Affinity Water

AMP8 Delivery Plan Assurance

29 April 2025 Final Draft (data as of 1/4/25)

4 Aug 2025 Final (data as of 1/4/25)

Contents

Executive Summary

Affinity Water (AfW) is publishing a delivery plan to show the Price Control Deliverables (PCDS) output targets for each year over the 2025-30 period and interim milestones for PCDs where the profile of delivery is back ended. This will allow tracking of progress on delivery across the 2025-30 period and provide an early sight of any delivery challenges during the initial years of the Asset Management Period (AMP).

The creation and monitoring of Price Review 2025 to 2030 (PR24) delivery plans are guided by the principles of providing a clear, independently verified, and regularly updated view of water companies' progress in achieving their committed outcomes, with a strong emphasis on early identification and mitigation of delivery risks. These principles are supported by several key considerations:

- **Tracking Progress Against PCDs**: A fundamental principle is the use of delivery plan reporting to allow stakeholders and Ofwat to track the progress that companies are making in delivering PR24 outcomes, with a specific focus on PCDs. PCDs define the key outcomes or outputs expected from enhancement and related expenditure. Our enhancement spend relates to improvements to our services, including the delivery of our Water Resources Management Plan and our obligations under the Water Industry National Environment Programme. It also includes expenditure to address sites high in Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS) and deliver additional reductions in leakage. We have 37 PCDs which cover 61% of our capital programme.
- **Enhanced Oversight**: The framework aims to provide increased oversight of delivery through more frequent reporting and assurance requirements on what companies are delivering. This increased oversight is achieved by the application of PCDs covering a significant amount of expenditure covering over £600m of our plan. Our top 3 material PCDs are: Metering, Water Industry National Environment Programme (WINEP) and Mains Renewals.
- **Forward-Looking Monitoring**: The process involves monitoring not only past performance (outturn data) but also forecast data for PCD output, expenditure, and interim milestones, allowing for proactive identification of potential issues.
- **Early Identification of Delivery Risks**: The introduction of interim milestones, particularly for projects with back-ended delivery profiles, is a key principle aimed at identifying potential delays or issues much earlier in the AMP cycle than relying solely on final PCD outputs. These interim milestones will be specific to individual Programmes (or Projects) and are discussed in the individual Investment Area and Business Case sections.
- **Independent Assurance**: A critical principle is the requirement for independent third-party assurance on delivery plans, delivery action plans, and progress reports. The assurance provides confidence that the submissions are accurate and complete.

- **Risk-Based Approach to Monitoring**: Ofwat and assurance providers are expected to adopt a risk-based approach to their review, focusing more on areas with time incentives and material expenditure with back-ended delivery.
- **Transparency through Reporting**: Companies are required to publish delivery plans and independently assured six-monthly progress reports. This transparency allows stakeholders to understand the progress being made.
- **Alignment with Regulatory Obligations**: Delivery plans and monitoring should ensure that scheme target completion dates meet statutory and regulatory obligations.
- **Change Management and Accountability**: Companies are required to maintain a change log to track material changes to scheme scope, promoting accountability and facilitating the assurance process. Significant movements against baseline targets require commentary from companies.

This document is to report assurance process and detailed information to Ofwat.

Independent third-party assurance report will be issued separately to this document.

Information provided in this document is as of 1 April 2025.

Affinity Water Approach

We have implemented the following frameworks for managing successful delivery of our AMP8 programmes, which underpins the documented delivery planning and assurance approaches and are described in more detail within this document:

- Investment Programme Management (IPM) Planning Framework
- Investment Programme Management (IPM) Estimating Framework
- Investment Programme Management (IPM) Risk Framework
- Investment Programme Management (IPM) Gateway Governance Framework

Delivery Plan details have been captured within templates split into 3 sections:

- Base Expenditure – Ofwat PCD tab DPB1 and DPB2
- Enhancement Expenditure – DPW1 – DPW3

Each Business Case/investment area has line reference to the Ofwat PCD excel template v2 for easy data navigation and assurance checks.

Templates contain 6 sections of information for Business Case/investment area:

- **Description:** Short description of the Business Case investment area and its associated Programmes of work. It includes details about the driver(s) behind the need for this area of investment (including any legal or statutory obligations), the scope of the work that is planned, how the scope of the

selected option was arrived at, and the benefits that are planned to be delivered. Also, identifies any known delivery risks and potential mitigating actions that have been put in place (or planned).

- **Expenditure:** Summary of the basis upon which the expenditure estimates for the Baseline programme have been derived for each programme area and the sources of data used. Includes statement on how this has been allocated to base and enhancement expenditure totals.
  - Details of the Planned Based Expenditure, Forecast Expenditure and Deviation from Baseline Expenditure are provided within **3 tables**.
  - **Change Log**, explaining the reasons/circumstance that have led to any deviation and what mitigating action will be undertaken to ensure the programme delivers, is provided where applicable.

- **Expenditure - Data capture and validation:** Statement detailing how cost data will be captured across this business case and the associated programs of work. Where this information is sourced from and how its integrity is validated prior to reporting.

- **Outputs:** Brief statement of the outputs this business case and associated programmes of work will deliver.
  - Baseline Planned PCD Outputs, Current Forecast PCD Outputs and Deviation from Baseline PCD Outputs are provided within **3 tables**.
  - **Change Log** is provided where applicable.

- **Outputs – Data capture and validation:** Statement detailing how the evidence for achieving outputs and in particular PCD output data will be captured across this Business Case and the associated Programmes of work, where this information is sourced from and how its integrity is validated prior to reporting.

- **Milestones:** Statement of the key milestones that are relevant to this business case and associated programmes of work will deliver.
  - Baseline Planned Gateway Milestones, Current Forecast and Programmes that are delayed by more than 1 Quarter, have been captured in **3 tables**.
  - **Change Log** is provided where applicable.

Information in templates (within this document) have been populated from the 'AMP8 Target Document V0.31 – FD_Final' spreadsheet (as of 1 April 2025), which is our internal representation of the AMP8 Delivery Plan Baseline. Following versions of the AMP8 Target Document will be developed on a quarterly basis to enable better visibility and further assessments of our Delivery Plan as its progresses throughout the AMP.

AfW Baseline vs Ofwat Baseline

Following on from the AMP8 Delivery Plan (draft) submission (Year 1, Q1), as a direct response to compliant consultation period, we received some queries from Ofwat for comment.

These queries and our responses have been captured in the ***'Change Log – Change, observation and Ofwat query'*** section for the following Investment Areas:

- PCDB1a - Mains renewals – base - Base wholesale water model funded renewals expenditure
- PCDB3a - Water network reinforcement - Water network reinforcement expenditure
- PCDW5 - Water Framework Directive actions - Other WFD actions
- PCDW12 - Metering - New installations
- PCDW12 - Metering - Household meter upgrades
- PCDW12 - Metering - Non household meter upgrades
- PCDW12 - Metering - Meter Replacements
- PCDW12 - Metering - Connected meters
- PCDW11a - Supply - WAFU Benefit [Low]
- PCDW11a - Supply - WAFU Benefit [Very Low]
- PCDW11a - Supply - WAFU Benefit [Total]
- PCDW11b - Supply – Supply Interconnectors
- PCDW9 - Efficiency - Water demand savings (benefit)
- PCDW16b - Resilience Interconnector - Additional storage at reservoirs
- PCDW8 - Water WINEP/NEP investigations

For the purpose of management and overall FD allowance bundle, we note difference, as an observation for consistency with the scope of some of our programmes however, **we are not resetting the baseline expenditure**.

The baseline expenditure, as published in the PCD models, accurately reflects the anticipated expenditure performance. The key reference point for evaluating delivery will remain as set out in FD.

For some programmes, we optimised our plan to provide additional funding to support workstreams and reduce risk, resulting in a variation from the published baseline expenditure and/or PCD-baseline. Our updated forecast ('AfW Current Forecast Totex') reflects a realistic and deliverable profile, informed by site-specific risks, delivery constraints, and opportunities. It also incorporates internally planned efficiency targets, which were identified through careful review of our FD allowances and an assessment of how best to optimise delivery against our PCD commitments.

The **high-profile schemes** as those requiring enhanced engagement, a high sensitivity and interest from multiple stakeholders due to their size, cost and/or disruption during construction.

IPM Gateway Governance Framework

Summary

Our IPM Gateway Governance Framework sets out the delivery framework for establishing a structured approach for the effective and efficient delivery of the investment programme. This Gated Stage Delivery Framework has been developed to strengthen governance, accountability, and value for money across Affinity Water's project delivery process. It establishes a structured, transparent, and reliable process for project delivery from concept through to closeout, aligning with regulatory expectations and industry best practices.

Assurance of our delivery is enhanced and secured through a series of predefined minimum outputs for each stage and quality control checkpoints. The process at each stage is governed by a formal Gateway Review to ensure that defined criteria are met before progression. At each stage completion, projects shall also submit predefined Technical and Commercial Assurance documentation to demonstrate compliance with internal standards and regulatory expectations. These assurance files are reviewed as part of the gateway process and archived for audit readiness and traceability.

Continuous enhanced governance is executed through structured forums including the Programme Board, Totex Group (TG), and Totex Committee (TC). Each body has clearly defined roles, including delegated authority, challenge functions, and final approval rights for scope, budget, and progression while frequently monitoring risks and potential change.

The framework supports compliance with Ofwat's expectations under the AMP8 Business Plan by:

- Ensuring value-for-money and prioritisation of investments.
- Enabling robust, data-driven decision-making.
- Maintaining a clear audit trail for capital governance.
- Demonstrating effective risk management, optioneering, and benefit realisation.

AMP8 Gateways

We have developed and introduced two runways of the AMP8 Gateway process to comply with the Totex process and the Ofwat requirement of a minimum of 3 key stages (pre-flight, in-flight, post-flight):

- **AMP8 Gateway Process (Traditional Engineering)** – focusing of a schedule of projects (Capex Delivery Plan)
- **AMP8 Bespoke Gateway Process** – considering a schedule of activities (Opex Delivery Plan)

We have created a list of outputs for each Gate Stage and nominated key documents (such as engineering and CDM documents) that will be subject to Technical and Commercial audit and assurance.

The AMP8 Gateway Process (Traditional Engineering) comprises 4 Gate Stages:

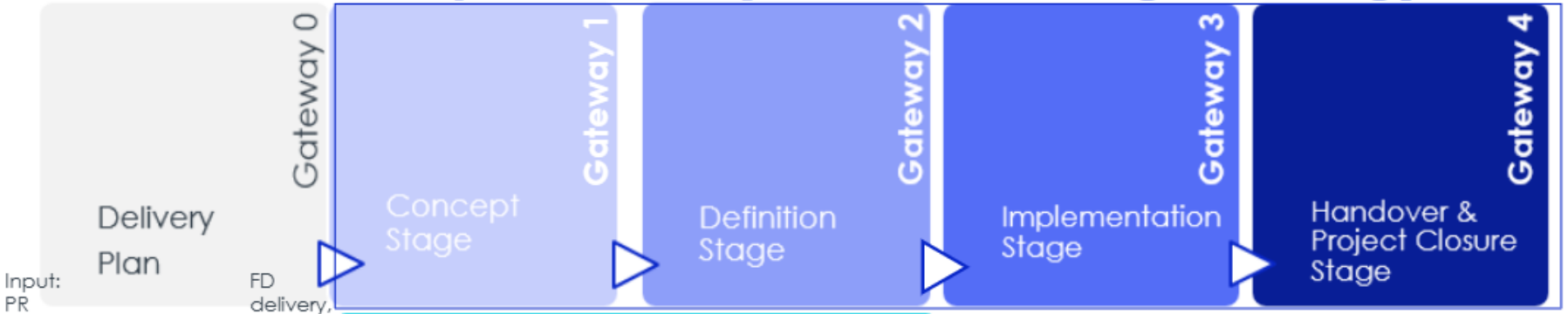
- **Gateway 1** – 'Concept Stage' – covering:
  - Budget Development request (approval from AMP8 Totex Governance & AMP8 Totex Committee covering activities between Gateway 1 & Gateway 2)
  - Define Project Need
  - Undertake Risk & Value Workshop
- **Gateway 2** – 'Definition Stage':
  - Define Project Technically
  - Detail Design Development
  - Construction Planning
  - Budget Implementation request (approval from AMP8 Totex Governance & AMP8 Totex Committee covers activities from GW3 till end of GW4)
- **Gateway 3** – 'Implementation Stage'
  - Build
  - Commissioning Testing
  - Benefit Claimed
- **Gateway 4** – 'Handover & Project Closure Stage':
  - Benefit Realisation
  - Asset Data Integration
  - Lesson Learnt
  - Final Account and Close down

We set out the process and key outputs as shown on page 9.

The AMP8 Bespoke Gateway Process comprises of only 3 Gate Stages. These are the same as the AMP8 Gateway Process (Traditional Engineering), but include Gateway 1, Gateway 3 and Gateway 4 only. This is because these Bespoke projects are simpler and do not go through a Gateway 2 'Definition' stage.

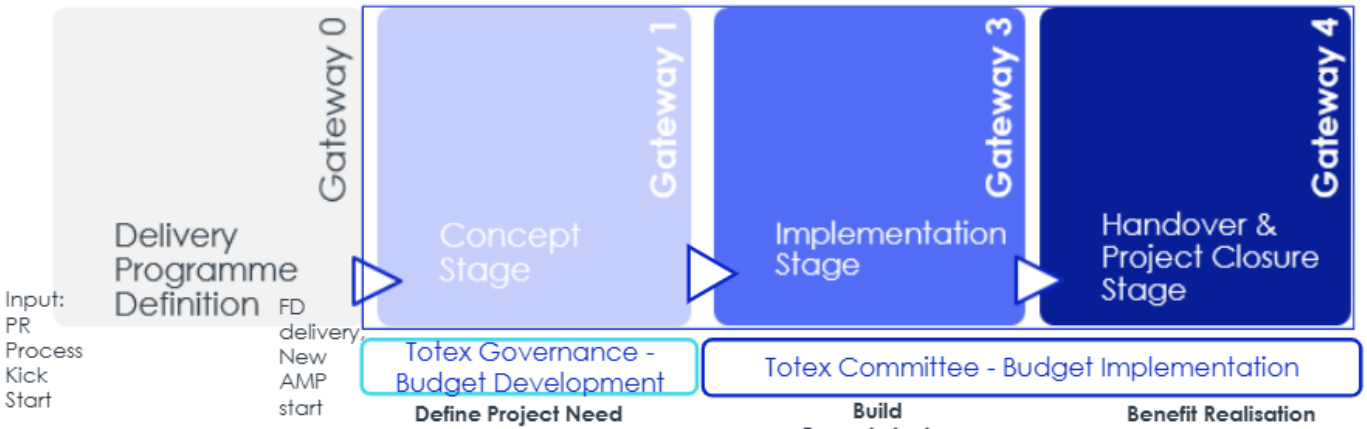
We set out the process and key outputs as shown on page 10.

AMP8 Gateway Process (Traditional Engineering)



	Define Project Need Risk & Value Workshop	Define Project Technically Detail Design Development Construction Planning Target Cost Agreement	Build Commissioning Testing Benefit Claimed	Benefit Realisation Asset Data Integration Lesson Learnt Final Account &Close down
Gateway Start Date	**Business Case - decision point**	**Commences upon completion of Gateway 1 Assurance**	**Commences upon completion of Gateway 2 Assurance**	**Commences upon completion of Gateway 3 Assurance**
Summary of key Gateway activities*	• Risk & Value (R&V) • Design Review 0 (DR0) • Screening Assessments • Technical Assessment • Commissioning (draft) • Benchmark top-down • Gateway Review	• Outline Design and/or Detail Design • Design Review 1 & Value Engineering • Benchmark bottom-up • Early Contractor Involvement (ECI) • Design Review 2 • Contract price agreement • Contract Award • Construction Readiness • Gateway Review	• Start On Site (SOS) • Testing & Commissioning • Benefit Fulfilled (BenF) Claimed • Site demobilisation • Construction Completion Certificate • Gateway Review	• Benefit Fulfilled (BenF) Realised • As builds, manuals, documentation • Lesson Learnt • Issue final certificate • Final Account • Gateway Review • Project closure on Business System
Gateway End Date (Gateway Assurance)	**Ends with submission and acceptance of Technical & Commercial Assurance files.**	**Ends with submission and acceptance of Technical & Commercial Assurance files.**	**Ends with submission and acceptance of Technical & Commercial Assurance files.**	**Ends with submission and acceptance of Technical & Commercial Assurance files**

AMP8 Bespoke Gateway Process



	Define Project Need **Risk & Value Workshop**	**Build** **Commissioning** **Benefit Claim**	**Benefit Realisation** **Asset Data Integration** **Lesson Learnt** **Final Account &Close down**
Gateway Start Date	**Programme Development Document (PDD) - decision point**	**Commences upon completion of Gateway 1 Assurance**	**Commences upon completion of Gateway 3 Assurance**
Summary of key Gateway activities	• Project Development Document (PDD) • Risk & Value (R&V) Output documentation • Commercial data	• Scope of work / Project Brief • Operational Acceptance Document (OAD) • Purchase Order / Contract Award • Start on Site (SOS) • Benefit Fulfilled(BenF) Claimed – if applicable • Site demobilisation	• Liability Period • Benefit Fulfilled (BenF) Realised • As builds / post construction documentation • Operational Acceptance Document (OAD) (Takeover Assurance) • End of Liability Period & Report • Lesson Learnt • Final Account
End Date	**Ends with Technical (PDD) & Commercial Assurance files.**	**Ends with Technical (subject to PDD) & Commercial Assurance file.**	**Ends with FA, Technical & Commercial Assurance file.**

All programmes use the same set of Gate Stages as outlined in the two runways set above.

Interim Milestone No.	Interim Milestone Description	Affinity Water Stage Gate (IM date)
IM1	Need Definition / Statement Issued to the internal delivery team - the company has internally committed to develop the project, commenced working on the scheme	Gateway 1 – 'Concept Stage' (IM1: end date of concept design)
IM2	Options Appraisal Complete / Solution Identified - single solution determined	Gateway 2 – 'Definition Stage' (IM2: end date of outline design)
IM3	Tender / Contract Award / Commitment to build - delivery contract signed with a delivery/contracting partner	Gateway 2 – 'Definition Stage' (IM3: date of contract award)
IM4	Delivery Stage / Commitment to Construct – Construction works on site to deliver asset(s) that meets the companies contract requirements. For clarity, Early Contractor Involvement is not deemed does not constitute IM4. Start on Site - Construction works on site has commenced	Gateway 3 – 'Implementation Stage' (IM4: start on site date)
IM5	Project Acceptance/Operational Handover - Construction work is complete and in operational use	Gateway 3 – 'Implementation Stage' (IM5: BenF Claim Date – achieved after successful commissioning)
IM6	In terms of PCD definition, PCD complete	Gateway 3 – 'Implementation Stage' (IM6: BenF Claim Date – for all projects excl. EA/DWI projects. IM6: Regulatory Body sign off date of the BenF Claim Date, e.g. WINEP programme where EA/DWI sign off is required for PCD completion claim)
IM7	Scheme removed / and or replaced in agreement with the relevant regulator (EA/Ofwat/DWI)	Gateway 2 – 'Definition Stage' (IM7: GW2 end date if applicable)

IPM Planning Framework

Summary

Our IPM Planning Framework serves as an internal guide, establishing a structured yet flexible approach for the effective delivery of the investment programme. It is intended for a broad internal audience, including Planners within the IPM Planning team, other functions within IPM and the Programme Management Office (PMO), Project, Programme, and Portfolio Managers, as well as other interested or impacted delivery stakeholders (e.g. Operations). The document outlines what constitutes a good schedule and details the processes for developing, updating, and maintaining these schedules. Its purpose is to provide guidance, enabling relevant personnel to carry out their roles effectively, and to apply a consistent and standardised approach across all projects. Further, it aims to support the development and availability of good quality and accurate data required for reporting purposes.

The framework provides insight into the execution of a full end-to-end planning procedure, offering a step-by-step guide to ensure consistency, efficiency, and alignment with programme objectives for all project types and sizes. The document was developed to align with existing processes while being tailored to accommodate the complex structure of the programme for AMP8. To ensure a robust and reliable planning approach, the APM 'Body of Knowledge' was used as a benchmark guide in its development.

We have adopted the Ofwat Common Framework Process to align AMP8 Totex reporting and operational compliance for both Enhancement and Base expenditure.

We have captured the full suite of activities and developed our AMP8 'Target' Document, which comprises the investments consistent with our business plan, setting out annual Time, Costs, Risks, Benefits, Outputs and PCDs. The programme of work within the AMP8 Target Document has been developed using 'smart codes' to allow robust tracking from the outset. Tracking starts at project level, which is then aggregated so that analysis, tracking and reporting can take place at programme, portfolio and investment plan level.

Reporting on this progress tracking internally is carrying out monthly with Tier 1 audit (Head of Departments) and Tier 2 (Head of Investment Programme Management) to CEO report. The 6 monthly reports will be produced, audited (Tier 1, Tier 2, Tier 3 – Head of Audit) and signed off by relevant directors.

Schedule Creation

Schedule creation primarily uses '**Primavera P6**', with schedules developed using pre-created templates. These templates cover the end-to-end lifecycle for both Traditional Engineering and Bespoke Work Breakdown Structures (WBS), identifying all activities required to complete each phase and progress through the defined

Gateways in a logical flow. They also specify a defined suite of documents and deliverables required at each phase and Gateway, with different templates available for various contract types.

Different types of schedules are used at various levels:

- **Project Schedule**: This represents the sum of all project planning efforts, encompassing the work breakdown structure, work estimates, resource plan, risk management plan, and communications plan. Its primary focus is on the work to be done, time, and dates, with most project scheduling in AMP8 using Primavera P6 software.
- **Programme Schedule**: A programme consists of a group of related projects and change management activities managed by a Programme Manager to deliver beneficial changes. The programme schedule is an amalgamation of high-level key milestones from each project, crucially showing any interdependencies that need to be tracked. This allows for oversight of work, prioritisation of resources, minimisation of duplication, management of interdependence, coordination of stakeholders and communications, and easier sharing of lessons learned.
- **Portfolio Schedule**: A portfolio (Business Case) is a collection of related programmes and projects aligned with our strategy and objectives. The Portfolio Manager is accountable to the executive board for delivery. The portfolio schedule combines high-level governance milestones from each Programme and Project, highlighting crucial interdependencies for tracking.

A good schedule is characterised by several key attributes:

- It includes all tasks required to complete the project.
- It clearly shows relationships between tasks, including links and dependencies.
- Each task has defined Start and Finish dates.
- It incorporates key Start and Finish Milestones.
- It has a critical path, identifying the sequence of tasks that dictates the project's overall duration.
- It is realistic, with some built-in flexibility and allowance for slippage.
- The schedule is documented and formalised.
- It enables the measurement of project performance by setting an approved baseline against which progress is tracked.
- It is developed to manage stakeholder expectations and facilitate reporting.

A schedule development flow chart outlines the steps for Planners and Project Managers to create schedules that accurately reflect the full or remaining scope of

work, build logic, determine durations, and calculate realistic forecast dates for live projects with approved funding.

Contractor Schedules

Contractor/Supplier schedules are integral to the overall project plan, especially for construction and building projects where the New Engineering Contract (NEC) suite of contracts (Framework Contract, Engineering and Construction Contract, Professional Services Contract) is widely used. Planners, Programme Managers, and Portfolio Managers always refer to contractual clauses, contract data, and Works Information for mandatory contractor obligations.

The Contractor Programme (Schedule) Acceptance Process Flow involves identification of the required programme in the NEC contract, contractor submission (within the contractually stated period and in the correct P6 format with all required information as per NEC 4 Clause 31.2), Project Manager review with the Planner, acceptance (or rejection with reasons as per NEC 4 Clause 31.3), incorporation into the schedule (either fully or key milestones constrained for reporting), and monthly resubmissions for review and acceptance.

Key NEC milestones (e.g., Contract Award, Access Sate, Start Date, Planned Completion, Hydraulic Completion, Contract Completion) are incorporated into the plan and may be locked with constraints once agreed and baselined. The contractor produces a "Client Schedule" summarising AfW and third-party scope, including contractor responsibilities.

NEC Programme (Schedule) Quality Validation checks on contractor's schedules are routinely carried out by the Project Managers and Planners, looking for issues such as activities without predecessors/successors, started but 0% complete, negative float, excessively large float, actual dates greater than the data date, out-of-sequence updates ("broken logic") etc. A project calendar accurately reflects resource availability as per the contract. Reasons for not accepting a contractor's schedule include it being impractical, not showing required information, not representing the contractor's plan realistically, or not complying with the scope.

Schedule Constraints & Float Management

Schedule constraints are limitations placed on a project schedule affecting the start or end date of an activity. Constraints are applied to key elements of the Project Manager's schedule, often aligned with contractual dates or critical deliverable timestamps, providing confidence in the schedule's deliverability and incorporating time risk allowance within float paths. The primary constraint on schedules is typically at the end of the AMP period or at the PCD target.

Total Float is the amount of time were an activity can be delayed without impacting the project's finish date, which is displayed in Primavera P6. A high positive float may indicate missing logic or a need for constraints on key deliverables, prompting

Planners to review the schedule. Negative float signifies a potentially undeliverable schedule, requiring the Project Manager and Planner to identify the cause and mitigate the impact, potentially through a change request if the critical path is affected. Missing logic (e.g., missing predecessors or successors) should be resolved collaboratively between the planning team and the Project Manager; if not possible, constraints may be applied to key deliverables to structure the plan.

Governance and Stakeholder Reporting

Schedule maintenance and validation are ongoing monthly processes. This includes setting up progress review meetings with Project Managers, reviewing and understanding the schedule beforehand, collating and resolving questions, conducting integrity checks, checking the validity of forecast dates against baseline dates, identifying milestones with significant variance, and logging risks or issues arising from the review. Updating the P6 schedule involves creating a user baseline, selecting an appropriate activity layout, updating the data date, updating activity status and dates line by line with the Project Manager, highlighting variances and changes in critical milestones. Activities no longer required should be moved to a "Redundant activities" section rather than being deleted. Benefit tracking is done in P6 based on defined deliverables and performance targets.

The AMP8 Totex Gateway KPIs, are monitored for each project and are reported to stakeholders. These include:

- **Schedule Performance (%)** – Percentage of project milestones completed on or ahead of the planned schedule.
- **On-time delivery (%)** – Percentage of project deliverables delivered on the schedule date.
- **Lead Time (days)** – Time taken from project initiation to delivery to the handover
- **Days of Delay (days)** – Total number of days a project is behind schedule
- **Cost Performance (%)** – Percentage of project completed within original budget.
- **Compliance Rate (%)** – Percentage of project phases completed within designated timeframe.
- **Resource Utilisation Rate (%)** – Percentage of available workforce actively engaged on the project

Adding a baseline involves setting an approved version of the schedule for progress comparison. Only our Planning Team can set original or revised baselines. Changes to a baseline require formal Change Control procedures. The original Baseline contains initial dates, changeable only through approved changes or data corrections. The revised Baseline reflects updates from approved client or contractor changes. The Totex Committee approves both original and revised baselines before incorporation. The current approved baseline is set as the "Project Baseline" in Primavera P6. A clear

naming convention for baselines and a log of integrated changes are essential for a project audit trail.

Investment Governance and Committees play a crucial role in the governance and control of delivery plans.

- Bespoke programmes/projects require Programme Definition Document (PDD) with P6-aligned key milestones.
- Traditional projects require a Business Case with P6-aligned key milestones.
- Bespoke and Traditional programmes/projects are funded through the **Totex Governance** (TG) structure with delegated authority of up to £500k.
- Programmes/projects requiring investment between £501k to £5m are presented to the Totex Governance before **Totex Committee** (TC) and receive funding via the TC structure.
- Over £5m Totex Investment Papers are submitted and presented to the TG and TC before Board.

Stakeholder reporting is crucial, providing senior management with general status, early warnings of risks and issues, an escalation route, and a vehicle for decision-making. Primavera P6 is the primary reporting input tool. The Planning Team validates reports, while individual Project Managers ensure the accuracy of their project status. The RACI (Responsible, Accountable, Consulted, Informed) Matrix clarifies roles and responsibilities across tasks and decision-making processes.

IPM Estimating Framework

The IPM Estimating Procedure outlines the essential components of a comprehensive Scope of Works (SOW) and details the process for its development, updating, and maintenance. It also provides guidance on using the Benchmark estimating software. The procedure is intended for Estimators within the Investment Estimating Management (IEM) Estimating team, other functions within IEM and the PMO, and Project, Programme, Asset Planning, and Estimating Managers. Its purpose is to offer strategic direction for project, programme, and fiscal management, implement a unified and standardised methodology for all construction activity projects, assist in creating and accessing accurate and high-quality budgets for estimation, and provide reliable high-level budgets at initial stages.

Scope of Works

A Scope of Works (SOW) is a detailed tender document that itemises labour and material costs based on quantities derived from drawings and provided information. It is a crucial resource during tendering and plays a vital role in financing, project planning, and payment scheduling. The SOW is the culmination of all estimating efforts, including the work breakdown structure, work estimates, scope of works,

preliminaries, inflation, inclusions, and exclusions. The Benchmark estimating software is primarily used for project estimation. A good SOW clearly outlines the proposed work, explicitly states assumptions and exclusions, ensures precise measurements and pricing, includes necessary additional notes, incorporates all required items, considers inflation, and makes allowances for additional items and preliminaries.

The kick-off process for the Estimating Team begins with an enquiry through the department email address. Upon acknowledgment, a Tender Request Form is sent to the sender, and a meeting is scheduled to discuss the project details. Workload is allocated based on team availability and skill level, tracked in a Work in Progress (WIP) Gantt chart. Estimators are responsible for establishing an organised filing system within **SharePoint** for all project information.

Scope of works are developed using pre-created routines in **Benchmark**. The software aims to ensure cost certainty through flexible methodologies, a detailed cost build, and automated workflows. It serves as a centralised platform for historical pricing data. Benchmark is used to compile built-up rate items and cost models, factoring in cost curves. This is used in conjunction with the SOW to incorporate tangible and enabling requirements. The Investment Estimating Development Flow Chart details the process followed by Estimators, Project Managers, and risk assessors to create and develop the SOW accurately reflecting the full scope and pricing.

Cost Estimation

We have developed a comprehensive suite of Cost Models to support accurate estimation, incorporating industry and internal cost data and inflation adjustments. These models integrate inflationary trends, sizing, dimensions, and other cost drivers. All cost models will have been migrated to Benchmark. Estimating templates are used to accurately price documents, incorporating traditional cost models, updated market rates, preliminary estimates, and inflation adjustments. These templates include a comprehensive SOW, assumptions, and clarifications. Site visits are a crucial step after initial project admission, coordinated between the Project Manager and Estimator to gather relevant information while adhering to safety protocols.

Contractor/Supplier schedules are integrated into the SOW to refine overall project cost estimation, often based on industry-standard benchmarks. For construction projects, the NEC suite is the prevalent Contractual Framework. Contractors prepare a "Scope of Works" outlining AfW's and third-party work, contractor responsibilities, accountability, and pricing. NEC milestone pricing is compared to the priced Bill of Quantities (BOQ). NEC Scope of Works (SOW) Quality Validation Checks ensure the SOW has clear assumptions/exclusions, a full detailed scope, quantities for all items, reflects the scope, has justifiable costs compared to the original BOQ, includes a cost breakdown against adjacent works, and has no missing parts of the scope. Reasons for not accepting a contractor's SOW include costs not reflective of project scope or unjustifiable cost changes, missing required information, unclear assumptions/ exclusions, or non-compliance with the scope.

Key NEC Contractual Clauses relevant to estimating include those addressing communication (Clause 10), the Contractor's Offer (Clause 11), Tender Submission and Acceptance (Clause 12), The Prices (Clause 14), Pricing and Valuation (Clause 63), and Option C – Target Cost with Activity Schedule (if applicable, Clause 54). An NEC Construction SOW must include a description of works, measured quantities, rates and prices, risks and contingency, daywork rates (if applicable), time-related items, provisional quantities, price adjustment clauses, preliminaries and general conditions, and any additional contractual requirements.

The Post Tender Process involves providing a blank SOW to the Procurement team for contractors to complete, enabling straightforward cost analysis and comparison of contractor pricing against the pricing document.

Continuous Improvement

Monthly Cost & Value Maintenance involves comparing the current SOW against previous cost models, setting up progress review meetings, collating and resolving questions, conducting site visits, and holding meetings with relevant personnel to identify the full scope and pricing considerations.

Lessons Learned standardisation, knowledge sharing, and centralisation are crucial for continuous improvement. A centralised Lessons Learned (LL) library has been developed to address gaps in standardisation, documentation, centralisation, and communication. The LL library serves to capture both areas for improvement and best practices. A phased implementation approach is being adopted. A localised template is initially used before transferring to the centralised library. The PMO oversees this process. The centralised LL library has a data entry form, a protected database sheet, and a dashboard for overview and analysis.

The **Post Project Estimating Process** includes phases for Practical Completion and Final Accounts/Operational Performance Review. At Practical Completion, the PMO informs Estimates, the Estimator reviews the centralised LL library, requests the Asset Capture Sheet from the Project Manager, arranges and attends a Post Project Lessons Learned Meeting, ensures all information is logged, arranges an internal Estimating Handover Review Meeting. The Senior Estimator conducts a review, the Estimator updates internal systems with Cost Capture information, attends a Programme Board/closeout meeting, and creates a job-specific LL Summary.

The **Final Accounts / Operational Performance Review (OPR)** occurs 6-12 months after completion. The Finance Team informs estimates upon final account completion. The Estimator sends out an Operational Performance Review Form, arranges a site visit with the Project Manager and Production Engineer, populates a post-project site visit checklist and an OPR site visit form, arranges an internal Estimating Handover Review Meeting, updates internal systems, updates the job-specific LL Summary, and attends a final internal project closeout meeting.

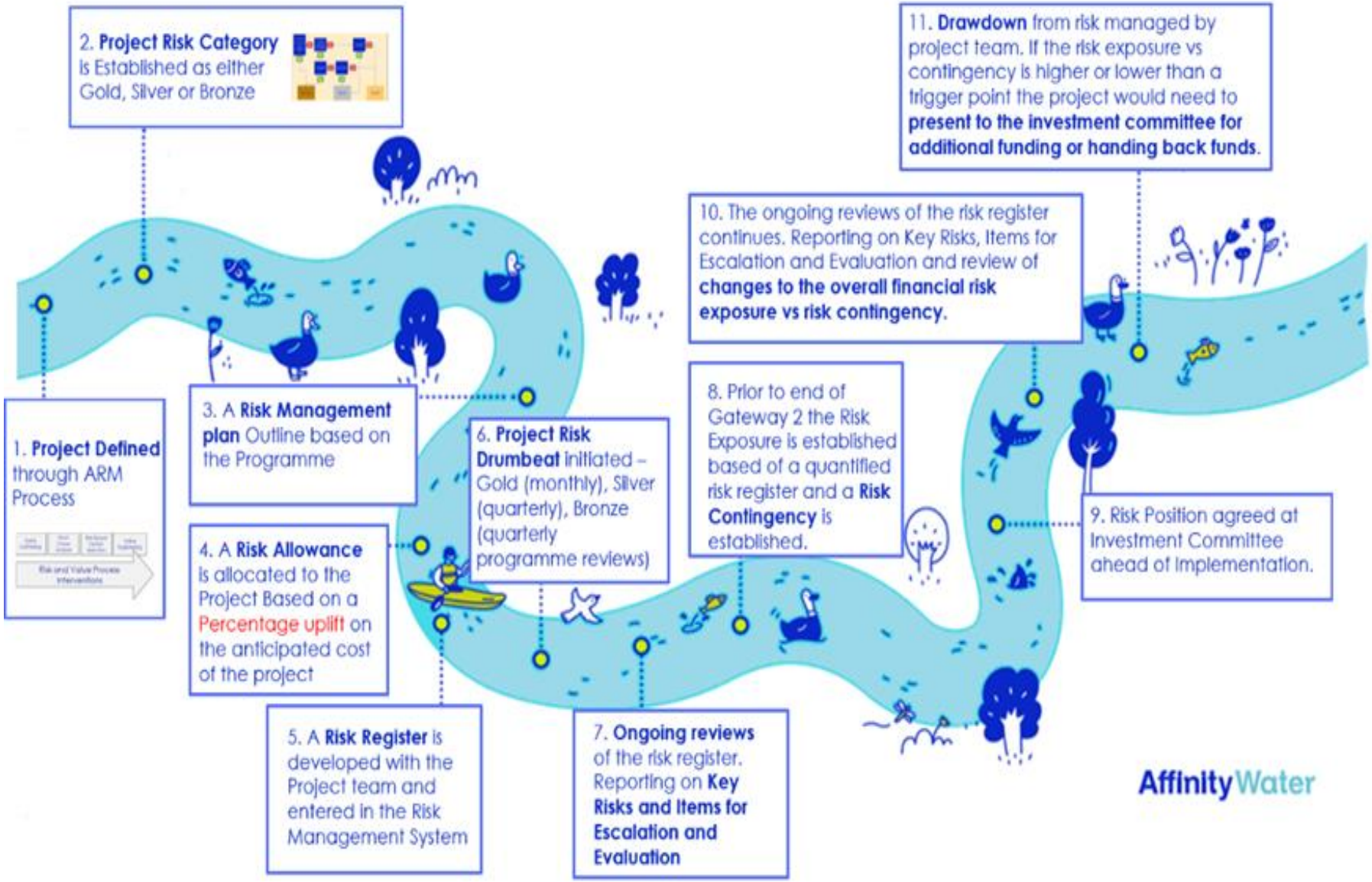
IPM Risk Framework

The IPM Risk Management Procedure defines how risk management will be conducted at all levels within IPM, covering identification, assessment, control, and reporting of risks throughout the project lifecycle. It also discusses the risk hierarchy and the use of the Risk Management System (Origami).

The role of risk management is to optimise success by managing threats and maximising opportunities through an ongoing process.

The purpose is to provide guidance to Project, Programme, Investment, and Risk Managers for a robust, consistent, and standardised approach across front-line delivery team projects, aiming for the best commercial outcome, timely delivery, quality, and consideration of wider risks like health and safety and environmental impact.

The process aligns with the Association for Project Management's (APM) Risk Management lifecycle and is summarised in the diagram on page 20.


2. Project Risk Category is Established as either Gold, Silver or Bronze
11. Drawdown from risk managed by project team. If the risk exposure vs contingency is higher or lower than a trigger point the project would need to present to the investment committee for additional funding or handing back funds.
10. The ongoing reviews of the risk register continues. Reporting on Key Risks, Items for Escalation and Evaluation and review of changes to the overall financial risk exposure vs risk contingency.
1. Project Defined through ARM Process
3. A Risk Management plan Outline based on the Programme
6. Project Risk Drumbeat initiated – Gold (monthly), Silver (quarterly), Bronze (quarterly programme reviews)
8. Prior to end of Gateway 2 the Risk Exposure is established based of a quantified risk register and a Risk Contingency is established.
9. Risk Position agreed at Investment Committee ahead of Implementation.
4. A Risk Allowance is allocated to the Project Based on a Percentage uplift on the anticipated cost of the project
5. A Risk Register is developed with the Project team and entered in the Risk Management System
7. Ongoing reviews of the risk register. Reporting on Key Risks and Items for Escalation and Evaluation
Affinity Water

Risk Planning

Risk Registers reflect the organisational hierarchy at Investment Area, Portfolio Area (Business Case), Programme, and Project levels. Projects are categorised as Bespoke or Traditional, influencing the rigor of risk requirements, and by Complexity as Bronze, Silver, or Gold, based on project value and riskiness, determining the level of risk management effort required.

Risk Planning involves assessing project complexity at the beginning of Gateway 2. Gold and Silver projects require registration in the Risk Management System and a Risk Register Framework. A Risk Management Plan is developed at the Programme level, with generic plans for Silver/Gold projects and bespoke plans for Gold projects. A Risk Workshop Checklist aids Project Managers in preparing for the initial risk workshop by reviewing aspects like the business case, estimate, plan, system analysis, and potential constraints. A Risk Uplift may be allocated at early stages based on complexity.

Risk Assessment

Risk Identification is conducted through Risk Workshops and Reviews, utilising the checklist, a Risk Breakdown Structure (RBS), cost estimates, schedules, design reports, and lessons learned. Workshops involve representation from various project stakeholders. Ongoing risk reviews update existing risks and identify new ones, with frequency determined by the Project Manager (monthly minimum for Gold projects). Risk Notification Forms in Origami allow for raising risks between reviews. All risks are stored in the Risk Register in Origami.

Risk Assessment uses an IPM Risk Assessment Framework, considering probability and impact (financial, time, performance/quality, reputational, water supply/quality, compliance, health/safety, environment). Risks are assessed for initial, current, and target exposure. A Heatmap categorises risks as Critical, Significant, Medium, or Low based on probability and highest impact. Quantification of Risks informs contingency establishment using probability and cost assessment, either through qualitative assessment with average probabilities or bespoke assessments. Risk Allocation, Contingency, and Drawdown are managed through the Change Control process or Compensation Events. Client-retained risks typically include design, approvals, land, ground conditions, third-party interfaces, weather, and regulatory changes.

Responding to identified risks involves deciding on a strategy: **Terminate**, **Transfer**, **Treat**, **Tolerate**, or **Take the Opportunity**, noting existing controls. A Detailed Action Plan with clear deliverables and owners is developed to implement the chosen strategy.

Risk Review & Reporting

Risk Review and Audits include regular risk review meetings chaired by Project and Programme Managers to identify new risks, review current ones, close irrelevant risks,

and review contingency. The IPM Risk Function and AfW Internal Audit teams regularly audit risk registers.

Risk Reporting utilises dashboards and reports in Origami to visualise risks and associated factors, including risk overview, heatmap, exposure waterfall, risk per category, risk quality, and quantitative risk assessment reports. Elevated risks are brought to higher management within the same level, while escalated risks are transferred to a higher organisational level for discussion and action. KPIs focus on risk data quality, frequency of reviews, and risk contingency management. The Risk Management RACI Matrix defines responsibilities across different roles for risk management tasks. A high-level overview of a project risk journey is also provided.

Reporting on this progress tracking internally is carrying out monthly with Tier 1 audit (Head of Departments) and Tier 2 (Head of Investment Programme Management) to CEO report. The 6 monthly reports will be produced, audited (Tier 1, Tier 2, Tier 3 – Head of Audit) and signed off by relevant directors.

Summary Of Delivery: Capex Expenditure (PCD only)

Investment Area Ref	Investment Area	Business Case Ref	Programmes Groups	AMP8 Delivery Plan Capex Allocation	CAPEX				
					Year 1	Year 2	Year 3	Year 4	Year 5
WNEP	WINEP (Water industry national environment programme)	WNEP/003	Simple Investigations	£ 921,372	£ 639,186	£ 282,186	£ -	£ -	£ -
		WNEP/004	Complex Investigations	£ 9,327,000	£ 2,479,232	£ 2,597,771	£ 1,940,409	£ 1,208,676	£ 1,100,913
		WNEP/006	River Restoration & Catchment Management	£ 15,000,000	£ 2,594,400	£ 2,658,900	£ 3,476,900	£ 3,400,400	£ 2,869,400
		WNEP/007	Connect 2050 - WINEP WFD Sustainability Reductions	£ 112,724,068	£ 14,895,424	£ 23,337,378	£ 29,514,259	£ 23,593,188	£ 21,383,818
WRMP	WRMP (Water Resource Management Plan)	WRMP/001	Connect 2050 - Non-SRO (Supply Side Benefits)	1,000,000	£ 414,880	£ 87,415	£ 87,415	£ 264,568	£ 145,722
		WRMP/003	Smart Metering	117,918,679	£ 28,374,695	£ 22,385,996	£ 22,385,996	£ 22,385,996	£ 22,385,996
		WRMP/004	Demand Management	20,587,000	£ 5,327,000	£ 4,240,000	£ 4,040,000	£ 3,490,000	£ 3,490,000
		WRMP/005	Connect 2050 - WRMP	68,458,853	£ 7,743,436	£ 15,097,373	£ 21,896,060	£ 23,721,984	£ -
RESL	Resilience	RESL/001	Connect 2050 - Resilience	11,220,102	£ 1,038,404	£ 4,734,904	£ 4,644,642	£ 802,153	£ -
		RESL/003	Flood Alleviation	8,616,000	£ 341,194	£ 2,438,328	£ 2,608,925	£ 2,040,269	£ 1,187,285
SEMD	Security and Emergency Measures Direction (SEMD)	SEMD/001	Emergency Planning	1,643,253	£ 1,523,253	£ 120,000	£ -	£ -	£ -
		SEMD/002	Physical Security	923,759	£ 140,000	£ 190,000	£ 240,000	£ 190,000	£ 163,759
		SEMD/003	Cyber Security	4,142,000	£ 1,123,200	£ 764,200	£ 764,200	£ 764,200	£ 726,200
RWDN	Raw Water Deterioration (RWD)	RWDN/001	Surface Works	58,543,406	£ 18,417,362	£ 23,417,362	£ 15,708,681	£ 1,000,000	£ -
		RWDN/002	PFAS	68,361,405	£ 4,195,126	£ 7,558,803	£ 9,134,281	£ 46,691,867	£ 781,329
		RWDN/003	Nitrates	12,152,615	£ 3,301,779	£ 3,257,684	£ 1,803,405	£ 3,789,747	£ -
INFR	Infra	INFR/001	Trunk Mains	12,250,000	£ 3,890,454	£ 3,110,493	£ 2,890,391	£ 998,160	£ 1,360,502
		INFR/002	Distribution Mains	68,404,000	£ 11,355,160	£ 15,316,840	£ 19,587,680	£ 15,698,480	£ 6,445,840
		INFR/003	Growth – Network Reinforcement	27,283,000	£ 5,113,331	£ 5,102,284	£ 6,174,765	£ 5,863,802	£ 5,028,818
Data as of: 01/04/2025	AMP8 Target Document v31_Price:22/23			£ 619,476,512	£ 112,907,516	£ 136,697,917	£ 146,898,008	£ 155,903,490	£ 67,069,582

Summary Of Delivery: Opex Expenditure (PCD only)

Investment Area Ref	Investment Area	Business Case Ref	Programmes Groups	AMP8 Delivery Plan Opex Allocation	OPEX				
					Year 1	Year 2	Year 3	Year 4	Year 5
WNEP	WINEP (Water industry national environment programme)	WNEP/003	Simple Investigations	£ -	£ -	£ -	£ -	£ -	£ -
		WNEP/004	Complex Investigations	£ -	£ -	£ -	£ -	£ -	£ -
		WNEP/006	River Restoration & Catchment Management	£ -	£ -	£ -	£ -	£ -	£ -
		WNEP/007	Connect 2050 - WINEP WFD Sustainability Reductions	£ 380,000	£ 76,000	£ 76,000	£ 76,000	£ 76,000	£ 76,000
WRMP	WRMP (Water Resource Management Plan)	WRMP/001	Connect 2050 - Non-SRO (Supply Side Benefits)	-	£ -	-	-	-	-
		WRMP/003	Smart Metering	6,519,684	£ 1,602,292	£ 1,229,348	£ 1,229,348	£ 1,229,348	£ 1,229,348
		WRMP/004	Demand Management	6,416,000	£ 1,221,000	£ 1,340,000	£ 1,285,000	£ 1,285,000	£ 1,285,000
		WRMP/005	Connect 2050 - WRMP	73,419	£ -	£ -	£ -	£ -	£ 73,419
RESL	Resilience	RESL/001	Connect 2050 - Resilience	-	£ -	-	-	-	-
		RESL/003	Flood Alleviation	-	£ -	-	-	-	-
SEMD	Security and Emergency Measures Direction (SEMD)	SEMD/001	Emergency Planning	2,288,594	£ 457,719	£ 457,719	£ 457,719	£ 457,719	£ 457,719
		SEMD/002	Physical Security	-	£ -	-	-	-	-
		SEMD/003	Cyber Security	1,336,000	£ -	£ 334,000	£ 334,000	£ 334,000	£ 334,000
RWDN	Raw Water Deterioration (RWD)	RWDN/001	Surface Works	1,915,594	£ -	£ -	£ 383,119	£ 766,238	£ 766,238
		RWDN/002	PFAS	3,566,125	£ 464,269	£ 464,808	£ 586,423	£ 970,499	£ 1,080,125
		RWDN/003	Nitrates	614,310	£ 6,040	£ 92,063	£ 92,044	£ 211,987	£ 212,176
INFR	Infra	INFR/001	Trunk Mains	-	£ -	£ -	£ -	£ -	£ -
		INFR/002	Distribution Mains	-	£ -	£ -	£ -	£ -	£ -
		INFR/003	Growth – Network Reinforcement	-	£ -	£ -	£ -	£ -	£ -
Data as of: 01/04/2025									
AMP8 Target Document v31_Price:22/23				£ 23,109,726	£ 3,827,319	£ 3,993,937	£ 4,443,653	£ 5,330,791	£ 5,514,025

Summary Of Delivery: Milestones (PCD only)

Investment Area Ref	Investment Area	Business Case Ref	Programmes Groups	Gateway Runways Traditional/ Bespoke	GW 1	GW 2	GW 3	GW 4
WNEP	WINEP (Water industry national environment programme)	WNEP/003	Simple Investigations	Bespoke	11/04/2025	NA	31/03/2027	30/01/2030
		WNEP/004	Complex Investigations	Bespoke	11/04/2025	N/A	02/01/2030	30/01/2030
		WNEP/006	River Restoration & Catchment Management	Bespoke	11/04/2025	N/A	02/01/2030	30/01/2030
		WNEP/007	Connect 2050 - WINEP WFD Sustainability Reductions	Traditional	01/08/2028	02/04/2029	29/10/2029	26/03/2030
WRMP	WRMP (Water Resource Management Plan)	WRMP/001	Connect 2050 - Non-SRO (Supply Side Benefits)	Bespoke	11/04/2025	N/A	13/11/2029	04/02/2030
		WRMP/003	Smart Metering	Bespoke	11/04/2025	N/A	07/12/2029	02/01/2030
		WRMP/004	Demand Management	Bespoke	11/04/2025	N/A	07/12/2029	02/01/2030
		WRMP/005	Connect 2050 - WRMP	Traditional	11/04/2025	23/09/2026	17/12/2029	25/02/2030
RESL	Resilience	RESL/001	Connect 2050 - Resilience	Traditional	20/12/2024	20/10/2026	30/05/2028	29/05/2029
		RESL/003	Flood Alleviation	Bespoke	15/05/2025	N/A	08/01/2030	05/02/2030
SEMD	Security and Emergency Measures Direction (SEMD)	SEMD/001	Emergency Planning	Bespoke	12/09/2025	N/A	31/03/2027	31/03/2027
		SEMD/002	Physical Security	Bespoke	12/09/2025	N/A	31/12/2027	27/01/2028
		SEMD/003	Cyber Security	Bespoke	12/12/2025	N/A	01/12/2027	01/12/2028
RWDN	Raw Water Deterioration (RWD)	RWDN/001	Surface Works	Traditional	15/05/2025	26/02/2026	03/05/2028	09/11/2029
		RWDN/002	PFAS	Traditional	15/05/2025	01/03/2027	03/09/2029	29/03/2030
		RWDN/003	Nitrates	Traditional	07/06/2024	10/02/2027	01/01/2029	01/01/2030
INFR	Infra	INFR/001	Trunk Mains	Mix	13/04/2029	12/09/2029	05/11/2029	25/01/2030
		INFR/002	Distribution Mains	Mix	01/04/2025	TBC	31/03/2030	31/03/2030
		INFR/003	Growth – Network Reinforcement	Mix	15/05/2028	14/08/2028	12/01/2029	09/02/2029

Data as of: 01/04/2025

AMP8 Target Document v31

Details: Base Expenditure

Investment Area: Infra_Business case: Trunk Main Renewals (DPB1 & DPB2, line 8, PCDB1a)

Description

This project group focuses on the renewal of 15.9km of trunk mains identified as being in poor condition. The objectives are to maintain the current burst rate on trunk mains and to support performance commitments related to interruptions to supply (I2S) and the Compliance Risk Index (CRI).

Expenditure

The costs for each component of the programme have been determined using Affinity Water's PR24 cost curves (2002/23 cost base.) Costs are profiled across AMP8 in accordance with the urgency and complexity of each element of the programme.

The Baseline planned expenditure across the AMP 8 period for this business case and its associated Programmes of work are provided below.

Programme Name	AfW Baseline Planned Totex									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Trunk Main Renewals	3,890,454	7,000,947	9,891,338	10,889,498	12,250,000	-	-	-	-	-

The table below provides details of the current forecast expenditure based on expenditure incurred to date across this programme area together with the latest best estimate of future expenditure required to deliver the remainder of the baseline programme.

Programme Name	AfW Current Forecast Totex									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Trunk Main Renewals	3,890,454	7,000,947	9,891,338	10,889,498	12,250,000	-	-	-	-	-

The table below provides details of how our current forecast deviates from our initial baseline programme.

Programme Name	AfW Deviation from Baseline Totex									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Trunk Main Renewals	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Change Log – Change, observation and Ofwat query

Query: PCDB1a - Mains renewals – base - Base wholesale water model funded renewals expenditure. Are you resetting the baseline expenditure?

Answer: We are not resetting the baseline expenditure. The expenditure baseline for mains renewals is currently shown as £76.42m based on 260.3km mains renewal at a unit rate of £293.64/m. However, our mains renewals programme includes both distribution and trunk mains, where trunk mains have a significantly higher unit cost. Based on our combined distribution (244.4km at an estimated unit rate of £280/m) and trunk mains (15.9km at an estimated unit rate of £770.4/m) renewal programme, our total forecasted expenditure amounts to £80.67m. We note this difference as an observation for consistency with the scope of our programme however, we are not resetting the baseline expenditure.

Expenditure – Data capture and validation

The Trunk Mains Renewals programme of work will be overseen by a dedicated Programme Board.

Within the overall programme, the works comprise a series of large schemes, each of which will be delivered through a traditional project delivery mechanism.

As part of that process, each scheme will be taken to Totex Group (TG) for approval for funding and delivery within the overall programme.

Approval will be subject to review and approval of the necessary key documents at each gateway stage of the process. Key documents include Risk and Value Assessments, and Value Engineering Assessments.

Once approved for delivery, cost data will be captured through the Affinity Water Capital Delivery and PMO processes. PMO to provide cost validation on quotes at each Gateway stage of the project. Spend monitored monthly against forecast by PMs and PMO team. Cost data captured when work is receipted.

Outputs

The Baseline planned delivery of our Price Control Deliverables (PCDs) for this business case and its associated programmes of work are provided below.

Programme Name	**Baseline Planned PCD Outputs (Cumulative)**											
	PCD Ref /Measure name	**PCD**	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Trunk Main Renewals	PCDB1	Km	39.04	91.10	156.16	208.22	260.27	-	-	-	-	-
Distribution Main Renewals												

The table below provides details of the current forecast of the PCD outputs based on those delivered to date across this programme area together with the latest best

estimate of future output delivery required to deliver the remainder of the Baseline programme.

Programme Name	Current Forecast PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Trunk Main Renewals	PCDB1	Km	39.04	91.10	156.16	208.22	260.27	-	-	-	-	-
Distribution Main Renewals												

The table below provides details of how our current forecast deviates from our initial baseline programme.

Programme Name	Deviation from Baseline PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Trunk Main Renewals	PCDB1	Km	N/A	N/A	N/A	N/A	N/A	-	-	-	-	-
Distribution Main Renewals												

Outputs – Data capture and validation

Achievement of the PCD outputs for the Trunk Mains Renewals programme will be captured and evidenced as follows:

- Trunk main renewals schemes will be managed by Capital Delivery, with the overall main being commissioned in sections as construction progresses.
- Each section will be commissioned to the live network and flow tests carried out to confirm required length of mains renewals has been achieved for that section.

Evidence of the achievement of the PCD output will be the formal handover and sign-off that will then be completed for that section of main and it's corresponding PCD length in km.

Progress will be monitored against the overall programme throughout the course of construction.

Milestones

The Baseline planned delivery milestones for this Business Case and its associated Programmes of work are provided below.

Programme Name	Gateway Type	Baseline Planned Gateway Milestones				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Trunk Main Renewals	Traditional	13/04/2029	12/09/2029	05/11/2029	25/01/2030	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

The table below provides details of the current forecast delivery dates against the key milestones for this Business Case and its associated Programmes of work.

Programme Name	Gateway Type	Current Forecast Gateway Milestones				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Trunk Main Renewals	Traditional	13/04/2029	12/09/2029	05/11/2029	25/01/2030	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

The table below provides details of how our current forecast deviates from our initial Baseline programme and identifies those programme areas that are delayed by more than one Quarter period against each key milestone. The values are expressed in numbers of Programmes, where milestone dates have been exceeded by more than one Quarter period.

Programme Name	Gateway Type	Programmes that are delayed by more than 1 Quarter (nr)				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Trunk Main Renewals	Traditional	N/A	N/A	N/A	N/A	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

Investment Area: Infra_Business Case: Distribution Main Renewals (DPB1 & DPB2, line 8, PCDB1a)

Description

This project group encompasses the renewal of 244.4km of distribution mains that are in poor condition. This will contribute to the support of mains repairs, the management of low-pressure issues, and the achievement of CRI performance commitments.

Expenditure

The costs for each component of the programme have been determined using Affinity Water's PR24 cost curves (2002/23 cost base.)

The Baseline planned expenditure across the AMP 8 period for this business case and its associated Programmes of work are provided below.

Programme Name	AfW Baseline Planned Totex									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Distribution Main Renewals	11,355,160	26,672,000	46,259,680	61,958,160	68,404,000	-	-	-	-	-

The table below provides details of the current forecast expenditure based on expenditure incurred to date across this programme area together with the latest best estimate of future expenditure required to deliver the remainder of the baseline programme.

Programme Name	AfW Current Forecast Totex									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Distribution Main Renewals	11,355,160	26,672,000	46,259,680	61,958,160	68,404,000	-	-	-	-	-

The table below provides details of how our current forecast deviates from our initial baseline programme.

Programme Name	AfW Deviation from Baseline Totex									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Distribution Main Renewals	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Change Log – Change, observation and Ofwat query

Query: PCDB1a - Mains renewals – base - Base wholesale water model funded renewals expenditure. Are you resetting the baseline expenditure?

Answer: We are not resetting the baseline expenditure. The expenditure baseline for mains renewals is currently shown as £76.42m based on 260.3km mains renewal at a unit rate of £293.64/m. However, our mains renewals programme includes both distribution and trunk mains, where trunk mains have a significantly higher unit cost. Based on our combined distribution (244.4km at an estimated unit rate of £280/m) and trunk mains (15.9km at an estimated unit rate of £770.4/m) renewal programme, our total forecasted expenditure amounts to £80.67m. We note this difference as an observation.

Expenditure – Data capture and validation

The Distribution Mains Renewals programme of work will be overseen by a dedicated Programme Board.

Within the overall programme, the works comprise a series of large Batches, each of which will be delivered through a traditional project delivery mechanism.

As part of that process, each scheme will be taken to Totex Group (TG) for approval for funding and delivery within the overall programme.

Approval will be subject to review and approval of the necessary key documents at each gateway stage of the process. Key documents include Risk and Value Assessments, and Value Engineering Assessments.

Once approved for delivery, cost data will be captured through the Affinity Water Capital Delivery and PMO processes. PMO to provide cost validation on quotes at each Gateway stage of the project. Spend monitored monthly against forecast by PMs and PMO team. Cost data captured when work is receipted.

Outputs

The Baseline planned delivery of our Price Control Deliverables (PCDs) for this business case and its associated programmes of work are provided below.

Programme Name	**Baseline Planned PCD Outputs (Cumulative)**											
	PCD Ref /Measure name	**PCD**	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Distribution Main Renewals	PCDB1	Km	39.04	91.10	156.16	208.22	260.27	-	-	-	-	-
Trunk Main Renewals												

The table below provides details of the current forecast of the PCD outputs based on those delivered to date across this programme area together with the latest best estimate of future output delivery required to deliver the remainder of the Baseline programme.

Programme Name	**Current Forecast PCD Outputs (Cumulative)**											
	PCD Ref /Measure name	**PCD**	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Distribution Main Renewals	PCDB1	Km	39.04	91.10	156.16	208.22	260.27	-	-	-	-	-
Trunk Main Renewals												

The table below provides details of how our current forecast deviates from our initial baseline programme.

Programme Name	Deviation from Baseline PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Distribution Main Renewals	PCDB1	Km	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Trunk Main Renewals												

Outputs – Data capture and validation

Achievement of the PCD outputs for the Distribution Mains Renewals programme will be captured and evidenced as follows:

- Distribution main renewals schemes will be managed by Capital Delivery, with the overall main being commissioned in sections as construction progresses.
- Each section will be commissioned to the live network and flow tests carried out to confirm required length of mains renewals has been achieved for that section.

Evidence of the achievement of the PCD output will be the formal handover and sign-off that will then be completed for that section of main and it's corresponding PCD length in km.

Progress will be monitored against the overall programme throughout the course of construction.

Milestones

The Baseline planned delivery milestones for this Business Case and its associated Programmes of work are provided below.

Programme Name	Gateway Type	Baseline Planned Gateway Milestones				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Distribution Main Renewals	Mix	01/04/2025	TBC	31/03/2030	31/03/2030	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

The table below provides details of the current forecast delivery dates against the key milestones for this Business Case and its associated Programmes of work.

Programme Name	Gateway Type	Current Forecast Gateway Milestones				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Distribution Main Renewals	Mix	01/04/2025	TBC	31/03/2030	31/03/2030	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

The table below provides details of how our current forecast deviates from our initial Baseline programme and identifies those programme areas that are delayed by more than one Quarter period against each key milestone. The values are expressed in numbers of Programmes, where milestone dates have been exceeded by more than one Quarter period.

Programme Name	Gateway Type	Programmes that are delayed by more than 1 Quarter (nr)				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Distribution Main Renewals	Mix	N/A	N/A	N/A	N/A	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

Investment Area: Infra_Business Case: Growth-Network Reinforcement (DPB2, line 11, PCDB3a)

Description

The Growth Network Reinforcement Programme focuses on installing necessary network reinforcements in identified growth areas. This ensures adequate supply for new customers without affecting the service level for existing customers. The programme aims to guarantee supplies and pressures for both existing and expanding customer bases, supporting performance commitments related to low pressure, interruptions to supply (I2S), customer contact regarding water quality issues, and the Compliance Risk Index (CRI).

Expenditure

The costs for each component of the programme have been determined using Affinity Water's PR24 cost curves (2002/23 cost base).

Costs are profiled across AMP8 in accordance with the urgency and complexity of each element of the programme.

The Baseline planned expenditure across the AMP 8 period for this business case and its associated Programmes of work are provided below.

Programme Name	AfW Baseline Planned Totex									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Developer Services	5,113,331	10,215,615	16,390,380	22,254,182	27,283,000	-	-	-	-	-

The table below provides details of the current forecast expenditure based on expenditure incurred to date across this programme area together with the latest best estimate of future expenditure required to deliver the remainder of the baseline programme.

Programme Name	AfW Current Forecast Totex									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Developer Services	5,113,331	10,215,615	16,390,380	22,254,182	27,283,000	-	-	-	-	-

The table below provides details of how our current forecast deviates from our initial baseline programme.

Programme Name	AfW Deviation from Baseline Totex									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Developer Services	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Change Log – Change, observation and Ofwat query

Query: PCDB3a - Water network reinforcement - Water network reinforcement expenditure. Are you resetting the baseline expenditure?

Answer: We are not resetting the baseline expenditure. Our forecast expenditure is £27.28m. Currently, there are no discrepancies. As the Asset Management Period progresses, we will gain a better understanding of value engineering opportunities and greater certainty of the requirements associated with planned growth and site-specific risks.

Expenditure – Data capture and validation

The Growth Network Reinforcements programme of work will be overseen by a dedicated Programme Board.

Within the overall programme, the works comprise a series of large schemes, each of which will be delivered through a traditional project delivery mechanism.

As part of that process, each scheme will be taken to Totex Group (TG) for approval for funding and delivery within the overall programme.

Approval will be subject to review and approval of the necessary key documents at each gateway stage of the process. Key documents include Risk and Value Assessments, and Value Engineering Assessments.

Once approved for delivery, cost data will be captured through the Affinity Water Capital Delivery and PMO processes. PMO to provide cost validation on quotes at each Gateway stage of the project. Spend monitored monthly against forecast by PMs and PMO team. Cost data captured when work is receipted.

Outputs

The Baseline planned delivery of our Price Control Deliverables (PCDs) for this business case and its associated programmes of work are provided below.

Programme Name	Baseline Planned PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Developer Services	PCDB3	£m	5.11	10.21	16.39	22.25	27.283	-	-	-	-	-

The table below provides details of the current forecast of the PCD outputs based on those delivered to date across this programme area together with the latest best estimate of future output delivery required to deliver the remainder of the Baseline programme.

Programme Name	Current Forecast PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Developer Services	PCDB3	£m	5.11	10.21	16.39	22.25	27.283	-	-	-	-	-

The table below provides details of how our current forecast deviates from our initial baseline programme.

Programme Name	Deviation from Baseline PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Developer Services	PCDB3	£m	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Outputs – Data capture and validation

Achievement of the PCD outputs for the Growth Network Reinforcement Programme will be captured and evidenced as follows:

- The programme will be steered by the Growth Network Reinforcement Steering Committee, comprising representatives from Infrastructure Asset Planning, Developer Experience, Capital Delivery, Finance, and Investment Programme Management. This committee will ensure programme progress and cost recovery through the infrastructure charging mechanism.
- The Infrastructure Asset Planning team, in collaboration with the Developer Experience team, will identify and propose Growth Network Reinforcement schemes. Capital Delivery will manage the delivery of these schemes.

Evidence of PCD output achievement will be the formal cost capture and sign-off for completed schemes, including expenditure and its corresponding PCD value in pounds sterling (£).

Programme progress will be monitored throughout the five-year programme.

Milestones

The Baseline planned delivery milestones for this Business Case and its associated Programmes of work are provided below.

Programme Name	Gateway Type	Baseline Planned Gateway Milestones				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Developer Services	Mix	15/05/2028	14/08/2028	12/01/2029	09/02/2029	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

The table below provides details of the current forecast delivery dates against the key milestones for this Business Case and its associated Programmes of work.

Programme Name	Gateway Type	Current Forecast Gateway Milestones				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Developer Services	Mix	15/05/2028	14/08/2028	12/01/2029	09/02/2029	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

The table below provides details of how our current forecast deviates from our initial Baseline programme and identifies those programme areas that are delayed by more than one Quarter period against each key milestone. The values are expressed in

numbers of Programmes, where milestone dates have been exceeded by more than one Quarter period.

Programme Name	Gateway Type	Programmes that are delayed by more than 1 Quarter (nr)				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Developer Services	Mix	N/A	N/A	N/A	N/A	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

Details: Enhancement Expenditure

Investment Area: WINEP_Business Case: Connect 2050 - WINEP WFD Sustainability Reductions (DPW1, line 11-12, PCDW5)

Description

The Connect 2050 programme is a strategic initiative designed to ensure the long-term resilience of the water supply network in the face of evolving challenges. It assesses existing infrastructure and proposes necessary enhancements over the next 25 years, with costs allocated between the Water Resources Management Plan (WRMP) and resilience measures. The programme addresses critical issues such as incorporating new water sources from Strategic Regional Options (SROs), accommodating population growth, and managing the impact of sustainability reductions on water transfers between demand centres.

The Sustainability Reductions programme of works is required to meet statutory and non-statutory requirements relating to reduction of abstraction. The reductions in abstraction are to be delivered through a combination of interconnector schemes (large scale trunk main and booster projects), storage schemes and local, site-specific works relating to water abstraction and treatment.

This programme of work has the following statutory drivers under Water Framework Directive (WFD) / Water Industry National Environment Programme (WINEP):

- WFD_IMP_Flow (S+) = Actions to improve ecological status (surface water)
- WFD_ND_WRFlow (S) = Action to protect / ensure No Deterioration in status (surface water)

The programme also has the following non-statutory drivers:

- 25-Year Environment Plan
  - 25YEP_IMP (NS) = Water company actions contributing to meeting 25YEP goals

- Defra's Plan for Water: our integrated plan for delivering clean and plentiful water - policy paper April 2023.
- Government's strategic priorities for Ofwat – Policy paper February 2022
- Drinking Water Inspectorate (DWI) - Guidance Note: Long-term planning for the quality of drinking water supplies
- AW0031 Affinity Water Strategic Direction Statement
- Catchment Based Approach (CaBA) chalk stream restoration strategy
- Blueprint for Water – Blueprint for PR24
- CaBA Catchment Partnerships catchment plans such as:
- Colne Catchment Action Network (ColneCAN)
- Lea Catchment Partnership
- Upper Bedford Ouse Catchment Partnership (UBOCP)
- Hertfordshire County Council (HCC) Sustainable Hertfordshire Strategy

A key focus of Connect 2050 is to build upon the previous Supply 2040 project by comprehensively evaluating options and prioritising 'least regrets' investments during AMP8. This holistic and adaptive approach considers future uncertainties related to growth, environmental targets, and climate change, utilising iterative modelling with the WRMP to guide strategic development. The project aims to capture the combined impact of new environmental destinations and SRO requirements, ensuring robust and sustainable water resource management.

Expenditure

All works carried out under the Sustainability Reductions programme are required as a direct result of the statutory driver to reduce abstraction and on that basis fall solely under Enhancement funding.

Planned expenditure across the AMP8 period has been derived based on a number of sources:

- Actual cost information from equivalent schemes delivered by Affinity Water. Wherever possible, costs from recent schemes have been used, with appropriate adjustments made to account for any site-specific considerations and also for inflation.
- PR24 Cost Models have been utilised for some items, with cross-checks being made against costs from recent schemes with equivalent assets and activities.
- Allowance has been made for risk associated with the proposed solutions. A number of the sites require further investigation works to confirm detailed requirements and these investigation activities have been included in the cost estimate.

Planned expenditure across the AMP8 period has been profiled based on review with Capital Delivery of previous AMP's schemes of similar scope and are profiled in accordance with the urgency and complexity of each element of the programme

The Baseline planned expenditure across the AMP 8 period for this business case and its associated Programmes of work are provided below.

Programme Name	AfW Baseline Planned Totex									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Connect 2050 - WINEP WFD Sustainability Reductions	14,895,427	38,232,805	67,747,066	91,340,255	112,724,073	76,000	152,000	228,000	304,000	380,000
River Restoration & Catchment Management	2,594,400	5,253,300	8,730,200	12,130,600	15,000,000	-	-	-	-	-

The table below provides details of the current forecast expenditure based on expenditure incurred to date across this programme area together with the latest best estimate of future expenditure required to deliver the remainder of the baseline programme.

Programme Name	AfW Current Forecast Totex (cumulative)									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Connect 2050 - WINEP WFD Sustainability Reductions	14,895,427	38,232,805	67,747,066	91,340,255	112,724,073	76,000	152,000	228,000	304,000	380,000
River Restoration & Catchment Management	2,594,400	5,253,300	8,730,200	12,130,600	15,000,000	-	-	-	-	-

The table below provides details of how our current forecast deviates from our initial baseline programme.

Programme Name	AfW Deviation from Baseline Totex (cumulative)									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Connect 2050 - WINEP WFD Sustainability Reductions	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
River Restoration & Catchment Management	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Change Log – Change, observation and Ofwat query

Query: PCDW5 - Water Framework Directive actions - Other WFD actions. Are you resetting the baseline expenditure?

Answer: We are not resetting the baseline expenditure. Our total forecasted expenditure currently remains below our established baseline, a result of proactive early contractor engagement and high-level value engineering efforts. We wish to

confirm that we are not resetting the baseline expenditure. The baseline expenditure, as published in the PCD models, accurately reflects the anticipated expenditure performance, and this remains our key reference point for evaluating delivery.

Subsequent to the publication of the PCD models, we have gained a more comprehensive understanding of the delivery requirements for providing the necessary infrastructure, which is further supported by our pre-AMP8 funding allowances. Consequently, this has necessitated a refinement of our expenditure forecast, leading to a variance from the previously published PCD baseline.

Expenditure – Data capture and validation

The Sustainability Reductions programme of work will be overseen by a dedicated Connect 2050 Programme Board.

Within the overall programme, the works comprise a series of large projects, each of which will be delivered through a traditional project delivery mechanism.

As part of that process, each scheme will be taken to Totex Group (TG) for approval for funding and delivery within the overall programme.

Approval will be subject to review and approval of the necessary key documents at each gateway stage of the process. Key documents include Risk and Value Assessments, and Value Engineering Assessments.

Once approved for delivery, cost data will be captured through the Affinity Water Capital Delivery and PMO processes. PMO to provide cost validation on quotes at each Gateway stage of the project. Spend monitored monthly against forecast by PMs and PMO team. Cost data captured when work is receipted.

Outputs

This programme will deliver specific PCDs outputs. The PCD output falls into two categories for the Sustainability Reductions programme:

- PCD for Interconnectors Schemes – measured in Km and transfer capacity (of trunk main delivered)
- PCD for Location Specific Sustainability Reductions – measured in Actions (this comprises a total of 37 actions relating to the achievement of the required reduction in abstraction at either an individual site or for an abstraction area)

The Baseline planned delivery of our Price Control Deliverables (PCDs) for this business case and its associated programmes of work are provided below.

Programme Name	Baseline Planned PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Connect 2050 - WINEP WFD Sustainability Reductions	WINEP WFD - Harefield to Harrow interconnector, Heronsgate to Bovingdon pipeline and Local Replacement schemes WRZ3 - 37.3	KM					37.3	-	-	-	-	-
Connect 2050 - WINEP WFD Sustainability Reductions and River Restoration & Catchment Management	WINEP Action	No					75	-	-	-	-	-

The table below provides details of the current forecast of the PCD outputs based on those delivered to date across this programme area together with the latest best estimate of future output delivery required to deliver the remainder of the Baseline programme.

Programme Name	Baseline Planned PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Connect 2050 - WINEP WFD Sustainability Reductions	WINEP WFD - Harefield to Harrow interconnector, Heronsgate to Bovingdon pipeline and Local Replacement schemes WRZ3 - 37.3	KM					37.3	-	-	-	-	-
Connect 2050 - WINEP WFD Sustainability Reductions and River Restoration & Catchment Management	WINEP Action	No					75	-	-	-	-	-

The table below provides details of how our current forecast deviates from our initial baseline programme.

Programme Name	Baseline Planned PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Connect 2050 - WINEP WFD Sustainability Reductions	WINEP WFD - Harefield to Harrow interconnector, Heronsgate to Bovingdon pipeline and Local Replacement schemes WRZ3 - 37.3	KM	N/A	N/A	N/A	N/A	N/A	-	-	-	-	-
Connect 2050 - WINEP WFD Sustainability Reductions and River Restoration & Catchment Management	WINEP Action	No	N/A	N/A	N/A	N/A	N/A	-	-	-	-	-

Outputs – Data capture and validation

Achievement of the PCD outputs for the Sustainability Reductions programme will be captured and evidenced as follows:

- PCD for Interconnectors Schemes (measured in km)

Delivery of these trunk mains schemes will be managed by Capital Delivery, with the overall trunk main being commissioned in sections as construction progresses.

Each section will be commissioned to the live network and flow tests carried out to confirm required capacity / flow rate has been achieved for that section.

Evidence of the achievement of the PCD output will be the formal handover and sign-off that will then be completed for that section of main and it's corresponding PCD length in km.

Progress will be monitored against the overall Interconnectors programme throughout the course of construction.

- PCD for the achievement of the required local (and area wide) abstraction reductions (measured in Actions)

Delivery of the reductions in abstraction will be evidenced by the formal changes to the abstraction licences that Affinity Water will carry out with the Environment Agency.

Achievement of the majority of these PCD Actions will be dependent on the full completion of the interconnector schemes, and it is envisaged that the licence changes will not be implemented until the end of AMP8.

In the case of ADO Relocations, these may potentially be able to be implemented ahead of the end of AMP8, in which case, application for licence change may be made earlier.

In all cases a trial period of operation will be needed where the local site-specific works have been carried out to ensure correct operation prior to application for the licence changes.

Milestones

The Baseline planned delivery milestones for this Business Case and its associated Programmes of work are provided below.

Programme Name	Gateway Type	Baseline Planned Gateway Milestones				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Connect 2050 - WINEP WFD Sustainability Reductions	Traditional	01/08/2028	02/04/2029	29/10/2029	26/03/2030	N/A
Connect 2050 - WINEP WFD Sustainability Reductions and River Restoration & Catchment Management	Mix: Traditional & Bespoke	01/08/2028	02/04/2029	29/10/2029	26/03/2030	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

The table below provides details of the current forecast delivery dates against the key milestones for this Business Case and its associated Programmes of work.

Programme Name	Gateway Type	Current Forecast Gateway Milestones				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Connect 2050 - WINEP WFD Sustainability Reductions	Traditional	01/08/2028	02/04/2029	29/10/2029	26/03/2030	N/A
Connect 2050 - WINEP WFD Sustainability Reductions and River Restoration & Catchment Management	Mix: Traditional & Bespoke	01/08/2028	02/04/2029	29/10/2029	26/03/2030	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

The table below provides details of how our current forecast deviates from our initial Baseline programme and identifies those programme areas that are delayed by more than one Quarter period against each key milestone. The values are expressed in numbers of Programmes, where milestone dates have been exceeded by more than one Quarter period.

Programme Name	Gateway Type	Programmes that are delayed by more than 1 Quarter (nr)				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Connect 2050 - WINEP WFD Sustainability Reductions	Traditional	N/A	N/A	N/A	N/A	N/A
Connect 2050 - WINEP WFD Sustainability Reductions and River Restoration & Catchment Management	Mis: Traditional & Bespoke	N/A	N/A	N/A	N/A	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

Investment Area: WINEP_Business Case: River Restoration & Catchment Management (DPW1, line 12, PCDW5)

Description

This Business Case defines landscape-scale programmes of Catchment and Nature-Based Solutions (C&NBS) for the Colne, Upper Lea, Dour, Little Stour, Ivel and Cam catchments as well as a Flagship CaBA Chalk Stream Restoration programme for the River Beane. This includes river restoration projects for morphological improvements, and a programme of spatially and temporally targeted land management measures that can deliver multiple benefits including reduced pollution in surface and groundwater; improved soil health; greater water-holding capacity on land for flood and drought resilience and biodiversity enhancements.

It sets out to address the following challenges:

- Manage the drinking water quality pressures for our groundwater sources in the Colne catchment.
- Contribute towards mitigation of the impacts of climate change at the operational catchment-scale to create more resilient catchments for water resources.
- Deliver projects alongside wider stakeholders and partners to address reasons for not achieving good (RNAG) status and the reasons for deterioration (RFD) in the following waterbodies:
  - GB40601G601200 - Mid-Chilterns Chalk
  - GB106039029890 - Bulbourne
  - GB106039029870 - Chess
  - GB106039023090 - Colne (Confluence with Chess to River Thames)
  - GB106039029840 - Colne (from Confluence with Ver to Gade)
  - GB106039023010 - Colne Brook

- GB106039029900 - Gade (Upper stretch Great Gaddesden to confluence with Bulbourne / GUC)
- GB106039029860 - Gade (from confluence with Bulbourne to Chess)
- GB106039029830 - Misbourne
- GB106039029820 - Upper Colne and Ellen Brook
- GB106039029920 – Ver
- GB106039023900 - Hughenden Stream
- GB40601G602900 - Upper Lea Chalk (Groundwater)
- GB106038033392 - Lee (from Luton Hoo Lakes to Hertford)
- GB106038033391 - Lee (from Luton to Luton Hoo Lakes)
- GB106038033460 - Mimram (Whitwell to Codicote Bottom)
- GB106038033270- Mimram (Codicote Bottom to Lea)
- GB106038040130 - Stort (at Clavering)
- GB106038033281 - Stort and Navigation, Bishops' Stortford to Harlow
- GB106038033282 - Stort and Navigation, Harlow to Lea
- GB106038040140 Rib (upper stretches, above confluence with the Quin)
- GB106038033360 Rib (from confluence with Quin to Lea Navigation)
- GB106038040100 Ash (from Meesden to confluence with Bury Green Brook)
- GB106038033290 Ash (from confluence with Bury Green Brook to Lea)
- GB40701G501500 - East Kent Chalk – Stour (Groundwater)
- GB107040019490 - Upper Dour
- GB107040073310 - Dour from Kearsney to Dover
- GB107040019590 - Nailbourne and Little Stour
- GB40601G603000 - Upper Bedford Ouse Chalk
- GB40501G400500 - Cam and Ely Ouse Chalk
- GB105033037720 - Ivel (US Henlow)
- GB105033037700 - Hiz (DS Hitchin)
- GB105033037680 - Hiz (through Hitchin)
- GB105033037480 - Cam (US Newport)
- GB105033037550 - Cam (Newport to Audley End)
- GB105033037590 - Cam (Audley End to Stapleford)
- GB106038040110 - Beane (Source to Stevenage Brook)
- GB106038033310 - Beane (from confluence with Stevenage Brook to Lee)
- GB106038033410 - Stevenage Brook

We have followed the WINEP methodology to develop options and then select the best value option using economic analysis. As we developed our preferred solution, we worked closely with the EA and other stakeholders. We have engaged with customers who have showed a high degree of support for the proposed environmental improvements. We have learnt from our previous river restoration and natural capital improvement projects to design, cost and value or project. We submitted our PR24 WINEP in November 2022 and this proposed scheme has been accepted with the status of 'proceed' in the third release of our PR24 WINEP issued by the Environment Agency in July 2023.

This Business Case is an adaptive, evidence-based approach. Delivery and implementation of this scheme are adaptive and can change to address risks, challenges and opportunities that arise during AMP8. The chosen solution does not set out specific C&NBS schemes in specific locations. It identifies priority areas for the targeting of C&NBS and river improvement works projects, and priority areas agreed with the EA which can be adaptive based upon any constraints during the options appraisals. The project will also be underpinned by a monitoring plan to establish baseline data to determine the need and scope of interventions. Continued

monitoring throughout AMP8 and beyond identify risks and issues through this adaptive planning approach to ensure the greatest benefit and outcomes for the investment in C&NBS. The scheme can adapt to:

- Specific water quality challenges as they occur or change during the AMP and other new or emerging issues.
- Allow for co-creation / co-funding of measures and align with other opportunities identified with wider partners/stakeholders (e.g., Wastewater company schemes, Local Nature Recovery Schemes, Landscape Recovery Schemes, Nature Recovery Networks.
- Challenges with landowner / stakeholder buy-in to specific C&NBS schemes and allows flexibility in the type, scale and location of where measures are deployed.
- Specific C&NBS measures can be prioritised to support wider environmental targets and objectives, net zero and / or Biodiversity Net Gain priorities (e.g., offsetting).
- Types of measures implemented can adapt and evolve based on future scientific evidence.
- Continual monitoring and NC evaluations of delivered C&NBS (current and future) will enable continual refinement of this project to ensure the greatest outcomes achieved.
- C&NBS measures within the best value option can be delivered in-house, through framework partners or through funding and technical support to external partners including catchment partnerships, Rivers Trusts.

The chosen solution seeks to deliver a holistic programme of prioritised and spatially targeted C&NBS which addresses the risks and issues documented in the Stage 2 WINEP risks and issues engagement process as prescribed in the WINEP methodology. The proposed option includes:

River Restoration – The best value option has been developed building on our extensive experience of delivering river improvement works in chalk stream catchments in AMP6 and AMP7. We have an experienced in-house team who lead on the RCR programme and an established Framework of contractors to deliver the design and construction elements of the projects. The experience will enable us to deliver the ambition of the best value option efficiently and to manage the associated costs. A minimum of one project per waterbody (WINEP Action) will be delivered subject to agreement through our bespoke river restoration 'Tracker' agreed with the Environment Agency.

Catchment Management – the best value option includes a programme of land management focused C&NBS that will be spatially and temporally targeted to:

- Protect and restore natural assets in the operational catchments identified through the Catchment Assets for Water project detailed above to improve water resource and chalk stream resilience in this operational catchment.
- Implement appropriate C&NBS measures upstream of river improvement works under the RCR to ensure greater resilience of those schemes and maximise environmental benefits through a holistic catchment management approach.

- Deliver multiple benefits for water quality, resources, climate change regulation and biodiversity.

A range of C&NBS will be delivered through the best value option, including, but not limited to:

- Cover crops
- Herbal leys
- Resurfacing of farm gateways
- Arable reversion
- Chalk grassland restoration
- Tree/woodland planting
- Regenerative agriculture measures such as reduced/no tillage

Expenditure

We have developed a comprehensive cost estimating system for the WINEP type activities. Costs have been collated from historic schemes to develop a set of unit costs for different activities. A bespoke unit cost spreadsheet and scheme builder have been utilised for each programme within the Business Case with quotes and historic costs from measures delivered in AMP7 and wider schemes we have participated in to develop the costs for the feasible options and ultimately the chosen solution. Quotes used for each unit cost were uplifted to the appropriate CPIH financial year average (2022/23 for the WINEP options assessment).

The enhancement expenditure totals for each programme were collated to form the overall enhancement expenditure totals for this Business Case from our Final Determination with a % reduction across each programme in line with our funding allocation from Ofwat.

The Baseline planned expenditure across the AMP 8 period for this business case and its associated Programmes of work are provided below.

Programme Name	**AfW Baseline Planned Totex**									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
River Beane Flagship Scheme	505,000	1,055,000	1,558,000	2,018,000	2,378,000	-	-	-	-	-
River Colne Operational Catchment C&NBS	805,000	1,457,000	2,389,000	3,320,000	4,150,000	-	-	-	-	-
River Dour, Little Stour and East Kent Chalk Catchment and Nature Based Solutions	209,000	418,000	687,000	956,000	1,195,000	-	-	-	-	-
Upper Lee Operational Catchment C&NBS	677,500	1,530,000	2,687,500	3,815,000	4,750,000	-	-	-	-	-
Ivel and Cam Catchment and Nature Based Solutions	397,900	793,300	1,408,700	2,021,600	2,527,000	-	-	-	-	-

The table below provides details of the current forecast expenditure based on expenditure incurred to date across this programme area together with the latest best estimate of future expenditure required to deliver the remainder of the baseline programme.

Programme Name	AfW Current Forecast Totex									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
River Beane Flagship Scheme	505,000	1,055,000	1,558,000	2,018,000	2,378,000	-	-	-	-	-
River Colne Operational Catchment C&NBS	805,000	1,457,000	2,389,000	3,320,000	4,150,000	-	-	-	-	-
River Dour, Little Stour and East Kent Chalk Catchment and Nature Based Solutions	209,000	418,000	687,000	956,000	1,195,000	-	-	-	-	-
Upper Lee Operational Catchment C&NBS	677,500	1,530,000	2,687,500	3,815,000	4,750,000	-	-	-	-	-
Ivel and Cam Catchment and Nature Based Solutions	397,900	793,300	1,408,700	2,021,600	2,527,000	-	-	-	-	-

The table below provides details of how our current forecast deviates from our initial baseline programme.

Programme Name	AfW Deviation from Baseline Totex									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
River Beane Flagship Scheme	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
River Colne Operational Catchment C&NBS	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
River Dour, Little Stour and East Kent Chalk Catchment and Nature Based Solutions	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Upper Lee Operational Catchment C&NBS	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ivel and Cam Catchment and Nature Based Solutions	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Expenditure – Data capture and validation

River Restoration activity is undertaken using our preferred supply chain under a frame work agreement. The framework sets out rates for resources used to undertake works. At each stage of project delivery contracts can either be tendered (within the framework) or direct awarded but all will follow standard procurement processes to define a contract value prior to works start, which will have a basis is the framework rates set out. Procurement and Project Managers will review the contract value having worked through an 'assumptions and clarifications' stage before award to ensure client and supply chain mutually agree the scope of activity and exact expectations of delivery.

Contracts issued will contain an activity schedule and completed activities to the schedule can be claimed for on a monthly basis in a supplier payment certificate. The certificates are reviewed and interrogated by Project Managers and Commercial team to verify activities are completed within the schedule.

Retention of procurement data related to awarded contracts and payment certificate information across projects is analysed. This allows us to refine cost forecasts for future projects and identify cost trends from delivered activity. Alongside this, internal costs are recorded in the company finance system related to specific project numbers. Project managers who own their project numbers review incurred costs and forecast spend monthly at project level and these costs are further reviewed at Programme level on a monthly basis.

Catchment cost data will be captured by Oracle Fusion monthly expenditure reports which will link to the purchase orders raised for agreed work. Where applicable, consultancy delivered work will be linked to a signed consultancy agreements which set out timescales, costs and deliverables of the catchment & natured based solutions work in order to deliver against WINEP obligations. Monthly expenditure reports will be reviewed and validated during the accrual/forecasting process to ensure that data reported matches actual spend and data will be reported at a programme level.

Outputs

For each WINEP action under this Business Case and associated PCD, we have agreed an Action Specification Form (ASF) with the Environment Agency which will inform reporting and sign off requirements to achieve the PCD. We also have a requirement under WINEP to report through the EA/Ofwat Delivery Monitoring Framework (DMF). This reporting requirement is currently under Consultation and will be defined in early AMP8. As part of our WINEP sign off requirements with the Environment Agency, we will be having bi-annual liaison meetings with progress reporting against each ASF in both qualitative and quantitative outputs in PowerPoint presentation format which will be used as evidence of progress throughout the AMP to demonstrate progress against the sign off of the associated WINEP Actions. This will also be evidence for 3rd party assurance for Ofwat alongside feedback and actions agreed with the Environment Agency.

The Baseline planned delivery of our Price Control Deliverables (PCDs) for this business case and its associated programmes of work are provided below.

Programme Name	Baseline Planned PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
River Beane Flagship Scheme	WINEP WFD actions (C&NBS)	No	0	0	0	0	6	-	-	-	-	-
River Colne Operational Catchment C&NBS	WINEP WFD actions (C&NBS)	No	0	0	0	0	11	-	-	-	-	-
River Dour, Little Stour and East Kent Chalk Catchment and Nature Based Solutions	WINEP WFD actions (C&NBS)	No	0	0	0	0	4	-	-	-	-	-
Upper Lee Operational Catchment C&NBS	WINEP WFD actions (C&NBS)	No	0	0	0	0	12	-	-	-	-	-
Ivel and Cam Catchment and Nature Based Solutions	WINEP WFD actions (C&NBS)	No	0	0	0	0	8	-	-	-	-	-

The table below provides details of the current forecast of the PCD outputs based on those delivered to date across this programme area together with the latest best estimate of future output delivery required to deliver the remainder of the Baseline programme.

Programme Name	Current Forecast PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
River Beane Flagship Scheme	WINEP WFD actions (C&NBS)	No	No	0	0	0	0	6	-	-	-	-
River Colne Operational Catchment C&NBS	WINEP WFD actions (C&NBS)	No	No	0	0	0	0	11	-	-	-	-
River Dour, Little Stour and East Kent Chalk Catchment and Nature Based Solutions	WINEP WFD actions (C&NBS)	No	No	0	0	0	0	4	-	-	-	-

Upper Lee Operational Catchment C&NBS	WINEP WFD actions (C&NBS)	No	No	0	0	0	0	12	-	-	-	-
Ivel and Cam Catchment and Nature Based Solutions	WINEP WFD actions (C&NBS)	No	No	0	0	0	0	8	-	-	-	-

The table below provides details of how our current forecast deviates from our initial baseline programme.

Programme Name	**Current Forecast PCD Outputs (Cumulative)**											
	PCD Ref /Measure name	**PCD**	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
River Beane Flagship Scheme	WINEP WFD actions (C&NBS)	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
River Colne Operational Catchment C&NBS	WINEP WFD actions (C&NBS)	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
River Dour, Little Stour and East Kent Chalk Catchment and Nature Based Solutions	WINEP WFD actions (C&NBS)	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Upper Lee Operational Catchment C&NBS	WINEP WFD actions (C&NBS)	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ivel and Cam Catchment and Nature Based Solutions	WINEP WFD actions (C&NBS)	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Outputs – Data capture and validation

For each WINEP action under this Business Case, we have agreed an Action Specification Form (ASF) with the Environment Agency which will inform reporting requirements. We also have a requirement under WINEP to report through the EA/Ofwat Delivery Monitoring Framework (DMF). This reporting requirement is currently under Consultation and will be defined in early AMP8. As part of our WINEP sign off requirements with the Environment Agency, we will be having bi-annual liaison meetings with progress reporting against each ASF in both qualitative and

quantitative outputs in PowerPoint presentation format which will be used as evidence of progress throughout the AMP to demonstrate progress against the sign off of the associated WINEP Actions. This will also be evidence for 3rd party assurance for Ofwat alongside feedback and actions agreed with the Environment Agency.

Milestones

The Baseline planned delivery milestones for this Business Case and its associated Programmes of work are provided below.

Programme Name	Gateway Type	Baseline Planned Gateway Milestones				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
River Beane Flagship Scheme	Bespoke	11/04/2025	N/A	02/01/2030	30/01/2030	N/A
River Colne Operational Catchment C&NBS	Bespoke	11/04/2025	N/A	02/01/2030	30/01/2030	N/A
River Dour, Little Stour and East Kent Chalk Catchment and Nature Based Solutions	Bespoke	11/04/2025	N/A	02/01/2030	30/01/2030	N/A
Upper Lee Operational Catchment C&NBS	Bespoke	11/04/2025	N/A	02/01/2030	30/01/2030	N/A
Ivel and Cam Catchment and Nature Based Solutions	Bespoke	11/04/2025	N/A	02/01/2030	30/01/2030	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

The table below provides details of the current forecast delivery dates against the key milestones for this Business Case and its associated Programmes of work.

Programme Name	Gateway Type	Current Forecast Gateway Milestones				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
River Beane Flagship Scheme	Bespoke	11/04/2025	N/A	02/01/2030	30/01/2030	N/A
River Colne Operational Catchment C&NBS	Bespoke	11/04/2025	N/A	02/01/2030	30/01/2030	N/A
River Dour, Little Stour and East Kent Chalk Catchment and Nature Based Solutions	Bespoke	11/04/2025	N/A	02/01/2030	30/01/2030	N/A

Upper Lee Operational Catchment C&NBS	Bespoke	11/04/2025	N/A	02/01/2030	30/01/2030	N/A
Ivel and Cam Catchment and Nature Based Solutions	Bespoke	11/04/2025	N/A	02/01/2030	30/01/2030	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

The table below provides details of how our current forecast deviates from our initial Baseline programme and identifies those programme areas that are delayed by more than one Quarter period against each key milestone. The values are expressed in numbers of Programmes, where milestone dates have been exceeded by more than one Quarter period.

Programme Name	**Gateway Type**	**Programmes that are delayed by more than 1 quarter (nr)**				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
River Beane Flagship Scheme	Bespoke	N/A	N/A	N/A	N/A	N/A
River Colne Operational Catchment C&NBS	Bespoke	N/A	N/A	N/A	N/A	N/A
River Dour, Little Stour and East Kent Chalk Catchment and Nature Based Solutions	Bespoke	N/A	N/A	N/A	N/A	N/A
Upper Lee Operational Catchment C&NBS	Bespoke	N/A	N/A	N/A	N/A	N/A
Ivel and Cam Catchment and Nature Based Solutions	Bespoke	N/A	N/A	N/A	N/A	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

Investment Area: WINEP_Business Case: Water WINEP/NEP Investigations (DPW1, line 13, PCDW8)

Description

The Water Resource Investigation Programme includes projects listed within the AMP8 Water Industry National Environmental Programme (WINEP) Water Resource (WR)

Investigations; these are regulatory requirements with statutory driver (WFD) that Affinity Water (AfW), Environment Agency (EA) and Natural England (NE) agreed to undertake during AMP8 and for which OFWAT approved funding in the PR24 FD.

The WINEP investigations are studies that aim to confirm and quantify likely environmental impacts resulting from our public water supply abstractions and to identify the most cost beneficial mitigation measures to implement in the subsequent AMP cycle, usually in terms of abstraction licence changes, reductions in Deployable Output (Sustainability Reductions, SR), and/or morphological interventions (river restoration and habitat enhancement works).

For this AMP8, we agreed to undertake a total of 20 WINEP schemes; 14 of them are classified as Complex Investigations (1 to 14) and the remaining six are classified as Simple Investigations (15 to 20). To facilitate the works, the Programme bundled the schemes in eight groups, broadly based on the type of activities and the geographic areas of study. The objectives of each projects reflect the WINEP drivers (table below).

	Inv N.	Group	WINEP Action ID	Scheme
Complex Investigations	1	EAN Investigations	08AF100026	River Cam
	2		08AF100027	Hiz
	3		08AF100028	Oughton
	4		08AF100029	Ivel US Henlow
	5		08AF100051	Pant
	6	HNL Investigations	08AF100030	Stanstead Brook
	7		08AF100032	ADO Relocation
	8		08AF100033	Mid Chilterns + Upper Lee GW body
	9		08AF100034	SR Flood and WQ risks
	10	KSL Investigations	08AF100036	Nailbourne
	11		08AF100037	Seabrook Stream
	12		08AF100038	River Dour
	13	Research Investigations	08AF100039	Hydrological behaviour of chalk streams
	14		08AF100040	LLT Investigation
Simple Investigations	15	SSSI Investigations	08AF100002b	Cowslip Meadow
	16		08AF100002a	Horsell SSSI
	17		08AF100002c	Dungeness SSSI
	18	INNs Scheme	08AF100009	INNS scheme
	19	Species Scheme	08AF100004	Species re-introduction
	20	Walton Scheme	08AF100001	Walton Fish screen

One investigation has been added to the programme after our representation to OFWAT (Pant n.5). This investigation will be absorbed within the Ean investigations group.

Expenditure

We have developed a comprehensive cost estimating system for the WINEP type activities. Costs have been collated from historic schemes to develop a set of unit costs for different activities. A bespoke unit cost spreadsheet and scheme builder have been utilised for each programme within the Business Case with quotes and historic costs from measures delivered in AMP7 and wider schemes we have participated in to develop the costs for the feasible options and ultimately the chosen solution. Quotes used for each unit cost were uplifted to the appropriate CPIH financial year average (2022/23 for the WINEP options assessment).

The enhancement expenditure totals for each programme were collated to form the overall enhancement expenditure totals for this Business Case from our Final Determination with a % reduction across each programme in line with our funding allocation from Ofwat.

One WINEP scheme has been added to the programme after our representation to OFWAT (Pant Investigation). The investigation costs will be absorbed within the programme through efficiency.

The Baseline planned expenditure across the AMP 8 period for this business case and its associated Programmes of work are provided below.

Programme Name	**AfW Baseline Planned Totex**									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Simple Investigations (inc. Walton Fish Screens OA)	639,186	921,372	-	-	-	-	-	-	-	-
Water Resource Investigations (Complex Investigation)	2,479,232	5,077,003	7,017,411	8,226,087	9,326,999	-	-	-	-	-

The table below provides details of the current forecast expenditure based on expenditure incurred to date across this programme area together with the latest best estimate of future expenditure required to deliver the remainder of the baseline programme.

Programme Name	**AfW Current Forecast Totex**									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Simple Investigations (inc. Walton Fish Screens OA)	639,186	921,372	-	-	-	-	-	-	-	-
Water Resource Investigations (Complex Investigation)	2,479,232	5,077,003	7,017,411	8,226,087	9,326,999	-	-	-	-	-

The table below provides details of how our current forecast deviates from our initial baseline programme.

Programme Name	AfW Deviation from Baseline Totex									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Simple Investigations (inc. Walton Fish Screens OA)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Water Resource Investigations (Complex Investigation)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Expenditure – Data capture and validation

The Water Resource Investigations complex investigations will include five large group of expenditures:

Task	Activities included in the task
Subcontracted field works	Spot gauging, ecological surveys, groundwater monitoring, included logger purchases and replacements, BGS geological surveys minor bespoke field activities (such as tracer tests).
Desk based consultant works	Subcontracted data analysis, model refinements, model runs, reporting, meeting and workshops, included the LFC studies data analysis, WRSE and WRE contribution to desk-based water resource studies.
Subcontracted drilling works	Installation of observation boreholes and pumping tests activities.
Risks	As 10% of annual budget for Y1 to Y3; 5% for Y4 and Y5, covering risks.
AW Timesheet	Field and desk-based AfW activities.

The Water Resource Investigations Simple Investigations will include:

Task	Activities included in the task
Subcontracted field monitoring	All ecological and biodiversity monitoring.
Desk based consultant	subcontracted data analysis, reporting, meeting and workshops.
Data purchasing	Purchase baseline data and supporting maps and lidar data.
Risks	as % of annual budget for Y1 10% and Y2 5%.
AW Timesheet	Field and desk-based AW activities.

The subcontracted works are undertaken using our preferred supply chain under a framework agreement. The framework sets out rates for resources used to undertake works. At each stage of project delivery contracts can either be tendered (within the framework) or direct awarded but all will follow standard procurement processes to define a contract value prior to works start, which will have a basis is the framework

rates set out. Procurement and Project Managers will review the contract value having worked through an 'assumptions and clarifications' stage before award to ensure client and supply chain mutually agree the scope of activity and exact expectations of delivery.

Retention of procurement data related to awarded contracts and payment certificate information across projects is analysed. This allows us to refine cost forecasts for future projects and identify cost trends from delivered activity. Alongside this, internal costs are recorded in the company finance system related to specific project numbers. Project Managers who own their project numbers review incurred costs and forecast spend monthly at project level and these costs are further reviewed at Programme level on a monthly basis.

Cost data will be captured by Oracle Fusion monthly expenditure reports which will link to the purchase orders raised for agreed work. Where applicable, consultancy delivered work will be linked to a signed consultancy agreements which set out timescales, costs and deliverables of the catchment & natured based solutions work in order to deliver against WINEP obligations.

It needs to be noticed that the investigations have very fluid timeline as those depend to a certain extent to the findings emerging at previous each phase of the investigation.

Monthly expenditure reports will be reviewed and validated during the accrual/forecasting process to ensure that data reported matches actual spend and data will be reported at a programme level.

The reporting will be done at project level to account of individual PCDs.

Outputs

For AMP8, and for the first time with regard to WINEP WR Investigations, OFWAT introduced a Non-Delivery PCDs; the PCDs apply to both Complex and Simple Investigation and are assigned to a total of 17 schemes.

The Complex investigations bear two types of PCD, whilst the Simple only one type (table below):

Investigation type	Type of PCD	Applied to	Unit	Payment Rate
Complex & Simple	Non-delivery PCD rate	WINEP Investigation Actions	£m/action	0.616
Complex	Underspending	WINEP Investigation Actions	% of underspent	90

The list of schemes with assigned PCD is summarised in table below. 08AF10002 SSSI investigations are three investigations, but they have been grouped into a single one action ID with three action components (08AF10002a,b,c); OFWAT therefore assigned one single PCD to all of them. This is the case for all other WINEP schemes with two or more action components.

08AF100051 Pant investigation has no PCD assigned, and it is not included in the list considered by OFWAT because the scheme was added by the EA after AfW

representation on the Draft Determination. As previously mentioned, the Programme will bear the costs of this investigation absorbing it with the EAN group. As such, there will be no need to report this cost to OFWAT as a separate scheme.

N.	WINEP Action Reference	Type	Scheme name	WINEP Group	Investigations Line	PCD	
						Non Delivery	Under spending
1	08AF100001	Simple Investigations	Walton Fish Screen	Eels, fish & salmon	CW3.31-CW3.33	Y	N
2	08AF100002		SSSI Investigations	Biodiversity	CW3.31-CW3.33	Y	N
3	08AF100004		Species Re-introduction	Biodiversity	CW3.31-CW3.33	Y	N
4	08AF100009		INNS Scheme	INNS	CW3.31-CW3.33	Y	N
5	08AF100026	Complex Investigations	Cam	WFD (Flow Investigations)Water	CW3.34-CW3.36	Y	Y
6	08AF100027		Hiz	WFD (Flow Investigations)Water	CW3.34-CW3.36	Y	Y
7	08AF100028		Oughton	Biodiversity	CW3.34-CW3.36	Y	Y
8	08AF100029		Ivel	Environmental destination	CW3.34-CW3.36	Y	Y
9	08AF100030		Stansted Brook	WFD (Flow Investigations)Water	CW3.34-CW3.36	Y	Y
10	08AF100032		ADO relocation	Biodiversity	CW3.34-CW3.36	Y	Y
11	08AF100033		Mid Chilterns U Lee	WFD- Ground Water	CW3.34-CW3.36	Y	Y
12	08AF100034		SR Flood and WQ risk	WFD- Ground Water	CW3.34-CW3.36	Y	Y
13	08AF100036		Nailbourne	WFD (Flow Investigations)Water	CW3.34-CW3.36	Y	Y
14	08AF100037		Seabrook Stream	WFD (Flow Investigations)Water	CW3.34-CW3.36	Y	Y
15	08AF100038		Dour	WFD (Flow Investigations)Water	CW3.34-CW3.36	Y	Y
16	08AF100039		Hydrological behaviour C Streams	Biodiversity	CW3.34-CW3.36	Y	Y
17	08AF100040		LLT Investigation	WFD- Ground Water	CW3.34-CW3.36	Y	Y
18	08AF100051		Pant	N/A	N/A	N	N

As per OFWAT Price Control Deliverables PR24 FD, "for an investigation (WINEP action) to be deemed delivered, AfW will need the EA and NE to confirm that the scheme has been completed in accordance with the WINEP". The Non-Delivery PCDs has a unit cost per non-delivered scheme.

The details of the delivery requirements and associated milestones for each scheme are listed in the individual ASF, signed by AfW, EA and NE. Any modification of the ASFs requirements is made through submission of Alteration Forms, which are countersigned by EA (and NE if applicable).

AfW clarified with OFWAT that Non-Delivery PCD is applicable to the 31 March 2030, despite most of the WINEP schemes having completion dates by 31 December 2026 or 30 April 2027. OFWAT confirmed to AfW that the allocated funds can be spent after completion date, with the purpose of supporting the environmental monitoring activities required for the validation of the investigations results, the wider water

resource management and the baseline for the AMP9 implementations. This is consistent with the aspiration of the programme to undertake LFC studies, which are expected to be very time and resource consuming.
OFWAT also introduced a cost sharing mechanism for WR investigation of 40:10. This means that 90% of the underspent (per scheme) will be returned to customers, whilst AfW will be required to fund up to 40% of any overspending.

For reporting purposes, WR WINEP investigation programme will need to report to PMO against the following:

Investigation type	Type of PCD	Report to PMO Quarterly	Granularity
Complex & Simple	Non-delivery PCD rate	Progress against planned works	Per WINEP scheme
Complex	Underspending	expenditure	Per WINEP scheme

For this reason, it is necessary that adequate granularity is reflected in the Fusion project structure, so that each WINEP scheme has record of the activity expenditure associated with it.
The Baseline planned delivery of our Price Control Deliverables (PCDs) for this business case and its associated programmes of work are provided below.

Programme Name	Baseline Planned PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Simple Investigations (inc. Walton Fish Screens OA)	WINEP Investigation Actions	No	0	0	0	0	4	-	-	-	-	-
Water Resource Investigations (Complex Investigations)	WINEP Investigation Actions	No	0	0	0	0	13	-	-	-	-	-

The table below provides details of the current forecast of the PCD outputs based on those delivered to date across this programme area together with the latest best estimate of future output delivery required to deliver the remainder of the Baseline programme.

Programme Name	Current PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Simple Investigations (inc. Walton Fish Screens OA)	WINEP Investigation Actions	No	0	0	0	0	4	-	-	-	-	-
Water Resource Investigations (Complex Investigations)	WINEP Investigation Actions	No	0	7	11	0	13	-	-	-	-	-

The table below provides details of how our current forecast deviates from our initial baseline programme.

Programme Name	Deviation from Baseline PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Simple Investigations (inc. Walton Fish Screens OA)	WINEP Investigation Actions	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Water Resource Investigations (Complex Investigations)	WINEP Investigation Actions	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Outputs – Data capture and validation

For each WINEP action under this Business Case and associated PCD, we have agreed an Action Specification Form (ASF) with the Environment Agency which will inform reporting and sign off requirements to achieve the PCD. We also have a requirement under WINEP to report through the EA/Ofwat Delivery Monitoring Framework (DMF). This reporting requirement is currently under Consultation and will be defined in early AMP8.

As part of our WINEP sign off requirements with the Environment Agency, we will be having bi-monthly liaison meetings with progress reporting against each ASF in both qualitative and quantitative outputs in PowerPoint presentation format which will be used as evidence of progress throughout the AMP to demonstrate progress against the sign off of the associated WINEP Actions. This will also be evidence for 3rd party assurance for Ofwat alongside feedback and actions agreed with the Environment Agency.

All WR Investigations schemes will start from Implementation phase, as concept and definition phase have been already completed during the WINEP process in 2022-2023.

Milestones for each scheme have been agreed with the regulators and are included in the individual ASF milestones sections. Table below summarise them. It is possible that some of the investigation completion dates (and / or deliverable milestones) will be modified to accommodate delays in the projects.

The programme will end at the end of the AMP8 cycle. This is consistent with the plan of continuing the environmental monitoring data collection beyond the original WINEP completion date and undertake LFC studies, whilst the initial investigation results are being validated with the additional monitoring data.

Milestones

The Baseline planned delivery milestones for this Business Case and its associated Programmes of work are provided below.

Programme Name	Gateway Type	Baseline Planned Gateway Milestones				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Simple Investigations (inc. Walton Fish Screens OA	Bespoke	11/04/2025	NA	31/03/2027	30/01/2030	N/A
Water Resource Investigations (Complex Investigations)	Bespoke	11/04/2025	N/A	02/01/2030	30/01/2030	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

The table below provides details of the current forecast delivery dates against the key milestones for this Business Case and its associated Programmes of work.

Programme Name	Gateway Type	Current Forecast Gateway Milestones				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Simple Investigations (inc. Walton Fish Screens OA	Bespoke	11/04/2025	NA	31/03/2027	30/01/2030	N/A
Water Resource Investigations (Complex Investigations)	Bespoke	11/04/2025	N/A	02/01/2030	30/01/2030	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

The table below provides details of how our current forecast deviates from our initial Baseline programme and identifies those programme areas that are delayed by more than one Quarter period against each key milestone. The values are expressed in numbers of Programmes, where milestone dates have been exceeded by more than one Quarter period.

Programme Name	Gateway Type	Programmes that are delayed by more than 1 Quarter (nr)				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Simple Investigations (inc. Walton Fish Screens OA	Bespoke	N/A	N/A	N/A	N/A	N/A
Water Resource Investigations (Complex Investigations)	Bespoke	N/A	N/A	N/A	N/A	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

Change Log – Change, observation and Ofwat query

Query: In table DPW1, the forecast PCD output for Water WINEP/NEP Investigations has been updated from the baseline. While PCDW8 holds companies to a March 2030 delivery date, Ofwat still expect companies to deliver investigations by the specified dates in the WINEP/NEP. Your updated forecast appears to present several investigations as not meeting their WINEP/NEP deadlines for delivery. Firstly, please clarify if this is correct, and if so provide additional commentary as to why these investigations are not expected to meet their WINEP/NEP deadlines.

Answer: The delivery dates included in our draft delivery plan were the initial proposals discussed with the Environment Agency (EA).

Since the submission in May, further discussions with the EA have taken place. The delivery dates for the Simple and Complex Investigations now have been agreed.

The agreed delivery dates are noted below:

	2025-2026	2026-2027	2027-2028	2028-2029	2029-2030
Simple Investigations	0	0	4	0	0
Complex Investigations	0	7	3	1	2

These new delivery dates are reflected in the signed off Action Specifications Forms (ASF) on DEFRA's SharePoint site and will be soon updated by the Environment Agency on the WINEP spreadsheet.

	WINEP ID	Scheme	WINEP Completion date	AMP Year
Complex Investigations	08AF100026	River Cam	31/12/2026	Y2
	08AF100027	Hiz	31/12/2026	Y2
	08AF100028	Oughton	30/04/2027	Y3
	08AF100029	Ivel US Henlow	31/12/2026	Y2
	08AF100030	Stanstead Brook	31/12/2026	Y2
	08AF100032	ADO Relocation	30/04/2028	Y4
	08AF100033	Mid Chilterns + Upper Lee GW body	30/04/2027	Y3
	08AF100034	SR Flood and WQ risks	30/04/2027	Y3
	08AF100036	Nailbourne	31/12/2026	Y2
	08AF100037	Seabrook Stream	31/12/2026	Y2
	08AF100038	River Dour	31/12/2026	Y2
	08AF100039	Hydrological behaviour of chalk streams	31/12/2029	Y5
	08AF100040	LLT Investigation	31/12/2029	Y5
Simple Investigations	08AF100002b	Cowslip Meadow	30/04/2027	Y3
	08AF100002a	Horsell SSSI		
	08AF100002c	Dungeness SSSI		
	08AF100009	INNS scheme	30/04/2027	Y3
	08AF100004	Species re-introduction	30/04/2027	Y3
	08AF100001	Walton Fish screen	30/04/2027	Y3

Please note, the 3 investigations highlighted red are the only investigations for which completion dates have not yet been changed by Environment Agency on the WINEP spreadsheet to align with the associated agreed Action Specification Forms.

In a meeting on 19 June 2025 EA confirmed the need to submit alteration forms to allow the EA colleagues to change the completion dates on WINEP spreadsheet and align them with the agreed new completion dates included in red in the table above. EA then notified us on 30 June 2025 about a new methodology in place to submit alteration forms. The alteration forms related to 08AF100032, 08AF100039 and 08AF100040 were therefore submitted with the new methodology on 2 July 2025 via Microsoft Form and also uploaded on Defra SharePoint.

The EA is processing the request and the new completion dates will be included in the WINEP spreadsheet in due course. In attachment we included the acknowledge email of our submissions as evidence of the process being in progress.

Please see the following for details:

- Attachment 7: 08AF100032 email acknowledged from EA on 2 July 2025
- Attachment 8: 08AF100039 email acknowledged from EA on 2 July 2025
- Attachment 9: 08AF100040 email acknowledged from EA on 2 July 2025

Investment Area: RWD_Business Case: Surface Works (DPW1, line 14, PCDW14)

Description

RWD Surface Works programme enhancement investment expenditure relates to addressing water quality risks. This is supported by the Drinking Water Inspectorate (DWI) as it has served notices on the company under regulation 28(4) of the Water Supply (Water Quality) Regulations 2016 (as amended), references AFW-2020-00005 (Iver) and AFW-2020-00006 (Egham).

Scope of the work that is planned:

Iver WTW: Additional rapid gravity filters to treat full output; covers for the GAC filters; and the upgrade of the wastewater treatment plant.

Egham WTW: Additional RGF filter house (RGF 6), treating 24Ml/d; addition of combined air and water washing facilities to filter house 5; addition of GAC capacity through with UV reactors installed at each outlet to provide 15 minutes Empty Bed Contact Time (EBCT) at all times (at 140Ml/d); upgrade of the wastewater plant to treat the additional waste water.

How the scope of the selected option was arrived at: Due to the scale, complexity and timescale associated with the Iver and Egham schemes, we commissioned Stantec to conduct the feasibility work for Iver and Egham schemes. The options were agreed for both sites via a risk and value workshop.

Benefits: By meeting the DWI notice requirements by 2027, the preferred option will deliver the benefits of enhanced treatment, protecting customers from the health risk posed by cryptosporidium, and ensuring that both sites output is reliably attainable through all raw water quality conditions.

Delivery risks: Key delivery risks for the Egham and Iver Water Treatment Works projects include spatial constraints, planning challenges, and power supply limitations, all requiring early engagement and careful planning. Both projects demand detailed design, 4D/5D modelling, and early contractor involvement to ensure constructability, minimise process outages, and meet the 2027 completion deadline.

Expenditure

Stantec commissioned Aqua Consultants (who holds a mature and extensive database of estimating material) to produce cost and carbon estimates. Aqua consultants provided detailed bottom-up costs for all options at major asset level, and these were refined as the options matured.

As an internal cost check, key elements of the costs supplied by Aqua consulting were subsequently compared with the Affinity Water process costing tool and these were also assured by a third party.

The Baseline planned expenditure across the AMP 8 period for this business case and its associated Programmes of work are provided below.

Programme Name	**AfW Baseline Planned Totex**									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Iver Crypto (DWI)	12,837,645	30,675,290	43,594,113	44,594,113	44,594,113	-	-	194,177	582,532	970,887
Egham (DWI)	5,579,717	11,159,434	13,949,293	13,949,293	13,949,293	-	-	188,941	566,824	944,707

The table below provides details of the current forecast expenditure based on expenditure incurred to date across this programme area together with the latest best estimate of future expenditure required to deliver the remainder of the baseline programme.

Programme Name	**AfW Current Forecast Totex**									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Iver Crypto (DWI)	12,837,645	30,675,290	43,594,113	44,594,113	44,594,113	-	-	194,177	582,532	970,887
Egham (DWI)	5,579,717	11,159,434	13,949,293	13,949,293	13,949,293	-	-	188,941	566,824	944,707

The table below provides details of how our current forecast deviates from our initial baseline programme.

Programme Name	AfW Deviation from Baseline Totex									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Iver Crypto (DWI)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Egham (DWI)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Expenditure – Data capture and validation

Cost data for this programme will be captured and validated following the standard company approach. This includes utilising the established internal governance framework, project and programme level controls and reporting, along with the oversight provided by project management steering group.

Outputs

The PCD output for Iver and Egham schemes are to meet DWI Legal Instruments requirements.

The Baseline planned delivery of our Price Control Deliverables (PCDs) for this business case and its associated programmes of work are provided below.

Programme Name	Baseline Planned PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Iver Crypto (DWI)	PCDW14	Notice	0	0	0	1	1					
Egham (DWI)		Notice	0	0	0	1	1					

The table below provides details of the current forecast of the PCD outputs based on those delivered to date across this programme area together with the latest best estimate of future output delivery required to deliver the remainder of the Baseline programme.

Programme Name	Current Forecast PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Iver Crypto (DWI)	PCDW14	Notice	0	0	0	1	1					
Egham (DWI)		Notice	0	0	0	1	1					

The table below provides details of how our current forecast deviates from our initial baseline programme.

Programme Name	Deviation from Baseline PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Iver Crypto (DWI)	PCDW14	Notice	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Egham (DWI)		Notice	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Outputs – Data capture and validation

The project must be delivered in line with the DWI notice date of December 2027 and will be achieved by delivery through project gateways and milestones. We are also required to report our progress annually against the notice outputs to the DWI.

Milestones

The Baseline planned delivery milestones for this Business Case and its associated Programmes of work are provided below.

Programme Name	Gateway Type	Baseline Planned Gateway Milestones				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Iver Crypto (DWI)	Traditional	15/05/2025	26/02/2026	03/05/2028	09/11/2029	N/A
Egham (DWI)	Traditional	15/05/2025	26/02/2026	03/05/2028	09/11/2029	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

The table below provides details of the current forecast delivery dates against the key milestones for this Business Case and its associated Programmes of work.

Programme Name	Gateway Type	Current Forecast Gateway Milestones				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Iver Crypto (DWI)	Traditional	15/05/2025	26/02/2026	03/05/2028	09/11/2029	N/A
Egham (DWI)	Traditional	15/05/2025	26/02/2026	03/05/2028	09/11/2029	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

The table below provides details of how our current forecast deviates from our initial Baseline programme and identifies those programme areas that are delayed by more than one Quarter period against each key milestone. The values are expressed in numbers of Programmes, where milestone dates have been exceeded by more than one Quarter period.

Programme Name	Gateway Type	Programmes that are delayed by more than 1 Quarter (nr)				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Iver Crypto (DWI)	Traditional	15/05/2025	26/02/2026	03/05/2028	09/11/2029	N/A
Egham (DWI)	Traditional	15/05/2025	26/02/2026	03/05/2028	09/11/2029	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

Investment Area: RWD_Business Case: PFAS (per- and poly fluoroalkyl substances) (DPW1, line 14 PCDW14)

Description

The AMP8 enhancement investment is aligned with the DWI requirements for five of our sites that are high risk for Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS) compounds in their source waters and is driven by DWI improvement notices AFW-2023-00011 (Ardleigh), AFW-2023-00010 (Blackford), AFW-2023-00008 (Bowring), AFW-2023-00003 (Holywell) and AFW-2023-00009 (Wheathampstead).

It also includes investment that is aligned with the DWI requirement for all sources that fall into Tier 2 as agreed to in our PFAS Statutory Undertaking AFW-2023-00013 and additional treatment at four of the sites above to ensure PFAS concentrations are maintained below 0.01 µg/l.

This broadly includes

- treatment at the five high risk sites
- catchment management investigations in the relevant catchment areas, focussing on where most of the PFAS detections have occurred (Colne catchment)
- R&D at one of our sites to assess future treatment options and
- enhanced monitoring for all Tier 2 sites.

The requirement for this investment is

- to deliver the requirements set out in the notices
- to deliver the commitments set out in our statutory section 19 Undertaking.
- to meet the commitments set out in our Strategic Direction Statement to "Deliver what our customers need, ensuring affordability for all," which encompasses "Exceed[ing] customers' expectations for drinking water," and to "Be prepared for change and resilient to shocks and stresses".
- and to continue to provide a wholesome and resilient water supply.

How the scope of the selected option was arrived at and benefits planned to be delivered: We developed a wide range of options, which went through our Risk and Value workshops. The set of selected options have then been subjected to economic assessments to determine the cost benefits and to select the preferred options.
Delivery risks: Experience from similar projects provides confidence in the time, costs, and specifications required, with any additional risks managed through standard project life-cycle processes. Project Managers oversee delivery, including construction scheduling, compliance with PFAS limits, water quality assurance, health and safety assessments, and planning permissions.

Expenditure

Costs were developed using previous costs from AMP7 projects of similar scope & scale plus high-level estimates from vendors as and when required. Unit Cost database/Process models, provided by Motts McDonald which utilise actual cost data from anonymised companies with imbedded algorithms to factor for inflation were also used to validate cost estimates.

Confidence in the cost estimates for these schemes is medium to high, based on the comparable schemes recently delivered or still in delivery. These include Holywell GAC and Wheathampstead Ion exchange plant.

The Baseline planned expenditure across the AMP 8 period for this business case and its associated Programmes of work are provided below.

Programme Name	AfW Baseline Planned Totex									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Wheathampstead	31,678	31,678	31,678	4,362,678	4,362,678	33,065	66,215	221,016	254,199	409,322
Bowring & Baldock Road	2,621,371	5,201,371	8,933,811	16,868,627	16,868,627	1,875	3,750	5,625	36,499	67,373

The table below provides details of the current forecast expenditure based on expenditure incurred to date across this programme area together with the latest best estimate of future expenditure required to deliver the remainder of the baseline programme.

Programme Name	AfW Current Forecast Totex									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Wheathampstead	31,678	31,678	31,678	4,362,678	4,362,678	33,065	66,215	221,016	254,199	409,322
Bowring & Baldock Road	2,621,371	5,201,371	8,933,811	16,868,627	16,868,627	1,875	3,750	5,625	36,499	67,373

The table below provides details of how our current forecast deviates from our initial baseline programme.

Programme Name	AfW Deviation from Baseline Totex									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Wheathampstead	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bowring & Baldock Road	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Expenditure – Data capture and validation

Cost data for this programme will be captured and validated following the standard company approach. This includes utilising the established internal governance framework, project and programme level controls and reporting, along with the oversight provided by project management steering group.

Outputs

The PCD outputs for all PFAS schemes are to meet DWI Legal Instruments requirements.

The Baseline planned delivery of our Price Control Deliverables (PCDs) for this business case and its associated programmes of work are provided below.

Programme Name	Baseline Planned PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Wheathampstead	PCDW 14	N/A	-	-	-	-	-	-	-	-	-	-
Bowring & Baldock Road		N/A	-	-	-	-	-	-	-	-	-	-
Blackford		N/A	-	-	-	-	-	-	-	-	-	-
Holywell		Notice	0	0	1	1	1	-	-	-	-	-
Ardleigh		N/A	-	-	-	-	-	-	-	-	-	-
Companywide PFAS strategy		N/A	-	-	-	-	-	-	-	-	-	-

The table below provides details of the current forecast of the PCD outputs based on those delivered to date across this programme area together with the latest best estimate of future output delivery required to deliver the remainder of the Baseline programme.

Programme Name	Current Forecast PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Wheathampstead	PCDW 14	N/A	-	-	-	-	-	-	-	-	-	-
Bowring & Baldock Road		N/A	-	-	-	-	-	-	-	-	-	-
Blackford		N/A	-	-	-	-	-	-	-	-	-	-
Holywell		Notice	0	0	1	1	1	-	-	-	-	-
Ardleigh		N/A	-	-	-	-	-	-	-	-	-	-
Companywide PFAS strategy		N/A	-	-	-	-	-	-	-	-	-	-

The table below provides details of how our current forecast deviates from our initial baseline programme.

Programme Name	Deviation from Baseline PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Wheathampstead	PCDW 14	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bowring & Baldock Road		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Blackford		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Holywell		Notice	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ardleigh		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Companywide PFAS strategy		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Outputs – Data capture and validation

The PCD outputs for all PFAS schemes will be reported based on the approval from DWI and meeting the criterion/ requirements stipulated by them as Legal Instruments.

Milestones

The Baseline planned delivery milestones for this Business Case and its associated Programmes of work are provided below.

Programme Name	Gateway Type	Baseline Planned Gateway Milestones				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Wheathampstead	Traditional	15/05/2025	01/03/2027	03/09/2029	29/03/2030	N/A
Bowring & Baldock Road	Traditional	15/05/2025	01/03/2027	03/09/2029	29/03/2030	N/A
Blackford	Traditional	15/05/2025	02/04/2026	03/09/2029	29/03/2030	N/A
Holywell	Traditional	15/05/2025	13/06/2025	31/03/2026	31/03/2027	N/A
Ardleigh	Bespoke	11/04/2025	N/A	03/12/2029	02/01/2030	N/A
Companywide PFAS strategy	Bespoke	15/05/2025	N/A	03/12/2029	02/01/2030	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

The table below provides details of the current forecast delivery dates against the key milestones for this Business Case and its associated Programmes of work.

Programme Name	Gateway Type	Current Forecast Gateway Milestones				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Wheathampstead	Traditional	15/05/2025	01/03/2027	03/09/2029	29/03/2030	N/A
Bowring & Baldock Road	Traditional	15/05/2025	01/03/2027	03/09/2029	29/03/2030	N/A
Blackford	Traditional	15/05/2025	02/04/2026	03/09/2029	29/03/2030	N/A
Holywell	Traditional	15/05/2025	13/06/2025	31/03/2026	31/03/2027	N/A
Ardleigh	Bespoke	11/04/2025	N/A	03/12/2029	02/01/2030	N/A
Companywide PFAS strategy	Bespoke	15/05/2025	N/A	03/12/2029	02/01/2030	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

The table below provides details of how our current forecast deviates from our initial Baseline programme and identifies those programme areas that are delayed by more

than one Quarter period against each key milestone. The values are expressed in numbers of Programmes, where milestone dates have been exceeded by more than one Quarter period.

Programme Name	Gateway Type	Programmes that are delayed by more than 1 Quarter (nr)				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Wheathampstead	Traditional	15/05/2025	01/03/2027	03/09/2029	29/03/2030	N/A
Bowring & Baldock Road	Traditional	15/05/2025	01/03/2027	03/09/2029	29/03/2030	N/A
Blackford	Traditional	15/05/2025	02/04/2026	03/09/2029	29/03/2030	N/A
Holywell	Traditional	15/05/2025	13/06/2025	31/03/2026	31/03/2027	N/A
Ardleigh	Bespoke	11/04/2025	N/A	03/12/2029	02/01/2030	N/A
Companywide PFAS strategy	Bespoke	15/05/2025	N/A	03/12/2029	02/01/2030	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

Investment Area: RWD_Business Case: Nitrates (DPW1, line 14, PCDW14)

Description

RWD Nitrates programme enhancement expenditure relates to addressing water quality risks. Nitrate concentrations in raw water at Kingsdown, Broome, and Stansted WTWs are rising, leading to periodic shutdowns, with no expected decline for years. The Stortford supply area also faces resilience risks due to limited storage and network configuration. To maintain supply and resilience, ion-exchange treatment will be implemented at Kingsdown and Broome WTWs, along with the installation of a new trunk main and additional boosters to enhance resilience in the Stortford area.

This is supported by the Drinking Water Inspectorate (DWI) as it has served notices on the company under regulation 28(4) of the Water Supply (Water Quality) Regulations 2016 (as amended), references AFW-2023-00001 (Broome), AFW-2023-00002 (Kingsdown) and AFW-2023-00004 (Stansted (Stortford area)).

How the scope of the selected option was arrived at and benefits planned to be delivered: We have developed a wide range of options, which have been through our Risk and Value workshops. The set of selected options have then been subjected to economic assessments to determine the cost benefits and to select the preferred

options. All the schemes have been shown to be cost beneficial. In essence, these schemes provide security of supply, which is highly beneficial to customers.

Delivery risks: Experience from similar projects provides confidence in the time, costs, and specifications required, with any additional risks managed through standard project life-cycle processes. Project Managers oversee delivery, including construction scheduling, compliance with nitrate limits, water quality assurance, health and safety assessments, roadwork coordination, and planning permissions.

Expenditure

Costs are developed using previous costs from AMP7 projects of similar scope & scale plus high-level estimates from vendors as and when required. Use of Unit Cost Database/Process models, provided by Motts McDonald which utilise actual cost data from anonymised companies with imbedded algorithms to factor for inflation and provide realistic 2023 pricing.

Confidence in the cost estimates for these schemes is medium to high, based on the comparable schemes recently delivered or still in delivery. These include Oughton Head Nitrate removal and Wheathampstead Ion exchange plant.

The Baseline planned expenditure across the AMP 8 period for this business case and its associated Programmes of work are provided below.

Programme Name	AfW Baseline Planned Totex									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Stortford Resilience	1,753,724	1,753,724	1,753,724	1,753,724	1,753,724	6,040	12,095	18,149	24,210	30,277
Broome	-	-	1,803,405	5,593,152	5,593,152	-	-	-	119,833	239,773
Kingsdown	1,548,056	4,805,740	4,805,740	4,805,740	4,805,740	-	86,007	171,997	258,090	344,260

The table below provides details of the current forecast expenditure based on expenditure incurred to date across this programme area together with the latest best estimate of future expenditure required to deliver the remainder of the baseline programme.

Programme Name	AfW Current Forecast Totex									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Stortford Resilience	1,753,724	1,753,724	1,753,724	1,753,724	1,753,724	6,040	12,095	18,149	24,210	30,277

Broome	-	-	1,803,405	5,593,152	5,593,152	-	-	-	119,833	239,773
Kingsdown	1,548,056	4,805,740	4,805,740	4,805,740	4,805,740	-	86,007	171,997	258,090	344,260

The table below provides details of how our current forecast deviates from our initial baseline programme.

Programme Name	**AfW Deviation from Baseline Totex**									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Stortford Resilience	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Broome	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Kingsdown	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Expenditure – Data capture and validation

Cost data for this programme will be captured and validated following the standard company approach. This includes utilising the established internal governance framework, project and programme level controls and reporting, along with the oversight provided by project management steering group.

Outputs

The PCD output for Broome, Kingsdown and Stortford Resilience schemes are to meet DWI Legal Instruments requirements.

The Baseline planned delivery of our Price Control Deliverables (PCDs) for this business case and its associated programmes of work are provided below.

Programme Name	**Baseline Planned PCD Outputs (Cumulative)**											
	PCD Ref /Measure name	**PCD**	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Stortford Resilience	PCDW 14	Notice	0	1	1	1	1	-	-	-	-	-
Broome		Notice	0	0	0	0	1	-	-	-	-	-
Kingsdown		Notice	0	0	1	1	1	-	-	-	-	-

The table below provides details of the current forecast of the PCD outputs based on those delivered to date across this programme area together with the latest best estimate of future output delivery required to deliver the remainder of the Baseline programme.

Programme Name	Current Forecast PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Stortford Resilience	PCDW 14	Notice	0	1	1	1	1	-	-	-	-	-
Broome		Notice	0	0	0	0	1	-	-	-	-	-
Kingsdown		Notice	0	0	1	1	1	-	-	-	-	-

The table below provides details of how our current forecast deviates from our initial baseline programme.

Programme Name	Deviation from Baseline PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Stortford Resilience	PCDW 14	Notice	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Broome		Notice	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Kingsdown		Notice	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Outputs – Data capture and validation

Cost data for this programme will be captured and validated following the standard company approach. This includes utilising the established internal governance framework, project and programme level controls and reporting, along with the oversight provided by project management steering group.

Milestones

The Baseline planned delivery milestones for this Business Case and its associated Programmes of work are provided below.

Programme Name	Gateway Type	Baseline Planned Gateway Milestones				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Stortford Resilience	Bespoke	14/03/2025	N/A	30/04/2025	30/04/2026	N/A

Broome	Traditional	07/06/2024	10/02/2027	01/01/2029	01/01/2030	N/A
Kingsdown	Traditional	07/06/2024	12/09/2025	31/03/2027	31/03/2028	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

The table below provides details of the current forecast delivery dates against the key milestones for this Business Case and its associated Programmes of work.

Programme Name	**Gateway Type**	**Current Forecast Gateway Milestones**				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Stortford Resilience	Bespoke	14/03/2025	N/A	30/04/2025	30/04/2026	N/A
Broome	Traditional	07/06/2024	10/02/2027	01/01/2029	01/01/2030	N/A
Kingsdown	Traditional	07/06/2024	12/09/2025	31/03/2027	31/03/2028	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

The table below provides details of how our current forecast deviates from our initial Baseline programme and identifies those programme areas that are delayed by more than one Quarter period against each key milestone. The values are expressed in numbers of Programmes, where milestone dates have been exceeded by more than one Quarter period.

Programme Name	**Gateway Type**	**Programmes that are delayed by more than 1 Quarter (nr)**				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Stortford Resilience	Bespoke	N/A	N/A	N/A	N/A	N/A
Broome	Traditional	N/A	N/A	N/A	N/A	N/A
Kingsdown	Traditional	N/A	N/A	N/A	N/A	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

Investment Area: Resilience_Business Case: Flood Alleviation (DPW1, line 20, PCDWW32)

Description

Our investment plan will enable us to better manage the significant risks to providing reliable and sustainable water services posed by climate change. The UK Met Office forecast that climate change will increase the risks of flooding by up to 20%. Extreme flooding at our production sites could affect over 620,000 customers by interrupting or compromising our water production. Five percent of our customer, who are supplied form flood-prone sites, could face supply interruptions or poor water pressure lasting at least 36 hours. Flooding also risks the quality of our water supply, potentially resulting in boil notices or an unfavourable compliance risk index. Additionally, our employees are at risk if our productions sites are flooded. Water companies must adhere to flood management expectations and requirements set out in the Water Industry Strategic Environmental Requirements, as well as obligations under the Flood and Water Management Act 2010 and the Water Resources Act 1991.

We have thoroughly evaluated the greatest climate change risks at our production sites using our Affinity Water Resilience Tool (ART). By using the latest flood modelling data from the Environment Agency, we have identified which of our production site will be most impacted by climate change. Based on this assessment, we are conducting site-specific risk evaluations at each priority sites to identify flood mitigation solutions. These solutions undergo individual risk and value assessment to ensure that costs, risk and performance are balanced, providing value to our customers.

This investment plan will enhance our ability to manage the impacts of climate change and improve our asset's resilience to flooding. Site works will include, but not limited to installing flood doors, sealing ducts, altering drainage, raising or protecting electrical equipment, securing borehole headworks, waterproofing tanking, and performing minor civil works. Additionally, we will ensure water supply security by improving connectivity and mitigating against the temporary loss of site production due to extreme flooding. we will address delivery challenges by obtaining planning permission early, engaging with local authorities, and collaborating with key stakeholders.

Expenditure

Robust expenditure estimates for this investment plan have been developed using cost models based on historic data from flood-related projects. These projects include civil, mechanical, and electrical works aimed at mitigating flood impacts. We have high confidence in these cost models as they account for inflation. Our historic costs are known to be efficient, having undergone a full OJUE tender process, optioneering assessments, detailed design, and value engineering before construction. The models have been used to estimate expenditure for our prioritised planned schemes over five years, forming our baseline assessment.

The Baseline planned expenditure across the AMP 8 period for this business case and its associated Programmes of work are provided below.

Programme Name	AfW Baseline Planned Totex									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Flood Alleviation - Flooding	341,194	2,779,522	5,388,447	7,428,716	8,616,001	-	-	-	-	-

The table below provides details of the current forecast expenditure based on expenditure incurred to date across this programme area together with the latest best estimate of future expenditure required to deliver the remainder of the baseline programme.

Programme Name	AfW Current Forecast Totex									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Flood Alleviation - Flooding	341,194	2,779,522	5,388,447	7,428,716	8,616,001	-	-	-	-	-

The table below provides details of how our current forecast deviates from our initial baseline programme.

Programme Name	AfW Deviation from Baseline Totex									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Flood Alleviation - Flooding	N/A	N/A	N/A	N/A	N/A	-	-	-	-	-

Expenditure – Data capture and validation

Cost data will be captured using our Oracle Fusion cloud-based system, which is designed for tracking project financial data. Each project within the investment plan will be set up on the system with unique references that identify the programme investment area. Costs are allocated to projects through employees entering timesheets or processing payments associated with contractual agreements with suppliers and contractors.

Our Commercial Managers, supported by Project Managers and Construction Assurance Advisors, validated applications for payment replated to completed works monthly. Additionally, Project Managers are responsible for validating and approving timesheets associated with their projects. Expenditure data will be further validated by Programme Managers every quarter, ensuring that investments remain on track to achieve planned benefits.

Before entering into contractual agreements with suppliers and contractors, we will conduct our own cost estimates to ensure that investments represent value for money for our customer. If this is not the case, we will challenge our suppliers, carry out value engineering, or seek alternative delivery opportunities.

Outputs

We will deliver schemes to improve our resilience against our greatest challenges climate change poses to our assets. The outputs of this investment plan include physical mitigation works at individual production site and within our distribution network to manage supply challenges caused by flooding and power disruption. Out outputs will be agile to address shifts in climate change risks within the 2025-30, and we will assess emerging risks annually.

The Baseline planned delivery of our Price Control Deliverables (PCDs) for this business case and its associated programmes of work are provided below.

Programme Name	Baseline Planned PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Flood Alleviation - Flooding	Water and wastewater Resilience.	%	0	0	0	0	100					

The table below provides details of the current forecast of the PCD outputs based on those delivered to date across this programme area together with the latest best estimate of future output delivery required to deliver the remainder of the Baseline programme.

Programme Name	Current Forecast PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Flood Alleviation - Flooding	Water and wastewater Resilience.	%	0	0	0	0	100					

The table below provides details of how our current forecast deviates from our initial baseline programme.

Programme Name	Deviation from PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Flood Alleviation - Flooding	Water and wastewater Resilience.	%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Outputs – Data capture and validation

Our outputs will demonstrate quantifiable improvements in climate change resilience suing our Affinity Water Resilience Tool (ART). This tool, calibrated annually, will measure enhancements in flood and power resilience of our physical assets by comparing results before and after implementing mitigation measures. We will also use ART to show that our biggest climate change risks have been addresses, as the tool, along with site-specific risk assessments, is used to select our schemes. We will report on the scope of each scheme, what has been completed, and any changes in our priorities.

Independent specialists in climate change, flood management, and electrical systems will support our validation assessments. They will ensure our deliverables effectively improve our assets' resilience to climate change impact and apply appropriate scrutiny to target high and emerging risks.

Milestones

The Baseline planned delivery milestones for this Business Case and its associated Programmes of work are provided below.

Programme Name	Gateway Type	Baseline Planned Gateway Milestones				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Flood Alleviation - Flooding	Bespoke	15/05/2025	N/A	08/01/2030	05/02/2030	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

The table below provides details of the current forecast delivery dates against the key milestones for this Business Case and its associated Programmes of work.

Programme Name	Gateway Type	Current Forecast Gateway Milestones				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Flood Alleviation - Flooding	Bespoke	15/05/2025	N/A	08/01/2030	05/02/2030	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

The table below provides details of how our current forecast deviates from our initial Baseline programme and identifies those programme areas that are delayed by more than one Quarter period against each key milestone. The values are expressed in numbers of Programmes, where milestone dates have been exceeded by more than one Quarter period.

Programme Name	Gateway Type	Programmes that are delayed by more than 1 Quarter (nr)				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Flood Alleviation - Flooding	Bespoke	N/A	N/A	N/A	N/A	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

Investment Area: WRMP_Business Case: Smart Metering (DPW1, line 21-23, 26-27, PCDW12)

Description

The Smart Metering Programme is part of the WRMP investment area as smart meters will enable us to reduce leakage and demand for both household and non-household properties.

The main drivers are our 3 Performance Commitments associated to this programme; PCC, Leakage and Business Demand.

The scope of work that is planned includes the installation of c.73k new AMI meters and the upgrade of c.324k existing Basic and AMR meters with AMI ones.

In terms of how we selected the above scope, we rigorously followed a robust methodology for the economic analysis using the UK HM Treasury Green Book (2020) approach as the basis for our calculations. We also used our Copperleaf system to replicate and consolidate different projects and programmes of work across the whole asset base for our PR24 submission.

We also engaged with the market and other water companies with more experience in Smart Metering to assess the deliverability of each option.

The benefits that are planned to be delivered are fully aligned with WRMP24.

We have identified delivery risks, such as customer uptake, volume of digs that will be required, increased complexity and cost of new installs as meter penetration increases. We are working closely with other internal teams from Customer Experience, Developer Experience and IT, as well as all our delivery partners to assess all the risks and create produce mitigation actions.

Expenditure

In 2024, we run a competitive tender to source an end-to-end smart metering solution. That included a meter manufacturer, a network provider, two delivery partners for meter installations, and a Meter Data Management System.

To estimate the expenditure of the Baseline programme, we used the contract rates of our new partners, the volume of meters we needed to install that would allow us to

deliver all the required benefits (PCC, Leakage and Business Demand), in line with WRMP24, and our experience and data from previous AMPs.

The allocation to Enhancement and Base was done based on the Ofwat guidance on those two expenditure categories.

For example, any new smart installations, that are aiming to improve the quality of service beyond current levels and will enable us to achieve our new regulatory obligations, are allocated to Enhancement.

The Baseline planned expenditure across the AMP 8 period for this business case and its associated Programmes of work are provided below.

Programme Name	AfW Baseline Planned Totex									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Smart Metering	28,374,695	50,760,691	73,146,687	95,532,683	117,918,679	1,602,292	2,831,640	4,060,988	5,290,336	6,519,684

The table below provides details of the current forecast expenditure based on expenditure incurred to date across this programme area together with the latest best estimate of future expenditure required to deliver the remainder of the baseline programme.

Programme Name	AfW Current Forecast Totex									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Smart Metering	28,374,695	50,760,691	73,146,687	95,532,683	117,918,679	1,602,292	2,831,640	4,060,988	5,290,336	6,519,684

The table below provides details of how our current forecast deviates from our initial baseline programme.

Programme Name	AfW Deviation from Baseline Totex									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Smart Metering	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Change Log – Change, observation and Ofwat query

Query 1: PCDW12 - Metering - New installations / Household meter upgrades / Non household meter upgrades / Meter Replacements / Connected meters. Are you resetting the baseline expenditure?

Answer 1: We are not resetting the baseline expenditure. Our proposed baseline expenditure—the total cumulative AMP value—is indeed different from our current baseline expenditure, as per the published PCD models.

Our total AMP8 smart metering spend across both enhancement and base aligns with our business plan submission, which was based on our experience and data from delivering a metering programme in AMP7, as well as securing competitive contract rates from our suppliers through a robust tender process.

The funding provided at FD for enhancement—including new installations, the technology uplift for HH and NHH meter upgrades, and connected meters—is in line with our plan.

However, base costs have been significantly lower than forecasted. Ofwat underestimated the actual costs of meter replacement, provided only a minimal uplift for NHH meters, failed to account for the different work mix, and did not allocate allowances for "What Base Buys" or the PR19 under-delivery. As a result, we had to increase our base allowance to successfully deliver our Smart Metering Programme and ensure its benefits for both our customers and the environment.

Thus, we have reset our baseline expenditure in line with our business plan and are forecasting an overspend on base expenditure, specifically for household meter upgrades, non-household meter upgrades, and meter replacements.

Query 2: In table DPW2, you have forecast overspend against the PCD's:

- New installations: forecast of £29.174 million compared to £26.424 million baseline
- Household meter upgrades: forecast of £70.340 million compared to £9.867 million baseline
- Non-household: forecast of £14.064 million compared to £0.640 million baseline
- Meter replacements: forecast of £5.246 million compared to £43.054 million baseline
- Connected meters: forecast of £5.215 million compared to £12.849 million baseline
- The implies a total metering spend of £124.439 million compared to a baseline of £92.834 million.

Confirm:

- The figures quoted above are correct
- The reason for forecast metering overspend, in particular for meter upgrades.

Answer 2: We can confirm that the figures quoted are correct. The enhancement investment allowed at Final Determination - including new installations, the technology uplift for HH and NHH meter upgrades, and connected meters - is in line

with our plan. However, the allowance provided for base was significantly lower than our business plan submission.

Our actual costs of meter replacement are higher than those allowed, as only a minimal uplift for NHH meters was applied, and the different work mix was not accounted for. As a result, we have had to increase the amount of our base allowance to successfully deliver our Smart Metering Programme, and ensure we can deliver the benefits for both our customers and the environment. This explains the increase in total metering spend by approximately £31m.

Regarding meter upgrades in particular, the difference is as a result of cost allocation within each PCD line.

For example, for HH meter upgrades, only the technology uplift has been included while we have included all costs, including tech uplift, meter, and installation for all upgrades. We have therefore included all our true costs - both enhancement and base, for all upgrades, rather than splitting them between the Upgrade and Replacement PCD lines. This also explains why our Meter Replacement forecast expenditure is significantly lower compared to the baseline.

Expenditure – Data capture and validation

We have dedicated resources, within the Smart Metering Programme, whose role is to capture and report all programme cost data. The data quality is continuously monitored by our internal Investment, Assurance and Governance teams and undergoes an additional layer of assurance through our 3rd party auditors before reported to Ofwat.

Outputs

The Smart Metering Programme has 2 main outputs; one is the physical installation/replacement or smart meters, and the second one is meter connectivity, i.e. connect meters to the network and receive readings and alarms.

There are 4 PCDs linked to meter installation:

1. New AMI installations – number of AMI meters installed at both household and non-household premises that, prior to such installation, were unmetered.
2. Upgrades to existing meters in household properties
3. Upgrades to existing meters in non-household properties
4. Replacement of meters, which includes meters replaced with new meters on a like for like basis.

Finally, there is 1 PCD linked to meter connectivity:

1. Connected AMI meters, which is based on meter connectivity and data completeness.

The Baseline planned delivery of our Price Control Deliverables (PCDs) for this business case and its associated programmes of work are provided below.

Programme Name	Baseline Planned PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Smart Metering	New installation	No	17,857	31,689	45,437	59,187	72,852	N/A	N/A	N/A	N/A	N/A
	Household meter upgrades	No	73,713	131,425	189,138	246,850	304,563	N/A	N/A	N/A	N/A	N/A
	Non household meter upgrades	No	2,650	5,900	9,950	14,850	19,750	N/A	N/A	N/A	N/A	N/A
	Meter Replacements (Non smart)	No	82,483	149,565	217,448	286,180	354,913	N/A	N/A	N/A	N/A	N/A
	Connected meters	No	0	47,110	101,408	171,168	256,710	N/A	N/A	N/A	N/A	N/A

The table below provides details of the current forecast of the PCD outputs based on those delivered to date across this programme area together with the latest best estimate of future output delivery required to deliver the remainder of the Baseline programme.

Programme Name	Current Forecast PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Smart Metering	New installation	No	17,857	31,689	45,437	59,187	72,852	N/A	N/A	N/A	N/A	N/A
	Household meter upgrades	No	73,713	131,425	189,138	246,850	304,563	N/A	N/A	N/A	N/A	N/A
	Non household meter upgrades	No	2,650	5,900	9,950	14,850	19,750	N/A	N/A	N/A	N/A	N/A
	Meter Replacements (Non smart)	No	82,483	149,565	217,448	286,180	354,913	N/A	N/A	N/A	N/A	N/A
	Connected meters	No	0	47,110	101,408	171,168	256,710	N/A	N/A	N/A	N/A	N/A

The table below provides details of how our current forecast deviates from our initial baseline programme.

Programme Name	Deviation from Baseline PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Smart Metering	New installation	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Household meter upgrades	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Non household meter upgrades	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Meter Replacements (Non smart)	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Connected meters	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Outputs – Data capture and validation

Both ourselves and our delivery partners will use Maximo, our Operational Works Management System to record all meter installations and replacements.

Meter connectivity data i.e. meter readings and alarms, will be stored in Oracle, our Meter Data Management System.

The data quality of both systems is continuously monitored by our internal teams and undergoes an additional layer of assurance through our 3rd party auditors before reported to Ofwat.

Milestones

The Baseline planned delivery milestones for this Business Case and its associated Programmes of work are provided below.

Programme Name	Gateway Type	Baseline Planned Gateway Milestones				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Smart Metering	Bespoke	11/04/2025	N/A	07/12/2029	02/01/2030	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

The table below provides details of the current forecast delivery dates against the key milestones for this Business Case and its associated Programmes of work.

Programme Name	Gateway Type	Current Forecast Gateway Milestones				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Smart Metering	Bespoke	11/04/2025	N/A	07/12/2029	02/01/2030	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

The table below provides details of how our current forecast deviates from our initial Baseline programme and identifies those programme areas that are delayed by more than one Quarter period against each key milestone. The values are expressed in numbers of Programmes, where milestone dates have been exceeded by more than one Quarter period.

Programme Name	Gateway Type	Programmes that are delayed by more than 1 Quarter (nr)				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Smart Metering	Bespoke	N/A	N/A	N/A	N/A	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

Investment Area: WRMP_Business Case: Connect 2050 - Non-SRO (Supply Side Benefits) (DPW1, line 30,32, PCDW11a)

Description

The Connect 2050 programme is a strategic initiative designed to ensure the long-term resilience of the water supply network in the face of evolving challenges. It assesses existing infrastructure and proposes necessary enhancements over the next 25 years, with costs allocated between the Water Resources Management Plan (WRMP) and resilience measures. The programme addresses critical issues such as incorporating new water sources from Strategic Regional Options (SROs), accommodating population growth, and managing the impact of sustainability reductions on water transfers between demand centres.

A key focus of Connect 2050 is to build upon the previous Supply 2040 project by comprehensively evaluating options and prioritising 'least regrets' investments during AMP8. This holistic and adaptive approach considers future uncertainties related to growth, environmental targets, and climate change, utilising iterative modelling with the WRMP to guide strategic development. The project aims to capture the combined

impact of new environmental destinations and SRO requirements, ensuring robust and sustainable water resource management.

Non-SRO supply Side Benefits projects Cockfosters and Perivale are crucial for the initial phases of the WRMP, thereby securing water supply for the future.

Expenditure

The costs for each component of the programme have been determined using Affinity Water's PR24 cost curves (2002/23 cost base) with an additional 10% contingency to account for Biodiversity Net Gain and risks inherent in large infrastructure projects within urban agglomerations. These risks include factors like traffic management, lane rental, engineering challenges such as railway crossings and motorway crossings (e.g., M25, M1 and M4), and are based on estimated pipeline length and diameter or expected capacity for booster pumping stations and water treatment upgrades.

Costs are profiled across AMP8 in accordance with the urgency and complexity of each element of the programme.

The Baseline planned expenditure across the AMP 8 period for this business case and its associated Programmes of work are provided below.

Programme Name	**AfW Baseline Planned Totex**									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
HS2-Non SRO (Perivale & Cockfosters)	414,880	502,295	589,710	854,278	1,000,000	-	-	-	-	-

The table below provides details of the current forecast expenditure based on expenditure incurred to date across this programme area together with the latest best estimate of future expenditure required to deliver the remainder of the baseline programme.

Programme Name	**AfW Current Forecast Totex**									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
HS2-Non SRO (Perivale & Cockfosters)	414,880	502,295	589,710	854,278	1,000,000	-	-	-	-	-

The table below provides details of how our current forecast deviates from our initial baseline programme.

Programme Name	**AfW Deviation from Baseline Totex**									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
HS2-Non SRO (Perivale & Cockfosters)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Change Log – Change, observation and Ofwat query

Query 1: Your forecast expenditure in DPW2 for Supply is less than the allowance baseline in DPW2. Reading your narrative, the revised forecast appears to be largely due to £1m forecast for Cockfosters and Perivale, which is less than requested (and were allowed) at PR24. Please provide reasons for the revised forecast.

Answer 1: We are not resetting the baseline expenditure. The baseline expenditure published in the PCD models represents the expected expenditure performance, and we continue to use this as the reference point for assessing delivery.

The Cockfosters and Perivale connections are still required for HS2 purposes (to meet HS2 water demand), and negotiations are ongoing. We do not yet know what costs will be charged by HS2 in addition to any necessary network upgrades required on the TWUL side to sustain this. Therefore, are costs have now been updated to reflect our latest understanding, though there remains significant uncertainty regarding the final costs of these supply schemes.

Query 2: Your outturn/ forecast expenditure in DWP2 for Supply interconnectors shows spend starting in 2025-26, which is one year later than in the allowance baseline profile in DPW2. The baseline allowance profile reflects that you requested (and were allowed) transitional expenditure in PR24 business plan line CW12.52 for supply interconnectors. You also confirmed this in query response OFW-REP-AFW-012. This does not appear to be explained in your commentary document. Please set out the reasons for the difference.

Answer 2: We can confirm that our 2025/26 forecasted expenditure does indeed include costs incurred during the 2024/25 financial year, meaning there is no delay to this work. This approach aligns with our accounting and internal governance principles for projects spanning two periods, ensuring a holistic view of project costs within the relevant reporting cycles.

Expenditure – Data capture and validation

Our PR24 cost models are aligned with industry standards and have been benchmarked against the outturns of current projects.

The Connect 2025- WRMP programme of work will be overseen by a dedicated Connect 2050 Programme Board.

Within the overall programme, the works comprise a series of large projects, each of which will be delivered through a traditional project delivery mechanism.

As part of that process, each scheme will be taken to Totex Group (TG) for approval for funding and delivery within the overall programme.

Approval will be subject to review and approval of the necessary key documents at each gateway stage of the process. Key documents include Risk and Value Assessments, and Value Engineering Assessments.

Once approved for delivery, cost data will be captured through the Affinity Water Capital Delivery and PMO processes. PMO to provide cost validation on quotes at

each Gateway stage of the project. Spend monitored monthly against forecast by PMs and PMO team. Cost data captured when work is receipted.

Outputs

This programme will contribute to the WAFU PCD as listed below.

The Baseline planned delivery of our Price Control Deliverables (PCDs) for this business case and its associated programmes of work are provided below.

Programme Name	Baseline Planned PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
HS2-Non SRO (Perivale & Cockfosters	WAFU benefit of 15Ml/d(Low)	Ml/d	10	10	10	10	15	-	-	-	-	-

The table below provides details of the current forecast of the PCD outputs based on those delivered to date across this programme area together with the latest best estimate of future output delivery required to deliver the remainder of the Baseline programme.

Programme Name	Current Forecast PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
HS2-Non SRO (Perivale & Cockfosters	WAFU benefit of 15Ml/d(Low)	Ml/d	10	10	10	10	15	-	-	-	-	-

The table below provides details of how our current forecast deviates from our initial baseline programme.

Programme Name	Deviation from Baseline PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
HS2-Non SRO (Perivale & Cockfosters	WAFU benefit of 15Ml/d(Low)	Ml/d	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Outputs – Data capture and validation

The Connect 2050- Non-SRO (Supply side benefits) programme of work will be overseen by a dedicated Connect 2050 Programme Board.

Within the overall programme, the works comprise a series of large projects, each of which will be delivered through a traditional project delivery mechanism.

As part of that process, each scheme will be taken to Totex Group (TG) for approval for funding and delivery within the overall programme.

Approval will be subject to review and approval of the necessary key documents at each gateway stage of the process. Key documents include Risk and Value Assessments, and Value Engineering Assessments.

Once approved for delivery, cost data will be captured through the Affinity Water Capital Delivery and PMO processes. PMO to provide cost validation on quotes at each Gateway stage of the project. Spend monitored monthly against forecast by PMs and PMO team. Cost data captured when work is receipted.

Milestones

The Baseline planned delivery milestones for this Business Case and its associated Programmes of work are provided below.

Programme Name	Gateway Type	Baseline Planned Gateway Milestones				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
HS2-Non SRO (Perivale & Cockfosters	Bespoke	11/04/2025	N/A	13/11/2029	04/02/2030	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

The table below provides details of the current forecast delivery dates against the key milestones for this Business Case and its associated Programmes of work.

Programme Name	Gateway Type	Current Forecast Gateway Milestones				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
HS2-Non SRO (Perivale & Cockfosters	Bespoke	11/04/2025	N/A	13/11/2029	04/02/2030	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

The table below provides details of how our current forecast deviates from our initial Baseline programme and identifies those programme areas that are delayed by more than one Quarter period against each key milestone. The values are expressed in numbers of Programmes, where milestone dates have been exceeded by more than one Quarter period.

Programme Name	Gateway Type	Programmes that are delayed by more than 1 Quarter (nr)				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
HS2-Non SRO (Perivale & Cockfosters	Bespoke	N/A	N/A	N/A	N/A	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

Investment Area: WRMP_Business Case: Connect 2050 – WRMP (DPW1, line 31-32, PCDW11a & line 33-34, PCDW11b)

Description

The Connect 2050 programme is a strategic initiative designed to ensure the long-term resilience of the water supply network in the face of evolving challenges. It assesses existing infrastructure and proposes necessary enhancements over the next 25 years, with costs allocated between the Water Resources Management Plan (WRMP) and resilience measures. The programme addresses critical issues such as incorporating new water sources from Strategic Regional Options (SROs), accommodating population growth, and managing the impact of sustainability reductions on water transfers between demand centres.

A key focus of Connect 2050 is to build upon the previous Supply 2040 project by comprehensively evaluating options and prioritising 'least regrets' investments during AMP8. This holistic and adaptive approach considers future uncertainties related to growth, environmental targets, and climate change, utilising iterative modelling with the WRMP to guide strategic development. The project aims to capture the combined impact of new environmental destinations and SRO requirements, ensuring robust and sustainable water resource management.

Crucially, Connect 2050 is vital for the initial phases of the WRMP, facilitating the transfer of surplus water from WRZ6 to WRZs 1-5, which face a projected deficit. The programme's strategic goals include increasing the output of the Wey treatment works, transferring additional water to central regions, enhancing strategic transfers through new pumping stations and interconnectors, and increasing storage capacity in WRZ5 and WRZ7, thereby securing water supply for the future.

Expenditure

The costs for each component of the programme have been determined using Affinity Water's PR24 cost curves (2002/23 cost base) with an additional 10% contingency to account for Biodiversity Net Gain and risks inherent in large infrastructure projects within urban agglomerations. These risks include factors like traffic management, lane rental, engineering challenges such as railway crossings and motorway crossings (e.g., M25, M1 and M4), and are based on estimated pipeline length and diameter or expected capacity for booster pumping stations and water treatment upgrades. Costs are profiled across AMP8 in accordance with the urgency and complexity of each element of the programme.

The Baseline planned expenditure across the AMP 8 period for this business case and its associated Programmes of work are provided below.

Programme Name	AfW Baseline Planned Totex									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Transfer water from Egham to Harefield inc. BPS upgrade	8,232,750	19,209,750	35,675,250	54,811,581	54,811,581	-	-	-	-	73,419
Grove Park Link BS (Grove Licence increase)	528,725	1,233,692	2,291,142	3,524,834	3,524,834	-	-	-	-	-
Increase DO Egham/Chertsey/Walton	1,436,555	3,351,961	6,225,070	9,577,031	9,577,031	-	-	-	-	-
Midway North BPS upgrade	545,406	-	-	-	-	-	-	-	-	-

The table below provides details of the current forecast expenditure based on expenditure incurred to date across this programme area together with the latest best estimate of future expenditure required to deliver the remainder of the baseline programme.

Programme Name	AfW Current Forecast Totex									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Transfer water from Egham to Harefield inc. BPS upgrade	8,232,750	19,209,750	35,675,250	54,811,581	54,811,581	-	-	-	-	73,419
Grove Park Link BS (Grove Licence increase)	528,725	1,233,692	2,291,142	3,524,834	3,524,834	-	-	-	-	-
Increase DO Egham/Chertsey/Walton	1,436,555	3,351,961	6,225,070	9,577,031	9,577,031	-	-	-	-	-
Midway North BPS upgrade	545,406	-	-	-	-	-	-	-	-	-

The table below provides details of how our current forecast deviates from our initial baseline programme.

Programme Name	AfW Deviation from Baseline Totex									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Transfer water from Egham to Harefield inc. BPS upgrade	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grove Park Link BS (Grove Licence increase)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Increase DO Egham/Chertsey/Walton	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Midway North BPS upgrade	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Change Log – Change, observation and Ofwat query

Query: PCDW11a – Supply - WAFU Benefit. Are you resetting the baseline expenditure?

Answer: We are not resetting the baseline expenditure. Our total forecasted expenditure currently remains above our established baseline, despite proactive early contractor engagement and high-level value engineering efforts. We are actively aiming to achieve this forecasted expenditure.

We confirm that we are not resetting the baseline expenditure. It is important to note, however, that some expenditure items, such as the Grove Park Link BPS, were not adequately funded in the original baseline and therefore required additional funding beyond the initial allocation.

Following the publication of the PCD models, we have gained a more comprehensive understanding of the delivery requirements for providing the necessary infrastructure. This understanding is further supported by our pre-AMP8 funding allowances. Consequently, this has necessitated a refinement of our expenditure forecast, leading to a variance from the previously published PCD baseline.

To demonstrate that the Water Available For Use (WAFU) PCD has been achieved, we will use a combination of collected asset data (e.g., length of mains laid), hydraulic modelling, and real-time operational data. This will provide clear evidence that additional WAFU successfully reaches our customers under the various scenarios outlined in our Water Resources Management Plan (WRMP).

Expenditure – Data capture and validation

Our PR24 cost models are aligned with industry standards and have been benchmarked against the outturns of current projects.

The Connect 2025- WRMP programme of work will be overseen by a dedicated Connect 2050 Programme Board.

Within the overall programme, the works comprise a series of large projects, each of which will be delivered through a traditional project delivery mechanism.

As part of that process, each scheme will be taken to Totex Group (TG) for approval for funding and delivery within the overall programme.

Approval will be subject to review and approval of the necessary key documents at each gateway stage of the process. Key documents include Risk and Value Assessments, and Value Engineering Assessments.

Once approved for delivery, cost data will be captured through the Affinity Water Capital Delivery and PMO processes. PMO to provide cost validation on quotes at each Gateway stage of the project. Spend monitored monthly against forecast by PMs and PMO team. Cost data captured when work is receipted.

Outputs

This programme will deliver a specific PCD on the Egham to Harefield inc. BPS upgrade of 20Ml/day by the end of year 2029/2030 and will contribute to the WAFU PCD as listed below.

The Baseline planned delivery of our Price Control Deliverables (PCDs) for this business case and its associated programmes of work are provided below.

Programme Name	Baseline Planned PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Transfer water from Egham to Harefield inc. BPS upgrade	Egham to Iver 22Ml/d (WAFU Benefit)	Ml/d	0	0	0	0	20					
Transfer water from Egham to Harefield inc. BPS upgrade	Egham to Iver 22Ml/d (WAFU Benefit)	Km	0	0	0	0	11.9					
Grove Park Link BS (Grove Licence increase)	WAFU benefit 25 Ml/d(Low)	Ml/d	0	0	0	0	25					
Increase DO Egham/Chertsey/ Walton	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Midway North BPS upgrade	WAFU benefit 8 Ml/d(Low)	Ml/d	0	0	0	0	8					

The table below provides details of the current forecast of the PCD outputs based on those delivered to date across this programme area together with the latest best estimate of future output delivery required to deliver the remainder of the Baseline programme.

Programme Name	Current Forecast PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Transfer water from Egham to Harefield inc. BPS upgrade	Egham to Iver 22Ml/d (WAFU Benefit)	Ml/d	0	0	0	0	20					
Transfer water from Egham to Harefield inc. BPS upgrade	Egham to Iver 22Ml/d (WAFU Benefit)	Km	0	0	0	0	11.9					
Grove Park Link BS (Grove Licence increase)	WAFU benefit 25 Ml/d(Low)	Ml/d	0	0	0	0	25					

Increase DO Egham/Chertsey/ Walton	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Midway North BPS upgrade	WAFU benefit 8 Ml/d(Low)	Ml/d	0	0	0	0	8					

The table below provides details of how our current forecast deviates from our initial baseline programme.

Programme Name	Deviation from Baseline PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Transfer water from Egham to Harefield inc. BPS upgrade	Egham to Iver 22Ml/d (WAFU Benefit)	Ml/d	N/A	N/A	N/A	N/A	N/A					
Transfer water from Egham to Harefield inc. BPS upgrade	Egham to Iver 22Ml/d (WAFU Benefit)	Km	N/A	N/A	N/A	N/A	N/A					
Grove Park Link BS (Grove Licence increase)	WAFU benefit 25 Ml/d(Low)	Ml/d	N/A	N/A	N/A	N/A	N/A					
Increase DO Egham/Chertsey/ Walton	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Midway North BPS upgrade	WAFU benefit 8 Ml/d(Low)	Ml/d	N/A	N/A	N/A	N/A	N/A					

Outputs – Data capture and validation

Evidence of achieving the PCD will be demonstrated by measuring the 'additional transfer capacity between Water Resource Zones (WRZs) delivered by 31 March 2030'. The PCD is met when the required additional capacity is provided to the relevant WRZs, exceeding the initial transfer capacity defined prior to 1 April 2025. This transfer capacity, both initial and additional, can be determined through either direct measurement or modelling.

Milestones

The Baseline planned delivery milestones for this Business Case and its associated Programmes of work are provided below.

Programme Name	Gateway Type	Baseline Planned Gateway Milestones				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Transfer water from Egham to Harefield inc. BPS upgrade	Traditional	11/04/2025	23/09/2026	17/12/2029	25/02/2030	N/A

Grove Park Link BS (Grove Licence increase)	Traditional	03/08/2026	01/01/2027	01/10/2027	29/09/2028	N/A
Increase DO Egham/Chertsey/ Walton	Traditional	Completed	07/04/2026	27/07/2027	24/08/2029	N/A
Midway North BPS upgrade	Bespoke	15/05/2025	N/A	07/01/2026	31/01/2026	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

The table below provides details of the current forecast delivery dates against the key milestones for this Business Case and its associated Programmes of work.

Programme Name	Gateway Type	Current Forecast Gateway Milestones				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Transfer water from Egham to Harefield inc. BPS upgrade	Traditional	11/04/2025	23/09/2026	17/12/2029	25/02/2030	N/A
Grove Park Link BS (Grove Licence increase)	Traditional	03/08/2026	01/01/2027	01/10/2027	29/09/2028	N/A
Increase DO Egham/Chertsey/ Walton	Traditional	Completed	07/04/2026	27/07/2027	24/08/2029	N/A
Midway North BPS upgrade	Bespoke	15/05/2025	N/A	07/01/2026	31/01/2026	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

The table below provides details of how our current forecast deviates from our initial Baseline programme and identifies those programme areas that are delayed by more than one Quarter period against each key milestone. The values are expressed in numbers of Programmes, where milestone dates have been exceeded by more than one Quarter period.

Programme Name	Gateway Type	Programmes that are delayed by more than 1 Quarter (nr)				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Transfer water from Egham to Harefield inc. BPS upgrade	Traditional	N/A	N/A	N/A	N/A	N/A
Grove Park Link BS (Grove Licence increase)	Traditional	N/A	N/A	N/A	N/A	N/A
Increase DO Egham/Chertsey/ Walton	Traditional	N/A	N/A	N/A	N/A	N/A
Midway North BPS upgrade	Bespoke	N/A	N/A	N/A	N/A	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

Investment Area: WRMP_Business Case: Demand Management (DPW1, line 35, PCDW9)

Description

We are empowering our customers to reduce their water consumption, by understanding usage, helping protect our precious resources and creating a sustainable future. Ofwat has set a Performance Commitment to reduce Per Capita Consumption (PCC) by 13% and business water demand by 11% from the 2019/20 baseline. As well as those Performance Commitments there is a Price Control Deliverable of achieving 23.72 Ml/d of savings across the AMP.

Our delivery plan focuses on reducing consumption across both Household (HH) and Non-Household (NHH), this will be done through multiple approaches, including but not limited to: flow regulators, HH water efficiency visits, internal plumbing loss repairs, NHH water efficiency audits and a campaign to wrap around raising awareness of water efficiency and the services we offer.

We reached that scope of work through doing trials and utilising data science to analyse the results and savings to make sure all options were efficient and cost effective. The risks to the delivery are that they are currently voluntary services that the customer must be engaged in. Without that there will be less uptake to the services we offer. To mitigate this, we have continuous improvement on our comms and campaigns to raise awareness of the services, but also the importance of reducing water consumption.

Expenditure

Through the work carried out in AMP 7 had multiple supply partners who have given costings for their work. We have used updated costings from suppliers within contract to put together expenditure estimates, these were all put into Baseline. The split between base and enhancement was based on continuing the current approach.

The Baseline planned expenditure across the AMP 8 period for this business case and its associated Programmes of work are provided below.

Programme Name	**AfW Baseline Planned Totex**									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Demand Management (Household/ Non-household)	4,424,000	8,664,000	12,904,000	16,744,000	20,584,000	1,221,000	2,561,000	3,846,000	5,131,000	6,416,000

The table below provides details of the current forecast expenditure based on expenditure incurred to date across this programme area together with the latest best

estimate of future expenditure required to deliver the remainder of the baseline programme.

Programme Name	AfW Current Forecast Totex									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Demand Management (Household/ Non-household)	4,424,000	8,664,000	12,904,000	16,744,000	20,584,000	1,221,000	2,561,000	3,846,000	5,131,000	6,416,000

The table below provides details of how our current forecast deviates from our initial baseline programme.

Programme Name	AfW Deviation from Baseline Totex									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Demand Management (Household/ Non-household)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Change Log – Change, observation and Ofwat query

Query: PCDW9 – Efficiency - Water demand savings (benefit). Are you resetting the baseline expenditure?

Answer: We are not resetting the baseline expenditure. Following the FD, we've reassessed our risk tolerance related to demand management, especially considering the increasing dry weather patterns. Based on this, we've built a more ambitious plan in AMP8 to increase collaboration with our customers to reduce water consumption. Some of the key initiatives we will undertake this AMP include behavior change campaigns, home/non-household water efficiency appointments and home leak repair services. Therefore, we have optimised our plan to provide additional funding to support these workstreams and reduce risk.

Expenditure – Data capture and validation

Cost data for the demand management workstream will be captured and validated following the standard company approach. This includes utilising the established internal governance framework for demand management, project and programme level controls and reporting, along with the oversight provided by the demand management steering group.

Outputs

For AMP 8 in Demand Management there is a PCD allocated to it of a 23.72 Ml/d saving. The activities mentioned above will all contribute to the savings. The data and assumptions from AMP 7 have been brought forward to our outputs in AMP 8 and therefore we will deliver the PCD within the scope of work.

The Baseline planned delivery of our Price Control Deliverables (PCDs) for this business case and its associated programmes of work are provided below.

Programme Name	Baseline Planned PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Demand Management (Household/ Non-Household)	Water Demand Savings	Ml/d	9.97	18.14	26.31	34.48	42.65					

The table below provides details of the current forecast of the PCD outputs based on those delivered to date across this programme area together with the latest best estimate of future output delivery required to deliver the remainder of the Baseline programme.

Programme Name	Current Forecast PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Demand Management (Household/ Non-Household)	Water Demand Savings	Ml/d	9.97	18.14	26.31	34.48	42.65					

The table below provides details of how our current forecast deviates from our initial baseline programme.

Programme Name	Deviation from Baseline PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Demand Management (Household/ Non-Household)	Water Demand Savings	Ml/d	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Change Log – Change, observation and Ofwat query

Query 1: In table DPW1, you have forecast out performance against the PCD baseline for the period 2025-30 in water demand savings. In 2029-30 you have stated a forecast demand saving of 42.65Ml/d, compared to a baseline benefit of 24Ml/d. Please confirm:

Q1: The figures quoted above are correct
Q2: The reason for the outperformance across the period
Q3: The reason for 19Ml/d outperformance in 2029-30
Q4: How confident you are in forecast water demand Ml/d savings.
For reference, see attached table from DPW1 data submission:

Data	2025-26	2026-27	2027-28	2028-29	2029-30
PCD Baseline Target	8.00	13.00	17.00	20.00	24.00
PCD Outturn & Forecast	9.97	18.14	26.31	34.48	42.65

Answer 1:

A1: We are not resetting the baseline expenditure. Yes, we have confidence our forecasted figures are correct in the table; these have been built up using our very detailed and robust data science models.

A2: Based on the volume of activities we are planning to complete over the AMP period, alongside our data model, we do anticipate that we will overachieve on the target.
Should any of the activities deliver less or more than projected, our model will be adjusted accordingly against forecast.

A3: This is a cumulative figure based off our forecasted savings from our data Science models that's built from all our activities.

A4: Our forecasts are based on very detailed and robust data science modelling of the benefit of our water saving activities which has been iterated over a number of years. Therefore, we are confident in the bottom up benefit calculations. However, naturally we will continue to refine and iterate our data science models as we complete more activities and will have more data to analyse. As we continue this development there is the potential for forecasts to change however, as this area of our operations is inherently subject to exogenous influences such as weather and customer behaviour. At this early stage the figures stated are our best estimates of our potential performance.

Outputs – Data capture and validation

For AMP 8 in Demand Management there is a PCD allocated to it, with a total saving of a 23.72 Ml/d. Throughout the AMP Ml/d savings will be calculated by data science on consumption data to make sure we can have as accurate representation of savings as possible. To make sure the data has integrity, it goes through yearly audits to make sure it is accurate.

Milestones

The Baseline planned delivery milestones for this Business Case and its associated Programmes of work are provided below.

Programme Name	Gateway Type	Baseline Planned Gateway Milestones				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Demand Management (Household/ Non-Household)	Bespoke	11/04/2025	N/A	07/12/2029	02/01/2030	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

The table below provides details of the current forecast delivery dates against the key milestones for this Business Case and its associated Programmes of work.

Programme Name	Gateway Type	Current Forecast Gateway Milestones				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Demand Management (Household/ Non-Household)	Bespoke	11/04/2025	N/A	07/12/2029	02/01/2030	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

The table below provides details of how our current forecast deviates from our initial Baseline programme and identifies those programme areas that are delayed by more than one Quarter period against each key milestone. The values are expressed in numbers of Programmes, where milestone dates have been exceeded by more than one Quarter period.

Programme Name	Gateway Type	Programmes that are delayed by more than 1 Quarter (nr)				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Demand Management (Household/ Non-Household)	Bespoke	N/A	N/A	N/A	N/A	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

Investment Area: Resilience_Business Case: Connect 2050 – Resilience (DPW1, line 38, PCDW16b)

Description

The Connect 2050 programme is a strategic initiative designed to ensure the long-term resilience of the water supply network in the face of evolving challenges. It assesses existing infrastructure and proposes necessary enhancements over the next 25 years, with costs allocated between the Water Resources Management Plan (WRMP) and resilience measures. The programme addresses critical issues such as incorporating new water sources from Strategic Regional Options (SROs), accommodating population growth, and managing the impact of sustainability reductions on water transfers between demand centres.

A key focus of Connect 2050 is to build upon the previous Supply 2040 project by comprehensively evaluating options and prioritising 'least regrets' investments during AMP8. This holistic and adaptive approach considers future uncertainties related to growth, environmental targets, and climate change, utilising iterative modelling with the WRMP to guide strategic development. The project aims to capture the combined impact of new environmental destinations and SRO requirements, ensuring robust and sustainable water resource management.

The Connect 2050 resilience projects in AMP8 include the addition of 20 Ml (total) of treated water storage, at two strategic locations in already vulnerable Water Resource Zones. These investments are resilience enhancement expenditures for AMP8. Additional storage is also part of our WRMP for AMP11 to support growth after the implementation of the AMP8 Connect 2050 scope. Our WRMP plans for additional storage at Hadham Mill in AMP11 are contingent on completing the 20Ml project in AMP8.

- The addition of 10Ml of treated water storage at the Hills site, alongside the existing single cell with a capacity of 18.2 Ml. The existing cell underwent substantial refurbishment during AMP7 under base funding. This would result in a total storage capacity of 28.2 Ml at the site
- The addition of 10Ml of treated water storage at the Hadham Mill site, in conjunction with the existing single cell of 2.3 Ml and the proposed WINEP SR driven 10Ml cell proposed in the WINEP business case. This would lead to a total proposed storage capacity of 22.3 Ml at the site.

These investments fortify our water supply network and improve its ability to handle future challenges, ensuring a more resilient and sustainable water resource management system. The reason for proposing this investment in AMP8 is to mitigate the impact of climate change. This investment carries low regret, as it focuses on improving resilience in the weaker areas of our network. It is a prudent decision as we prioritise the lowest-cost option while continuously monitoring the impact of climate change on the service we provide to customers.

The investment has been accelerated to AMP8 to enhance resilience for customers within our two most vulnerable Water Resource Zones, in the event of extended period of high demand. Because of climate change, periods of high demand on the water distribution network can happen at any time throughout the year, triggered by events such as heatwaves or freeze-thaw conditions, often with limited advance notice.

Expenditure

The costs for each component of the programme have been determined using Affinity Water's PR24 cost curves (2002/23 cost base) with an additional 10% contingency to account for Biodiversity Net Gain and risks inherent in large infrastructure projects.

Costs are profiled across AMP8 in accordance with the urgency and complexity of each element of the programme.

The Baseline planned expenditure across the AMP 8 period for this business case and its associated Programmes of work are provided below.

Programme Name	AfW Baseline Planned Totex									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Hadham Mill 20 Ml cells	504,261	3,205,657	5,606,898	6,003,103	6,003,103	-	-	-	-	-
Hills 10Ml Cell	534,143	2,567,651	4,811,052	5,217,001	5,217,001	-	-	-	-	-

The table below provides details of the current forecast expenditure based on expenditure incurred to date across this programme area together with the latest best estimate of future expenditure required to deliver the remainder of the baseline programme.

Programme Name	AfW Current Forecast Totex									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Hadham Mill 20 Ml cells	504,261	3,205,657	5,606,898	6,003,103	6,003,103	-	-	-	-	-
Hills 10Ml Cell	534,143	2,567,651	4,811,052	5,217,001	5,217,001	-	-	-	-	-

The table below provides details of how our current forecast deviates from our initial baseline programme.

Programme Name	AfW Deviation from Baseline Totex									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Hadham Mill 20 Ml cells	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hills 10Ml Cell	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Change Log – Change, observation and Ofwat query

Query 1: PCDW16b - Resilience Interconnector - Additional storage at reservoirs. Are you proposing resetting the baseline expenditure?

Answer 1: We are not resetting the baseline expenditure. The baseline expenditure published in the PCD models represent the expected expenditure performance, and we continue to use this as the reference point for assessing delivery.

Since the publication of the PCD models, we have developed a more detailed understanding of the delivery requirements associated with providing additional storage at Hadham Mill (Ware) and Hills (Folkestone), supported through our pre-AMP8 funding allowances. This has led to a refinement of our expenditure forecast, resulting in a variation from the published PCD-baseline.

Our updated forecast reflects a realistic and deliverable profile, informed by site-specific risks, delivery constraints, and opportunities. It also incorporates internally planned efficiency targets, which were identified through careful review of our Final Determination allowances and an assessment of how best to optimise delivery against our PCD commitments.

Query 2: We have noted changes to your PCD expenditure for AMP8/AMP9 period, please explain and justify these changes.

Answer 2: We confirm that we are not resetting the baseline expenditure. The baseline expenditure published in the PCD models represents the expected expenditure performance, and we continue to use this as the reference point for assessing delivery.

Our updated internal target forecast reflects a deliverable profile, informed by site-specific risks, delivery constraints and opportunities. It also incorporates an assessment of how best to optimise delivery against our PCD commitments. This has led to a refinement of our internal target expenditure forecast, resulting in a variation from the published PCD baseline.

We will continue to review and update our forecast on a quarterly basis and assess performance against the published PCD expenditure profile to ensure transparency and accountability.

Query 3: W An additional instrument has been added in the PCD output profile for year 2027-28, Please explain which scheme this refers to.

Answer 3: Whilst there is movement in our internal forecast targets in comparison to the Ofwat model, the number of instruments for AMP8 remains unchanged and in total equals 6.

Expenditure – Data capture and validation

Our PR24 cost models are aligned with industry standards and have been benchmarked against the outturns of current projects.

Outputs

This programme will deliver specific PCDs for the 10Ml additional Storage at the Hills site and the 10 Ml additional Storage at the Hadham Mill site, both to be completed by the end of the 2029/2030 financial year.

The Baseline planned delivery of our Price Control Deliverables (PCDs) for this business case and its associated programmes of work are provided below.

Programme Name	Baseline Planned PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Hadham Mill 20 Ml cells	Additional storage at the reservoir Hadham Mill and The Mills.	Ml	0	0	0	0	10					
Hills 10Ml Cell		Ml	0	0	0	0	10					

The table below provides details of the current forecast of the PCD outputs based on those delivered to date across this programme area together with the latest best estimate of future output delivery required to deliver the remainder of the Baseline programme.

Programme Name	Current Forecast PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Hadham Mill 20 Ml cells	Additional storage at the reservoir Hadham Mill and The Mills.	Ml/d	0	0	0	0	10					
Hills 10Ml Cell		Ml/d	0	0	0	0	10					

The table below provides details of how our current forecast deviates from our initial baseline programme.

Programme Name	Deviation from Baseline PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Hadham Mill 20 Ml cells	Additional storage at the reservoir Hadham Mill and The Mills.	Ml/d	N/A	N/A	N/A	N/A	N/A					
Hills 10Ml Cell		Ml/d	N/A	N/A	N/A	N/A	N/A					

Outputs – Data capture and validation

Evidence of achieving the PCD will be demonstrated by measuring the additional Storage capacity at Hills and Hadham Mills sites delivered by 31 March 2030'.

The PCD is met when the required additional capacity is provided to the relevant site, exceeding the initial storage capacity defined prior to 1 April 2025.

This storage capacity, both initial and additional, can be determined through either direct measurement or modelling

Milestones

The Baseline planned delivery milestones for this Business Case and its associated Programmes of work are provided below.

Programme Name	Gateway Type	Baseline Planned Gateway Milestones				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Hadham Mill 20 Ml cells	Traditional	08/11/2024	23/06/2025	12/08/2025	02/03/2026	N/A
Hills 10Ml Cell	Traditional	07/05/2025	23/12/2025	09/04/2026	10/11/2026	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

The table below provides details of the current forecast delivery dates against the key milestones for this Business Case and its associated Programmes of work.

Programme Name	Gateway Type	Current Forecast Gateway Milestones				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Hadham Mill 20 Ml cells	Traditional	08/11/2024	23/06/2025	12/08/2025	02/03/2026	N/A
Hills 10Ml Cell	Traditional	07/05/2025	23/12/2025	09/04/2026	10/11/2026	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

The table below provides details of how our current forecast deviates from our initial Baseline programme and identifies those programme areas that are delayed by more than one Quarter period against each key milestone. The values are expressed in numbers of Programmes, where milestone dates have been exceeded by more than one Quarter period.

Programme Name	Gateway Type	Programmes that are delayed by more than 1 Quarter (nr)				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Hadham Mill 20 Ml cells	Traditional	N/A	N/A	N/A	N/A	N/A
Hills 10Ml Cell	Traditional	N/A	N/A	N/A	N/A	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

Investment Area: SEMD_Business Case: Cyber Security (DPW1, line 47, PCDW17b)

Description

The objective of this programme is to deliver the required enhancements to ensure Affinity Water Limited (AWL) complies with the requirements of the Network and Information Systems Regulations 2018 (NIS-R), measured through its compliance with the Cyber Assessment Framework (CAF). Specifically, successful delivery of this programme will ensure compliance with the Enhanced CAF Profile (eCAF), required by the end of March 2028.

The scope of this programme is all Operational Technology (OT) systems that support the provision and delivery of clean, safe drinking water to AWL customers. It also covers any Information technology systems or components that could affect the security of the OT systems and also incorporates all people and processes involved in the management or maintenance of the aforementioned technologies. The scope is dictated by the requirements of the NIS-R.

This programme has 13 individual projects that are aligned to the specific requirements of the CAF that require enhancement or improvement for AWL to meet the eCAF.

Expenditure

Given the nature of the enhancements required, there is a heavy reliance on third party specialist providers to assist AWL in achieving compliance with the eCAF. In some cases, this will also require the procurement of new services. The AWL Cyber Security team has been heavily engaged with its partners to develop the cost estimates to ensure they are as accurate as possible and provide cost effectiveness.

The Baseline planned expenditure across the AMP 8 period for this business case and its associated Programmes of work are provided below.

Programme Name	**AfW Baseline Planned Totex**									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Cyber Security	1,123,200	1,887,400	2,651,600	3,415,800	4,142,000	-	334,000	668,000	1,002,000	1,336,000

The table below provides details of the current forecast expenditure based on expenditure incurred to date across this programme area together with the latest best estimate of future expenditure required to deliver the remainder of the baseline programme.

Programme Name	AfW Current Forecast Totex									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Cyber Security	1,123,200	1,887,400	2,651,600	3,415,800	4,142,000	-	334,000	668,000	1,002,000	1,336,000

The table below provides details of how our current forecast deviates from our initial baseline programme.

Programme Name	AfW Deviation from Baseline Totex									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Cyber Security	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Expenditure – Data capture and validation

Data pertaining to the expenditure of this programme will be captured regularly in project level governance meetings and actual expenditure derived from the Oracle system where it is centrally managed.

Outputs

This programme meets the legal instruments that govern compliance with the NIS-R. Where a project is required to deliver a new service, an acceptance report will be created and held once the service meets the requirements laid out in the eCAF. Acceptance will only be given when this is achieved.

In some instances, the project is descriptive in its title. For example, "Penetration Tests". When this is the case, the output report will be used as confirmation of successful delivery of the service.

The Baseline planned delivery of our Price Control Deliverables (PCDs) for this business case and its associated programmes of work are provided below.

Programme Name	Baseline Planned PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Cyber Security	PCDW17b	Notice	0	0	1	1	1					

The table below provides details of the current forecast of the PCD outputs based on those delivered to date across this programme area together with the latest best estimate of future output delivery required to deliver the remainder of the Baseline programme.

Programme Name	Current Forecast PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Cyber Security	PCDW17b	Notice	0	0	1	1	1					

The table below provides details of how our current forecast deviates from our initial baseline programme.

Programme Name	Deviation from Baseline PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Cyber Security	PCDW17b	Notice	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Outputs – Data capture and validation

Output reports will be created and stored once outputs are delivered on a project-by-project basis. No PCDs are associated with this programme, only legal instruments. Overall successful delivery of the programme will be measured by an independent validation of our compliance to the eCAF.

Milestones

The Baseline planned delivery milestones for this Business Case and its associated Programmes of work are provided below.

Programme Name	Gateway Type	Baseline Planned Gateway Milestones				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Cyber Security	Bespoke	12/12/2025	N/A	01/12/2027	01/12/2028	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

The table below provides details of the current forecast delivery dates against the key milestones for this Business Case and its associated Programmes of work.

Programme Name	Gateway Type	Current Forecast Gateway Milestones				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Cyber Security	Bespoke	12/12/2025	N/A	01/12/2027	01/12/2028	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

The table below provides details of how our current forecast deviates from our initial Baseline programme and identifies those programme areas that are delayed by more than one Quarter period against each key milestone. The values are expressed in numbers of Programmes, where milestone dates have been exceeded by more than one Quarter period.

Programme Name	Gateway Type	Programmes that are delayed by more than 1 Quarter (nr)				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Cyber Security	Bespoke	N/A	N/A	N/A	N/A	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

Investment Area: SEMD_Business Case: Emergency Planning (DPW1, line 48, PCD17a)

Description

The Emergency Planning Business Case has been developed primarily to address the deficit in the required planning provisions for alternative water during an emergency, that was introduced in the new SEMD 2022 legislation. Additionally, the DWI have served a Section 19 undertaking (Reference AFW-2023-00007) for the delivery of this programme to meet the new requirements. Historically the requirement for Affinity Water was to plan to supply 40,000 customers with 10 litres of alternative water per person per day during an emergency, this is increasing to 1.5% of our total population, which currently equates to around 58,000 customers. Secondary to the alternative water requirements, additional power resilience is needed to meet the new requirement of 7-day national power outage plans and mitigations, and it is an SEMD requirement that we must maintain communications during emergencies, which is exacerbated by the retirement of the Public Switch Telephone Network (PSTN).

The programme will consist of:

- Procuring 4 potable water tankers and enabling activities, including drivers, training, housing area and disinfection
- A new centralised bottled water storage facility to house uplift in required bottled water
- Procuring a curtain side HGV with Moffatt to provide in-house bottled water station and deployment capability.
- Procuring 3 mobile generators and installing additional plug in points for generators on our production assets
- SIM cards for existing satellite phones to enable communications during power outages and provide back up when PSTN is retired
- Training and exercising to cover the new processes associated with change in legislation

We followed our standard optioneering approach, considering an expansive unconstrained list, undertaking qualitative assessment and further economic assessment of a constrained range of options. The options we looked at were based on data, feedback and review of previous incidents experienced by Affinity Water and the likelihood of risk of incidents shared by other water companies and then put through our risk and value process. The key risks that have been identified are the lead time on the build of the tankers, as there are only two UK suppliers, of which all water companies will be using. We have tried to mitigate this by going to tender as soon as possible. This might also lead to a risk of price increase due to industry demand.

Expenditure

Expenditure estimates for the programme were all derived from using internal and industry data and benchmarking to determine the best solutions to ensure compliance with the new legislation under SEMD 20222. All activities were costed using detailed bottom-up estimates, based on existing knowledge and data from the business or previous activities, or from quotes given by providers to benchmark against the latest market data. These cost estimates were scrutinised through a vigorous risk & value process.

This Enhancement funding is to cover only new legislative requirements. There were no changes in requirements from AMP6 into AMP7 for SEMD, therefore there was no overlap from AMP7 Enhancement. All Emergency Planning activities, including alternative water supplies, were covered by base allowances during this period. We will continue to fund the existing population threshold of 40,000 consumers through the base allowance. The enhancement funding will be used to fund the additional marginal uplift in population threshold planning, such as new tankers and a new centralised bottled water facility.

The Baseline planned expenditure across the AMP 8 period for this business case and its associated Programmes of work are provided below.

Programme Name	**AfW Baseline Planned Totex**									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Emergency Planning	1,523,253	1,643,253	1,643,253	1,643,253	1,643,253	457,719	915,438	1,373,157	1,830,876	2,288,595

The table below provides details of the current forecast expenditure based on expenditure incurred to date across this programme area together with the latest best estimate of future expenditure required to deliver the remainder of the baseline programme.

Programme Name	AfW Current Forecast Totex									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Emergency Planning	1,523,253	1,643,253	1,643,253	1,643,253	1,643,253	457,719	915,438	1,373,157	1,830,876	2,288,595

The table below provides details of how our current forecast deviates from our initial baseline programme.

Programme Name	AfW Deviation from Baseline Totex									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Emergency Planning	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Expenditure – Data capture and validation

Cost data for Emergency Planning Business Case will be captured and validated following the standard company approach. This includes utilising the established internal governance framework for Emergency Planning, project and programme level controls and reporting, along with the oversight provided by the Emergency Planning steering group.

Outputs

The new tankers, bottled water storage facility, power and communications resilience measures once delivered will ensure that Affinity Water remain compliant with the legislation set out in SEMD 2022.

The Baseline planned delivery of our Price Control Deliverables (PCDs) for this business case and its associated programmes of work are provided below.

Programme Name	Baseline Planned PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Emergency Planning	PCDW17a	Notice	0	0	0	1	1					

The table below provides details of the current forecast of the PCD outputs based on those delivered to date across this programme area together with the latest best estimate of future output delivery required to deliver the remainder of the Baseline programme.

Programme Name	Current Forecast PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Emergency Planning	PCDW17a	Notice	0	0	0	1	1					

The table below provides details of how our current forecast deviates from our initial baseline programme.

Programme Name	Deviation from Baseline PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Emergency Planning	PCDW17a	Notice	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Outputs – Data capture and validation

The evidence for achieving the outputs of the programme will be provided by the satisfactory reporting of the programme milestones to the DWI, which is submitted as an annual report.

Milestones

The Baseline planned delivery milestones for this Business Case and its associated Programmes of work are provided below.

Programme Name	Gateway Type	Baseline Planned Gateway Milestones				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Emergency Planning	Bespoke	12/09/2025	N/A	31/03/2027	31/03/2027	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

The table below provides details of the current forecast delivery dates against the key milestones for this Business Case and its associated Programmes of work.

Programme Name	Gateway Type	Current Forecast Gateway Milestones				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Emergency Planning	Bespoke	12/09/2025	N/A	31/03/2027	31/03/2027	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

The table below provides details of how our current forecast deviates from our initial Baseline programme and identifies those programme areas that are delayed by more than one Quarter period against each key milestone. The values are expressed in

numbers of Programmes, where milestone dates have been exceeded by more than one Quarter period.

Programme Name	Gateway Type	Programmes that are delayed by more than 1 Quarter (nr)				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Emergency Planning	Bespoke	N/A	N/A	N/A	N/A	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

Investment Area: SEMD_Business Case: Physical Security (DPW1, line 48, PCDW17a)

Description

The Physical Security Programme of enhanced funded works is designed to ensure the effective delivery of work associated with the companies' obligations to the Security and Emergency Measures Direction (SEMD, 2022). The programmes prioritise new physical improvements at two newly designated CNI sites, delivered for value, while ensuring full compliance with statutory obligations.

The key drivers are compliance with legislation (SEMD, 2022)), Health and Safety, and internal and external security standards (WUKSS, v4.2, 2023; Protective Security Guidance, 2024). The company has also carried out internal and external security audits of the CNI site to ensure that the scoping requirements are as comprehensive and diligent as practicable. This programme will be supported by a series project status reports submitted to the DWI with milestone indicators, forming the foundation for a proactive work programme throughout AMP8 years 2 to 5.

The benefits to be delivered include an upgrade of physical measures at the CNI sites and training and exercising for site staff along with compliance to SEMD on behalf of the company. Risks to delivery include a planning application for a new site entrance to divide the site from network operatives because only essential users are allowed to work out of a CNI site.

Expenditure

AW use framework partners for security projects, thus ensuring competitive, known, and fixed costs and quality of asset installed. This has meant that previous projects give confidence in like for like costing. Also, the quality has already been tested in real time scenarios to ensure value for money and future proofed solutions. The framework and real-life costings of previous project installs has been applied to ensure accurate costing to base and enhancement expenditure totals.

The Baseline planned expenditure across the AMP 8 period for this business case and its associated Programmes of work are provided below.

Programme Name	AfW Baseline Planned Totex									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Physical Security	140,000	330,000	570,000	760,000	923,759	-	-	-	-	-

The table below provides details of the current forecast expenditure based on expenditure incurred to date across this programme area together with the latest best estimate of future expenditure required to deliver the remainder of the baseline programme.

Programme Name	AfW Current Forecast Totex									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Physical Security	140,000	330,000	570,000	760,000	923,759	-	-	-	-	-

The table below provides details of how our current forecast deviates from our initial baseline programme.

Programme Name	AfW Deviation from Baseline Totex									
	Capex (2025-26) (£)	Capex (2026-27) (£)	Capex (2027-28) (£)	Capex (2028-29) (£)	Capex (2029-30) (£)	Opex (2025-26) (£)	Opex (2026-27) (£)	Opex (2027-28) (£)	Opex (2028-29) (£)	Opex (2029-30) (£)
Physical Security	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Expenditure – Data capture and validation

Cost data will be systematically captured through a structured approach. This will include detailed cost tracking at project level, ensuring expenditure is aligned with planned budget. Costs will be categorised by workstream to enable granular analysis and reporting.

Regular meetings with the Project Manager will be conducted to monitor progress, ensuring accurate cost data is captured prior to reporting to the DWI. These meetings will facilitate real-time tracking of expenditures, enable early identification of cost variances, and support data validation to ensure financial reporting remains reliable and aligned with programme objectives. This proactive approach will also help inform forecasts, improve cost control, and drive more effective decision-making.

Outputs

Qualitative and quantitative outputs will be tracked and reported to the DWI on an annual basis. This incorporates upgrades against the AW CNI security standard, of Bi-fold gate tiger trap site access; with electronic access control and recording; intercom with audio and visual verification, CCTV to cover vulnerable point alarm

verification, segregation of site between network and essential site operatives and enhancement protection to the site perimeter.

The Baseline planned delivery of our Price Control Deliverables (PCDs) for this business case and its associated programmes of work are provided below.

Programme Name	Baseline Planned PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Physical Security	PCDW17a	Notice	0	0	0	1	1					

The table below provides details of the current forecast of the PCD outputs based on those delivered to date across this programme area together with the latest best estimate of future output delivery required to deliver the remainder of the Baseline programme.

Programme Name	Current Forecast PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Physical Security	PCDW17a	Notice	0	0	0	1	1					

The table below provides details of how our current forecast deviates from our initial baseline programme.

Programme Name	Deviation from Baseline PCD Outputs (Cumulative)											
	PCD Ref /Measure name	PCD	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2021-33	2033-34	2034-35
Physical Security	PCDW17a	Notice	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Outputs – Data capture and validation

The outputs will be captured on a rolling basis and reported annually to the DWI. The information is also separately captured on a site-specific security audit which is externally audited once every Amp for the veracity of SEMD compliance and reporting.

Milestones

The Baseline planned delivery milestones for this Business Case and its associated Programmes of work are provided below.

Programme Name	Gateway Type	Baseline Planned Gateway Milestones				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Physical Security	Bespoke	12/09/2025	N/A	31/12/2027	27/01/2028	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

The table below provides details of the current forecast delivery dates against the key milestones for this Business Case and its associated Programmes of work.

Programme Name	Gateway Type	Current Forecast Gateway Milestones				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Physical Security	Bespoke	12/09/2025	N/A	31/12/2027	27/01/2028	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

The table below provides details of how our current forecast deviates from our initial Baseline programme and identifies those programme areas that are delayed by more than one Quarter period against each key milestone. The values are expressed in numbers of Programmes, where milestone dates have been exceeded by more than one Quarter period.

Programme Name	Gateway Type	Programmes that are delayed by more than 1 Quarter (nr)				
		Gateway 1 Target Date (inc. IM1)	Gateway 2 Target Date (inc.IM2, IM3)	Gateway 3 Target Date (inc.IM4, IM5, IM6)	Gateway 4 Target Date	IM7
Physical Security	Bespoke	N/A	N/A	N/A	N/A	N/A

Gateway Type is Bespoke, or Traditional. For Bespoke, Gateway 2 (IM3) does not apply.
IM7 Scheme removed replaced as an output of IM 2.

Appendixes

Appendix 1: Ofwat Delivery Plan Tables (template v2)

Information has been provided within Ofwat tables excel spreadsheet ***'PCD-DP-table-template-v2_Affinity Water_28Mar25'*** (draft) and ***'AFW_Updated_22Jul25'*** (final).

Appendix 2: Delivery Planning Assurance

The development and sign-off of the Delivery Plan is a multi-stage process that varies depending on the type of project (Bespoke or Traditional) and its complexity. The development and sign-off of the Delivery Plan is a rigorous process involving detailed planning in Primavera P6, comprehensive estimating in Benchmark, thorough risk management in Origami, and formal approvals through established governance structures, with the Totex Governance and Totex Committee playing a crucial role in approving the project baseline and associated expenditure. This section provides a summary of the key aspects of Delivery Plan assurance:

Development of the Delivery Plan

Schedule Creation

Project schedules are developed using pre-created templates in Primavera P6. These templates cover the end-to-end lifecycle of projects, identifying required activities and deliverables at each Gateway. Planners and Project Managers collaborate to create schedules that reflect the full scope of work, build logic, determine durations, and calculate realistic forecast dates for live projects with approved funding.

Outputs: A detailed project schedule in Primavera P6 with tasks, durations, dependencies, start and finish dates, and key milestones.

Estimating and Budgeting

A detailed Scope of Works (SOW) is developed using Benchmark software, itemising labour and material costs. This involves using cost models, historical pricing data, and considering inflation and contingencies. For projects involving contractors, their submitted schedules and scopes are reviewed and incorporated into plans.

Outputs: A comprehensive Scope of Works document in Benchmark outlining the project's deliverables, assumptions, exclusions, measurements, pricing, and budget.

Risk Management

The level of risk management is determined by the project's complexity (Bronze, Silver, Gold) assessed through a Project Complexity Assessment (and supporting tool). Risk workshops are conducted to identify potential risks, which are then documented in the Risk Management System (Origami). These risks are assessed for probability and impact, quantified to inform contingency allowances, and response strategies are

developed. A Risk Management Plan is developed, especially for Silver and Gold projects.

Outputs: A Risk Register in Origami identifying, assessing, and categorising project risks, along with planned responses and contingency requirements.

Reporting on this progress tracking internally is carrying out monthly with Tier 1 audit (Head of Departments) and Tier 2 (Head of Investment Programme Management) to CEO report. The 6 monthly reports will be produced, audited (Tier 1, Tier 2, Tier 3 – Head of Audit) and signed off by relevant directors.

Risks will be used as the basis for the Ofwat reporting on the RAG assessment.

Sign-off of the Delivery Plan

Baseline Setting

Once the schedule content and duration are approved, a schedule baseline is set in Primavera P6 by the Planning Team. This baseline serves as the approved version against which project progress will be measured.

Governance and Approval

The level of governance and the approving body depend on the project type.

Bespoke programmes/projects require a copy of the P6 plan in the Programme Definition Document (PDD).

Traditional projects require a Business Case containing key milestones aligned with the P6 plan.

PDD and Business Case are presented to the Totex Governance and Totex Committee (subject to delegated authority) for funding approval.

- **Totex Committee Approval**: Both the original and revised baselines must be presented to the Totex Governance before Totex Committee and approved by the Totex Committee before being incorporated into the schedule. This ensures that Programmes and Projects are held accountable to these commitments with a clear, defined, and measurable baseline.
- **Incorporation of Contractor Schedules**: For projects with contractors, their NEC schedules undergo a formal acceptance process involving review by the Project Manager and Planner. Once accepted, key milestones from the contractor schedule are often incorporated into the schedule and may be constrained for reporting purposes.

Key Aspects

Outputs

The primary outputs of the development and signoff process include the approved baseline schedule in Primavera P6, the finalised Scope of Works and budget in Benchmark, the agreed risk register and contingency in Origami, and formal approval from the relevant governance body (Totex Governance or Totex Committee).

Timescales

For Traditional projects, subject to NEC4, contractor schedules must be submitted within a period stated in the contract (NEC4 Clause 31.2) and Project Managers have two weeks to notify acceptance or non-acceptance of contractor programmes (Clause 31.3) and Scopes of Works. Baseline approval also implies a stage within the overall project lifecycle, typically after initial planning and before significant execution.

Expenditure

Expenditure is a central consideration throughout the process, from initial estimates in Benchmark to the allocation of risk contingency in Origami. Funding approval is a key outcome of the governance sign-off at relevant Gateways, based on the presented Business Case or Project Definition Document. The approved baseline schedule and budget form the basis for financial tracking and performance measurement.

Governance

Governance is maintained through a structured framework involving different committees (Totex Governance, Totex Committee), defined roles and responsibilities (clarified by the RACI matrix), and formal approval processes for key project documents like the baseline schedule and budget. The governance structure ensures alignment with programme objectives and business strategy.

Appendix 3: Tracking Outputs

The process for tracking outputs involves several key elements, including defined data sources, validation procedures, the use of evidence, and governance oversight. We employ a structured approach to tracking project outputs, utilising Primavera P6 as a central tool for schedule-related outputs, supported by data from Benchmark for scope, contractor submissions, and the Risk Management System. Data validation is a continuous process involving monthly reviews and specific checks. Evidence of progress is maintained through these systems and related documentation, all within a Governance Framework that includes defined roles, approval processes, Change Control, and regular reporting.

Data Sources

The key data requirements for tracking outputs are listed below.

Project Schedule (Primavera P6)

The primary tool for tracking project outputs related to schedule and progress is Primavera P6. It contains all tasks required to complete the project, their start and finish dates, dependencies, and key milestones.

Actual Dates (AD)

Record the date an activity actually started or completed.

Forecast Dates (FD)

Indicate the forecasted start and finish dates for activities.

Physical % Complete
Tracks the actual completion status of activities.

Remaining Duration
Shows the estimated time needed to complete ongoing activities.

Baseline Dates
The approved initial and revised dates against which progress is measured.

Milestone Dates
Key start and finish points, including NEC milestones like Contract award, Access date, Start date, Planned completion, Hydraulic completion, and Contract Completion.

Benefit Tracking
For certain projects, like the Fast Chargers project, outputs (e.g., number of fast chargers completed) are tracked using specific columns such as 'Actual Quantity Completed' and 'Target Quantity Completed'.

Scope of Works (Benchmark)
While primarily for estimation, the Scope of Works (SOW) in Benchmark outlines the deliverables and provides a basis for understanding the expected outputs in terms of work to be done and materials.

Contractor/Supplier Schedules
For projects involving external parties, their NEC schedules are key data sources for tracking progress and outputs related to their contractual obligations These schedules are submitted monthly and contain information on start and finish dates, planned completion, and progress.

Risk Management System (Origami)
While not directly tracking project delivery outputs, Origami tracks risk-related outputs, such as the identification, assessment, and mitigation of risks that could impact project outcomes.

Asset Capture Sheet
Upon completion of capital projects, the Project Manager provides an Asset Capture Sheet, which details new assets purchased and delivered, including purchase costs and specifications. This serves as a data source for tracking tangible assets as outputs.

Lessons Learned Library
This centralised library captures feedback (good and bad) from projects, which can be considered an output of the project review process, informing future projects.

Data Validation
The main data validation and assurance processes are listed below:

Monthly Schedule Maintenance and Activity Checks:
Planners and Project Managers conduct monthly reviews of the P6 schedule to validate the data. This involves:

- **Progress Review Meetings**: Planners meet with Project Managers to gather information and discuss progress, delays, and concerns.
- **Integrity Checks**: Using a checklist, they verify data accuracy, such as ensuring activities in progress are not marked as 0% or 100% complete, activities have appropriate start and finish dates, and constraints are necessary.
- **Float Analysis**: Reviewing total float to identify potential issues (high positive, negative, or diminishing float) and ensuring missing logic is addressed.
- **Baseline Variance Analysis**: Comparing forecast dates against baseline dates to identify genuine slippage versus data errors.
- **Milestone Review**: Identifying milestones with significant positive or negative variance.
- **Logic Checks**: Ensuring there is no missing logic (predecessors/successors) in the schedule.
- **Contractor Schedule Validation**: Project Managers and Planners assess contractor schedules against required criteria. This includes checking for activities without predecessors or successors, negative float, large float values, actual dates exceeding the data date, and broken logic.

NEC Schedule Quality Validation Checks

Specific checks are performed on contractor NEC schedules upon receipt.

Acceptance of Contractor Schedules

Formal acceptance by the Project Manager (or reasons for non-acceptance) acts as a validation point for contractor-provided output data.

Validation of Scope of Works

Project Managers and Quantity Surveyors review contractor-submitted Scopes of Works against the priced Bill Of Quantities (BOQ). Quality checks are performed to ensure completeness, accuracy, and alignment with the required scope.

Evidence

Primavera P6 Schedule

The updated P6 schedule itself serves as evidence of progress, including recorded actual dates, percent complete, and milestone achievements.

Contractor Progress Reports

Monthly contractor schedule submissions provide evidence of their planned and actual progress.

Milestone Completion

Achieving key start and finish milestones in the schedule provides tangible evidence of output delivery.

Asset Capture Sheets

These documents provide a record and evidence of physical assets delivered as project outputs.

Lessons Learned Documentation:

The records in the centralised Lessons Learned Library serve as evidence of insights and feedback gained from project execution and completion.

Financial Records

While not explicitly detailed for output tracking, the Estimating Framework mentions cost capture and final accounts, implying financial data serves as evidence related to project expenditure against planned outputs.

Governance

Investment Programme Management (IPM) Planning Framework:

This document itself establishes the procedures and standards for planning, scheduling, and tracking outputs.

Roles and Responsibilities

Defined roles (e.g., Planners, Project Managers, Programme Managers) with clear responsibilities for schedule creation, maintenance, and validation ensure governance in output tracking. The RACI matrix clarifies accountability for risk-related tasks.

Baseline Approval by Totex Committee

The requirement for the TC to approve both original and revised baselines provides high-level governance over the planned project outputs and timelines.

Change Control Procedures

Any changes to the approved baseline require formal Change Control, ensuring that modifications to planned outputs are governed and approved.

Reporting to Stakeholders

Regular reporting to stakeholders, including senior management, on progress against schedule, budget, and scope ensures governance oversight of project outputs. The Planning Team is responsible for cross-checking and validating these reports.

Risk Reviews

Regular risk review meetings, as defined by project complexity, ensure that potential risks impacting outputs are monitored and managed.

Audits

Periodic audits of risk registers by the IPM Risk Function and Internal Audit teams provide a governance check on the risk management processes that support output delivery.

Post Project Reviews

Processes for post-project lessons learned reviews and operational performance reviews ensure accountability for achieving planned outputs and identifying areas for improvement.

Appendix 4: Tracking Expenditure

The processes for tracking expenditure involve several key aspects, including defined data sources, validation procedures, the use of evidence, and governance oversight. We track expenditure through dedicated estimating software (Benchmark), detailed

Scopes of Works, and a central Tender Log. Validation involves comparisons against internal estimates and market rates, as well as thorough reviews of contractor submissions. Evidence of expenditure is maintained through these systems, contractor documents, and financial records, all within a Governance Framework defined by procedures, roles, and post-project reviews.

Data Sources

Benchmark Estimating Software

This is the primary tool used for developing cost estimates. It serves as a central platform for historical pricing data and is used to compile built-up rate items and cost models.

Scope of Works (SOW) in Benchmark

The SOW itemises labour and material costs and is a crucial document for understanding the budgeted expenditure for a project. Contractor tenders are integrated into the SOW to refine project cost estimation.

Bills of Quantities (BOQs)

While the document suggests changing the name, BOQs are mentioned as being managed by the Investment Estimating Manager and are designed to minimise variations and control budget. Contractor-provided BOQs (or equivalent) contain their pricing.

AMP8 Tender Log

This log serves as a central place to document, compare, and analyse various costs throughout a project lifecycle. It includes fields for:

- **Estimated cost**: The initial best estimate.
- **Contingency %:** Calculated based on risk review.
- **Final Account cost**: The final contractually agreed cost after all differences.
- **Scope of Works costs (SOW)**: Costs set out by the contractor within the contract.
- **Extra Over costs**: Additional costs outside the instructed SOW.
- Indirect costs: Costs outside the SOW, generally preliminaries/overheads.
- **Actual costs**: Costs received from contractors based on payment certificates. The level of detail depends on the NEC4 contract option (e.g., lump sum vs. open book).

Asset Capture Sheet

This document, provided by the Project Manager upon project completion, and includes the purchase costs of new assets. This data is used for cost capture and updating the unit cost library in Benchmark.

Cost Tracking

Costs are captured in the Project Accounting module of Affinity Water' Oracle Fusion accounting system, based on invoices received, timesheets booked, and accruals based on Project Manager assessment of work value completed. Payment certificates and invoices received from contractors are subject to commercial review

and approved for payment in accordance with Affinity Water 'Delegated Authority' rules, which are set by the Board.

Expenditure is reviewed monthly against approved budgets and forecasts by the Head of Finance and Head of Investment Programme Management.

Data Validation

Comparison Against Cost Models

The proposed Scope of Works is routinely compared against existing Cost models, created by the Investment Estimating Team.

Review of Contractor SOWs

Project Managers and Quantity Surveyors are responsible for assessing the contractor's Scope of Works against the SOW priced by the Investment Estimating Team to ensure costs are justifiable and prevent later variations. Reasons for not accepting a contractor's SOW include costs not reflecting the scope or being unjustifiably different from the original BOQ.

Post Tender Cost Analysis

The Estimating Team performs a cost analysis during the post-tender process, comparing submitted contractor pricings against the pricing document. They will question costs that are higher than anticipated.

Monthly Cost & Value Maintenance

Estimators and Cost & Value Engineers will hold regular meetings to update pricing based on market rates using Benchmark software.

Site Visits

Estimators conduct site visits to gather information that informs accurate costing.

Lessons Learned Reviews

Post-project Lessons Learned meetings and Operational Performance Reviews help to validate cost assumptions and identify any discrepancies between estimated and actual expenditure.

Evidence

Benchmark Estimating Software Records

The estimates, SOWs, and cost models within Benchmark serve as evidence of planned expenditure.

Contractor Tenders and Submitted SOWs/BOQs

These documents provide the contractor's quoted prices and breakdown of costs.

Accepted Contractor SOWs

Formal acceptance of the contractor's SOW signifies agreement on the contracted expenditure.

Invoices and Payment Certificates

These are key pieces of evidence for actual payments made to contractors.

Asset Capture Sheets
These provide evidence of the cost of new assets acquired.

AMP8 Tender Log Entries
The recorded cost data at various stages (estimated, SOW, final account, actual) within the log provides a historical record of expenditure.

Financial Reporting
Formal financial reports generated by the Finance Department serve as evidence of overall project expenditure.

Governance

IPM Estimating Procedure
This document establishes the framework and guidelines for estimating and managing project costs.

Roles and Responsibilities
Clear roles (e.g., Estimators, Project Managers, Quantity Surveyors, Cost & Value Engineers) with defined responsibilities in estimating, reviewing, and tracking expenditure ensure governance.

Tender Request Process
The formalised process for requesting and allocating estimating work ensures a controlled approach to initiating expenditure considerations.

Post Tender Process
The defined steps after receiving tenders, including cost analysis and comparison, provide a Governance Framework for evaluating contractor pricing.

Lessons Learned Process
The structured process for capturing and reviewing lessons learned, including financial aspects, contributes to better governance of future project expenditure.

Post Project Reviews
The processes for Practical Completion and Final Accounts/Operational Performance Reviews include financial reconciliation and learning, ensuring accountability for expenditure.

Integration with Financial Systems
The involvement of the Finance Team in processing asset capitalisation and final accounts ensures alignment with formal financial governance structures.

Approval Processes
The Totex Governance and Totex Committee structure for funding Bespoke and Traditional programmes/projects provides governance over initial investment decisions, which directly relates to planned expenditure.

Appendix 5: Tracking Milestones

Tracking milestones involves several key aspects, including defined data sources, validation procedures, the use of evidence, and governance oversight. Milestones are tracked primarily through Primavera P6 schedules, which will be informed by NEC contracts for Traditional projects. The accuracy and realism of milestones are validated through various quality checks and a formal acceptance process for contractor schedules. Evidence of planned and actual milestones is maintained within P6 and related project documents, all within a governance structure involving defined roles, responsibilities, committee oversight, and Change Control procedures.

Milestones & IM Alignment

All our programmes/projects use the same set of milestones within Gateways as outlined in the two runways: Traditional and Bespoke; they are built into P6 and tracked through standard processes.

We have mapped our delivery gates against the Ofwat-defined Interim Milestones (IM) and RAPID Gates.

Data Sources

Primavera P6 Schedules

This is the primary tool for developing, updating, and maintaining project, programme, and portfolio schedules, including milestones. Both Bespoke and Traditional projects utilise P6 for scheduling.

- **Project Schedules** focus on work to be done, time, and dates, with most project scheduling in AMP8 using P6. They will include key start and finish milestones.
- **Programme Schedules** are an amalgamation of high-level, key milestones from each project, showing interdependencies.
- **Portfolio Schedules** combine governance milestones from each Programme and Project, also highlighting interdependencies.

NEC Contracts

For Traditional engineering projects, which award contracts using NEC4 Clauses, the contract documents themselves define key milestones.

- NEC Schedule Structure includes key milestones such as contract award, access date, start date, planned completion, hydraulic/engineering handover completion, and contract completion.
- Contractors are required to submit programmes (schedules) that show key dates, planned completion, and dates for meeting conditions for key dates.
- Key NEC milestone dates, once agreed and baselined, are incorporated into the AfW plan and often locked using constraints.

Programme Definition Document (PDD) and Business Case

For Bespoke programmes/projects, a copy of the P6 plan, including milestones, is a requirement in the PDD. Traditional projects require a Business Case containing key milestones aligned with the P6 plan.

Contractor Programmes (Schedules)

Contractors submit their own schedules, often in P6 format, which contain their planned milestones. Key milestones from these schedules are incorporated into the schedule.

Data Validation

Schedule Availability

A good schedule, developed in P6, should have start and finish dates for each task, clearly show relationships between tasks, include key start and finish milestones, have a critical path, and be realistic.

Schedule Quality Checks

The IPM Planning Team works with Project Managers to resolve missing logic in schedules. If not possible, constraints are applied to key deliverables to give structure.

NEC Programme (Schedule) Quality Validation Check

Upon receipt of a Contractor NEC Schedule, PMs and Planners perform checks such as ensuring activities have predecessors and successors, checking for negative float, and reviewing activities with very large float values.

Accepting Contractors' NEC Schedule

The Project Manager reviews the Contractor Programme against required criteria with the Planner. Reasons for not accepting a schedule include if the plan is not practical or doesn't show required information.

Monthly Schedule Maintenance

Planners and Project Managers conduct monthly reviews to check the validity of forecast dates against baseline dates and identify milestones with negative or high positive variance.

Updating the Primavera P6 Schedule

Monthly updates involve going through activities line by line with the Project Manager and updating activity status and dates, highlighting any changes in critical milestones.

Evidence

Primavera P6 Schedules (Baseline and Current)

The P6 schedule itself, along with its baseline versions, serves as the primary record of planned and actual milestone dates. Setting an approved baseline allows for project performance to be measured against planned milestones.

Contractor Submitted and Accepted Programmes

The formal submission and acceptance of contractor schedules provide evidence of agreed-upon milestones.

Baseline Records
Records of the original and revised baselines in P6, including naming conventions and logs of changes, provide a historical audit trail of milestone targets.

Constraints on Key Milestones
The application of constraints (e.g., finish on or before) to key milestones in the schedule provides evidence of their importance and target dates.

Governance
IPM Planning Framework
This document provides a structured yet flexible approach for effective delivery across the programme, addressing the unique needs of Bespoke and Traditional projects regarding scheduling and milestones.

Investment Governance and Committee
Bespoke and Traditional projects follow different investment governance routes, with P6 plans and key milestones being relevant to funding approval (PDD for Bespoke and Business Case for Traditional, both via Totex Governance and Totex Committee subject to delegated authority funding structure).

Roles and Responsibilities
Planners are responsible for providing the P6 plan to Project/Programme Managers for Bespoke and Traditional projects. Project Managers work with Planners to incorporate contractor schedules and constrain key milestones. The Planning Team can only set original or revised baselines.

Change Control Procedures
Once a baseline is set, changes to milestone dates require formal Change Control procedures and may need approval from the Totex Committee (TC). Baseline dates should not be changed due to slippage.

Stakeholder Reporting
Schedules are developed to manage stakeholder expectations and facilitate reporting on progress against milestones. Primavera P6 is the primary reporting input tool.

Gateway Processes
The framework distinguishes between Bespoke (three Gateways) and Traditional (four Gateways) projects, with progression through these Gateways likely dependent on achieving key milestones.

Monthly Schedule Maintenance and Validation
The defined monthly processes ensure ongoing governance over schedule accuracy and progress against milestones.

Acceptance of Contractor Schedules (Clause 31.2 & 31.3 of NEC)
The formal acceptance process under NEC contracts provides a governance step for incorporating contractor milestones into the overall project plan.

Appendix 6: Independent Third-Party Assurance

We are committed to ensuring the accuracy and reliability of reporting on the project and programme delivery. To achieve this, we have implemented a robust independent third-party assurance process, adhering to all regulatory reporting requirements.

Our Approach

Our approach for ensuring effective oversight of our delivery plans is as follows:

Engaging Qualified and Independent Assurers

- We have adopted our established company reporting approach and have identified and engaged suitably qualified and independent third-party assurers. We have maintained a rigorous vetting process to ensure independence and expertise.
- We have meticulously documented the qualifications and experience of all potential assurers, including the CVs of lead providers, to be readily available for Ofwat's review.
- We have implemented a comprehensive conflict of interest assessment and management process, ensuring full transparency and objectivity in our selections.

Ensuring Access and Collaboration

- We will continue provide our appointed assurers with full access to all necessary information and systems, using our existing infrastructure and protocols.
- We will continue foster a collaborative environment, ensuring open communication and timely information sharing.

Contractual Obligations and Ofwat's Duty of Care

- We have ensured that our contracts with assurers include clear terms that provide Ofwat with an actionable duty of care. This will be achieved through mechanisms such as letters of reliance or third-party rights to enforce relevant provisions.
- We will continue work closely with our legal team to ensure all contractual obligations are met.

Developing a Comprehensive Assurance Strategy/Plan

- This document provides a detailed assurance strategy/plan covering the entire 2025-30 period. This plan outlines our approach to internal and third-party assurance, the scope and coverage of assurance activities, the identification of assurers, and our conflict management protocols.
- This plan will be made available to Ofwat upon request.

Lead Assurer Requirements

- We have ensured that our lead assurer is a senior individual with extensive experience in their specialist field, including leading assurance projects for water or infrastructure providers and possessing relevant knowledge of the water sector.

- We will confirm that the lead assurer understands their duty to provide an objective, unbiased opinion to assist Ofwat in evaluating our performance.

Scope of Assurance and Reporting

Delivery Plans, Action Plans, and Progress Reports

- We will facilitate comprehensive assurance reviews of our delivery plans, action plans, and progress reports, ensuring that all interim milestones, expenditure data, and PCD output delivery are accurately reported and assessed.
- We will cooperate fully with the assurer's review of items such as: PCD coverage, milestone identification, completion dates, and remedial actions.

Price Control Deliverables (PCDs)

- We will ensure rigorous independent assurance of all PCDs, including compliance checks, methodology reviews, data sampling, and incentive payment calculations.

Large Schemes Gated Approach

- We will ensure independent technical and commercial assurance for all Gate submissions, ensuring that engineering rationale and cost assessments are thoroughly reviewed.

Reporting Requirements:

- We will publish independently assured reports on delivery plan progress annually in July.
- We will provide overall, and individual PCD assurance reports as required by Ofwat's timeline.
- For large, gated schemes, we will provide final assurance reports with our Gate submissions.
- We will provide draft reports to Ofwat upon request.
- We will ensure all reports include the required scope, methodology, key findings, and assurer's opinions.

Responsibilities and Accountability

Our Commitment

- We have taken full responsibility for appointing qualified assurers, ensuring contractual compliance, providing accurate information, and addressing any data quality concerns.

Assurer Accountability

- We will work with assurance providers to ensure they understand their responsibility for the accuracy and integrity of their reports and their accountability to both AfW and Ofwat.

Addressing Potential Issues

- We understand that if Ofwat lacks confidence in the assurance provided, that Ofwat has the ability to act. Therefore, we will maintain a high level of transparency and cooperation with both the assurers, and Ofwat.
- By implementing these measures, AfW is confident that we will meet Ofwat's expectations and provide accurate, reliable, and transparent reporting.

Appendix 7: AMP8 Gateways & RAPID Alignment

We have mapped our process against the Ofwat-define RAPID Gates and the Ofwat-define Interim Milestones (IM). We identified that the key difference is that our process covers the full project lifecycle and as a result includes a lesson learnt, final account and closedown stage that the IM/RAPID process does not. The mapping is outlined below:

RAPID Gate No.	RAPID Stage Gate	Affinity Water Stage Gate
1	Initial Concept Design and Decision Making	Gateway 1 – 'Concept Stage'
2	Detailed Feasibility, Concept Design and Multi-Solution Decision Making	Gateway 1 – 'Concept Stage'
3	Developed Design, Finalised Feasibility, Pre-planning Investigations and Planning Applications	Gateway 2 – 'Definition Stage'
4	Planning Applications, Procurement and Land Purchase	Gateway 2 – 'Definition Stage'
5	Construction, Installation, Commissioning	Gateway 3 – 'Implementation Stage'
6	From Guidance – PCD Delivery	Gateway 3 – 'Implementation Stage'
7	From Guidance – Removed / Replaced	Gateway 2 – 'Definition Stage'

Appendix 8: EA – email – 08AF100032

Marsili, Alessandro

From: Joe Tibbetts <Joe.Tibbetts@environment-agency.gov.uk>
Sent: 02 July 2025 10:56
To: Marsili, Alessandro; Joe Tibbetts; Tom Massey; Anna Mills; Sarah Heaney
Subject: Alteration : 1147/2/2025 9:55:30 AM

Unique ID:
08AF100032

Water Company:

Affinity Water Ltd

Alteration Type:

Change

Swap In/Out (If relevant):

Scheme Swapped With (if relevant):

Justification for Alteration (categorised):

Request to change a date outside of profiling guidance (please provide supporting information)

WINEP Data Entry column that has changed:
Water_Company_Planned_Delivery_Date

Revised Entry:
30/04/2028

Second WINEP Data Entry column that has changed:

Revised Entry 2:

Third WINEP Data Entry column that has changed:

Revised Entry 3:

Fourth WINEP Data Entry column that has changed:

Revised Entry 4:

Proposed Alteration:
we request to change completion date from 31/03/2027 to 31/03/2028

Justification for alteration:
As part of this investigation there is a need to characterise the SSSI from the hydrological, hydrogeological and ecological perspective. it is proposed to deliver the main outcome of the investigation within the original completion date and allow an extra year to undertake options appraisal, confirming mitigation measures. The main report to be issued end of Phase 3 within the original completion date to feed the WRMP29.

Environmental Issue Adressed:

Supporting Information:

Permit Revocation:

Options Assessment Report:

Options Development Report:

New Scheme detail:

Proposed WINEP permit/licence conditions:

Additional Comments:

The below section gives details of the incoming swap scheme, if applicable:

Incoming Swap Unique ID:

Water Company:

Swap In/Out (If relevant):

Scheme Swapped With (if relevant):

Appendix 9: EA – email – 08AF100039

Marsili, Alessandro

From: Joe Tibbetts <Joe.Tibbetts@environment-agency.gov.uk>
Sent: 02 July 2025 11:07
To: Marsili, Alessandro; Joe Tibbetts; Tom Massey; Anna Mills; Sarah Heaney
Subject: Alteration : 1157/2/2025 10:06:29 AM

Unique ID:
08AF100039

Water Company:

Affinity Water Ltd

Alteration Type:

Change

Swap In/Out (If relevant):

Scheme Swapped With (if relevant):

Justification for Alteration (categorised):

Request to change a date outside of profiling guidance (please provide supporting information)

WINEP Data Entry column that has changed:
Water_Company_Planned_Delivery_Date

Revised Entry:
31/12/2029

Second WINEP Data Entry column that has changed:

Revised Entry 2:

Third WINEP Data Entry column that has changed:

Revised Entry 3:

Fourth WINEP Data Entry column that has changed:

Revised Entry 4:

Proposed Alteration:
we request to change Completion date from 30/04/2027 to 31/12/2029

Justification for alteration:
This is a research investigation with no substantial impact on licence abstraction changes to be introduced as part of WRMP29; a longer timeline has been agreed to allow better characterisation of the intermittent reaches of the Chalk Streams across a wider spectrum of seasonal conditions which would unlikely occur in the limited original timeframe of two years

Environmental Issue Adressed:

Supporting Information:
https://defra.sharepoint.com/:w:/r/teams/Team843/WINEP24/AFW/Alterations/08AF100039%20alteration%20form.docx?d=w37d3f387824b46ecbdff747527254687&csf=1&web=1&e=oLZtlA

Permit Revocation:

Options Assessment Report:

Options Development Report:

New Scheme detail:

Proposed WINEP permit/licence conditions:

Additional Comments:

The below section gives details of the incoming swap scheme, if applicable:

Incoming Swap Unique ID:

Water Company:

Swap In/Out (If relevant):

Scheme Swapped With (if relevant):

Appendix 10: EA – email – 08AF100040

Marsili, Alessandro

From:	Joe Tibbetts <Joe.Tibbetts@environment-agency.gov.uk>
Sent:	02 July 2025 11:11
To:	Marsili, Alessandro; Joe Tibbetts; Tom Massey; Anna Mills; Sarah Heaney
Subject:	Alteration : 1167/2/2025 10:10:21 AM

Unique ID:
08AF100040

Water Company:

Affinity Water Ltd

Alteration Type:

Change

Swap In/Out (If relevant):

Scheme Swapped With (if relevant):

Justification for Alteration (categorised):

Request to change a date outside of profiling guidance (please provide supporting information)

WINEP Data Entry column that has changed:
Water_Company_Planned_Delivery_Date

Revised Entry:
31/12/2029

Second WINEP Data Entry column that has changed:

Revised Entry 2:

Third WINEP Data Entry column that has changed:

Revised Entry 3:

Fourth WINEP Data Entry column that has changed:

Revised Entry 4:

Proposed Alteration:
we request to change completion date from 30/04/2027 to 31/12/2029

Justification for alteration:
This is a field investigation aiming to collect data to be used in the future to feed groundwater model. It has no substantial impact on licence abstraction changes to be introduced as part of WRMP29; a longer timeline has been agreed to allow better characterisation of the Lower London Tertiary aquifer across a wider spectrum of seasonal conditions which would unlikely occur in the limited original timeframe of two years

Environmental Issue Adressed:

Supporting Information:
https://defra.sharepoint.com/:w:/r/teams/Team843/WINEP24/AFW/Alterations/08AF100040%20alteration%20form.docx?d=w7304fe7db5214982973460e3f157c9f4&csf=1&web=1&e=bgp8eD

Permit Revocation:

Options Assessment Report:

Options Development Report:

New Scheme detail:

Proposed WINEP permit/licence conditions:

Additional Comments:

The below section gives details of the incoming swap scheme, if applicable:

Incoming Swap Unique ID:

Water Company:

Swap In/Out (If relevant):

Scheme Swapped With (if relevant):