset improvement schemes, investigations to inform future actions and monitoring.
- 4.1.18 This metric measures the cumulative number of WINEP schemes completed as a percentage against the planned schemes up to that point in the five year period.
- 4.1.19 The target to achieve green RAG status for this measure is to deliver 100 per cent of the identified schemes at or before the regulatory date set out within the WINEP. We have achieved this 100 per cent delivery against our WINEP in all three years of the AMP7 period, to date.

Supply Demand Balance Index (SDBI)

- 4.1.20 Water companies need to assess the resilience of their water supply system to predicted droughts and other non-drought water supply hazards, and every five years develop a Water Resources Management Plan (WRMP) to show how they will provide a secure supply of water to their customers over a 25 year period. These plans compare forecasts of supply and demand under dry year conditions and calculate a target headroom to protect customer supply.
- 4.1.21 This metric assesses how the supply demand balance (water available for supply compared to forecast dry year demands) compares to the proposed balance that was set out in our WRMP.
- 4.1.22 The target to achieve green RAG status for this measure is to achieve a SDBI of 100 per cent. We have achieved a 100 per cent SDBI in all three years of the AMP7 period.

4.2 Event Duration Monitoring (EDM) delivery

- 4.2.1 Water companies are required to install event duration monitors (EDM) on storm overflows by December 2023. EDM coverage and data does not form part of the EPA WINEP delivery metric, but is a related measure that is reported by the EA each year, alongside the EPA measures.

- 4.2.2 The EA publishes the EDM storm overflow annual return dataset¹⁰ received from water companies. This shows the frequency and duration of monitored storm overflows operated in the previous year, reasons for performance issues with monitors and reasons for high spill counts.
- 4.2.3 In the 2022 dataset UUW reported that EDM monitors had been commissioned on 88.9 per cent of overflows. We expect to achieve our planned 100 per cent installation by December 2023.

4.3 DWI commitments

- 4.3.1 We made a number of commitments that related to the quality or reliable supply of drinking water covered by Drinking Water Inspectorate (DWI) legal instruments. We have successfully delivered a water quality transformation programme that was agreed with the DWI during AMP6. The DWI have confirmed we have formally exited 'transformation' status. Table 10 below outlines the status of the schemes relating to the legal instruments.

Transformation programme

- 4.3.2 During AMP6, following events at Franklaw WTW and Sweetloves WTW, we worked closely with the DWI to agree and start the implementation of a water quality transformation programme. This transformation programme was incorporated into legal instruments and was ongoing at the end of the AMP6 period.
- 4.3.3 The water transformation programme covered improvements in processes, assets and people to drive reduction in risk to water quality and an improved water quality awareness and culture. The key deliverables within the transformation programme included:
- Improvements to our site specific disinfection policies and approach to backwash water management;
 - Delivery of shut down and start up to waste capacity at the majority of our WTWs in AMP6 and the delivery of more complex sites in early AMP7;
 - Inspection using our flood testing approach of all our service reservoirs and subsequent repair and cleaning;
 - Rollout of our innovative approach to risk assessment (HAZREV) across all our WTWs;
 - Acceleration of mains cleaning in areas where discolouration contact rates were elevated; and
 - Additional targeted technical training for our front line operational staff.
- 4.3.4 During AMP7, we have continued working closely with the DWI and developed our Water Quality First (WQF) programme to ensure that water quality is placed at the heart of everything we do at UUW. The primary aim of this programme was to establish a cohesive approach to water quality across the multiple programmes already in place, whilst creating a working culture to introduce new ideas, initiatives and projects to improve water quality along its entire journey from source to tap.
- 4.3.5 The Water Quality First programme won the Water Quality Initiative of the year award, at the Water Industry Awards, in July 2023 and was a key contributor to UUW successful exit from transformation in February 2023. This was recognised in the Chief Inspector's report for drinking water 2022¹¹, with page 48 of the report stating that:

“United Utilities was taken out of transformation in early 2023. Since the transformation programme was instigated in 2016, the company has invested considerable effort, time and money into improving its assets. This has included improvements to site specific disinfection policies, disinfection arrangements, chemical dosing and

¹⁰ <https://environment.data.gov.uk/dataset/21e15f12-0df8-4bfc-b763-45226c16a8ac>

¹¹ https://dwi-content.s3.eu-west-2.amazonaws.com/wp-content/uploads/2023/07/11131751/E02864254_DWI-Public-water-supplies-in-England-2022_Accessible.pdf

monitoring, and taste and odour. The Inspectorate welcome this positive action by the company in putting water quality first and all staff should be commended”.

- 4.3.6 Improvements continue to be made, with a key example being the commitment we made to clean all of our service reservoirs, by the end of June 2023. This work was recognised in the Chief Inspector’s report for drinking water 2022, with the report stating that:

“United Utilities successfully completed the delivery of its tanks notice and has achieved a full risk-based inspection programme for all of its tanks. The company is also able to isolate any of its reservoirs from supply for inspection and cleaning. This is a significant achievement, and the company is to be commended for it”.

Other legal instruments

- 4.3.7 We have made a number of other commitments to the DWI that required work or formal finalisation within the AMP7 period. As these are covered by legal instruments and the DWI are able to take enforcement action if required.
- 4.3.8 The progress to the end of March 2023 against the legal instruments that were applicable for the AMP7 period are reviewed in the tables below.

Table 10: Legal instruments

Name	Legal instrument reference	Driver	Status of legal instrument
Cumwhinton to Carlisle Trunk main and WSZ cleaning	UUT3311	Iron and Manganese	This is now finalised and the legal instrument revoked.
Lytham TM and WSZ cleaning	UUT3312	Iron and Manganese	This is now finalised and the legal instrument revoked.
Oswestry WTW	(UUT2801) (UUT3477) Now UUT2020-20-00003	Raw water deterioration and reduction in discoloration	The notice has now been revised with work ongoing and on track.
Lead - High Risk Zones	UUT3314	Lead	This work is now completed and the legal instrument revoked.
River Dee Catchment	UUT3236	Pesticides	At the start of the AMP7 period work was completed although further data needed to be submitted. This work is now completed and the legal instrument revoked
Castle Carrock WTW	UUT-2018-0003	Taste and Odour	Work completed and currently in demonstration of benefit phase
Laneshaw WTW	UUT-2018-0004	Taste and Odour	On target for completion by 31 December 2023
Mitchells WTW	UUT-2018-0005	Taste and Odour	Work completed and currently in demonstration of benefit phase
Rivington WTW	UUT-2018-0006	Taste and Odour	Work completed and currently in demonstration of benefit phase

Source: UUW PR14 reconciliation document

- 4.3.9 As can be seen in Table 10 above we have delivered all the schemes that were initiated prior to PR19 in line with the legal agreements that we had in place, the only exception to this being Oswestry WTW. A review has been undertaken at Oswestry, which has revised the solution and now includes the work programme for the Vyrnwy Large Diameter Trunk Main (LDTM). This work is ongoing and is on track.

- 4.3.10 We have delivered three of the four schemes that were initiated through the PR19 process and are on track to deliver the final scheme at Laneshaw WTW by the end of 2023/24. This is in line with the legal agreements that we have in place with the (DWI).
- 4.3.11 We continue to track all of the commitments that we have provided to DWI in writing and report completion on a monthly basis to ensure that there is visibility of the requirements and action can be taken proactively to ensure delivery is on track.

4.4 Greenhouse gas commitments

- 4.4.1 We recognise that one of the key impacts of the water industry on the wider environment is through greenhouse gas emissions, with our work to reduce emissions being underpinned by six overarching pledges. To date we are performing well against our carbon pledges.

Background

- 4.4.2 GHG emissions management and reduction is a priority to UUW and our stakeholders because the affordability and resilience of our operations and services fundamentally rely on a stable climate and a healthy natural environment. The water sector has a critical role to play in the UK legal requirement for net zero 2050 because its services and infrastructure are traditionally emissions-intensive and face substantial growth pressures, but also provide great potential for improvements.
- 4.4.3 UUW has reduced its greenhouse gas emissions by over 70 per cent since 2005 measured with the market-based reporting methodology that recognises the benefit of green electricity tariffs. A focus on clean energy has been fundamental to our progress to date; investing in new renewables and achieving our commitment to purchase only green electricity.
- 4.4.4 Our plan to net zero is a science-based approach focused on reducing emissions as the first priority whilst growing our programmes that store carbon, such as peatland restoration and woodland creation, and working with our supply chain to share and develop sustainable development practice.
- 4.4.5 We are also highly experienced in following global best practice and adhering to national and regulatory requirements to measure, disclose and reduce GHG emissions. We openly report our emissions annually across all relevant areas. Our reporting covers both our operational and embodied emissions. We were an early adopter of the Taskforce for Climate-related Financial Disclosures (TCFD) and have benchmarked our performance for many years in the CDP, securing a leading “A-“rating in 2022/23.
- 4.4.6 Full details of our approach to managing greenhouse gases are set out within the 2022/23 United Utilities Group PLC Annual Report and Financial Statements and the summary sustainability report¹², with information about our greenhouse gas emissions and our performance in managing them, being set out in our Annual Performance Report¹³. Table 11 below focuses on the progress that we are making against our six carbon pledges that we made in 2020.
- 4.4.7 This section reviews our progress against the SBTs and six carbon pledges that we made in 2020, and initially sets out some background on understanding and managing GHG emissions and concludes with an overview of the opportunities and pressures that we will face in the longer term.

¹² <https://www.unitedutilities.com/globalassets/documents/pdf/sustainability-report-2023.pdf>

¹³ <https://corporate.unitedutilities.com/corporate/about-us/performance/annual-performance-report/>

Table 11: Carbon pledges

Pledge	Progress
Carbon pledge 1 Reduce scope 1 & 2 emissions by 42 per cent by 2030 compared to 2019/20 baseline	Making good progress. We are making good progress towards our pledge, having made a reduction since 2021/22. Progress is not expected to be linear whilst we have emerging challenges that drive increasing emissions.
Carbon pledge 2 100 per cent of electricity used from renewable sources	Pledge met. Since October 2021 all electricity we use is renewable. Around 25 per cent of our needs are renewably generated directly by us or with partners and the remainder is purchased on a renewable tariff backed with Renewable Energy Guarantees of Origin (REGO) certificates. We are working on plans to increase the energy we can self-supply through new investment in renewable capacity and storage.
Carbon pledge 3 100 per cent green fleet by 2028	Making good progress. Our initial focus has been on understanding the travel patterns of our fleet. With this insight we have begun the delivery of the required charging infrastructure, the purchase of electric vehicles by March 2025 and we are continuing to explore options for HGVs. We are also supporting colleagues to switch to electric vehicles with a salary sacrifice scheme.
Carbon pledge 4 1,000 hectares of peatland restoration by 2030	Making good progress. We support peatland restoration activities across the North West. We have 585 ha currently under new restoration programmes, as we work towards this pledge.
Carbon pledge 5 Plant one million trees to create 550 hectares of woodland by 2030	Making good progress. 37 hectares planted and more planned to hit the target. Weather and tree disease slowed our planting progress but we have two well established nurseries and plans for more and have identified hundreds of sites for new and 'replanted' woodlands.
Carbon pledge 6 Set scope 3 science based target	Pledge met. Target set and verified by Science-Based Targets initiative (SBTi)

Source: <https://www.unitedutilities.com/globalassets/documents/pdf/sustainability-report-2023.pdf>

4.4.8 For more information see our 2022/23 United Utilities Group PLC Annual Report and Financial Statements¹⁴ about our transition plan to deploy a range of opportunities and overcome these growth challenges as we continue towards the goal for net zero by 2050 in scope 1, 2 and 3 emissions.

4.5 RAPID commitments

4.5.1 The UKs water resources are coming under increasing pressure from population growth, economic development and climate change. In response to these pressures, the Regulators' Alliance for Progressing Infrastructure Development (RAPID) was formed to help to accelerate the development of new water infrastructure and design future regulatory frameworks.

¹⁴ <https://www.unitedutilities.com/globalassets/documents/pdf/sustainability-report-2023.pdf>

- 4.5.2 The joint team is made up of the three water regulators Ofwat, the EA and the DWI and is designed to provide a seamless regulatory interface, working with the industry to promote the development of national water resources infrastructure that is in the best interests of water users and the environment.

PR19 expectations and incentives

- 4.5.3 Through the PR19 process Ofwat provided a number of water companies with specific allowances to individually or jointly develop strategic water resource schemes to support the delivery of long-term drought resilience.
- 4.5.4 Gate submissions are assessed to ensure that outputs are delivered on time, are sufficiently progressed and are of a suitable quality for decision making, with the assessment mechanism including the scope for penalties to be applied or costs to be disallowed.

UUW specific requirements

- 4.5.5 As part of the national strategic water resource development programme, UUW was allowed investment at PR19 for three projects, known as Strategic Resource Options (SRO) see Table 12 for details:

Table 12: UUW strategic water transfer schemes

Scheme name	Description
Vyrnwy reservoir	UUW specific solution - In-region transfer of water to enable release from Vyrnwy reservoir to support the River Severn to River Thames transfer.
United Utilities sources	UUW specific solution - Eleven source options identified, comprising groundwater enhancement, improved reservoir release control, local interconnection and treatment, and river abstraction.
River Severn to River Thames transfer	Joint solution – Thames Water, Severn Trent Water and United Utilities Development to consider the transfer of water from the lower reaches of the River Severn to River Thames via a pipeline or restored canal route.

Source: *Strategic regional water resource solutions appendix*

Performance in the first three years of the AMP7 period

- 4.5.6 UUW gateway submissions and supporting documentation can be found on the UU web site¹⁵.
- 2021 Gate one submissions**
- 4.5.7 UUW specific SROs - Gate one submissions (preliminary feasibility assessments) for the two UUW specific SROs (Vyrnwy reservoir and UUW sources) were delivered on time and within budget and submitted to RAPID in July 2021.
- 4.5.8 The two SROs are mutually dependent and deliver a single output, so it was recommended that the schemes should be combined and renamed as the “UU North West Transfer SRO” for future gateway submissions and supported by a single gate submission encompassing a coherent ‘end-to-end’ solution.
- 4.5.9 Following a detailed query process, RAPID gave the UUW sources SRO a satisfactory score and the Vyrnwy Aqueduct SRO a good score. They also concluded that the expenditure for both submissions had been efficient and allowed the projects to continue to Gate 2. RAPID also agreed to amalgamate the UUW Sources and Vyrnwy Aqueduct solutions for Gate 2 as a new combined North West Transfer project.
- 4.5.10 River Severn to River Thames Transfer (STT) SRO - The gate one submission for the joint River Severn to River Thames Transfer (STT) SRO was also delivered on time and within budget and was also submitted to RAPID in July 2021. This submission was developed jointly by the three companies and supported by a joint board assurance letter for the boards of UUW, Thames Water and Severn Trent Water.

¹⁵ <https://www.unitedutilities.com/corporate/about-us/our-future-plans/water-transfers/>

- 4.5.11 Following the query process, RAPID confirmed that the project should to continue to Gate 2.
- 2022 Gate two submissions**
- 4.5.12 This stage provided RAPID with an update on the concept design, feasibility, cost estimates and programme for the schemes. It also provided cost, benefit and risk information for SROs for use in the regional planning process and consideration in companies WRMP24s. This allowed decisions to be made on their progress and future investment requirements.
- 4.5.13 North West Transfer (NWT) SRO - the Gate 2 submission for the North West Transfer (NWT) SRO (previously the Vyrnwy reservoir and United Utilities sources schemes) was approved by the UUW Board and submitted to RAPID in November 2022.
- 4.5.14 The submission was developed on time and within budget and illustrated that the NWT SRO has the potential to provide a scalable transfer of over 200 MI/d through development of new water sources in the North West and enabling works to the Vyrnwy Aqueduct distribution system.
- 4.5.15 The NWT SRO was included in UUW's draft WRMP to meet multiple needs. Elements of the scheme were also selected by Severn Trent Water in the 2030's and selected by South East water companies in the longer term.
- 4.5.16 It was recommended that the SRO progressed to Gate 3 with a Mid-Gate 3 Checkpoint being proposed for December 2023, following the outcome of the WRMP and Regional Planning process. RAPID published its final decision letter and the feedback on the Gate 2 submission for the North West Transfer (NWT) SRO project in June 2023¹⁶. This concluded that the expenditure to date had been efficient and allowed the project to continue to Gate 3.
- 4.5.17 River Severn to River Thames Transfer (STT) SRO - The gate two submission for the joint River Severn to River Thames Transfer (STT) SRO was also delivered within budget and submitted on time to RAPID in November 2022. This submission was developed jointly by the three companies and concluded that the SRO should advance to Gate 3. The submission was supported by a joint board assurance letter for the boards of United Utilities Water, Thames Water and Severn Trent Water.
- 4.5.18 RAPID's Gate 2 draft decision¹⁷ was published on 30 March 2023 for the River Severn to River Thames (STT) Transfer Strategic Resource Option (SRO), with the final decision published on June 28th. This decision confirmed that the STT SRO should proceed to Gate 3, confirmed that all Gate 2 expenditure was deemed efficient with no application of a delivery incentive penalty, with the STT submission receiving the top rating of 'Good'.

Anticipated performance in the final two years of the AMP7 period

- 4.5.19 North West Transfer (NWT) SRO - The working timeline for Gate 3 and subsequent elements of the programme was developed based on our understanding of the requirements and timescales of the RAPID gated process and the wider WRMP and Regional Planning processes.
- 4.5.20 The plan was based on ensuring that sub options could be "construction ready" in AMP8 (2025 to 2030), if required. However, it was recognised that other later delivery timescales may be appropriate which would be confirmed once the regional and Water Resource Management Plan (WRMP) plans were finalised in late 2023.
- 4.5.21 A flexible approach was therefore being followed with a "Mid-Gate3 Checkpoint" at the end of 2023 to confirm and adjust the direction of the project, as appropriate, once the WRMP plans are finalised.

¹⁶ https://www.ofwat.gov.uk/wp-content/uploads/2023/03/NWT_Solution_Gate-Two_Final-Decisions.pdf

¹⁷ [https://www.severntrent.com/content/dam/sros-gate-2-documents/sts/STS-Gate-two-submission-\(Final\)-Redacted.pdf](https://www.severntrent.com/content/dam/sros-gate-2-documents/sts/STS-Gate-two-submission-(Final)-Redacted.pdf)

- 4.5.22 Our revised Draft WRMP has now been published on our website¹⁸. This plan aligns with and complements both the; Water Resources West Plan¹⁹; the higher level plan for our regional planning area, and the wider national framework.
- 4.5.23 It should be noted that the Gate 3 and Gate 4 timing is contingent on publication of the final WRMPs and the outcome of a DCO pre-application planning process.

4.6 Commitments made following PR19

- 4.6.1 Following the publication of the PR19 final determination the country was hit by the COVID-19 pandemic and there has been significant additional focus on the environmental performance of the Water Industry. These two impacts resulted in, or contributed towards UUW starting four new projects under the Green Recovery programme, that were not set out within the PR19 final determination. Each of these projects is described in section 4.1.7.

Green Recovery commitments

- 4.6.2 In July 2020, Defra, Ofwat, the EA, the DWI and the Consumer Council for Water (CCW) invited water companies to identify ways to support the country's green economic recovery following the COVID-19 pandemic.
- 4.6.3 The ambition was to build back greener from the pandemic; delivering lasting environmental improvements for current and future generations, whilst meeting the economic and social challenges that England faced. This was known as 'Green Recovery'.
- 4.6.4 Water companies were asked to bring forward new proposals and accelerate existing ones to deliver an innovative and more resilient future for customers, society and the environment.
- 4.6.5 Following submissions from companies in January 2021, Ofwat issued its final decisions in July 2021²⁰. UUW received endorsement implement three schemes with a total additional allowance of £64.402 million.
- 4.6.6 We report our progress against this commitment each year alongside our Annual Performance Report. A detailed overview of our Green Recovery activity for 2022/23 and the future milestones associated with each of our projects has been published on our corporate website²¹.
- 4.6.7 An extract of this progress report, detailing the future milestones of each of the four projects is shown below.

4.7 Accelerating partnerships to deliver natural solutions

Catchment phosphorus

- 4.7.1 In 2022/23 the Eden catchment phosphorous project has been able to progress following the completion of a consolidation exercise, aligning outputs from Cumbria Habitats investigations as well as other key requirements, to produce a comprehensive list of WwTWs within the Eden Catchment that have offsetting opportunities for Phosphorous reduction.
- 4.7.2 We have engaged the catchment host of the Eden catchment partnership, Eden Rivers Trust, who have completed a detailed 'Farmscoper' assessment (a catchment model which can be used to identify forecast phosphorus load contributions at both catchment scale and from individual farms and their farming activities) for these given sites, which in turn has produced a prioritised list of locations to commence individual farm assessments. These farm assessments are commencing in early 2023/24 and include landowner liaison, desktop surveys, walkover and written water management plans.

¹⁸ <https://www.unitedutilities.com/corporate/about-us/our-future-plans/water-resources/developing-our-water-resources-management-plan/>

¹⁹ <https://waterresourceswest.co.uk/publications>

²⁰ Green Recovery final decisions: <https://www.ofwat.gov.uk/publication/green-economic-recovery-final-decisions/>

²¹ <https://www.unitedutilities.com/globalassets/documents/pdf/green-recovery-2023/download>

- 4.7.3 Following the completion of the assessments, the opportunities that arise will be reviewed and agreed, and appropriate solutions progressed to delivery. To manage the governance and delivery of these interventions, a project steering group will be convened in early 2023/24 comprising UUW, Eden Rivers Trust and the EA to ensure delivery of interventions to an acceptable standard. Interventions will be progressed to delivery based on unit cost rate and feasibility. We will be using the Countryside Stewardship rates to compare the prices for each intervention.
- 4.7.4 In the Irwell catchment we have worked with the Irwell Catchment Partnership, the Catchment Based Approach partnership for this Operational Catchment to continue to develop the capacity and capability of *the Irwell Catchment Nutrient Management Group*. The aim of this group is to coordinate catchment learning and activity focussed on nutrient management in the Irwell catchment and using expertise across a range of key partners (including representatives from UUW, the EA, Natural England (NE), Groundwork, Mersey Rivers Trust, Storm Water Shepherds and the LandApp to identify and prioritise catchment interventions for delivery in both rural and urban settings.
- 4.7.5 We have developed a partnership agreement with Groundwork Greater Manchester to fund farm advisory work in the Irwell catchment to identify, prioritise and support delivery of farm interventions. We have also established further agreements with NE Catchment Sensitive Farming (CSF) teams to support further delivery of interventions in rural catchments that have been identified through unfunded CSF routes. We are working with the LandApp to identify innovative opportunities for interventions to deliver phosphorus removal at a catchment scale across the Irwell catchment, piloting new technology and engagement methods with farming communities.
- 4.7.6 In both the Eden and Irwell catchments we have undertaken a review with projects across the business with comparable objectives, looking to develop a streamlined programme of activity for nutrient reduction, taking a holistic approach in-line with our Catchment Systems Thinking approach. The internal consolidation, review and streamlining activity with other projects is a vital step in the project to ensure we are maximising efficiencies, driving the greatest opportunity for the project and establishing the best possible foundation to take forward as we look to develop a detailed scope. This is in-line with our plan and we are now in a position to progress to engage partners and develop a detailed scope which will ultimately drive delivery.
- 4.7.7 Table 13 below defines the expected milestones with regard to project delivery.

Table 13: Project expected milestones

Year	Expected milestone	Updated Milestone Date
	Develop baseline understanding of 'available' P load in catchment. This will be developed in conjunction with partners, and will look to agree appropriate systems and data sets that can be utilised to model phosphorous reductions.	Complete – 2022/23
2022/23	Prioritise focus areas to develop a suite of farm, land management and drainage improvement plans to include potential specific interventions focussed on phosphorous removal and forecast on what interventions will deliver in terms of kg/yr. phosphorous removal.	Complete – 2022/23
	Interventions detailed in drainage improvement plans, prioritised for delivery through multi agency steering group.	Improvement plans to be developed in 2023 and throughout 2023-25 delivery period
2023/24	Interventions will be verified against unit cost of phosphorous reduction and progressed to delivery once identified they are in-line with modelled expectations.	Anticipated to commence in Quarter 2 of 2023/24 and throughout 2023-25 delivery period
	Interventions delivered and outputs are evidenced and logged. Report on forecast kg removed as per developed methodology and record on UUW systems.	Anticipated to commence in Quarter 2 of 2023/24

Year	Expected milestone	Updated Milestone Date
2024/25	Continued delivery of interventions and review of benefits realisation and lessons learned on success of interventions.	Anticipated in 2024/25

Source: *Green Recovery Annual Progress Report 2023*²²

Catchment water quality management

- 4.7.8 As described in the main Green Recovery progress report, no specific outputs have been completed this year. However, partnership investment has been identified with individual Rivers Trusts and will include a combination of other private and public grants where the objectives align with our Green Recovery programme. Coordination of the investment and delivery of the activities will be undertaken by partner organisations. The number of farms engaged should be reported as zero unless greater than (or equal to) 80 per cent of the £723,000 partnership investment has been secured. At year end 2022/23 the partnership investment secured is less than 80 per cent and therefore the performance is reported as zero. The reason for the partnership investment being less than 80 per cent is because the projects are still in their infancy and we do not expect the 80 per cent threshold to be met until 2024 at the earliest. The partners have a plan in place to ensure that the threshold will be met over the course of the project.
- 4.7.9 **Lune** – The Lune contract was signed in June 2022. Since signing the contract the Trust have begun to engage with farmers and draw in matched funding. We do not expect the 80 per cent target, nor the 150 farmers’ target, to be met before 2025.
- 4.7.10 **Wyre** – The Wyre contract was signed in November 2022. Since signing the contract the Trust have begun to engage with farmers and draw in matched funding. We do not expect the 80 per cent target, nor the 150 farmers’ target, to be met before 2025.

Peatland restoration

- 4.7.11 This year we have undertaken preparatory work for grant funding. A combination of government Nature for Climate investment and Countryside Stewardship investment has been identified as the most suitable route of matched funding. Applications for matched funding will be made via partner organisations. As described above, some of our partners are still working to secure this grant funding, meaning there currently remains an element of uncertainty for us in this area. There are also potential risks to mitigate on the complexity of commercial agreements and supply chain, which we are actively working on to ensure this project is successfully delivered. We do not expect the 80 per cent target, nor the 2,501 hectares target, to be met before 2025.

Sustainable drainage and natural flood management

- 4.7.12 During 2021/22 we investigated further the potential costs and benefits of different means of delivering these schemes to inform future targeting of investment.
- 4.7.13 This work has included:
- **Capabilities** – Developing our landscape framework, bringing on new suppliers builds further capability for the design and build of blue green infrastructure. We have learnt from previous projects, such as our Sustainable urban Drainage Solutions (SuDS) for Schools project, to ensure a diverse skill set including landscape architecture and drainage engineers are available to competitively tender for regional projects. A further six companies have been added to the framework for this year, to support our ambitions through Green Recovery.
 - **Data** – Outputs of new data that show us what types of SuDS are best to install where, in addition to supporting methodologies that add process to how the information can be extracted easily has been completed. This data helps support decision making and is an essential process that enables co-design of solution blends and styles. We aim to further develop and share this data with partners to enable the development of holistic and adaptive strategies that will support future Price Reviews.

²² <https://www.unitedutilities.com/globalassets/documents/pdf/green-recovery-2023/download>

- Framework – We have secured Project Engineering Manager resources to manage this programme of work.
- 4.7.14 In 2022/23 our focus was approving and supplementing finance to several partnership organisations. We are working with partners to plan and develop SuDS and nature based storage solutions that benefit local communities and partnerships. Working in collaboration with external 3rd parties has enabled us to share knowledge outside of our organisation and learn from others how they are approaching SuDS schemes in their local areas. These types of schemes have driven benefits for our mutual customers whilst sharing the cost to deliver, providing efficiencies across the collaboration. As this approach starts to deliver tangible results we move to taking that understanding and focussing on our own internal data to identify opportunities for SuDS across Eden, Fylde and Irwell.
- 4.7.15 In addition to supporting projects being delivered by third parties, we have also worked with our local operational teams to understand where there is the potential to deliver SuDS and Natural Flood Management (NFM) projects in relevant catchments. This approach enables us to further understand how best to identify SuDS opportunities, and in the future will provide valuable information into what makes these types of scheme successful.
- 4.7.16 In 2023/24 we will focus on delivery, following the progress that has been made on financing partnership schemes. This means that we will be starting to deliver schemes via both external collaborative partnership approaches and our own internal process, as described above. This will inform our strategies on the most efficient route to delivering further opportunities under the WINEP and Drainage Wastewater Management Plan.

Summary

- 4.7.17 In Ofwat table SUP10, a forecast of our delivery outputs are shown. Delivery outputs are only reported when all underlying activities are complete. This is fully in-line with our plan. A copy of this table is detailed in Table 14 below.

Table 14: Delivery outputs sub-set

Name	Unit	2021/22		2022/23		2023/24		2024/25		2025/26	
		Component level to date	Percentage complete	Component level to date	Percentage complete	Component level to date	Percentage complete	Component level to date	Percentage complete	Component level to date	Percentage complete
Eden catchment phosphorus	Kg	0	0%	0	0%	275	25%	1,091	100%	-	-
Irwell catchment phosphorus	%	0%	0%	0%	0%	25%	25%	100%	100%	-	-
Number of farms engaged	Nr	0	0%	0	0%	0	0%	300	100%	-	-
Peatland restoration	Ha	0	0%	0	0%	0	0%	2,501	100%	-	-
Number of SuDS and NFM solutions installed	%	0%	0%	1%	1%	23%	23%	100%	100%	-	-

Source: UUW Green recovery annual progress report

AMP8 WINEP investments at Bury

- 4.7.18 As described in the overview section of our main Green Recovery progress report document, we were originally committed to the delivery of the two elements of this scheme by the regulatory dates (31

March 2028 for Bury Storm Tanks and 31 August 2027 for Nuttall Hall Road CSO). Through Green Recovery, we now aim to complete these schemes by 2025/26.

- 4.7.19 In Ofwat table SUP10, a forecast of our delivery outputs are shown. Delivery outputs are only reported when all underlying activities are complete. This is fully in-line with our plan. A copy of this table is detailed in Table 15 below.

Table 15: Delivery outputs sub-set

Name	Unit	2021/22		2022/23		2023/24		2024/25		2025/26	
		Component level to date	Percentage complete	Component level to date	Percentage complete	Component level to date	Percentage complete	Component level to date	Percentage complete	Component level to date	Percentage complete
Network storage installed at Nuttall road	%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%
Additional storm tank capacity installed at Bury WwTW	%	0	0%	0	0%	0	0%	0%	0%	100%	100%

Source: UUW Green recovery annual progress report

Tackling storm overflows

- 4.7.20 The future milestones of the Storm Overflows Assessment Framework (SOAF) activities are detailed in Table 16 below.

Table 16: Future milestones of SOAF activities

Milestone number	Milestone	Updated Milestone Date
1	Identification and shared sites in MSF template for 150 full SOAF investigations (Batch 2)	Complete – 2022/23
2	Environmental Impact Surveys complete for Batch 1 (150 sites)	Complete – 2022/23
3	Environmental Impact Surveys begin for Batch 2 (150 sites)	Complete – 2022/23
4	Completion of 287 Stage 1 only investigations	September 2023
5	Environmental Impact Surveys complete for Batch 2 (150 sites)	November 2023
6	Full Investigations Complete for Batch 1	March 2024
7	Full Investigations Complete for sites Batch 2	March 2025

Source: UUW Green recovery annual progress report

- 4.7.21 For the integrated catchment models we have taken the pragmatic decision to phase the work across the three catchments to ensure that we have the appropriate laboratory capacity and sampling availability to successfully delivery all the elements of the work required the end of AMP. The project milestones have therefore been amended to reflect this change.
- 4.7.22 In Ofwat table SUP10, a forecast of our delivery outputs are shown. Delivery outputs are only reported when all underlying activities are complete. This is fully in-line with our plan. A copy of this is detailed below in Table 17 below.

Table 17: Delivery outputs sub-set

Name	Unit	2021/22		2022/23		2023/24		2024/25	
		Component level to date	Percentage complete	Component level to date	Percentage complete	Component level to date	Percentage complete	Component level to date	Percentage complete
SOAF investigations	%	0%	0%	0%	0%	58%	58%	100%	100%
Integrated catchment models - Sankey Brook and Wiza Beck	Number	0	0%	0	0%	0	0%	2	100%
Integrated catchment models - Upper Derwent	Number	0	0%	0	0%	0	0%	1	100%

Source: UUW Green recovery annual progress report

4.8 Pollution incident recovery plan

- 4.8.1 In a letter dated 29 November 2019, the EA requested water and sewerage companies to develop and implement a Pollution Incident Reduction Plan (PIRP). With the EA setting out the following guiding principles for these plans:
- The plans should be signed off and monitored at board level within each company;
 - governance should be set up to ensure active engagement, updates and liaison with EA staff on an agreed timeframe but as a minimum we would expect written progress updates to be provided on a quarterly basis;
 - the PIRPs should be published on the water company website; and
 - based on the PR19 business plan and the commitments in WISER for pollution incidents a glide path with appropriate milestones and targets should be established to reduce serious pollution incidents. There should be at least a 40% reduction compared to numbers of incidents recorded in 2016 (category 1 to 3s) and serious pollution incidents must trend towards zero.
- 4.8.2 UUW developed and published its pollution incident reduction plan in September 2020²³. This plan set out our ambition to deliver a step change in pollution performance for customers and the environment of the North West to 2025 and beyond.
- 4.8.3 The plan set out a strategy to deliver a reduction in pollution incident performance over the next five years, and we have set a longer-term ambition to eliminate pollution incidents that occur from our activities.
- 4.8.4 Our improvement plan was underpinned by a stretching performance commitment that we declared in our PR19 business plan.
- 4.8.5 Delivery of this plan and these targets required us to achieve our best ever pollution performance. Our performance commitment (normalised by the length of sewer) is shown in Table 18:

²³ https://www.unitedutilities.com/globalassets/documents/pdf/pollution-incident-reduction-plan_september-2020.pdf

Table 18: PR19 Pollution incident performance commitment

	2020	2021	2022	2023	2024
Pollution incident target per 10,000 km of sewer	24.5	23.7	23.0	22.4	19.5

Source: UUW pollution incident reduction plan

4.8.6 In preparing for the challenge of these targets, we assessed our strengths, weaknesses, opportunities and threats to performance to shape our pollution reduction plan. This plan spanned a wide range of areas from culture, managing third party risks to long-term planning and contained 27 specific actions, all of which are now complete. The actions and evidence of completion are set out in Table 19:

Table 19: UUW Pollution incident reduction plan commitments

Ref.	Theme	Action	Measure/ evidence
001	Culture	Ensure that annual mandatory compliance training is completed by relevant operational employees.	Training register.
002	Culture	Ensure that mandatory Section 166 e-learning is completed by relevant operational employees.	Training register.
003	Culture	Ensure all new starters complete all suite of environmental pollution and permit training.	Training register.
004	Lessons learnt	Centralise the lessons learnt from pollution incident reviews and ensure they are shared across relevant teams.	Compliance bulletins. Business meetings.
005	Lessons learnt	Ensure that pollution incident reviews are undertaken for applicable wastewater infrastructure incidents and water.	Standard operating procedure. Briefings. Meetings.
006	Lessons learnt	Centralise the lessons learnt from spill investigations and ensure they are shared across relevant teams.	Spill performance dashboard for performance management meetings.
007	Effectiveness of interventions	Effectiveness of pollution reduction plan reviewed through business planning meetings.	Compliance Board, Compliance Leads, Compliance and Audit meetings – wastewater treatment. Business Performance Review – wastewater. Network Quality Performance Meeting –water network.
008	Performance reporting	Ensure consistent and effective reporting is provided to all relevant parts of the business including the Executive.	Monthly Compliance and Audit, Compliance Leads meetings. Monthly Business Performance Review meetings. Quarterly Business Review meetings with the CEO for deep-dive review of environmental performance measures.
009	Performance reporting	Ensure that relevant actions from post incident reviews are reported and escalated through corporate systems in order to develop plans associated with risks.	Make sure business processes are in place to enable reporting.

Ref.	Theme	Action	Measure/ evidence
010	Incident response	Review guidance for ICC to ensure that water pollution events, when necessary, are considered for environmental implications.	Amend current ICC Response Manager water event process to add a step in to ensure this is considered and acted upon where appropriate.
011	Resources	Work with the Environment Agency to minimise the number of non UU pollution incidents attended to so that correct authority can attend leading to quicker resolution and improved environmental outcomes.	Discuss examples and solutions with Environment Agency at quarterly performance meetings.
012		Work with electricity suppliers to understand our wider resilience and minimise the risk of power loss.	Scheduled and documented meetings with DNO regarding standards of service, supply quality issues. Power and generator working group set up –drive out SOPs. Review of high-risk sites and assess site power resilience.
013	Working with customers	Work with customers to improve awareness of what they should/shouldn't put down the drain to reduce blockage risk.	Annual performance reporting for performance commitment.
014	Working with customers	Deliver a decrease in Fats, Oils and Grease (FOG) reaching our network through targeted education, monitoring and enforcement of food establishments.	Number of visits to food establishments.
015	System Thinking	Explore the opportunity from increased data availability and monitoring for trend analysis and system modelling. Look for opportunities to utilise advanced analytics.	Report/update on opportunities for advanced analytics - List of projects, scope and benefits.
016	Long-term planning	Deliver initial view of long-term catchment vulnerability to pollution from population growth, climate change and other influences.	Baseline Risk and Vulnerability. Assessment report complete.
017	Long-term planning	Plan of risk, opportunities and potential 25-year plan.	Draft DWMP plan issued.
018	Long-term planning	Plan of risk, opportunities and potential 25-year plan.	Final DWMP plan issued.
019	Long-term planning	In AMP7 we will review the way that we manage our operation to enhance our ability to reduce the number of pollution incidents.	In our annual performance report we discuss how changes in our operation model have led to improvements in our pollution performance.
020	Culture	Design and delivery of the Environmental Compliance handbook to wastewater network and water in prioritised way.	Create new or review current.

Ref.	Theme	Action	Measure/ evidence
021	Maintenance	Maintenance Reliability strategy to be refreshed.	Strategy produced and signed off.
022	Maintenance	Maintenance and Reliability training to be developed for field staff.	Training materials produced and complete.
023	Maintenance	End-to-end maintenance processes reviewed and refined.	Completed review with associated report complete.
024	Maintenance	Re-tender of inventory management supplier.	New supplier arrangement in place.
025	Lessons learned	Following the trialled adoption of SuDS in AMP6 we will write a completion report/ training pack highlighting our findings and lessons learnt.	Development of the training package.
026	Partnerships	We will look to implement sustainable drainage solutions in AMP7 and where possible do so in partnership.	Evidence pack upon complete of a scheme.
027	Culture	We will commit to contributing to industry wide sustainable drainage projects, sharing our knowledge and data.	Input and drive discussions at industry forums.

Source: UUW pollution incident reduction plan

4.9 River water quality action plans

- 4.9.1 On 18 November 2021 Ofwat and the EA announced a joint investigation after several water companies said that they might not be treating as much flow at their WwTW as they should be, and that this could be resulting in increased spills from overflows.
- 4.9.2 Companies were required to set out details of flow to full treatment (FTFT) performance management and governance arrangements. UUW responded by highlighting that it had been proactively applying the '1% rule' and through this had identified 'at risk' works and that it would address all the identified risks except one by December 2022, with the final site being addressed by December 2024.
- 4.9.3 In March 2022 Ofwat wrote to wastewater companies²⁴ asking them to set out how they were going to act to start tackling storm overflow issues and improve river quality as a priority to deliver an immediate reduction in harm and to rebuild customer trust.
- 4.9.4 Details of UUW's plans are published on the UUW website²⁵. The commitments were structured within four pledges and set out our plan over the next three years, covering asset improvement, enhanced data monitoring and sharing, greater innovation and more use of nature-based solutions.
- 4.9.5 We also sought to build trust and confidence that we were addressing concerns and making our contribution to improving river health. In support of this our commitments include: actively engaging and listening to all our stakeholders, to demonstrate we are taking action; seeking engagement and support in the creation of our future plans; providing greater transparency of our performance and the issues to be tackled; and engaging with community groups who value access to water for recreational purposes to identify priority locations.

²⁴ <https://www.ofwat.gov.uk/wp-content/uploads/2022/03/Letter-from-David-Black-to-CEOs-on-Environment-Act-duties.pdf>

²⁵ <https://www.unitedutilities.com/corporate/responsibility/environment/reducing-pollution/storm-overflows/our-commitments-to-river-health/>

- 4.9.6 In 2023 we also published our Better Rivers Report²⁶. Within this report we outlined a number of key facts, described the challenges we face and reported against the pledges and commitments that we made as part of our Better Rivers plan. At that time, we had already invested more than £250 million in the North West and delivered a 39 per cent reduction in storm overflow spills.
- 4.9.7 The progress we have made in delivering each commitment within each of the four better rivers pledges are set out in detail within the 2023 better rivers report and are summarised in the tables below:

Table 20: Ensuring our operations progressively reduce impacts on river health

Action	Status
<p>Aim to deliver a significant reduction in impact caused by storm overflows and sewage treatment works by 2030.</p>	<p>Making progress:</p> <p>As a result of our efforts to improve the monitoring and operation of storm overflows, along with periods of dry weather over the last two years, the frequency and duration of storm overflow operation has reduced significantly since 2020. The data shows:</p> <ul style="list-style-type: none"> • 39 per cent reduction in spill numbers; • 41 per cent reduction in spill duration; and • 41 per cent reduction in the average; recorded spill frequency.
<p>Implement water quality impact monitoring at our overflows no later than 2025.</p>	<p>Making progress:</p> <p>The 2021 Environment Act requires all water companies to continuously monitor water quality upstream and downstream of all outfalls, in near real-time, by 2030.</p> <p>We have been conducting water quality trials using two differing sensors, selected on their respective abilities to address the requirements of the Act and to test innovative technologies. Both proved successful – one emulated the requirements of the Act by having near real-time monitoring upstream and downstream of an outfall while the other acted as our first continuous, near real-time water quality monitor, with high levels of accuracy.</p> <p>We are now planning how we roll out sensors across various locations.</p>
<p>Deliver £230m in environmental improvements, supporting at least a one third sustainable reduction in the number of spills recorded from our storm overflows by 2025 compared to the 2020 baseline.</p>	<p>Good progress:</p> <p>We are making good progress, implementing 29 schemes to reduce spills from these overflows by 47 per cent.</p>

²⁶ <https://www.unitedutilities.com/globalassets/documents/corporate-documents/united-utilities-better-rivers-report-2023.pdf>

Action	Status
Reduce category 1-3 pollution incidents by at least 50 per cent by 2025 against a 2012 baseline.	Completed / Achieved: Through the implementation of our Pollution Incident Reduction Plan (PIRP), we continue to achieve sector-leading performance with no serious pollution incidents over the last three years. This sustained performance is a result of a suite of related actions: <ul style="list-style-type: none"> improving power resilience at operational sites as 30 per cent of incidents result from power issues; creation of 'mitigation squads' with six fully equipped vehicles to prevent overland flows from entering a watercourse or surface water system; relentless campaigning on sewer blockages and fats, oils and greases; and, enhancing search engine optimisation to make it easier to report potential pollutions.
Aim for no serious pollutions incidents from our assets.	Completed / Achieved:
Recruit over 100 Green Apprentices by 2025.	Good progress: Many apprentices we recruit will be trained for jobs that will deliver an environmental benefit such as maintaining wastewater treatment works. We are on track to recruit 100 by 2025.

Source: UUW 2023 better rivers report

Table 21: being open and transparent about our performance and our plans

Action	Status
Provide greater transparency on the link between environmental performance and remuneration.	Completed / Achieved. In the remuneration section of our 2022/23 United Utilities Group PLC Annual Report and Financial Statements, we describe in detail, as we have for several years, how executive pay is linked to non-financial, as well as financial performance. Over 50 per cent of reward is linked to customer service and environmental performance and this has been strengthened in 2022/23 with every employee having a target to deliver our Better Rivers plan.
In 2022 publish investigations and plans for all overflows that operate frequently.	Completed / Achieved We published our first Storm Overflows report in 2022, which reports on the steps we are taking to reduce our impact on river health and explain what we are doing to deliver a significant reduction in impact caused by storm overflows, in particular those that operate more frequently.
In 2022, establish an environmental scrutiny committee of external stakeholders to drive greater oversight.	Completed / Achieved The North West's independent challenge group for water, YourVoice, operates with four sub groups, one of which scrutinises our environmental work and has a formal role in tracking the delivery of our Better Rivers plan and challenging us on progress.
Work with stakeholders to provide the information people want and need in an annual report on storm overflows from 2022.	Completed / Achieved As set out above we published our first Storm Overflows report in 2022, which was shaped by feedback from customers after we canvassed their views on our 'Better Rivers: Better North West' plan.

Action	Status
Ensure all storm overflows are monitored by 2023.	Good progress: We have more than 2,200 storm overflows and 97 per cent are now monitored and we will achieve 100 per cent by the end of 2023.
Aim to provide near real-time data when an overflow operates and make sure this information is easily accessible from 2023.	Good progress: Installing the storm overflow monitors enables us capture the data that can be shared in real time, with a portal to provide this information due to go live in 2023.
Hold our first Environmental AGM in 2022 to review performance and progress.	Completed / Achieved In 2022, we held our first Environmental AGM, chaired by the environmental lead for the North West's independent challenge group, YourVoice. Led by the then CEO designate, the session covered a broad range of topics including climate change mitigation and adaption, biodiversity and land management, pollution and water quality and other environmental impacts such as leakage, water use, managing waste and biosolids. More details are provided in a case study within the 2023 better rivers report.
Bring the bright minds of our colleagues and partners together to investigate storm overflow spills and collaborate on innovative solutions.	Planning stage: In February 2023, we hosted the water sector's first Pollution Summit to share best practice on measures being taken by companies to reduce the frequency of pollution events. Senior representatives (typically wastewater operations directors) from every company attended and several presented details on projects that have made a tangible difference – our contribution focused on the successful implementation of our pollution incident reduction plan and our Dynamic Network Management project. Water UK also attended, convening a session on the emerging pollution roadmap for the sector. All agreed that the exchange of intelligence was invaluable and that a future session would be welcome.

Source: UUW 2023 better rivers report

Table 22: Making rivers beautiful and supporting others to improve and care for them

Action	Status
Use our convening powers to help others address their contribution to river health.	Good progress: In addition to investing in our wastewater assets to improve the way they operate, we have worked closely with others to tackle some of the issues that impact river water quality.
Convene a North West Rivers summit in 2022.	Completed / Achieved In November 2022, we convened the region's first 'Future Rivers Forum' with the aim of identifying new collaborations and collective action to improve river health.

Action	Status
In 2022, launch a new partnership to protect watercourses with farmers to incentivise farming practices that reduce impact.	<p>Completed / Achieved</p> <p>During the Future Rivers Forum, we announced our commitment of £500,000 to develop a North West agricultural network to share best practice, improve support for delivery of catchment improvements and increase access to third party funding.</p> <p>Conversations with agricultural stakeholders highlighted opportunities to create a coordinated network as part of a long-term approach to establish sustainable farming clusters. Potential benefits including accelerating nature friendly farming to improve river water quality, biodiversity and soil health.</p>
Plant over 1 million trees by 2030.	<p>Good progress:</p> <p>Good progress is being made on this initiative, with the target of 1 million trees expected to be planted by 2030.</p>
100% of our SSSIs in favourable or recovering status by 2030.	<p>Making progress:</p> <p>Details of our plans to achieve this objective will be set out in our WINEP submissions and PR24 business plan.</p>
From 2023, create a movement of North West citizen scientists to collect data on river health.	<p>Making progress:</p> <p>We are active participants in the Love Windermere partnership, launched in July 2022. It is the most significant collaboration between stakeholders from a range of sectors to tackle water quality challenges in the lake. The partnership is developing a science-based plan to set out a road map for environmental protection for the lake.</p> <p>In part this will be informed by citizen science-based projects already underway – volunteers have been taking samples from one hundred locations in and around the lake at different time across the year, providing the most comprehensive snapshot of water quality in the lake and its tributaries.</p>
Fund local universities and research studies to understand river health.	<p>Initiative started:</p> <p>Lancaster University are trialling the Better Rivers funded ClearWater sondes in their labs to test detection limits before they're deployed in the Windermere catchment. This trial is to give key partners the chance to see the sondes in a test environment and understand the technology in more detail before deployment. Further work will progress over the coming months.</p>
Substantial update to be published regarding developments of partnerships with (1) National and Local Rivers Trust and (2) GMCA and EA.	<p>Making progress:</p> <p>In Greater Manchester, we are working closely with the Combined Authority, creating an integrated water management plan. This is bringing together all the relevant bodies who make a contribution to the improved management of water quantity and quality.</p> <p>The plan will help support the aims of improving river health by looking at issues such as how can we collectively tackle the impact of excess rainfall and help slow the flow of water, reducing what goes into the sewer network, needs to be treated and can end up in rivers and waterways.</p>

Action	Status
In 2023, launch a Community Fund to support groups to improve our rivers.	<p>Initiative started:</p> <p>Our Green Recovery programme is an ambitious plan to work in partnership with organisations across the North West to deliver environmental improvements in rivers, protect habitats, combat invasive species, enhance water quality, improve drainage and reduce pollution.</p> <p>We plan to invest a total of £9m in these types of schemes by March 2025 and in November 2022 awarded more than £1.3m of funding to projects which will boost levels of sustainable drainage across Greater Manchester²⁷.</p>
Work with partners Rivers Trust, RSPB and local authorities to deliver projects.	<p>Good progress:</p> <p>Since 2000 we've invested more than £75 million upgrading wastewater treatment sites, pumping stations and sewers around Windermere. We are now going to bring forward £19 million to be spent over the next two years to further reduce storm overflows around Windermere.</p> <p>We are always looking at what more we can do to support our communities, enhance the local environment, and engage more effectively with our partners.</p>
Catalyse our network of employee volunteers to focus on river health.	<p>Planning stage:</p> <p>To protect our rivers and help to keep them healthy, we have recruited a team of six River Rangers who will be working with teams across our catchments to build on our existing relationships with groups like the Mersey Rivers Trust and to forge close links and engage with community groups and organisations to improve the environment and river water quality in those areas.</p> <p>They proactively patrol the banks of rivers, checking assets to organise maintenance and cleaning litter and debris to mitigate against the aesthetic impact of our operations.</p>

²⁷ <https://www.unitedutilities.com/corporate/newsroom/latest-news/united-utilities-announces-1.3m-support-to-boost-river-health-and-reduce-flooding-risks/>

Action	Status
Advocate for the removal of the automatic right to connect.	<p>Making progress:</p> <p>We have been proactively taking steps to influence changes to legislation to facilitate more sustainable drainage options around new development. This has included championing changes to S106 of the Water Industry Act as outline in Schedule 3 of the Floods and Water Management Act 2010. Examples of our activity include:</p> <p>Contribution to the Review of the Application and Effectiveness of Planning Policy for Sustainable Drainage Systems for proposed amendment to national Planning Policy Guidance championing sustainable drainage;</p> <p>case studies submitted to Defra via Water UK in November 2020 providing real life examples of connections to combined sewers were legislative limitations and case law prevented a more sustainable options;</p> <p>response to the Bricks and Water inquiry call for Evidence in July 2022 on how we believe policy and regulatory interventions can make a difference to flood risk;</p> <p>developing a North West Sustainable Drainage pro-forma for use with lead local flood authorities as part of an RFCC SuDS task and finish group;</p> <p>scheduling rolling meetings with planning policy officers on the preparation of development plans and engagement on site specific and master planning; and</p> <p>providing evidence to the Environment Audit Committee call for evidence on water quality in rivers in Jan 2020.</p>
Champion legislation to ban wet wipes that contain plastic and lobby for a ban on all wet wipes that are not 'Fine to Flush'.	<p>Making progress:</p> <p>We also welcome recent announcements by the Government to consult on the implementation of a ban on plastic wet wipes.</p>

Source: UUW 2023 better rivers report

Table 23: creating more opportunities for everyone to enjoy rivers and waterways

Action	Status
In 2030, 95% of customers will be no further than 30 miles from a bathing water.	<p>Making progress:</p> <p>We've undertaken detailed analysis of existing designated waters and proximity to North West residents and have identified that people living in parts of South Manchester and Cheshire are currently beyond 30 miles from a designated bathing water.</p>
Play our part in creating and promoting additional inland bathing waters in the North West.	<p>Making progress:</p> <p>We have engaged with stakeholders to understand any local appetite to identify a bathing water and what it would mean for our assets.</p> <p>These investigations will form part of our Water Industry National Environment Plan (WINEP) submission.</p>
Work with others to create 10 new recreational clubs at our reservoirs for all customers to enjoy by 2030.	<p>Good progress:</p> <p>We've also begun work to create new recreational clubs at our reservoirs. A case study is provided in the 2023 better rivers report.</p>

Source: UUW 2023 better rivers report

4.10 AMP8 accelerated investment programme

- 4.10.1 In October 2022, Ofwat and Defra invited companies to propose schemes to accelerate investment in water resilience (supply and demand); storm overflows; and nutrient neutrality. Early approval of schemes was designed to help the sector to gear up for a larger investment programme over the coming years and help deliver benefits for customers and the environment sooner.
- 4.10.2 On 3 April 2023, Ofwat announced that it was proposing to approve the accelerated investment for 33 industry wide investment schemes to deliver benefits for customers and the environment²⁸. The total investment will be around £2.2bn with work beginning in the next two financial years, from 2023 to 2025.
- 4.10.3 For UUW the investment was designed to deliver benefits in these areas:
- 4.10.4 To address storm overflows UUW will accelerate around £1.4 billion investment for three separately identified storm overflow improvement programmes. The three schemes are: an acceleration of 135 2025-30 WINEP storm overflow improvements; a further four storm overflow improvements specific to improving discharges to Lake Windermere; and a further 15 storm overflow schemes to address bathing water areas. All three schemes will reduce the frequency of storm overflow discharges in the area. Based upon the 2021 EDM return this will equate to a spill reduction of over 8,400 spills per year, and involve installing approximately 330,000m³ of attenuation storage and over 61ha of separation across the three schemes.
- 4.10.5 To improve water quality UUW will aim to accelerate investment to several wastewater treatment works to remove nutrients within the Eden catchment in Cumbria (Appleby, Brampton Kirkby Stephen, Warwick Bridge, Carlisle and Penrith) which will protect natural ecosystems, continue to facilitate the economic development of the area, and help wildlife by improving water quality in Cumbria's rivers.
- 4.10.6 A requirement of the investment was that the projects needed to be started prior to April 2025 and completed by 2030. As part of this process UUW was able to bring forward investment from our AMP8 WINEP programme, meaning we can advance investment on storm overflows into 2023 and 2024 and include a package of projects in Lake Windermere and nutrient neutrality in the Eden catchment.
- 4.10.7 This accelerated investment decision has allowed us to get to work now, learning and innovating for a mobilised team ahead of AMP8. Although this programme is still at a relatively early stage we have already established a storm overflow task force.

4.11 Preparing for the future

- 4.11.1 Our business strategy was outlined within our 2022/23 United Utilities Group PLC Annual Report and Financial Statements²⁹ and is expanded on in detail, throughout our PR24 business plan. This section briefly summarises how we have analysed the key challenges that we will need to face in the medium to longer term and how we have started to transform the business to allow us to successfully manage these challenges.
- 4.11.2 We have a huge amount to deliver in the final years of AMP7, throughout AMP8 and into the longer term, but we are a strong performing business delivering on the outcomes that are important to customers and communities, supported by a robust balance sheet, that will enable us to support the increased infrastructure investment.
- 4.11.3 We are determined to drive the step change that is needed, to deliver improved environment outcomes enabling us to deliver a stronger, greener and healthier North West. With these improvements benefiting communities today, contributing to a stronger North West economy through more jobs and growth in our economy, as well as protecting future generations to come.

²⁸ Accelerated infrastructure investment: <https://www.ofwat.gov.uk/wp-content/uploads/2023/04/A0-accelerated-process-final-decisions.pdf>

²⁹ <https://unitedutilities.annualreport2023.com/>

- 4.11.4 We are fundamentally rethinking our network - we have already seen significant benefits following investment in our Dynamic Network Management capability. We need to remove more rainwater from our system and are thinking innovatively for example by trialling smart water butts, which are large solar powered containers that are connected to our central control room via telemetry. This allows us to send a signal for the devices to empty, ahead of storms arriving to reduce the pressure on the network and the need to rely on storm overflows during heavy rain.
- 4.11.5 We are doing more to work collaboratively - we are actively talking to local community groups across the region and in October 2023 we will be launching a “see for yourself” programme, allowing visitors to see what we are doing – how waste is treated and the plans for reducing the impact of storm overflows in their communities. We have also invested in River Rangers who are visible on the river banks and work with communities, businesses and agriculture to drive improvements to reduce all discharges entering rivers regardless of where they come from.
- 4.11.6 Storm Overflows - we are committed to building and delivering an aggressive plan that significantly reduces storm overflow spills. We are proposing an ambitious £3 billion programme of WINEP work to improve over 400 storm overflows in the next AMP. This programme is designed to make a 60 per cent (average) reduction in overflow spills, following delivery of this investment.
- 4.11.7 We are pleased that Ofwat has given provisional approval to accelerate over £1.5 billion of our planned AMP8 WINEP expenditure, enabling us to accelerate £200 million of investment into AMP7. This accelerated funding is allowing us to get to work now by establishing a team that has started work on 154 overflows, with accelerated approval also being granted to get started on a package of projects in Lake Windermere.
- 4.11.8 Reducing Carbon emissions - we have ambitious plans to maximise our land bank and build a greener future by lowering our emissions footprint. We have a strong track record of delivery, having already developed and constructed significant renewables capacity and we are working on plans to develop 150 megawatts of new installed capacity by 2030, made up of a combination of solar and batteries and helping us to achieve our self-generation target.
- 4.11.9 WINEP - our WINEP proposals are substantially more ambitious than in the current, or recent AMP periods. In addition to the £3 billion storm overflow plan there are also very significant programmes of work in relation to removing phosphates and addressing nutrient neutrality.
- 4.11.10 Delivering a plan of this size will require detailed and robust integration with our day to day operations as well as extensive coordination and collaboration with the supply chain and planning authorities. We are also mindful of the need to ensure that we are optimising green solutions – sustainable drainage solutions, reed beds to swales. Mobilising to deliver such an ambitious plan is therefore key to success and to support this we have:
- Appointed an independent scrutiny committee - experienced, industry experts to independently evaluate our plans who will be retained through AMP8 to ensure we continue to challenge and optimise the delivery of the plan;
 - appointed five new stakeholder managers, one for each county, working on early engagement plans and closer liaison with our communities, local authorities and planning departments; and
 - established a storm overflow task force, this is already in place.

5. Meeting AMP8 regulatory and statutory obligations

- 5.1.1 The primary statutory and regulatory obligations for water and sewerage undertakers are set out in either the Water Industry Act 1991 or in our Instrument of Appointment – the ‘licence’. The licence also requires UUW to meet the requirements imposed under any other statutory and regulatory obligations as necessary to fully discharge its duties as a Water and Sewerage Undertaker.
- 5.1.2 We set out our approach to meet our regulatory and statutory obligations each year within our Annual Performance Report (APR). We will continue to follow this approach to transparently identify areas where we comply with the obligations and in areas where we may not have full compliance, set out action plans to address.
- 5.1.3 Each year the UUW Limited Board reviews and signs a Risk and Compliance statement, which is published as part of our APR. The aim of this statement is to confirm that the company has complied with the relevant statutory, licence and regulatory obligations for the provision of services to its customers for the report year.
- 5.1.4 In line with the expectations of this statement, if and where there are known material departures from this statement – for example, if there are ongoing significant identified legislative or licence breaches or where systemic issues arose with management controls or processes – then these exceptions are set out and explained in the Table of Departures.
- 5.1.5 The board is able to make this statement each year as a consequence of UUW’s governance and control processes. These processes, which are now well-established and are demonstrably effective, will continue into the AMP8 period, with the new AMP8 regulatory contract, reporting and assurance being mapped to relevant legislation and forming part of this reporting framework.

- 5.1.6 The key elements of this approach are:

Managing compliance with our obligations

- 5.1.7 The company has an established compliance working group, chaired by the company’s Senior Solicitor, with representation from relevant business areas. The group formed in 2015 in order to formally determine how the company’s diverse obligations are identified and discharged.
- 5.1.8 The compliance working group maintains a log of the company’s key obligations, together with a list of the internal policies, associated risk assessment and assurance activities for each obligation. Each obligation also has an owner who is a member of the working group and a named owner of each obligation’s linked policy, who usually is more senior and often at executive or board level. The group carries out horizon scanning to identify new legislation and identifies any areas of potential non-compliance against obligations.
- 5.1.9 Obligations are also cross referenced to business risks that are recorded and managed on the company’s central risk management database (RADAR). This process works to ensure that any potential risks to compliance with existing obligations or any potential risks that may arise as a consequence of new obligations or new interpretations of existing obligations can be identified at an early stage. With the structured risk management process being used to ensure that appropriate mitigation plans and controls are established and that potential risks are escalated within the business potentially up to UUW board level.

Governance and oversight

- 5.1.10 The board manages the effective and efficient delivery of its obligations and operation of everyday activities within the business by the interaction of:
- Authorisations, approvals and procedures: These are set out in the United Utilities Group PLC (UUG) Internal Control Manual (ICM) and provide employees with a clear system of internal controls that

they must follow when acting on behalf of UUW and UUG as a whole. The ICM sets out a framework within which underlying detailed procedures and policies operate;

- policies: A range of underlying policies provide guidance to employees as to how they should conduct themselves when acting on behalf of UUW and UUG as a whole. Everybody working for or on behalf of UUW must comply with the policies (to the extent they are applicable to their roles). Failure to do so may result in disciplinary action being taken. This could lead to dismissal and possible civil or criminal proceedings in serious cases;
- delegation and oversight: The board delegates responsibility for specific matters to a number of committees and working groups. This provides a framework that employees are expected to be aware of and comply with, where relevant to their role, to ensure business decisions are taken with sufficient governance and oversight. To oversee and take decisions affecting the execution of its obligations, the UUW board:
 - receives and reviews performance reports from the Chief Executive Officer;
 - receives and reviews reports and presentations from the Capital Delivery, Commercial, Corporate Affairs, Customer Service, Engineering, Environment Planning and Innovation, Finance, Health and Safety, Legal, People, Strategy, Policy, and Regulation and Water, Wastewater and Digital Services directorates;
 - receives and reviews reports and presentations from the UU Corporate Audit Team, the financial and technical auditors; and,
 - has access to executive and senior managers in the company to verify information.

Processes and systems of control

- 5.1.11 The directors have a reasonable expectation that the processes and systems of control the company uses are adequate for it to meet its obligations.
- 5.1.12 Each year this statement takes into account the relatively stable and regulated nature of the business and is based, amongst other matters, a review of the company's performance, the results of the annual management control self-assessment, the work of Corporate Audit and a review of the company's risk management process and register.

Assurance

- 5.1.13 In respect of this statement, assurance is provided by:
- Using UUW's established processes and methodologies for reporting performance;
 - this requires data providers, their managers and business unit directors to produce and approve Performance and Compliance Statements that set out the evidence to support the reported performance and control checks that have been applied. Operational performance data is collected at month six, month nine and at year-end;
 - comparing the reported outturn performance with our company business plan targets, regulatory targets and predicted future performance;
 - this exercise allows variances to be identified and explored. Where required, explanatory statements are sought from business managers. These statements are analysed and assessed by the Regulatory Contract team (within Strategy, Policy and Regulation) and findings are reported to the relevant executive directors, with any material issues highlighted to the UUW board;
 - requiring Business Unit Directors and Senior Managers to complete an annual management control self- assessment questionnaire;
 - the self-assessment is overseen by UU Corporate Audit team and serves as one of many inputs to the board's annual review of the effectiveness of risk management and internal control systems in accordance with good governance principles. The self-assessment questions are intended to assess

the application of key internal controls, highlighting the incidence of significant weaknesses or failures in controls during the period that have had, or could have, a material impact on the company's performance or condition. The questionnaire covers compliance with both Licence and Water Industry Act obligations;

- reviews are undertaken by the UU Corporate Audit team and technical auditor of the company's processes, risks and controls;
- in 2022/23, Corporate Audit continued to review the company's risks, processes and controls, covering operational areas, support functions (such as finance, digital services and health and safety). The team also reviewed regulatory reporting information and submissions, the disclosures made in the Corporate Governance section and elements of the non-financial information disclosed within the Strategic Report and Directors Report sections of the United Utilities Group PLC Annual Report and Financial Statements;
- the scope of the audit work is consistent with the company's documented assurance framework. Findings are reported to aid the board's decision to approve these reports. The team reviewed UUW's compliance with Ofwat's board leadership, transparency and governance principles as part of their annual review of corporate governance. Their findings are reported to the board to aid the board's decision to approve the annual Risk and Compliance Statement. The effectiveness of the Corporate Audit team is continually monitored through assurance reports, a quality dashboard, an annual stakeholder survey and periodic external assessment. The technical auditor provides a summary report about year-end reporting to the board each June;
- the Group Audit & Risk Board (GARB) reviews and monitors compliance with governance processes, risk management and the internal control framework to identify emerging themes and trends; and
- GARB provides an executive review of governance processes, risk management and internal control, their adequacy, effectiveness and performance. GARB monitors compliance as part of the governance framework, identifying emerging themes and trends. Meeting on a quarterly basis, GARB regularly reviews issues and summary level reporting (typically by exception) arising in relation to:
 - Corporate Audit activities;
 - management control self-assessment activities;
 - risk management framework, process and reporting, and effectiveness thereof;
 - fraud and whistleblowing framework, process and incident reporting, and effectiveness thereof;
 - data protection, competition, Environmental information regulations and Bribery Act compliance;
 - security, including IT, cyber and operational security;
 - overall resilience, including asset resilience; and
 - operational compliance and assurance activities.

6. Meeting other AMP8 commitments

- 6.1.1 This section demonstrates how we manage our other AMP8 commitments that are defined through each price review, or related cyclical processes. For the AMP8 period these commitment are primarily set out in:
- The Water Industry Strategic Environmental Requirements³⁰; and,
 - Drinking Water Inspectorate Long term planning guidance³¹.
- 6.1.2 These documents were developed by the government and our regulators; the DWI, the EA and Natural England and contain a mixture of statutory requirements, and non-statutory enhancements which these organisations expect water companies to consider within their business plans for 2025-2030.
- 6.1.3 The Water Industry Strategic Environmental Requirements (WISER) describes the statutory and non-statutory expectations of water companies for PR24, together with expected practice.
- 6.1.4 The Water Industry National Environmental Programme (WINEP) sets out the specific actions that Water Companies need to take to meet their environmental legislative requirements and related government priorities. Section 6.3 of this document demonstrates how we have embedded the statutory obligations and regulator’s expectations in the outcomes, performance commitments and investment decisions which underpin our PR24 business plan.
- 6.1.5 In addition, as these are the minimum requirements, Section 6.4 also demonstrates where UUW has proposed to go beyond the minimum expectations in areas where there is environmental benefit in doing so, and where there is good customer support.
- 6.1.6 Sections 6.5 and 6.6 of this document sets out the commitments and expectations contained within these three documents and additionally outlines our approach to meeting obligations on Drainage and Wastewater Management Plans (DWMP), Water Resources Management Plans (WRMP).
- 6.1.7 The Drinking Water Inspectorate Long term planning guidance does not set out any new policy initiatives, or any new legal obligations instead it is designed to provide water companies and other stakeholders with direction on long term planning for the quality of drinking water supplies and provides clarity on the expectations of the DWI for PR24. UUW’s response to this guidance and a summary of our information submissions (security and emergency measures direction (SEMD), Directive on security of Network and information systems (NIS-D) and lead), are set out in Section 6.5.

6.2 Government priorities for PR24

- 6.2.1 The Government’s key priorities for water companies are:
- significantly reduce the frequency and volume of sewage discharges from storm overflows, so they operate infrequently, and only in cases of unusually heavy rainfall;
 - achieve zero serious pollution incidents, and significantly reduce all pollution incidents;
 - reduce nutrient pollution from wastewater treatment works; and
 - maintain, restore, and enhance protected sites and priority habitats such as chalk streams.

The Government’s environmental ambitions and targets

- 6.2.2 The Government’s 25 Year Environment Plan³² sets out the government’s ambition to improve the environment and people’s connection to it within a generation. Water companies have a leading role to

³⁰ <https://www.gov.uk/government/publications/developing-the-environmental-resilience-and-flood-risk-actions-for-the-price-review-2024/water-industry-strategic-environmental-requirements-wiser>

³¹ Drinking Water Inspectorate Long term planning guidance

³² 25 year environment plan - <https://www.gov.uk/government/publications/25-year-environment-plan>

achieve the 25 Year Environment Plan goals. This includes helping to improve at least three quarters of our waters to be close to their natural state as soon as is practicable.

- 6.2.3 Supporting the government’s vision for water and biodiversity as well as the need for more resilient infrastructure alongside economic growth are:
- the EA’s five year action plan for the water environment EA2025 creating a better place;
 - Conservation 21, Natural England’s Conservation Strategy for the 21st Century; and
 - the National Flood and Coastal Erosion Risk Management Strategy for England seeking to better manage the risks and consequences of flooding, including flooding from rivers, sewers, and reservoirs.
- 6.2.4 The Environment Act 2021 sets out environmental principles and introduces measures to:
- improve air and water quality;
 - tackle plastic pollution; and
 - restore habitats so plants and wildlife can thrive.
- 6.2.5 The Environment Act 2021 introduces:
- a new place-based spatial planning framework;
 - Local Nature Recovery Strategies; and
 - new biodiversity duties for water companies.
- 6.2.6 It also makes the requirement for Drainage and Wastewater Management Plans statutory.
- 6.2.7 Water companies must take action to meet the targets under the Act and need to take an approach, which:
- considers a longer-term approach and vision;
 - demonstrate that they have chosen the best value options, taking natural capital into account;
 - make data and evidence open and available to all, where appropriate, to demonstrate the integrity of water and sewerage company operations;
 - be accountable for the design and development of their programmes of work and the resulting outcomes;
 - support customers to make decisions and change behaviours to reduce unnecessary water use and sewerage abuse;
 - plan over the longer term (to 25 years) to address complex environmental issues and account for a range of future climate change scenarios and other pressures; and
 - work with others whose activities impact on the water environment to support them with improving water quality and water resource availability.

6.3 WISER

- 6.3.1 WISER was published in May 2022 and sets out that water companies must address any damage arising from their activities and are expected to protect, restore, and enhance the environment. WISER should be read in conjunction with the WISER technical document³³, which sets out the expected approaches water companies should follow.

³³ <https://www.gov.uk/government/publications/developing-the-environmental-resilience-and-flood-risk-actions-for-the-price-review-2024/water-industry-strategic-environmental-requirements-wiser-technical-document>

- 6.3.2 In response to this overarching requirement, our PR24 business plan set out the services and improvements we will provide to meet these legal obligations and specifically includes plans that relate to:
- reducing our impact on the environment;
 - ensuring environmental compliance;
 - improving resilience of our assets to climate change; and
 - securing the reliability of water supplies to customers.
- 6.3.3 The detailed expectations within WISER are set in the sixteen specific areas that are aimed to address three main objectives:
- (1) A thriving natural environment - increased environmental value, healthy rivers, lakes, wetlands, coastal waters, and a sustainably functioning eco-system.
 - (2) Performance and compliance – day-to-day service excellence for customers and to act in the long-term interests of society and the environment.
 - (3) Resilience for the environment and customers - resilient, safe, and affordable water and waste water services today and for future generations.
- 6.3.4 Table 24 demonstrates how our business plan has addressed each of the sixteen focus areas within these three objectives. The table shows where each of the statutory and non-statutory expectations are being addressed within our business plan. The tables identify the specific documents within our PR24 business plan, where full details of the how we have addressed the expectation are set out.
- 6.3.5 The focus areas within each objective are:
- a thriving natural environment
 - (1) Bathing waters
 - (2) Chemicals
 - (3) Drinking Water Protected Areas
 - (4) Environment Act 2021 targets
 - (5) Healthy and resilient fish stocks
 - (6) Invasive non-native species (INNS)
 - (7) Natural environment
 - (8) Shellfish waters
 - (9) Urban wastewater
 - (10) Water body status (river basin management plan objectives)
 - performance and compliance
 - (1) Regulatory compliance (all regimes)
 - resilience for the environment and customers
 - (1) Climate change
 - (2) Ecosystem and natural function
 - (3) Flood risk management
 - (4) Future drainage
 - (5) Water resources – security of supply

6.4 WINEP

- 6.4.1 The WINEP sets out the programme of actions that each water company needs to take to meet their environmental legislative requirements and related government priorities (as set out in WISER). Expectations are categorised as either:
- 6.4.2 **Statutory obligations (S)** – which arise from legislative requirements, ministerial directions or meeting specific planning requirements. While it is important to understand the costs and benefits of the required measures, these statutory obligations must still be achieved.
- 6.4.3 **Statutory plus obligations (S+)** - are legal requirements where economic evidence forms part of the decision-making process. In cases where action is considered disproportionately expensive, alternative objectives, or timescales to meet them may be set.
- 6.4.4 **Non-statutory requirements (NS)** - are not driven by statutory requirements but need to address an environmental requirement, have customer support and provide best value for customers over the long term.
- 6.4.5 Our PR24 submission sets out the detail of the projects we are delivering to address each element of the WINEP. This demonstrates how these proposals address each of the specific drivers within the WINEP and deliver the requirements of WISER. Table 24 describes WISER requirements and signposts where further details can be found in our PR24 submission.

Table 24: WISER requirements and where they are addressed in our plan

WISER sub-heading – Chemicals	Related PR24 documents
Action to prevent deterioration (includes standstill measures) (S)	UUW63 – Final effluent limits enhancement
Action to achieve compliance with environmental quality standards (S+)	UUW63 – Final effluent limits enhancement
Develop and implement operating targets for chemical removal for existing and upgraded wastewater treatment works as part of assessing performance in reducing chemical loads to the environment (NS)	UUW63 – Final effluent limits enhancement
Review and strengthen management of trade effluent, tankered waste and sludge transfers to improve effluent and sludge quality (S)	UUW63 – Investigations enhancement
Investigate existing and emerging substances occurring in sewerage systems, inform and work with consumers, businesses and other stakeholders to develop innovative approaches to reduce loads entering sewerage systems or treatment techniques to improve the environment (NS)	UUW63 – Investigations enhancement
WISER sub-heading – Drinking water protected areas	Related PR24 documents
Catchment actions to prevent deterioration in water quality and to reduce the need for additional treatment (S)	UUW60 – Water WINEP enhancement
Catchment actions to improve water quality to reduce the level of existing treatment (S+)	UUW60 – Water WINEP enhancement
WISER sub-heading – Environment Act 2021 targets	Related PR24 documents
Reduce the frequency and volume of sewage discharges from storm overflows in line with the Storm Overflow Discharge Reduction Plan (S)	UUW64 – Overflows enhancement
Reduce phosphorus loadings from treated waste water in line with the Environment Act’s long-term environmental targets (S)	UUW35 – Our Environmental Strategy UUW63 – Final effluent limits enhancement

Reduce the use of public water supply in England per head of population in line with the Environment Act's long-term environmental targets (S)	Chapter 2 – Great water for the North West UUW57 – Water business plans UUW30 – Per capita consumption Water Resources Management Plan
WISER sub-heading – Healthy and resilient fish stocks	Related PR24 documents
Screen abstractions and outfalls to prevent the entrainment of eels, salmon, sea trout and to resolve Water Framework Directive fish failures (S) (S+)	UUW60 – Water WINEP enhancement
Address barriers to the passage of fish (S+)	UUW60 – Water WINEP enhancement
Action that supports recovery of Natural Environment and Rural Communities Act (NERC) Act S.41 priority fish species (which includes salmon, brown sea trout, eels, smelt, river and sea lamprey and shad) or at sites where fish form part of the conservation designation (S+)	UUW60 – Water WINEP enhancement
WISER sub-heading – Invasive non-native species	Related PR24 documents
Prevent deterioration by reducing the risk of spreading INNS and reducing the impact of INNS (S)	UUW60 – Water WINEP enhancement
Reduce the impact of INNS, where INNS is a reason for not achieving conservation objectives or good status (S) (S+)	UUW60 – Water WINEP enhancement
Reduce pathways for the introduction and spread of INNS (S)	UUW60 – Water WINEP enhancement
WISER sub-heading – Natural environment	Related PR24 documents
Action that contributes to meeting and or maintaining conservation objectives of Habitats sites, for example, addressing the potential impact of development and growth (S)	UUW63 – Final effluent limits enhancement UUW65 – Supply and demand enhancement
Action that contributes to meeting or maintaining favourable condition targets for Sites of Special Scientific Interest (S+)	UUW60 – Water WINEP enhancement
Action that contributes to the restoration and recovery of habitats and species under the NERC Act including supporting delivery of the Nature Recovery Network (S+)	UUW60 – Water WINEP enhancement
Action that contributes to the achievement of conservation objectives of Marine Conservation Zones and (when designated) the desired state of the environment within Highly Protected Marine Areas (S) (S+)	UUW63 – Investigations enhancement
Actions for biodiversity should deliver the outcomes of the relevant Local Nature Recovery Strategy, Protected Site Strategies, and Species Conservation Strategies introduced by the Environment Act (S+)	UUW60 – Water WINEP enhancement
Contribute to actions under non-statutory initiatives including the England Peat Action Plan, England Tree Action Plan and the National Pollinator Strategy (NS)	UUW60 – Water WINEP enhancement
Action that contributes to the conservation and enhancement of landscape character and sense of place, so that landscapes are alive for nature and beauty, and provide opportunities that benefit people's health and wellbeing (where this goes beyond statutory obligations) (NS)	Chapter 6 – Delivering social and environmental value

Action that delivers inclusive public access to water company land and water of natural beauty, amenity or recreational value and allow public access for the widest possible range of activities (S+)

Chapter 2 – Great water for the North West

WISER sub-heading - Shellfish Waters	Related PR24 documents
Action to prevent deterioration of shellfish water protected areas (S)	UUW64 – Overflows enhancement
Action to achieve shellfish water protected area objectives (S)	UUW63 – Investigations enhancement
WISER sub-heading - Urban Waste Water	Related PR24 documents
Reduce the frequency and volume of sewage discharges from storm overflows in line with the Storm Overflow Discharge Reduction Plan (S)	UUW64 – Overflows enhancement
Action to protect newly identified Sensitive Areas (S)	UUW63 – Final effluent limits enhancement
Action to improve wastewater treatment where population thresholds are exceeded and, in line with Defra policy, provide secondary treatment where water company owned septic tanks discharge to surface water (S)	UUW63 – Final effluent limits enhancement
Maintain sewers to minimise sewer leakage especially in source protection zones (S)	UUW56 – Wastewater business plan UUW07 – Resilience and asset health
Provision of first-time sewerage schemes (S)	UUW65 – First time sewerage enhancement
Action to increase flow to full treatment and storm tank capacity at wastewater treatment works where the Urban Waste Water Treatment Regulations requirements are not being met (S)	UUW56 – Wastewater business plan
WISER sub-heading - Water body status	Related PR24 documents
Action to prevent deterioration in current water body status (S)	UUW56 – Wastewater business plan UUW60-67 – Enhancement cases
Action to improve water body status (S+)	UUW60-67 – Enhancement cases
Action to ensure no river, lake or estuary is in poor or bad ecological status due to the water industry (S+)	UUW60-67 – Enhancement cases
Work with stakeholders and catchment partnerships to explore integrated solutions, including nature-based solutions, and delivery of multi-functional benefits at a catchment scale (NS)	Drainage and Wastewater Management Plan Advanced WINEP UUW06 – Delivering social and environmental value UUW38 – Working in partnership UUW56 – Wastewater business plan UUW63 – Investigations enhancement UUW65 – Rainwater management enhancement
Regulatory compliance	UUW56 – Wastewater business plan UUW57 – Water business plans UUW58 – Bioresources business plan UUW79 – Statutory obligations summary
Achieve 4-star status on the Environmental Performance Assessment (NS)	UUW56 – Wastewater business plan UUW58 – Bioresources business plan UUW60 – 67 Enhancement cases
100 per cent compliance for all licences and permits (NS)	Drainage and wastewater management plan UUW56 – Wastewater business plan UUW58 – Bioresources business plan UUW60 – 67 Enhancement cases

100 per cent compliance at wastewater treatment works and water treatment works with numeric limits and for storm overflows (S)	Drainage and wastewater management plan UUW56 – Wastewater business plan UUW58 – Bioresources business plan UUW60 – 67 Enhancement cases
100 per cent compliance with environmental impact and operational performance permit conditions at wastewater treatment works and water treatment works with descriptive not numeric limits (S)	Drainage and wastewater management plan UUW56 – Wastewater business plan UUW58 – Bioresources business plan UUW60 – 67 Enhancement cases
100 per cent compliance with abstraction and impoundment licences (S)	Water Resources Management Plan UUW56 – Wastewater business plan UUW57 – Water business plans UUW65 – Wastewater reservoirs
100 per cent compliance with flow conditions, including dry weather flow, flow to full treatment, maximum daily volume and flow rates, MCERTS certification, at wastewater treatment works and water treatment works (S)	Drainage and wastewater management plan UUW56 – Wastewater business plan UUW64 – Flow and EDM enhancement UUW65 – Supply and demand enhancement case
100 per cent compliance with ultra-violet dose conditions (S)	UUW56 – Wastewater business plan UUW60 – 67 Enhancement cases
Zero serious pollution incidents (category 1 and 2) (S)	UUW30 – Total pollution incidents technical document UUW30 – Serious pollution incidents UUW56 – Wastewater business plan
At least a 30 per cent reduction of all pollution incidents (category 1 to 3) by 2030 on current 2025 targets. There may be some variation on this expectation depending on company performance during the current asset management plan period (2020 to 2025) (S)	UUW30 – Total pollution incidents technical document UUW30 – Serious pollution incidents
High levels of self-reporting of pollution incidents with at least 90 per cent of incidents self-reported by 2030. More than 95 per cent of incidents self-reported for wastewater treatment works and pumping stations (NS)	Pollution incident reduction plan UUW56 – Wastewater business plan
All the correct authorisations (permits and exemptions) are held and 100 per cent compliance with installation permits, waste operation permits and waste exemptions (S)	UUW67 – Price control enhancement claims UUW56 – Wastewater business plan UUW58 – Bioresources business plan UUW57 – Water business plans
Business plans include all actions identified within the WINEP and these are planned well and completed to agreed timescales and specification (S)	UUW30 – Technical Documents covering performance commitments UUW30 – Price control deliverables (PCD) UUW56 – Wastewater business plan UUW58 – Bioresources business plan UUW60 – 67 Enhancement claims UUW79 – Statutory obligations summary
Either good or excellent rating of self-monitoring provisions under Operator Monitoring Assessment. Compliance with self-monitoring conditions, including data quality and providing data on time for Operator Self-Monitoring, Urban Waste Water Treatment Regulations and flow monitoring, event duration monitoring and ultra-violet disinfection (S)	UUW56 – Wastewater business plan UUW57 – Water business plans UUW58 – Bioresources business plan UUW64 – Flow and EDM enhancement UUW64 – Overflows enhancement

Sustainable management of sludge treatment and onward sludge use so as not to cause regulatory breaches or pollution to land, surface water or groundwater by implementation. Including modernisation of the regulatory controls through delivery of the Environment Agency's sludge strategy, which moves sludge from Sludge (Use in Agriculture) Regulations to Environmental Permitting Regulations (S)	UUW58 – Bioresources business plan UUW66 – WINEP sewage sludge drivers UUW66 – Improving resilience in biosolids recycling to agriculture UUW66 – Bioresources preparatory works for alternative outlets
100 per cent compliance with satisfactory use of sludge on agricultural land (S)	UUW58 – Bioresources business plan UUW66 – WINEP sewage sludge drivers UUW66 – Improving resilience in biosolids recycling to agriculture UUW66 – Bioresources preparatory works for alternative outlets
WISER sub-heading – Climate change	Related PR24 documents
Report on understanding of risks from climate change and how they are being addressed through Adaptation Reporting Power reports (S)	Planning for climate change report ³⁴
Contribute to the sector's ambition to achieve net zero carbon by 2030 as set out in Water UK's 'Net Zero 2030 Route map'; to meet the government's 2050 net zero target, the sector will need to go beyond the stated net zero ambition as currently scoped 1 and 2 greenhouse gas protocol to account for, and reduce, existing indirect emissions greenhouse gas protocol Corporate Value Chain (Scope 3) Standard, that result from: future asset management plan delivery; new national requirements; and measures taken in adapting to and addressing climate change impacts (NS)	Chapter 2 – Great water for the North West UUW37 – Net Zero 2050 UUW67 – Carbon net zero enhancement
Apply adaptive planning for a range of future climate change scenarios (NS)	Chapter 2 – Great water for the North West UUW12 – Long-Term Delivery Strategy Water resources management plan Drainage and wastewater management plan
Safeguard services and ensure risks are proactively identified and actions implemented using an adaptive planning approach (NS)	Chapter 2 – Great water for the North West Chapter 7 – Asset Health and Resilience UUW12 – Long-Term Delivery Strategy Water resources management plan Drainage and wastewater management plan
Deliver actions to restore form and function of the natural environment to improve resilience of ecosystems to warmer water temperatures, more frequent flooding and drought, and rising sea level (where this goes beyond statutory obligations) (NS)	Chapter 2 – Great water for the North West UUW60 – Water WINEP enhancement
WISER sub-heading – Ecosystem and natural function	Related PR24 documents
Action that contributes to restoring natural function to allow capacity for growth and development and to allow nature recovery (NS)	Chapter 2 – Great water for the North West UUW65 – Supply demand enhancement

³⁴ https://www.unitedutilities.com/globalassets/z_corporate-site/responsibility-pdfs/united-utilities-climate-change-adaptation-report-2021.pdf

WISER sub-heading – Flood Risk Management	Related PR24 documents
Act in a manner consistent with the National Flood and Coastal Erosion Risk Management Strategy for England and have regard to Local Flood Risk Management Strategies (S)	Chapter 7 – Resilience and asset health UUW38 – Working in Partnership UUW56 – Wastewater business plan UUW65 – Coastal and River Erosion enhancement case
Co-operate with other risk management authorities and Regional Flood and Coastal Committees in improving flood resilience and exercising water company flood risk management functions (S) (NS)	Drainage and Wastewater Management Plan Chapter 7 – Resilience and asset health UUW38 – Working in Partnership UUW56 – Wastewater business plan UUW65 – Coastal and River Erosion enhancement case
Co-ordinate and share data and information with risk management authorities to deliver flood resilience, and with category 1 and 2 responders to manage incidents (S)	Drainage and Wastewater Management Plan Chapter 7 – Resilience and asset health UUW38 – Working in Partnership UUW56 – Wastewater business plan UUW65 – Coastal and River Erosion enhancement case
Comply with statutory reservoir safety requirements (S)	UUW44 – Cost adjustment claims UUW57 – Water business plans UUW65 – Ww Reservoir enhancement case
Engaging with stakeholders to understand service and system risks and implement solutions to improve flood resilience (NS)	Chapter 7 – Resilience and asset health UUW30 Technical Documents covering performance commitments UUW56 – Wastewater business plan UUW65 – Rainwater management enhancement case
WISER sub-heading – Future Drainage	Related PR24 documents
PR24 business plans should reflect the requirements including the extent and pace of these reductions as set out in the Secretary of State’s “Storm Overflow Discharge Reduction Plan” (S)	Drainage and wastewater management plan Storm Overflow Reduction Plan UUW64 – Overflows enhancement
Water and sewerage companies drainage and wastewater management plans should provide the evidence base for reducing spills from current and future baselines to meet the requirements of the Storm Overflow Discharge Reduction Plan (NS)	Drainage and wastewater management plan UUW30 – Storm overflows UUW64 – Overflows enhancement
Improve and monitor networks and wastewater treatment works to reduce the number of failures (NS)	UUW56 – Wastewater business plan
Ensure compliance with permitted flow to full treatment settings (S)	UUW56 – Wastewater business plan UUW64 – Flow and EDM enhancement
PR24 business plans should address the Environment Act duties on water and sewerage companies to continuously monitor the receiving water quality potentially affected by storm overflows (S)	UUW64 – Flow and EDM enhancement
PR24 business plans should address the Environment Act duties on water and sewerage companies to publish data on storm overflow operation on an annual basis and make spill information available in near real time (S)	Chapter 6 – Delivering social and environmental value UUW56 – Wastewater business plan UUW57 – Water business plans

WISER sub-heading – Water Resources and Security of Supply	Related PR24 documents
Demonstrate that the government expectations for water companies' water resources planning have been met (NS)	Water Resources Management Plan Chapter 2 – Great water for the North West UUW12 – Long-Term Delivery Strategy
Ensure water resource management plans reflect the relevant regional water resource plans and show how strategic scale solutions are implemented to meet long term water supply needs and environmental destination (NS)	Water Resources Management Plan Chapter 2 – Great water for the North West UUW12 – Long-Term Delivery Strategy
Incorporate sustainability changes into supply forecasts (NS)	Water Resources Management Plan Chapter 2 – Great water for the North West UUW12 – Long-Term Delivery Strategy
Deliver solutions to meet the need identified in final water resource management plans for 2030 and the long term (NS)	Water Resources Management Plan (pending SoS sign off) Chapter 2 – Great water for the North West UUW12 – Long-Term Delivery Strategy
Implement solutions to meet the needs identified in the final water resource management plan aiming for resilience to a 1-in-500 year drought by 2039 (or by 2050 where costs are exceptionally high locally in comparison to benefits) (NS)	Water Resources Management Plan Chapter 2 – Great water for the North West UUW12 – Long-Term Delivery Strategy
Ensure agreed and up to date plans are in place to manage a drought and minimise environmental impacts (S)	Water Resources Management Plan Drought Plan
Abstractions and operations meet current regulatory requirements to support the achievement of environmental objectives (S) (S+)	Water Resources Management Plan UUW60 – Water WINEP enhancement
Commitment to reduce demand and per capita consumption in line with the Environment Act target and set out in the Meeting our future water needs: a national framework for water resources (NS)	Water Resources Management Plan Chapter 2 – Great water for the North West UUW30 – Technical documents covering performance commitments
Set challenging targets for leakage informed by water company customers' views and the potential for innovation (NS)	Water Resources Management Plan UUW30 – Technical documents covering performance commitments UUW57 – Water business plans
Water companies in seriously water stressed areas may implement wider water metering programmes where it is shown within their water resource management plans that there is customer support and it is cost effective to do so. Using the latest evidence provided by the Environment Agency, additional areas in the South, East and the Midlands were designated as in serious water stress by the Secretary of State in July 2021. Smart meters should become the standard meter installed, given the wider benefits or there should be justification for using older technology (S+)	Water Resources Management Plan Water Resources West Regional Plan UUW30 – Technical documents covering performance commitments UUW57 – Water business plans

Source: WISER Technical document mapped to UUW business plan

6.5 Opportunities for investment plan variants where we are continuing to work with regulators

- 6.5.1 In developing our PR24 WINEP programme we have set out to ensure we meet our statutory requirements whilst also delivering best value for customers and long term resilience. For the vast majority of projects we have been able to successfully meet all these objectives in the proposals we have included in our PR24 submission. There are a small number of locations, which we have been discussing with regulators throughout the development of the WINEP and PR24 plan, where the scale of interventions needed is very significant, technical deliverability may require a timeframe beyond AMP8 and the opportunity to deliver long term value and resilience combined to result in us identifying adaptive plans for phased investment.
- 6.5.2 Despite extensive dialogue, (see appendix 1) these phasing proposals were rejected shortly before PR24 submissions were due, with the stated reason that WFD drivers require delivery within AMP8. Based on the guidance that we have been working with, set out in the Water Industry Strategic Environmental Requirements (WISER) and WINEP driver guidance, we understood that the WFD improvement driver was classed as statutory plus and therefore there was some flexibility to allow for alternative objectives or timescales. A view supported by the fact that we had been directed by the EA to submit the alternative proposals we had identified to the national WINEP panel so they could be considered.
- 6.5.3 Following the conclusion of the phasing decision process, which was communicated by the EA on the 17th August 2023, we were left with no route to address major schemes which are very high risk for AMP8 delivery. A further meeting with regulators was held on the 20th September and the outcome of that meeting was communicated by letter on the 22nd September 2023. It was stated that phasing decisions had been concluded and that the delivery dates for the Wigan & Skelmersdale WwTW scheme, Pennington Flash overflows and Salford could not be altered as all are WFD driver schemes that need delivering by 2030. As a result of this we included the full cost of the Wigan & Skelmersdale WwTW in the PR24 submission as we had fully developed solutions. In the case of Pennington Flash we only had a high level initial estimate as this was a late addition to the AMP8 WINEP requirements.
- 6.5.4 The cost of meeting AMP8 WINEP requirements for Davyhulme was already in our PR24 submission, but was not our preferred solution in terms of delivery risk or outcomes. The phasing proposal we made for Davyhulme was provisionally accepted at the 20th September 2023 meeting with regulators, subject to the provision of some further information.
- 6.5.5 We remain in discussion with the EA on these schemes and the regulatory delivery dates, but as it stands (at the time of our PR24 submission) for some of these specific WINEP requirements there remains significant uncertainty about cost and deliverability compared to the best value solutions outlined in our preferred investment plan which would be variant D in Table 25. Consequently, at the joint regulator meeting on 20th September 2023 we also agreed to provide a sub-set of relevant data table variants with our PR24 submission showing the PR24 submission and the three phasing variants. The relevant tables are CWW3, CWW7b, CWW9, CWW19, CWW20 and CWW20a. Note also that, in the event we were able to agree a later delivery date for the Manchester Ship Canal BOD schemes (Salford, Sale and Stockport) then we would want to consider this as a candidate for DPC delivery, in line with Variant A in Table 25.
- 6.5.6 The investment variants are described in Table 25 with all costs in FY23 prices post frontier shift and real price effects. The financial data tables (CWW3, CWW) are pre frontier shift and real price effects.

Table 25 Investment plan variants for Pennington Flash, Sale, Salford & Stockport, Davyhulme and Wigan & Skelmersdale

Scheme & Regulatory Date	Variant A Core PR24 submission	Variant B Non optimised AMP8 delivery of all requirements	Variant C Non optimised AMP8 delivery with adaptive plan for Davyhulme	Variant D Non optimised AMP8 delivery with adaptive plan for Davyhulme, Wigan and Skelmersdale and Pennington Flash
Pennington Flash (31/03/2030)	£0.4m Cost to complete investigation only in AMP8	£631m Full scheme costs included in AMP8. Investigations cost removed and assumed dealt with as part of optioneering full scheme	£631m Full scheme costs included in AMP8. Investigations cost removed and assumed dealt with as part of optioneering full scheme	£0.4m No change from core PR24 submission
Manchester Ship Canal BOD (Salford / Sale / Stockport) (31/03/2030)	£27m Cost of DPC management only. Assumes delivery by DPC in 2033.	£323m DPC management costs removed and replaced with full scheme costs for AMP8 delivery	£323m DPC management costs removed and replaced with full scheme costs for AMP8 delivery	£323m DPC management costs removed and replaced with full scheme costs for AMP8 delivery
Davyhulme BOD removals (31/03/2030)	£784m Full scheme costs included in AMP8 for delivery by 2030	£784m No change from core PR24 submission	£52m Interim solution to deliver 8mg/l BOD as part of adaptive pathway	£52m Interim solution to deliver 8mg/l BOD as part of adaptive pathway
Wigan and Skelmersdale (31/03/2030)	£344m Full scheme costs included in AMP8 for delivery by 2030	£344m No change from core PR24 submission	£344m No change from core PR24 submission	£29m Revert to DPC scheme starting in AMP8 once investigations complete and deliver by 2035
14 schemes with 2026 reg date profiled later in AMP (2006)	£437m Continue with PR24 submission with completion later in AMP through WINEP alteration process	£437m No change from core PR24 submission	£437m No change from core PR24 submission	£437m No change from core PR24 submission

- 6.5.7 Investment plan variant A is our core PR24 submission which has investigations only for Pennington Flash in AMP8 (with scheme delivery through AMP9) and assumes a 2033 DPC delivery date for Salford, Sale and Stockport (with DPC management costs only in AMP8). As communicated to the EA there are also 14 in-AMP date changes needed through the WINEP alteration process, which is only available post Final Determination, to enable delivery. See Appendix B for the list. We have included Transitional Investment for these sites and even with the early start the current regulatory dates for 2026 cannot be met.
- 6.5.8 Variant B is a non-optimised delivery of all requirements by 2030, so investigations would be removed for Pennington Flash and replaced with a full scheme, and DPC management costs would be removed for Salford, Sale and Stockport and replaced with a full scheme for in-house delivery. It should be noted that delivering to meet a 2030 deadline for Pennington Flash and Salford, Sale & Stockport would incur additional and inefficient cost that could otherwise be avoided, as well as requiring Transitional Investment.
- 6.5.9 Variant C is Variant B, but with phased BOD removal being implemented for Davyhulme. This meets 8mg/l BOD in AMP8 followed by 6 mg/l BOD in AMP9, as part of an adaptive pathway for this unique waterbody where physical constraints mean WFD dissolved oxygen targets cannot be technically achieved. Variant C (and the Davyhulme AMP8 driver change) has been agreed in principle by regulators (meeting of 20th September 2023), subject to the provision of some additional information.
- 6.5.10 Variant D is Variant C, but with Pennington Flash delivered as an adaptive plan with investigations only in AMP8 (so full scheme costs removed from AMP8), and Wigan & Skelmersdale reverts to delivery through DPC to a regulatory date of 2035 (so in-house delivery costs for AMP8 are removed and replaced with the DPC management cost for the project). We assess Variant D would deliver best value and remove significant delivery date risks given the highly complex catchments where work is needed. We have requested further dialogue with regulators on this variant and the relevant complex schemes.
- 6.5.11 In terms of the interface with other functions of our PR24 submission, we would note that:
- our submission reflects costs and delivery timetable as set out in the table above (core PR24 submission), with each scheme (apart from Pennington Flash) subject to an individual PCD
 - a combined enhancement case has been produced for all these locations to cover our core PR24 submission plus three additional investment variants for these facilities – see submission document *UUW43_WINEP Optimisation*
 - *For each of these cases, we believe that it should be feasible to manage the uncertainty in delivery timing through the use of PCDs, which should be designed to compensate customers for any time value of money benefit arising for the company in the event that one or more schemes are deferred. Likewise, if any schemes are later deemed not to be required, the PCD should (if designed appropriately) compensate customer fairly for the company's avoided costs.*
 - given the potential inter-AMP nature of these variants, it seems that it will be necessary to ensure that PCDs are either:
 - established as multi AMP PCDs
 - any PDC delivery payments (excluding time value/late delivery payments) due at the end of AMP8 are agreed to be transferred into AMP9 cost allowances to ensure AMP9 delivery is appropriately funded (this is equivalent to the shortfalling approach that Ofwat utilised up until it was removed at PR14)
 - as PDCs are still an emerging methodological approach, we will undoubtedly engage further with Ofwat to ensure that the PCDs set at final determinations both protect customers, whilst not being unduly punitive for companies in these such cases whereby the timing of requirements is not currently 100% certain;

- for DPC schemes, any change in their DPC status should be manageable through the DPC iDoK process; and
- all of the schemes, subject to these investment variants have a delivery date of 31st March 2030 (at the earliest) so there are no performance benefits attributed to them in AMP8, and hence no ODI impact if one variant is selected over another.

6.5.12 Appendix A summarises, in one place for simplicity, the specific circumstances of each of these substantial schemes, the rationale for the investment variants (C/D), the related WINEP changes needed to enable those variants and the timeline of regulatory engagement that has taken place.

6.5.13 *UUW43 – WINEP Optimisation* sets out enhancement cases consistent with our plan (ie: Variant A, our core PR24 submission) alongside the alternative variants and their AMP8 costs and how these approaches would be managed in conjunction with the proposed PCDs. The remaining sections below deal with the impact on customer bills of each variant and the implications of the different variants for DPC eligibility.

Impact on customer bills

6.5.14 We have calculated the average household bill for 2025-2030 that results from the modifications to the WINEP. Whilst we have derived these using the Ofwat PR24 Financial model, they have not been subject to the same level of assurance as the business plan submission. Additionally, for simplicity we have held other aspects of the business plan submission constant, such as the level of equity injection and capital allowance allocations. These variant projections should therefore only be viewed as indicative.

Table 26: Alternative WINEP bill impacts (unit £/customer in 2022-23 FYA price base)

Bill profile for 2025-30 before inflation (RR14)	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
PR24 submission (Investment plan variant A)	419.31	446.71	481.11	506.29	515.81	530.96	556.17
Variant B	419.31	446.71	481.51	507.25	518.49	535.86	562.42
Variant C	419.31	446.71	481.24	506.71	517.37	533.47	557.61
Variant D	419.31	446.71	480.79	505.72	515.05	529.30	551.40

Variance to submission	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
PR24 submission (Investment plan variant A)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Variant B	0.00	0.00	0.40	0.96	2.68	4.91	6.25
Variant C	0.00	0.00	0.14	0.42	1.56	2.52	1.43
Variant D	0.00	0.00	(0.31)	(0.56)	(0.76)	(1.66)	(4.77)

Source: Ofwat Financial model; RR14 worksheet

Summary of impact on DPC candidate schemes

6.5.15 Our DPC proposals are set out in supplementary documents *UUW52* and *UUW53*.

6.5.16 *UUW52* concludes that two proposals are suitable for DPC. Since this analysis, there has been further dialogue with the Environment Agency regarding delivery dates with a specific requirement to complete Water Framework Directive schemes by March 2030. Although discussions are ongoing, in the event that delivery dates cannot be further negotiated, the delivery dates will be earlier than expected in our DPC proposals in *UUW52* and *UUW53*. This means that a DPC procurement route may not be possible for either of these schemes. Further details for each of the schemes is set out below.

Manchester Ship Canal BOD (also referred to in this section as Salford/Sale/Stockport)

- 6.5.17 Section 5.1 of *UUW52* describes that in our plan submission we have included this as a DPC scheme with transitional funding to allow us to commence a DPC process in AMP7. This was with a view to facilitating a DPC delivery by 2033 (in line with our Core PR24 submission, Variant A)
- 6.5.18 Subsequent to finalising this area of the business plan, the EA has indicated that these schemes must be delivered by March 2030 and the expected regulatory flexibility did not exist as we had anticipated in our DPC submission. The EA delivery date is now set at 31/03/2030. Our core plan submission (Variant A) does not reflect this late change; the relevant tables and totex build continues to reflect the scheme as a DPC scheme, with transitional funding in AMP7 and the DPC process commencing in April 2024.
- 6.5.19 In order to reflect the EA's position on this and other schemes, we have provided alternative tables. Under variants B, C and D of the plan, the scheme is no longer treated as a DPC and it is assumed that the scheme is completed via BAU activity instead, with the costs having to be added back into the plan. Additional transitional investment would also be required in order to facilitate this timetable and the 31/03/30 delivery date.
- 6.5.20 We continue to believe that a later delivery date would provide a more appropriate and efficient path for this work, as well as facilitating a DPC approach to works at these three treatment works. We therefore wish to continue dialogue with the EA on this point in order to explore whether there remains a possibility that Variant A of the plan could be retained in relation to the Manchester Ship Canal BOD (Salford/Sale/Stockport) schemes, and therefore continue to enable a DPC procurement. However, in the event that this is not possible, we would no longer consider that a DPC route would be viable for this bundle of schemes.

Wigan and Skelmersdale

- 6.5.21 Section 5.2 of *UUW52* describes that in our plan submission we were proposing that this should be progressed as a DPC scheme, tendered as a DBFMO. The proposal would see the DPC process commence in AMP8 with completion of the scheme in 2035.
- 6.5.22 Subsequent to finalising this proposal, the EA indicated that this scheme must have an earlier delivery date. The scheme was therefore included in the relevant tables and totex build as a BAU scheme with a delivery date of 2030.
- 6.5.23 We continue to believe that a later delivery date would provide a more appropriate and efficient path for this work, as well as facilitating a DPC approach. We therefore wish to continue dialogue with the EA on this point in order to explore whether there remains a possibility that delivery by 2035 could be agreed. This would allow this scheme to be pursued as a DPC approach, in line with what is shown in Variant D of the plan. However, in the event that the date cannot be adjusted then we would no longer consider that a DPC route would be viable for this scheme.

6.6 Drainage and Wastewater Management Plan (DWMP)

- 6.6.1 We have complied with the requirement to develop and publish a long term DWMP. UUW's DWMP sets out our long-term approach for sustainable drainage and wastewater management across the North West and shows how we intend to make sure that the region thrives now and in the future.
- 6.6.2 The DWMP is a 25-year plan covering 2025 to 2050 and assesses the effects of future pressures on our wastewater systems over the short, medium and long term, and what can be done to address these issues – in partnership with others where possible.
- 6.6.3 The DWMP will play a big part in how we work in the coming years as it will influence our future business plans to make sure that we are doing the right thing and ensuring we create a stronger, greener and healthier region.

- 6.6.4 Our first DWMP was published on 31 May 2023. It identifies capital investment to deliver benefits across the North West aligned with our WINEP submission, which will deliver benefits over the five years from 2025 to 2030, in the context of the long term.
- 6.6.5 Our DWMP is published at this link <https://www.unitedutilities.com/corporate/about-us/our-future-plans/Our-long-term-plans/dwmp-publication-may-2023/>
- 6.6.6 A summary of the plan is published at this link https://www.unitedutilities.com/globalassets/z_corporate-site/about-us-pdfs/dwmp-2023/cst_customer-summary.pdf
- 6.6.7 We have also published a customer portal, which is designed to make it easier to access the DWMP data and view risks and opportunities within specific areas of the North West. This customer portal is available via this link <https://www.unitedutilities.com/corporate/about-us/our-future-plans/Our-long-term-plans/dwmp-portal/>

6.7 Water Resources Management Plan (WRMP)

- 6.7.1 We have complied with the requirement to develop and publish a long term WRMP. UUW's WRMP sets out our plans for an adequate supply to meet demand from 2025 to 2085, and a supply system that is resilient to drought. The Plan defines our strategy to achieve a long-term, best value and sustainable plan for water supplies in the North West against a background of climate change and an anticipated population increase.
- 6.7.2 With increasing pressure on water resources across the UK, our WRMP now forms part of a national framework for water resources. Within this framework, five regional planning groups, made up of water companies and other relevant organisations, are working together to produce regional plans. Our WRMP complements and aligns the Water Resources West Plan³⁵; the higher level plan for our regional planning area, and the wider national framework.
- 6.7.3 The aim of this integrated approach is to make sure that we and other companies deliver the best value plans to manage water resources across each region as a whole, and to allow water to be transferred between companies when this is the most effective solution, through projects known as Strategic Resource Options (SRO). As part of the 2019 price review, Ofwat worked with water companies, including UUW to develop this SRO Programme. More information about our input to water transfers is published on the UUW web site³⁶.
- 6.7.4 In developing our WRMP the plan, we tested a range of scenarios and pathways to ensure that our plan can adapt to future uncertainty in the face of climate change, population growth and environmental changes. The plan also reflects customer research that told us they would like to see improvements to reduce the frequency of restrictions on water use and drought permits.
- 6.7.5 Our proposed best value plan offers a flexible, low regrets solution, which provides environmental improvements and benefits customers in the North West as well as supporting national water resource needs.
- 6.7.6 Full details and a customer summary of our WRMP, including supporting technical documents and environmental reports, together with a statement of response, showing how we have taken account of the feedback we received on our draft plan, can be found on our website³⁷.

³⁵ <https://waterresourceswest.co.uk/publications>

³⁶ <https://www.unitedutilities.com/corporate/about-us/our-future-plans/water-transfers/>

³⁷ <https://www.unitedutilities.com/corporate/about-us/our-future-plans/water-resources/developing-our-water-resources-management-plan/>

6.8 Drinking Water Inspectorate Guidance

Introduction

- 6.8.1 In addition to the PR24 requirements set out within the WISER and WINEP, the Drinking Water Inspectorate also provide PR24 guidance to water companies. This publication provides details of the DWI's long term planning guidance and sets out the arrangements for information submissions to the DWI as part of the Price Review process.
- 6.8.2 The DWI have also published a Guidance Note: Long term planning for the quality of drinking water supplies³⁸, which provides water companies with direction on long term planning and provides clarity on the expectations of the DWI with respect to PR24.
- 6.8.3 The inspectorate expects the following in water companies long term planning:
- a risk-based approach;
 - deterioration of raw water quality should be considered;
 - the risk of Emerging contaminants (such as PFAS) should be assessed;
 - changing or introducing new supplies must not increase the risk of consumers being supplied with unwholesome or aesthetically unacceptable water;
 - resilience arrangements in water resource planning;
 - asset management and asset health;
 - interim risk mitigation;
 - considerations for a changing climate;
 - reducing the risk of lead in drinking water;
 - the Security of Network and Information Systems Regulations (NIS) should be considered; and
 - Security and Emergency Measures Direction (SEMD) should be considered.
- 6.8.4 Our supported schemes and PR24 obligations to the DWI are set out in four areas:
- raw water deterioration schemes;
 - Network and Information Systems (NIS D) schemes;
 - Security and Emergency Measures Direction (SEMD) schemes; and
 - lead schemes.
- 6.8.5 Each of these areas are discussed below.

Raw Water deterioration schemes

- 6.8.6 The key component of our long term drinking water quality strategy is to provide a sufficient and reliable supply of safe, clean drinking water, which is intrinsically linked to good public health and customer confidence in water supplies. Our 2050 ambitions, as outlined in our Long Term Drinking Water Quality Strategy submitted in January 2023; aim to:

- (1) Provide a service that is 100 per cent compliant with regulatory, quality and environmental requirements.
- (2) Provide a service which is resilient to challenges such as new water quality standards, climate change, asset health and potential risks from emerging contaminants.

³⁸ https://dwi-content.s3.eu-west-2.amazonaws.com/wp-content/uploads/2022/09/15114509/Long-term-planning-guidance-for-drinking-water-quality_Sept-2022.pdf

- (3) Ensure customers are confident and trusting of their drinking water quality.
- (4) Deliver for future generations by embedding sustainability, innovation and partnership working in our plans.

6.8.7 We anticipate investment needs at five WTW to enhance their treatment capabilities so customers in the areas supplied will benefit from a consistent supply of water of dependable quality. This work will also ensure that these customers are able to receive a supply from the same water source all year round, removing the need for blend changes in the water that they are supplied.

6.8.8 The five sites and the work proposed at these sites are set out in Table 27 below.

Table 27: PR24 Raw water quality deterioration schemes

Water Treatment Works	Proposed work
Cowpe	GAC filter refurbishment
Fishmoor	Advanced oxidation process (tbc on completion of trials)
Hurleston	GAC filter refurbishment
Lamaload	GAC contactor installation
Ridgegate	GAC contactor installation

Source: <https://www.unitedutilities.com/corporate/about-us/our-future-plans/water-resources/developing-our-water-resources-management-plan/>

NIS-D (IT systems) schemes

6.8.9 Our NIS development plan for AMP 8 further improves our operational security maturity based on our knowledge of the threat landscape, available technologies, risk management methodologies and effective risk mitigation processes and we are confident that the plan represents an appropriate level of control and risk mitigation to protect customers, our services and our systems.

6.8.10 The plan aims to improve our overall cyber security maturity by focusing on the following key principles which seek to directly address areas of improvement against the Cyber Assessment Framework (CAF) while considering advice laid out in the DWI 2024 periodic review of prices guidance note:

- improved resilience of our operational systems through the provision of automated backups and centralised asset management which will ensure we can quickly rebuild sites impacted by cyber-attacks or failures;
- enhanced visibility and knowledge of our operational systems by introducing a system information aggregator (SIEM) and network diagnostic and vulnerability scanning tools to allow monitoring of alerts that may indicate issues and to provide us with an up to date view of any exposures within our estate;
- strict device and administrative controls that will ensure only UU managed devices may access network resources and that all privileged access is controlled, audited and reversible in the form of Network Access Control (NAC) and Privileged Access Management (PAM) tooling;
- strict identity and access controls that automatically link privilege and access directly through to up to date role permissions within our HR management tools;
- automated malware detection and response capabilities through the introduction of Endpoint Detection and Response technologies alongside the introduction of UU managed programming devices for third parties to remove the risk of third party introduced malware; and
- introduction of enhanced Remote Access to SCADA (RATS) solutions to allow managed, controlled and auditable access to our operational estate by approved administrators and monitoring teams to allow centralised management and control of our estate to take place only through secure and resilient means.

- 6.8.11 All the proposals within our plan address specific contributing outcomes within the cyber assessment framework and have been developed in line with reviews of the MITRE framework, using a risk based approach to identifying and mitigating the greatest threats. The introduction of these technologies will require changes to working practices, which will be accompanied by targeted education, awareness and training to ensure the changes are effectively embedded across our workforce.
- 6.8.12 For PR24 we are enhancing the NIS Regulatory Compliance Programme which focuses on the following 4 main areas
 - (1) Regulatory Drivers.
 - (2) Cyber Threat and Vulnerability Drivers.
 - (3) Corporate Audit Drivers.
 - (4) Monitoring and Control Systems Resilience.
- 6.8.13 The AMP8 NISD enhancement programme, builds on the work already completed or due to be completed in AMP7 and reflects our expected view of the future state NIS scope. The plan proposes to:
 - Deliver enhanced threat intelligence capability providing rich, meaningful metrics that will allow fine tuning of technologies and processes to minimise exposure;
 - implement enhanced automation and machine learning providing next generation responses to identified threats; and
 - deliver enhanced capability to establish cyber leadership, governance and continual proactive monitoring and response to recurring threats.
- 6.8.14 The plan proposes to deliver thirteen individual enhancement projects, which are summarised in Table 26 PR24 NIS proposals.

Table 28: PR24 NIS proposals

CAF Regulatory requirement changes	Enhancement project name
A3 - Asset Management B3 - Data Security B4 - System Security B5 - Resilient Networks and Systems D1 - Respond to Recovery Planning	Document Control
A2 - Risk Management B2 - Identity and Access Control B4 - Systems Security C1 - Security Monitoring C2 - Proactive Security Event Discovery	Intrusion Detection System (IDS)
A2 - Risk Management B2 - Identity and Access Control B4 - System Security C2 - Proactive Security Event Discovery	Vulnerability Scanning Capability
A2 - Risk Management B2 - Identity and Access Control C1 - Security Monitoring D1 - Response Recovery Planning D2 - Lessons Learned	System Information Aggregator

CAF Regulatory requirement changes	Enhancement project name
B1 - Service Protection Policies and Processes B2 - Identity and Access Control B3 - Data Security B4 - System security B5 - Resilient Networks and Systems C1 - Security Monitoring	Remote Access to Scada (RATS) Improvement
A4 - Supply Chain B2 - Identity and Access Control B3 - Data Security	Programming Devices for third Party
B2 - Identity and Access Control B3 - Data Security	Radio Links
A2 - Risk Management A4 - Supply Chain B2 - Identity and Access Control	Network Access Controls (NAC) technology
B1 - Service Protection Policies and Processes B2 - Identity and Access Control	Improved Privileged Access Management (PAM)
A3 - Asset Management B4 - System Security	Network diagnostics
A3 - Asset Management B2 - Identity and Access Control B5 - Resilient Networks and Systems C1 - Security Monitoring D1 - Response and Recovery Planning	Automated Programmable Logic Controller Back Up Control (PLC)
B2 - Identity and Access Control B4 - System Security B5 - Resilient Networks and Systems C1 - Security Monitoring	Automated SAP reporting for organisational changes Endpoint Detection & Response (EDR) Solution into OT environment

Source: NIS and SEMD PR24 Guidance³⁹

SEMD

- 6.8.15 The Security and Emergency Measures (Water and Sewerage Undertakers and Water Supply Licensees) Direction 2022 (SEMD) is the principal general direction issued by the Secretary of State and Welsh Ministers under Section 208 of the Water Industry Act 1991 (the Act).
- 6.8.16 Undertakers and licensees are required to maintain a water supply and/or sewerage system in the interests of national security or to mitigate the effects of any civil emergency which may occur. UUW's SEMD proposals for the AMP8 period have been developed in line with the DWI publication "The 2024 periodic review of process – Guidance on SEMD and NIS"³⁹
- 6.8.17 The SEMD has four main areas companies must comply with:
- Planning - companies have to make, keep under review, test and revise plans to ensure the provision of essential water supply and/or sewerage services at all times, including during a civil emergency or any event threatening national security;
 - Resourcing – companies have to ensure they have the necessary capability, capacity and facilities to implement their plans;

³⁹ <https://dwi-content.s3.eu-west-2.amazonaws.com/wp-content/uploads/2022/05/06172210/NIS-and-SEMD-PR24-Guidance-7.pdf>

- Securing – companies have to identify and mitigate against any security risks to the provision of water supply and/or sewerage services. There are additional requirements for companies who have been notified by government they have any Critical National Infrastructure designated sites; and
 - Responding – companies have to react promptly to incidents, including providing an alternative supply of water (where required).
- 6.8.18 To support our PR24 proposals we carried out risk assessments for every water treatment works and associated supply system i.e. from source to tap, under the requirements of regulation 27 of the Water Supply (Water Quality) Regulations 2016 (as amended) to establish whether there is a risk of supplying water that could constitute a potential danger to human health. These reports were submitted to the DWI under Regulation 28 of the 2007 Amendment Regulations.
- 6.8.19 The risk assessments of our supply systems were informed by our Water Safety Plan (WSP) methodology and outputs from our raw water monitoring. These risk assessments incorporated hazards identified as part of the SEMD and NIS self-assessments and were used to identify all the hazards in the catchment; in treatment and in distribution systems that could potentially impact on our ability to adequately treat, disinfect and supply wholesome drinking water. The proposals considered the short, medium and long term control mechanisms required to address each hazard and assess whether there is a need for additional control measures in the catchment.
- 6.8.20 To obtain technical support from the DWI, for each proposal, we submitted a case for justification which provided detailed supporting evidence that the preferred option will mitigate the risk of the threat/hazard occurring; or, where the risk already exists, reduce the risk to an acceptable level within a prescribed timescale.
- 6.8.21 Our analysis also included an assessment of all relevant benefits, including the benefits of provision for protection of public health, and maintenance of public confidence in drinking water supplies. These benefits were assessed qualitatively, quantitatively, and where possible, monetized, in order to demonstrate that the proposed solution was needed, had a clear driver, will deliver the required outcome within the prescribed timescale, is sustainable in the long-term and is cost-effective.
- 6.8.22 We are not reproducing the detail of the plan within this document, although we can confirm that the required information was submitted to the DWI before 30 April 2023.

Lead schemes

- 6.8.23 In line with the DWI requirements for the AMP8 period, reducing the risk of lead in drinking water remained one of the key priorities within our PR24 business plan. In support of this we have developed an ambitious long-term lead strategy, which plans to continue to reduce the risk of lead exposure through drinking water.
- 6.8.24 Our long-term lead strategy reflects the objectives set out in our Long-term Water Quality Plan and forms an important step in achieving these ambitions. The interventions reflect the findings of the report Long-term Strategies to Reduce Lead Exposure from Drinking Water⁴⁰ and build on our previous interventions and achievements and allow us to diversify our approach and increase the pace of delivery.
- 6.8.25 The interventions will improve the information and data that we have in order to mitigate lead risk through our risk assessment and phosphate dosing approach, together with a replacement programme for the full service pipe to the customers' first tap. The lead replacement programme will continue and expand to provide more help for vulnerable communities and help to move towards a lead free network.
- 6.8.26 We submitted the plan to the DWI on 31 March 2023 and sought regulatory endorsement to deliver our AMP8 Strategy through:

⁴⁰ <https://dwi-content.s3.eu-west-2.amazonaws.com/wp-content/uploads/2021/02/08150808/DWI70-2-320exsum.pdf>

- Continuing our base activities including reactive replacements, customer communications and plumbosolvency control measures;
- Submitting a PR24 Enhancement case to continue our grant model for lead replacement and expand in terms of scale and accessibility for all customers, including targeted replacement for the most vulnerable. This will target the replacement of up to 30,000 lead pipes to the first customer tap; and
- Developing a bespoke ODI to facilitate additional replacements in the most economically deprived areas in our region.

6.8.27 Alongside these activities we will continue working closely with partners across our region and industry to influence policy and practice to expedite long term reductions in lead risk. This is reflected in our adaptive plan that outlines our long-term journey and the potential for agile responses to new innovation, research and legislative change.

Appendix A Investment plan variants rationale, WINEP changes needed and summary of regulatory engagement

Set out below is the summary for each of the schemes and the specific changes needed to the WINEP to unlock the investment plan variant and deliver the better outcomes sought through our alternative investment plan variants (C and D).

Davyhulme WwTW

Summary

Throughout 2023 we have flagged the imperative for, and benefit from, phasing Davyhulme WINEP drivers differently. This culminated in us, as directed by the EA, formally submitting phasing proposals to the national WINEP panel (in March 2023) and then, after positive feedback, we were instructed to submit alteration requests to formalise those proposals, which we did (along with adaptive plans). Both EA North West and UUW understand that the 6 mg/l currently in the WINEP does not meet strict WFD needs in any event due to the unique circumstances and physical nature of the Ship Canal waterbody. Our proposal for Davyhulme is for a low/no regrets interim solution at Davyhulme – this would involve a BOD permit limit of 8mg/l in AMP8. This would also be deliverable within the AMP8 time period whilst it would take significantly longer to deliver the current WINEP requirement of 6mg/l BOD, if we are to keep the route to biological phosphorus removal open for the site (0.25mg/l phosphorus required in AMP9). Following the meeting on the 20th September we have reached preliminary agreement (subject to provision of further data and evidence) to proceed on the basis of 8 mg/l for AMP8 and 6 mg/l for AMP9. We have therefore included the solution and costs to meet 8mg/l in our PR24 business plan submission and an associated enhancement case.

WINEP change needed

WINEP ID	action	Scheme name	Primary driver	Scheme grouping	Proposed change to WINEP to enable investment variant C & D
08UU102339a		Davyhulme WwTW	WFD_IMPg	Davyhulme 6 BOD	Deliver an 8mg/l solution in AMP8 and a 6mg/l solution in AMP9.

Pennington Flash overflows

Summary

In June 2023, informed by an investigation into phosphorus loading, the EA concluded that additional overflows in the drainage area upstream of Pennington Flash required improvement to 10 spills per annum. These were added to our WINEP by the EA within the 3rd July 2023 WINEP version. We have previously flagged that resolution of these to a 10 spills per annum standard is technically challenging and likely to be undeliverable within AMP8.

We have subsequently been able to develop a cost for a grey infrastructure solution which is £631m capex (inc a 20% uplift for accelerated delivery by 2030). This cost is substantial for addressing 7 storm overflows, however much of it is associated with needing to relieve a hydraulic restriction and pass forward more flows to Wigan WwTW which involves new rising mains and a tunnel. There are also significant deliverability risks we need to mitigate including three overflows requiring construction in mined areas and tunnels under the M6, West Coast mainline and multiple river crossings. As a result of this we continue to work on refining this project.

In view of the significant scale of this scheme our preferred investment variant is to instead pursue a rainwater management approach in AMP8 before committing to significant grey infrastructure. This proposal is influenced by knowledge that there are partners in this area with aligned interests who could make use of the water we separate from the sewer system to support regeneration of the post-mining landscape.

We would, however, also propose to retain in our alternative investment plan variant the solutions to meet the local WFD issues in Hey Brook (Hindley PS and Templeton Road) as we believe these deliver significant benefit (25% reduction in phosphorus loading to Pennington Flash). The approved UUW Advanced WINEP creates the vehicle to invest in rainwater management if the EA support implementing an adaptive approach with rainwater management in AMP8.

It should be noted that storm overflows make up 15% of the phosphorus load into the Flash. It is unclear whether the other non-UUW sources can be controlled adequately to achieve the WFD objectives in any event. A reduction of the phosphorus load of 80% is required which means substantial changes are required to other sources such as agriculture and urban drainage as well as overflows. Additionally Pennington Flash was recorded in 2022 as being moderate status for phosphorus and poor status for nitrogen. We are not aware of any investigation into the sources of nitrogen in the Flash and therefore whether the overall solutions needed are integrated and efficient. There are also a significant number of additional overflows in the catchment that will require investment in AMP9-12. An integrated catchment plan, would significantly optimise the long term solution and ensure best value for customers in the long term.

We have included the cost for an engineered / grey solution for the seven specified overflows in our business plan submission along with an associated enhancement case (combined with Wigan & Skelmersdale). However, to ensure that the most efficient long term, sustainable solution delivered in partnership with the community can still be developed, we have requested further engagement on this project with regulators.

WINEP change needed

WINEP action ID	Scheme name	Primary driver	Scheme grouping	Proposed change to WINEP to enable investment variant D
08UU101002a	Hindley PS SO WIG0255SO	EnvAct_IMP2	Pennington Flash	WFD improvements for Hey Brook and 25% reduction in load to Pennington Flash by 31 st March 2030. Completion of all SODRP requirements (including improvements to Pennington Flash) by 31 st March 2035.
08UU101372a	Templeton Road PS WIG0095SO	EnvAct_IMP2	Pennington Flash	WFD improvements for Hey Brook and 25% reduction in load to Pennington Flash by 31 st March 2030. Completion of all SODRP requirements (including improvements to Pennington Flash) by 31 st March 2035.
08UU102447a	Bickershaw Lane PS WIG0128	EnvAct_IMP4	Pennington Flash	Change delivery date to 31 st March 2035.
08UU102448a	Crankwood Road PS WIG0129	EnvAct_IMP4	Pennington Flash	Change delivery date to 31 st March 2035.
08UU102449a	Abram Hall PS WIG0130	EnvAct_IMP4	Pennington Flash	Change delivery date to 31 st March 2035.
08UU102451a	Abram Hall CSO WIG0216	EnvAct_IMP4	Pennington Flash	Change delivery date to 31 st March 2035.
08UU102450a	Strangeways CSO WIG0153	EnvAct_IMP4	Pennington Flash	Change delivery date to 31 st March 2035.

Wigan & Skelmersdale WwTWs

Summary

On 3rd July 2023 the EA issued a version of the WINEP to reflect the latest position and, whilst this reflected many of the changes we were expecting, it also included in AMP8 a large driver for Wigan and Skelmersdale WwTWs that had previously been in AMP9. Our proposal for this location is to deliver the AMP8 and AMP9 environmental requirements as a combined solution. The proposal joins flows from both treatment facilities through a transfer of Skelmersdale flows to Wigan WwTW and utilising a new biological phosphorous removal activated sludge plant. The approach has been assessed against alternative chemical dosing options and treatment at the respective works individually. Since the overflows at Pennington Flash are in the Wigan WwTW drainage area we have produced one adaptive plan (as per our phasing submission of 19th July 2023). Our proposed delivery date for the combined solution for Wigan & Skelmersdale and Pennington Flash overflows is 31st March 2035, but with the WFD improvements for Hey Brook and 25% reduction in load to Pennington Flash by 31st March 2030.

Following our meeting with regulators on the 20th September, we have included the full cost of the solution in our PR24 business plan for AMP8 delivery, along with an associated enhancement case (combined with Pennington Flash).

It should be noted, however, that these costs are for a biological phosphorous solution, which may not be deliverable in the new timescales required. Even by making full use of transitional investment in April 2024, the timescales for delivery will be very challenging. The alternative will be to incur further cost to deliver a high energy, high carbon chemical treatment approach by 2030. It should be noted that there is significant risk around cost and deliverability with the scheme and that we have requested further dialogue with regulators.

WINEP change needed

WINEP action ID	Scheme name	Primary driver	Scheme grouping	Proposed change to WINEP to enable investment variant D
09UU100060a	WIGAN (HOSCAR) WwTW	EnvAct_IMP1	Wigan/Skelmersdale	Change delivery date to 31 st March 2035.
09UU100060b	SKELMERSDALE WwTW	EnvAct_IMP1	Wigan/Skelmersdale	Change delivery date to 31 st March 2035.

Salford, Sale and Stockport

Summary

The Salford, Sale and Stockport bundle of schemes meet the criteria for viable Direct Procurement for Customers (DPC), as per our presentation to the EA of 4th July 2023 and this was our preferred approach to delivery.

In our meeting with regulators on the 20th September it was agreed that the scheme must be delivered by 2030 and so, this would require an in house delivery approach. The full cost has therefore been included in our business plan.

There remains significant risk associated with the Salford project as this requires a full rebuild of the wastewater treatment works, on a very constricted site, whilst maintaining compliance and managing any health and safety risk. We remain concerned that delivering by 2030 will remain very challenging and may incur unnecessary and avoidable cost, which could be prevented with marginal time extensions to the regulatory dates.

WINEP change needed

WINEP Action ID	Scheme Name	Primary driver	Regulatory Date	Proposed change to WINEP to enable investment variant D
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08UU100882	Salford WwTW - BOD	WFD_IMPg	31/03/2030	No change
08UU101382	Sale WwTW - BOD	WFD_IMPg	31/03/2030	No Change
08UU101381	Stockport WwTW - BOD	WFD_IMPg	31/03/2030	No Change

Timeline of interactions on phasing and deliverability

We set out below a summary timeline of our engagement with regulators on deliverability and phasing:

24th Jan 2023 – The UUW WINEP submission two covering letter flags concerns about deliverability and an option for an alternative at Davyhulme to reduce the scale of expenditure (this is the 8mg/l BOD proposal), improve the sustainability and future site flexibility.

9th Feb 2023 – UUW presented the proposed 8mg/l BOD AMP8 option for Davyhulme to the EA in the North West.

17th March 2023 – UUW wrote to the EA highlighting that we had 39 WINEP actions where at that time we believed it may be necessary to request regulatory date changes. This letter requested guidance on the process for agreeing such changes.

24th Mar 2023 – The EA confirmed they had identified the established route for our proposals for Davyhulme WwTW to be reviewed which was through a national WINEP assessment panel. Responses to EA queries were provided on 30th Mar 2023 to inform the panel.

29th Mar 2023 – EA advise that date changes should be managed through the “Data Handling and Changes Tracking after Options Development”.

14th April 2023 – Following feedback from the national assessment panel UUW was advised to submit an alteration form for Davyhulme to request the 8mg/l BOD proposal is included in the WINEP.

5th May 2023 – EA write to companies asking them to set out which parts of the WINEP and WRMP they have concerns about and ‘*If so, which parts of the programmes would you choose to phase beyond AMP8 if you could and why*’. The letter also offered a chance of a meeting with the regulators that we took and where we presented our proposals.

16th May 2023 – UUW respond to the letter of 5th May. One of our proposals here is to deliver a solution at Davyhulme to meet 8mg/l BOD rather than 6mg/l BOD as this would be significantly lower cost, be more sustainable, deliver the majority of the intended benefit and keep open the option of us being able to use more sustainable treatment processes in the future for phosphorus removal. This is a proposal we first floated in our WINEP options submission in Jan 2023.

25th May 2023 – meeting with EA, Ofwat and Defra to discuss our proposals. There was positive feedback from the session about an informative and constructive dialogue was. There was subsequently no further decisions or actions from the regulators specific to our proposals.

3rd July 2023 – EA issue a revised WINEP to reflect the outcome of their review of water company’s WINEP submissions made in January 2023. This reflected many changes we were expecting, but also included a major scheme for Wigan and Skelmersdale WwTWs which had not been previously specified by the EA. Following queries from UUW it transpired the EA in the North West were not aware of this change and it had been made by their national team. This version of the WINEP also included 5 additional overflows which impact Pennington Flash and changes to requirements for two existing ones.

5th July 2023 – EA write to water companies asking them to set out if their WINEP is deliverable, affordable and financeable and if not we were to propose options to phase investment. In the pre-meet with regulators it was

made clear that if companies have concerns about deliverability, affordability and financeability they should be taking advantage of this opportunity.

19th July 2023 – UUW submit completed EA phasing spreadsheet with proposals for their review. This included Davyhulme, Wigan/Skelmersdale and Pennington Flash schemes as well as the boreholes, septic tanks and emergency overflow monitoring.

21st July 2023 – EA email to inform UUW that the WINEP change process is not live for AMP8 schemes until after the Final Determination. UUW had been verbally informed of this on 19th July so we included Davyhulme, Wigan/Skelmersdale and Pennington Flash in the phasing submission.

27th July 2023 – Further data provided by UUW to support the phasing submission (costs for phasing options for Davyhulme, Wigan/Skem and Pennington Flash were uploaded).

18th Aug 2023 – EA provide a short email setting out their position on emergency overflow monitoring and septic tanks (common to all companies) as well as pointing companies to their decisions on phasing which were on the EA SharePoint. The feedback was very high level, but rejected phasing for Davyhulme, Wigan/Skem and Pennington Flash within the spreadsheet.

20th & 22nd September – Wider regulator meeting and subsequent EA letter clarify the position for a 2030 delivery date for Wigan & Skelmersdale, the Salford, Stockport & Sale projects and Pennington Flash. Initial agreement to a phased approach to Davyhulme is reached, subject to the provision of further information.

Pennington Flash specific timeline

8th June 2023 - EA agree that a 250kg/yr phosphorus load reduction target is needed for Pennington Flash in AMP8. This equates to 10 spills per annum for 7 overflows in the Hindley area.

14th June 2023 – UUW email EA with proposal to phase solutions for the 7 overflows with a focus on rainwater management in AMP8 and completion of solutions in AMP9. This would allow us to maximise the opportunity for partnership with the Wigan Greenheart project.

3rd July 2023 – EA issue a revised WINEP to reflect the outcome of their review of water company's WINEP submissions made in Jan 2023. This version of the WINEP also included 5 additional overflows which impact Pennington Flash and changes to requirements for two existing ones.

5th July 2023 – EA write to water companies asking them to set out if their WINEP was deliverable, affordable and financeable and if not we were to propose options to phase investment. In the pre-meet with regulators it was made clear that if companies have concerns about deliverability, affordability and financeability they should be taking advantage of this opportunity.

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EA SharePoint. The feedback was very high level, but rejected phasing for Davyhulme, Wigan/Skem and Pennington Flash within the spreadsheet.

20th September– Wider regulator meeting regarding the delivery date for Pennington Flash. There was recognition about the complexity of the scheme and discussion about the need for further dialogue on this scheme.

22nd September – EA letter sets out their view that the Pennington Flash scheme should be delivered by 2030.

Appendix B List of schemes with 2026 regulatory date requiring application of the WINEP alteration process post Final Determination

In March 2023 we wrote to the EA to highlight the 39 instances where, at that time, in-AMP regulatory dates were in misalignment with forecast achievable programme dates and we were sign-posted to raise these through the WINEP change process. However, subsequently in July 2023 we were advised that this process was not live for AMP8 schemes until after the Final Determination.

Following receipt of the WINEP dated 3rd July 2023 and the subsequent finalisation of our totex programme for AMP8 we now have a final view of where we still have residual issues with achieving regulatory dates. The benefit of transitional spend and some further programme optimisation has reduced the instances where in-AMP programme dates extend beyond regulatory dates to 14. This list was communicated to the EA on 31st August 2023.

WINEP Action ID	Scheme Name	Project ID	Primary driver	Regulatory Date	UUW Proposed Delivery date
08UU102423	Lytham PS FYL0003SO - BW IMP	E00001210	BW_IMP1	31/03/2026	19/03/2029
08UU102422	Lamaleach CSO FYL0002SO - BW IMP	E00001211	BW_IMP1	31/03/2026	19/03/2029
08UU102420	Lancaster (Stodday) WwTW - BW IMP	E00001212	BW_IMP1	31/03/2026	19/03/2029
08UU102421	Askam-in-Furness WwTW ST 017470136ST - BW IMP	E00001213	BW_IMP1	31/03/2026	19/03/2029
08UU102419	Southport (Bank End) WwTW - EnvAct IMP3	E00001214	BW_IMP1	31/03/2026	05/08/2029
08UU100878	Davyhulme WwTW - phosphorus	E00000124	WFD_ND	31/03/2026	31/03/2030
08UU100971	No Det - Warrington South WwTW	E00000445	WFD_ND	31/03/2026	05/03/2029
08UU100961	No Det - Crewe WwTW	E00000831	WFD_ND	31/03/2026	13/11/2028
08UU100113	Dufton WwTW - Habitats	E00000014	WFD_ND	31/03/2026	30/09/2026
08UU100935	Milburn WwTW WINEP Habitats	E00000348	WFD_ND	31/03/2026	31/01/2027
08UU100936	Morland WwTW - WINEP Habitats	E00000384	WFD_ND	31/03/2026	31/01/2027
08UU100932	Long Marton East WwTW	E00000462	WFD_ND	31/03/2026	30/11/2026
08UU100926	Great Asby WwTW	E00000929	WFD_ND	31/03/2026	30/11/2026
08UU100953	Partington -016940148ST	E00000840	WFD_ND	31/03/2026	01/12/2028

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