

**WSX37 –
Resilience, risk
management
and decision
frameworks**

Business plan
2025-2030



Wessex Water
YTL GROUP

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WSX37 – Resilience, risk management and decision frameworks

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Supporting documents – see WSX38 – Annexes - Resilience, risk management and decision frameworks

This supporting document is part of Wessex Water's business plan for 2025-2030.

Please see 'WSX00 – Navigation document' for where this document sits within our business plan submission.

More information can be found at wessexwater.co.uk.

Executive summary

The world is changing faster than ever before. Uncertainty from shocks and stresses challenge our ability to deliver a good quality service, both now and in the future. Therefore, we have a focus on improving the resilience of our systems, to support us to deliver our long-term vision.

Since PR19 we have made a lot of progress to support resilience across our business. This includes further developing our risk and resilience framework, improving our service measure framework and developing our new LTDS, [DWMP](#) and our [Draft WRMP](#). All of these align to our revised strategic direction statement (SDS).

This appendix sets out our updated risk and resilience framework, which aims to streamline our resilience approach and more clearly show the framework's integration with other corporate processes. We have set out how the framework is supported and delivered through our wider processes, with a particular focus on our risk process, our investment process and asset management.

This framework clearly demonstrates the relationship between risk and resilience, and the importance of our objectives and strategic direction on all decisions we make as a business. Our framework is divided into two sections:

- Identifying the objectives and defining the context: This contains all the key outcomes and objectives, such as the Strategic Direction Statement (SDS) outcomes and the risk appetite, which drive our resilience processes.
- Our resilience steps: The six steps of our resilience process from “identify” to “monitor and evaluate”.

This document sets out how each of our supporting processes feeds into these steps and thus improves the resilience of our service.

We are doing considerable work to improve the resilience of our business so that we can continue to provide the best value service to our customers. We recognise that looking to the next AMP and beyond there is still room to improve our resilience process and align to best practice in an industry that is continuing to evolve its approach to resilience.

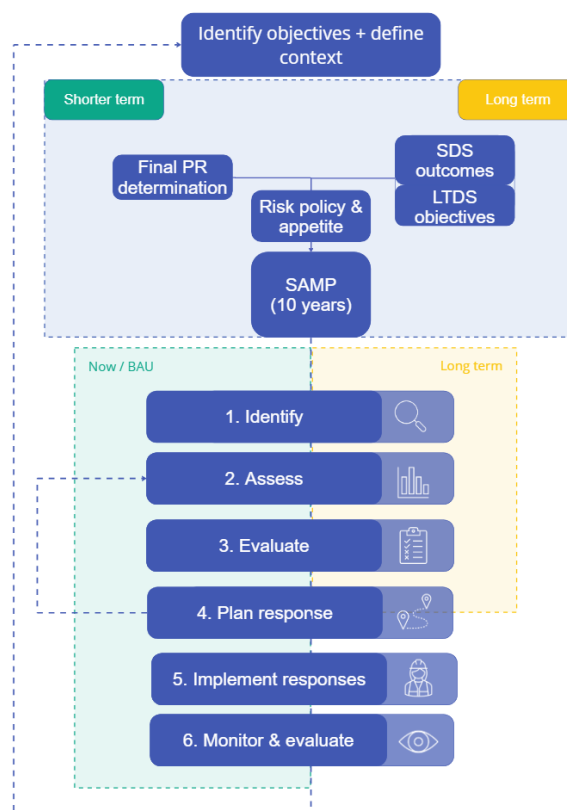


Figure 1: Our risk and resilience framework.

1. Introduction

1.1. The purpose of this document

This document sets out our approach to resilience, with a particular focus on the decision-making approach for operational resilience. Within this document we have included the following:

- An explanation of what resilience means to us.
- Our progress since PR19.
- An overview of our risk and resilience framework, delivered through a number of supporting processes:
 - The risk process.
 - The investment process.
 - Asset management.
- An overview of how resilience has been integrated into our PR24 submissions, and especially our long-term plans.
- How we plan to continue to improve our approach to resilience.

1.2. What is resilience?

We define resilience as follows:

Resilience is the ability to cope with and recover from, disruption and anticipate trends and variability in order to maintain services for people and protect the natural environment now and in the future.

When we consider resilience, we consider three types of resilience, as set out in our original [resilience action plan](#):

Operational - see section 2-9	Financial - see section 10	Corporate - see section 11
<ul style="list-style-type: none"> • The ability of an organisation's infrastructure, and the skills to run that infrastructure, to avoid, cope with and recover from disruption in its performance. 	<ul style="list-style-type: none"> • The extent to which an organisation's financial arrangements enable it to avoid, cope with and recover from disruption. 	<ul style="list-style-type: none"> • The ability of an organisation's governance, accountability and assurance processes to help avoid, cope with and recover from disruption and to anticipate trends and variability in all aspects of risk to the delivery of services.

Although we recognise that these three types of resilience are closely linked, the focus of this appendix is mainly on operational resilience. In keeping with our systems-based approach, we identify how corporate and financial planning feeds into our risk and resilience framework and present this with the framework in section 10 and 11.

Water companies and their Boards are obliged to demonstrate long-term financial resilience in the period 2025-30 and beyond. It is also incumbent upon companies to explain how they are mitigating risks to financial resilience. In 2022, Ofwat undertook a [consultation](#) on measures which are best suited to strengthen ring-fenced provisions and

transparently demonstrate how dividends take account of service delivery. This considered customers and the environment, investment needs, and the company's own financial resilience.

The PR24 Final Methodology has continued to focus on operational resilience and asset management. Ofwat has [proposed](#) the same asset health performance commitments as in PR19, relating to mains repairs, unplanned outages, and sewer collapses. [Ofwat has proposed](#) a three-stage process to develop an integrated monitoring framework for operational resilience. In the future this may include monitoring the organisational capability of companies, engagement with customers and stakeholders, innovation and environmental and social outcomes.

1.3. What resilience means to Wessex Water and our customers

Our purpose is 'To support our customers' health and wellbeing, and enhance the environment and the diverse communities we serve'

Providing a resilient service to our customers is a critical part of our operational activities and supports the delivery of our purpose. It is a fundamental capability that is engrained into our business and can be evidenced through our historical actions such as our implementation of the Water Supply Grid and our response to the Beast from the East.

Shocks, stresses and future uncertainties challenge our ability to deliver a resilient service, and we recognise that to create a resilient system we need to adequately understand, assess and quantify our risk. Our integrated systems-based approach to risk and resilience provides a clear line of sight from risk through to delivery of ambitions, objectives and outcomes. We have several systems and tools which we use to enable resilience. This document sets out our current processes and the direction of travel for improvements in AMP8.

We consider resilience as a key part of how we can deliver our [Strategic Direction Statement](#) (SDS) outcomes. The SDS describes our long-term vision and ambition around the role we will play in delivering the 8 outcomes, that customers, communities and stakeholders have told us are their priorities, through to 2050. This is summarised in **Error! Reference source not found.2**. To support these outcomes, we have established six 'enablers of change', which relate to financing solutions and empowering our people, also included in **Error! Reference source not found.2**.

Our Spring 2023 engagement showed that our customer's top priorities are 'safe and reliable water', 'effective sewerage system', 'great river and coastal water quality', and 'affordable bills'. This reflects how much our customers value our continued delivery of a reliable, good value service.

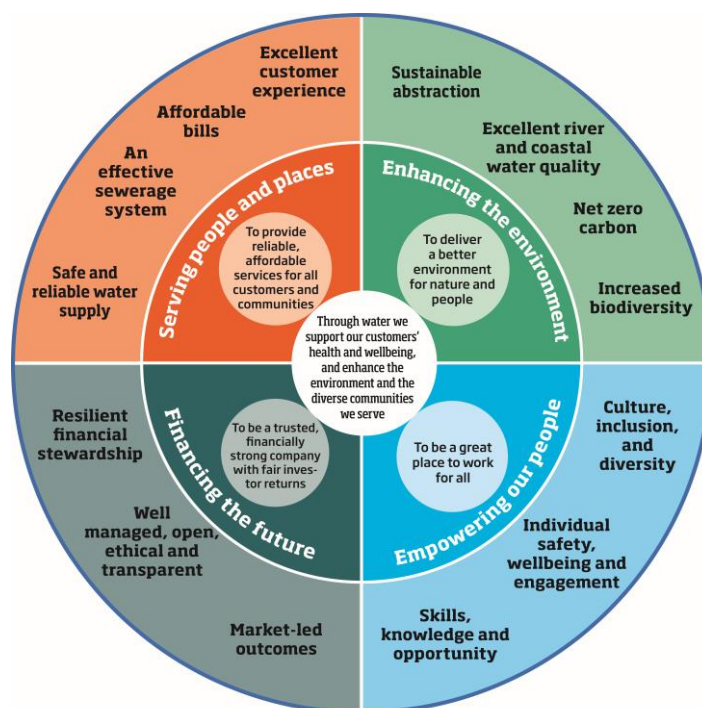




Figure 2 - Summary of our 25-year plan. The top half details the eight outcomes which are the heart of our Strategic Direction Statement, and the bottom half shows the 6 enablers of change.

1.4. Future risks, trends and uncertainty

We recognise that our operating conditions are ever changing. Since the publication of the initial resilience action plan, the COVID-19 pandemic as well as the lived experience of a changing climate have provided an impetus to focus on longer-term risks. There have been numerous extreme weather events since 2020 which we can expect to see occurring more frequently because of climate change. There has also been a significant shift in public views towards the environment and the role of water companies in managing this.

We have processes in place to identify, assess and act in response to shocks and stresses to ensure customers continue to receive the right services. We consider planning for both short term shocks and long-term stresses as equally important. We use the following definitions to understand and identify these challenges:

Figure 3 – Definition of shocks and stresses.

	<p>Shocks: We have defined these as disruptive events that impact our ability to provide a high-quality service to our customers. These acute shocks include sudden events like fires, floods or cyber-attacks.</p>
	<p>Stresses: We have defined these as chronic conditions that weaken our ability in the long term to provide an effective service. These include population growth, climate change or skills shortages.</p>

We have provided a full list of shock and stresses in WSX38 - Annex A1.

1.5. Progress since PR19

Since PR19, we have been working to enhance and embed our approach to resilience through a combination of activities, outlined below.

Further developed our risk and resilience framework

We have developed our resilience framework by building on our [2020 Resilience Action Plan](#). We streamlined our approach and integrated our framework more clearly with other corporate processes, ensuring that we learn from best practice as outlined in WSX38 - Annex A2. We updated the framework through a series of workshops with key decision makers, unpacking our definition of resilience, the key shocks and stresses our business faces, and the status of our resilience activities. The updated framework more clearly demonstrates the relationship between risk and resilience, and the importance of our objectives, strategic direction and long-term resilience on all decisions we make as a business.

Implemented the Governance Risk and Compliance tool

Our Governance, Risk and Compliance (GRC) tool has been embedded into our processes over AMP7, providing a consistent approach across the business for evidence-based risk escalation based on our risk appetite framework. The tool enables integrated risk management by providing visibility across portfolios, and a source of truth for input into the investment management process. The tool supports resilience by enhancing the risk identification and emerging risk / horizon scanning processes.

Drafted our new WRMP which incorporates impacts of EA ambition.

Our Water Resources Management Plan (WRMP) outlines how we will balance water supplies with water demands to ensure adequate supply for our customers whilst also protecting the environment. Our plan assesses uncertainty through forecasts and proposes interventions to balance demand, which supports us to be more resilient. Creating sustainable abstractions and managing the risk of deterioration and serious damage to the environment are an integral part of our WRMP process. Our WRMP also accommodates the [regional water resource plan](#) which sets a longer planning horizon and incorporates strategic resource options for 2050 and beyond, as well as a regional environmental destination.

Our last WRMP was published in 2019 and covers a 25-year planning period from 2020 to 2045. Our newest plan will cover a longer planning horizon from 2025 to 2080. This is a result of a number of step changes in regulatory planning requirements.

Developed and published our first DWMP

We have produced our first long-term (25 year) Drainage and Wastewater Management Plan (DWMP) in line with a consistent approach across water companies in England and Wales. These plans support the resilience of our drainage and wastewater infrastructure by assessing uncertainties and proposing relevant interventions. Our DWMP is currently on its first 5-year cycle, and can be found on our [website](#).

Our plan provides visibility of our long-term sewerage investment plans. It also sets out how we will enhance our assets and networks to ensure we continue to deliver for our customers and the environment in a sustainable and affordable way, and in the face of future challenges and uncertainties such as population growth and climate change.

Improved our Service Measure Framework – and therefore our decision-making framework

We continue to recognise that effective decision-making is essential for us to provide greater public value - delivering more for customers, society and the environment. During PR19 we have improved our Service Measure Framework (SMF) as a key enabler for decision-making. The SMF is a risk and value decision-support approach which enables objective comparisons of investment options across business areas, drawing on common valuation criteria to support investment decision making.

Our SMF utilises a capitals framework mapped across our four sustainability principles: Natural, Social, Human and Financial/Built. Our framework is based on the International Integrated Reporting Framework (2021) and aligns with good practice in the industry as well as other UK water utilities' approaches to investment planning.

Incorporated long-term resilience into our Strategic Direction Statement (SDS)

We updated our Strategic Direction Statement (SDS) in 2022, acknowledging the extreme challenges facing our society and the need to plan for the long term in the face of a changing climate. Our SDS sets our vision and ambitions through to 2050 through a set of eight outcomes, which have been developed using input from our customers and stakeholders.

The shared challenges these outcomes intend to address are of unprecedented scale and urgency and are included in our long-term delivery strategies – the climate and nature emergencies, the need for carbon neutrality, rising public expectations of the environment, higher living costs and long-term resilience. The eight outcomes have been outlined in Section 1.3: What resilience means to Wessex Water. Our full SDS can be found on our [website](#) (and also WSX59, submitted alongside this plan).

Published our climate change adaptation report in 2021

Our Climate Change Adaptation report covers the climate-related hazards that could affect us, the level of risk that they pose for our business, and the adaptation options that we have in place or propose. It is published as our third report under Defra's adaptation reporting power that was introduced with the Climate Change Act 2008, and provides updates to the previous edition in 2015.

In this addition, we reviewed our broader, higher-level assessment using the 2012 HR Wallingford / UKWIR climate risk assessment tool produced for the UK water sector.

2. Our risk and resilience framework

2.1. Approach

Our approach to resilience is focused on increasing the capability of our systems to avoid or mitigate the impacts of shocks and future stresses. We look to deliver efficient investment for the long term and in the round, creating societal and environmental value whilst driving industry excellence and innovation. We have invested in our infrastructure, processes, and people over the years to improve our ability to withstand, respond to and recover from the impact of sudden disruptions and long-term trends. We have developed a framework to set out how we manage our decision-making processes which is described in this section.

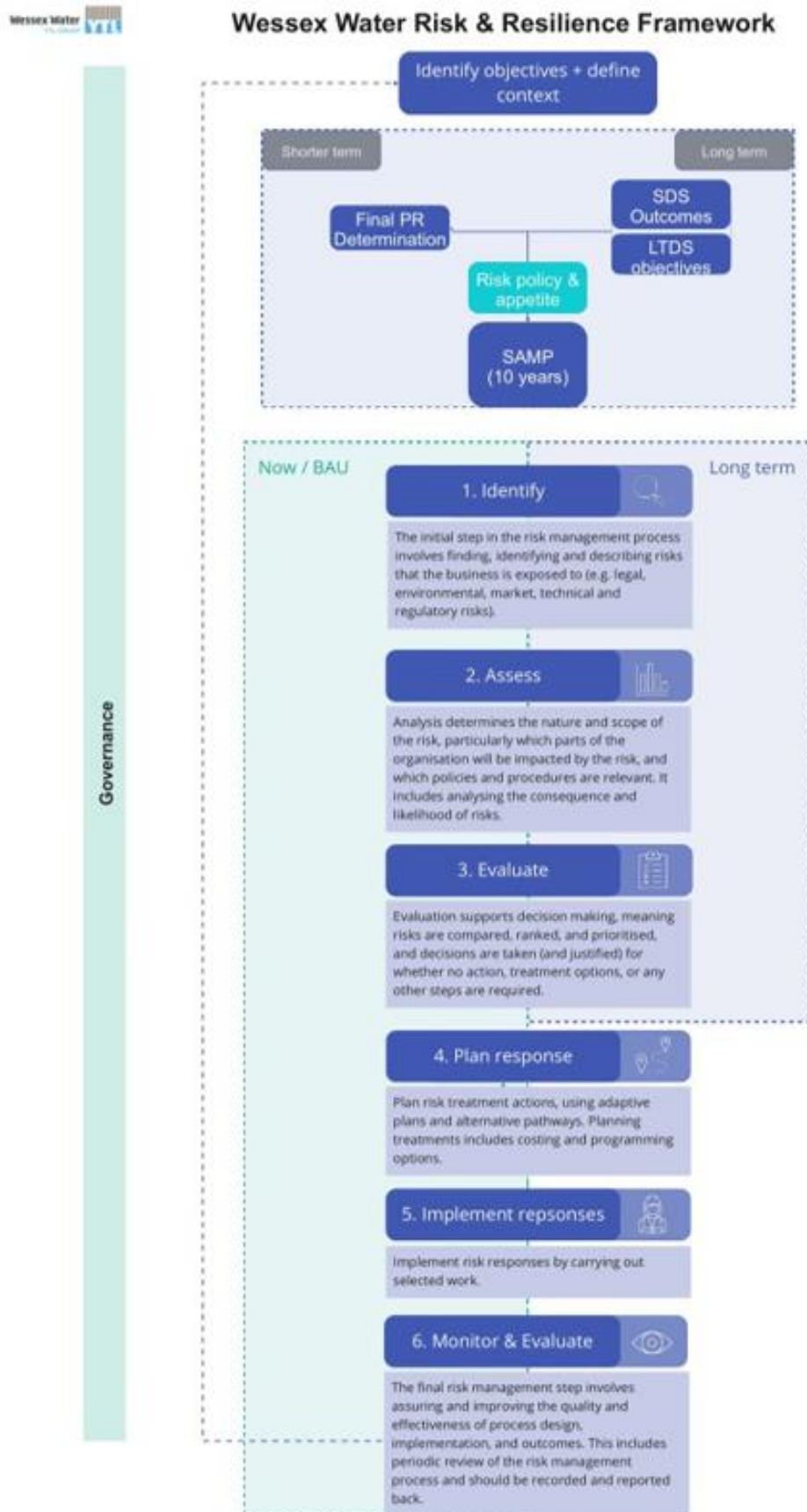
2.2. Our framework

Our risk and resilience framework sets out our approach and describes how we are continuing to embed a systems-based approach to resilience. Our risk and resilience framework builds on the work we developed for our resilience action plan as well as other key internal processes such as the risk management framework, investment planning and asset management processes. This approach to resilience feeds directly into our long-term planning and development of business plan including both our base and enhancement expenditure.

Figure 4 below sets out the overall approach to resilience, which is divided into two sections:

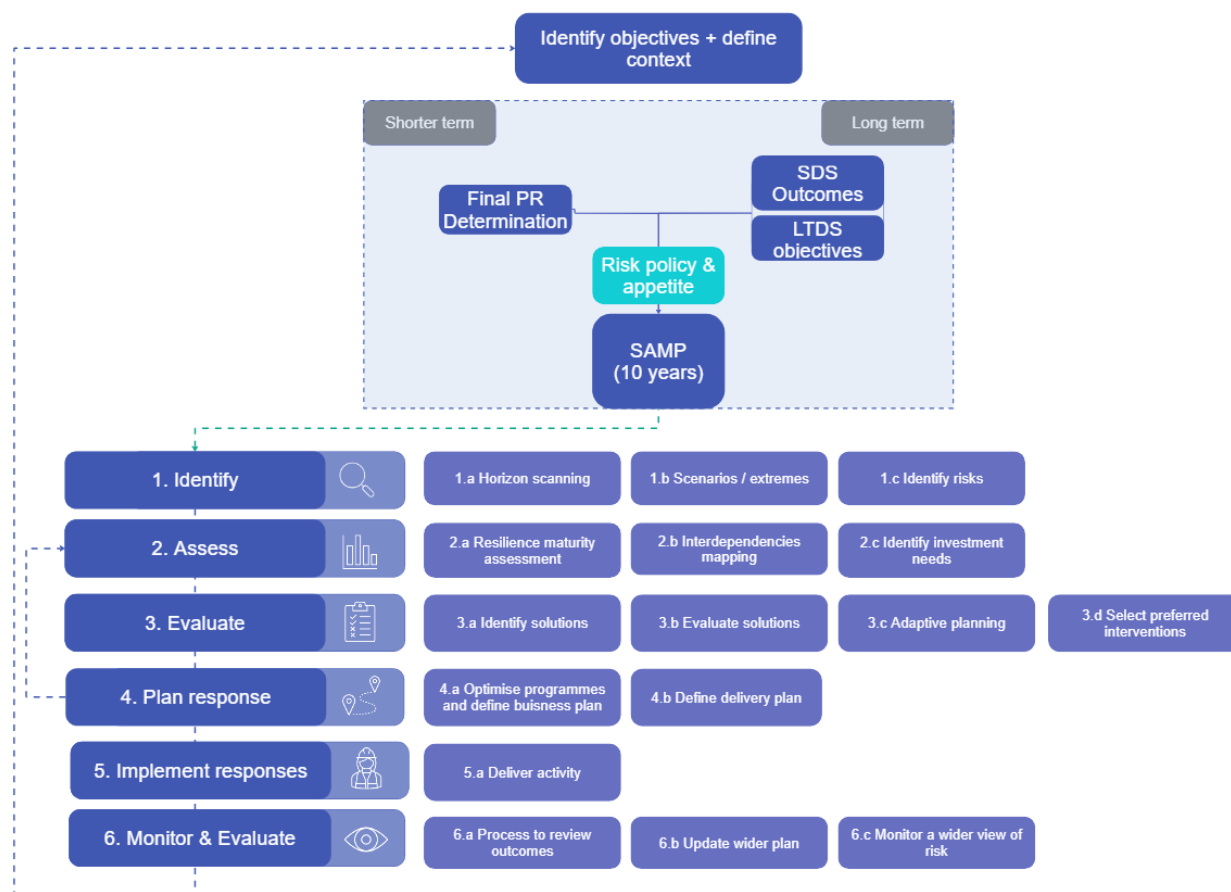
- **Identifying the objectives and defining the context:** This contains all the key outcomes and objectives, such as the SDS outcomes and the risk appetite, which drive our resilience processes.
- **Our resilience steps:** The six steps of our resilience process from “identify” to “monitor and evaluate”.

Figure 4 - Our risk and resilience framework.



In this section we detail the sub-tasks and tools that support each stage of our resilience framework. These sub-tasks link to our risk, investment and asset management processes, demonstrating how resilience is integrated into all areas of our business.

Figure 5 - The key steps in our risk and resilience process



2.3. How we apply the framework

Resilience is embedded into everything that we do. This means that our framework is largely applied and delivered through our existing processes and approaches:

- The SDS outcomes, combined with our Long-Term Delivery Strategy (LTDS), outcomes from the Price Review process, our risk appetite, and our Strategic Asset Management Plan (SAMP) set the context and objectives for our resilience framework. These outcomes are realised through the delivery of solutions which align with our resilience principles, outlined in section 3.1.2.
- We deliver each of the steps of our framework through three key processes:
 - Our risk management process
 - Our asset management strategy, planning and lifecycle activities
 - Our investment planning process

Depending on the shock or stress, the steps can be undertaken in different timeframes (short-term and long-term). WSX38 - Annex A3 details which planning framework is utilised. Each of these processes is set out in more detail in the sections that follow. Collectively supported by robust governance, these processes enable us to make decisions that support our ability to become more resilient, realising our objectives in the face of future uncertainty.

2.3.1. Risk management framework

We recognise that effective management of risk is an essential enabler for effectively and efficiently delivering our business objectives. The processes and techniques within our risk management framework provide a capability to be resilient in the face of unprecedented and uncertain large-scale changes. Furthermore, we know that risk-based thinking is essential for achieving an effective quality, safety, environmental and compliance management system.

Our risk management framework is governed by the risk policy and risk appetite framework. The risk policy sets out risk roles, responsibilities and outcomes, and the risk appetite framework provides strategic vision and direction for the organisation's risk culture and decision making.

Under the risk management framework, we have a range of processes that allow for risks to be identified, raised and assessed. These processes ensure that a base level of performance of the business is maintained, and manages the actioning and escalation of risks in a manner consistent to the company's risk profile. We have standardised the classification and recording of risks where possible to implement data driven decisions towards risk management, and have control processes in place to encourage feedback loops in the monitoring and actioning of risks.

Our approach to risk management aims to deliver the following outcomes:

1. Foresight & Insight

Foresight of the predicted range of outcomes in relation to business objectives and risk appetite.
Insight and sensitivity to the key external & internal factors, the causes and the root causes.

2. Direction & Control

Effective and timely direction and control of our resources

- in pursuit of our business objectives and risk appetites
- ensuring a strong capability to absorb and adapt in a changing environment
- enabling us to prosper

3. Creates Significant Value

Through critical reviews ensuring the effectiveness, efficiency, flexibility and timeliness of how we manage risk.

Our risk management framework is further detailed in WSX38 - Annex A4-1.

2.3.2. Asset management framework

Our Asset Management Framework contains a suite of key documents which set out our long-term ambitions and wider context of the environment which we operate in. Our asset management policy sets out our commitment to providing a resilient, sustainable and safe asset base.

We deliver this by:

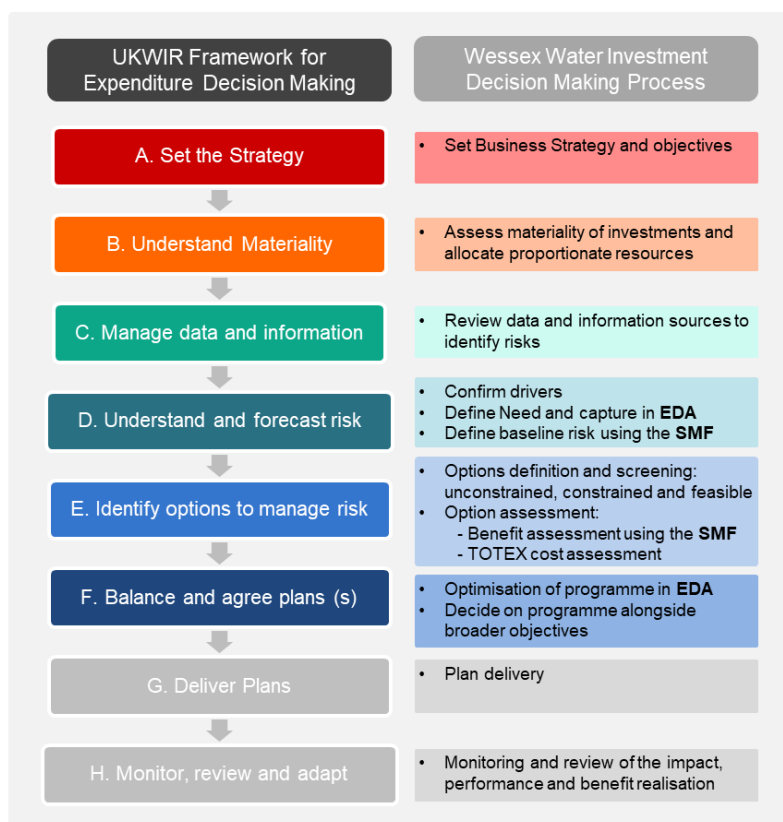
- Complying with legal and regulatory obligations
- Minimising health and safety risks for the public, our workforce and partners

- Providing a resilient, sustainable and safe asset base that delivers the right outcomes for our customers at the lowest whole life cost
- Creating and maintaining high quality asset data
- Developing future strategies to provide best value for our customers, stakeholders and the environment, taking into account uncertainty and change
- Using a risk-based approach and all available data to inform our decisions
- Providing the resources needed to operate our asset management system and meet our objectives
- Increasing our asset management capability by supporting the development of our people
- Reporting on our performance regularly and making the information freely accessible and understandable
- Working with stakeholders and partners to develop the most efficient and effective interventions, including innovative approaches, to achieve the required outcomes
- Maintaining stable asset and service risk through regular asset health assessments and system capability reviews.

2.3.3. Investment management framework

Our investment management framework defines our approach to investment planning and decision making. It is aligned with the UK Water Industry Research (UKWIR) framework for expenditure decision making (FEDM) and is consistent with the Ofwat Price Review PR24 Methodology. It is designed to enable a consistent approach across the business in terms of how we plan, manage and make-decisions on our investments and is framed around the following key steps: identifying needs, identifying solutions, optimising & selecting solutions, and delivering the plan & reviewing outcomes. Utilising our framework allows us to make better decisions around our strategic, tactical, and operational-level expenditure and ensures a line of sight from risk identification to the development and optimisation of solutions. This is illustrated in Figure 6 below and detailed further in WSX38 – Annex A4.

Figure 6 - Key steps of the Wessex Water Investment Decision Making Process aligned to the UKWIR FEDM



This framework is underpinned by our service measure framework (SMF), which is a systematic service risk- and value-based investment framework that enables a consistent approach across the business for how we plan, manage and make-decisions on our investments. It consists of defined service measures, and sub-sets of impact categories, with standardised units of measure which we use to articulate service risks and benefits. Each service measure assigns monetised value for risk-reduction or benefit-added using four capitals, Natural, Social, Human and Financial/Built. Our investment planning process articulates investment needs by using a forward-looking approach to predict the change in risk over time, to inform when the risk should be mitigated. The process then identifies and defines solutions to those needs, articulating the cost of the interventions, the risk reduction and benefits added. The SMF enables the step change between need and solution to assign monetised value to enable best-value decision making. The SMF and how it is used within our investment planning process is detailed further in WSX38 – Annex A4-3.

We utilise the Arcadis Gen EDA (Enterprise Decision Analytics) decision support tool to capture needs and solutions and optimise our investment plans to promote best-value solutions, meet various targets and constraints over time, making data-driven decisions that balance complex factors. We do this at various levels, from scheme to programme to overall business-plan level with multiple iterations over time as our investment plans are created, reviewed, assessed and agreed with our various stakeholders. Details of EDA optimisation and how the tool is used by Wessex Water is detailed further in WSX38 – Annex A4-5.

3. Identifying the objectives and defining the context

As risk is the effect of uncertainty on objectives, we need to identify our objectives and define the context before we begin identifying risk and optimising our potential investment plans. The company has two core sets of objectives:

- Those defined in the business planning process as statutory and regulatory obligations (e.g. performance commitments, Water Industry National Environment Plan regulatory outputs) that determine the objectives of the organisation in each five-year asset management period (AMP)
- Long-term targets defined in the SDS and the LTDS. Our SDS provides direction on the eight outcomes we aim for as a business, which is led primarily by the needs of our stakeholders.

We engage with customers, regulators and other stakeholders to help us determine each set of organisational objectives, ensuring that they support our overall purpose.

3.1. Our risk appetite framework

To provide the business with sufficient direction, we reflect the organisations objectives in our risk appetite framework, which defines the amount and type of risk that we are prepared to pursue, retain or take. Our risk appetite framework is made of three components, set out in Figure 7.

Figure 7 – Our risk appetite framework.



Parts of the framework	Link with other business processes
<p>Statements</p> <p>We have statements which are agreed by the Board for all principles risks and objectives. These are comprised of three elements:</p> <ol style="list-style-type: none"> 1. Risk level – how much risk we want to take 2. Risk appetite statement – description of the type of risk we are willing to take, and any details associated to the amount of risk we want to take 3. Risk tolerance statements – must achieve or must avoid outcomes that require escalation to the Board. 	<p>Risk Management Policy and processes</p>

Parts of the framework		Link with other business processes
Definitions	<p>These Statements are translated into detail that can be used in day-to-day decision making through risk appetite and tolerance definitions. For each of these definitions there is a performance expectation, risk type and expected mitigation.</p> <p>These definitions are reviewed and agreed by the Executive Leadership Team (ELT). For example, a definition describes what we should do or would tolerate to ensure our activities do not result in the of closure of bathing waters or downgrading of shellfisheries.</p>	<p>These definitions describe further strategic objectives (alongside the flow down of SDS outcomes and objectives) for the Asset Management and Investment Management processes:</p> <p>Asset management: our definitions will feed into the SAMPs. They will determine Asset Management Strategies which will influence technical standards and maintenance plans.</p> <p>Investment: best value aligns with the risk appetite framework.</p>
Metrics	<p>We are in the process of developing risk appetite framework metrics when statements and definitions are agreed. They will be aligned to existing metrics wherever relevant.</p> <p>These will monitor our actual performance against the risk appetite framework so that proactive action can be taken to control any adverse trends. These metrics will be monitored by the Risk Management Group with issues escalated to ELT or Board.</p>	<p>Information Management strategy and processes.</p>

3.1.1. Strategic asset management plans (SAMPs)

Our SAMPs are documents that clarify intentions, priorities and practices to be adopted to manage our asset base. They take a long-term view and consider the combination of organisational needs, stakeholder expectations and the realities of existing assets and asset management capabilities¹. They are an integral part of our framework to ensure that we maintain a common understanding of the asset management approach at all levels of the organisation.

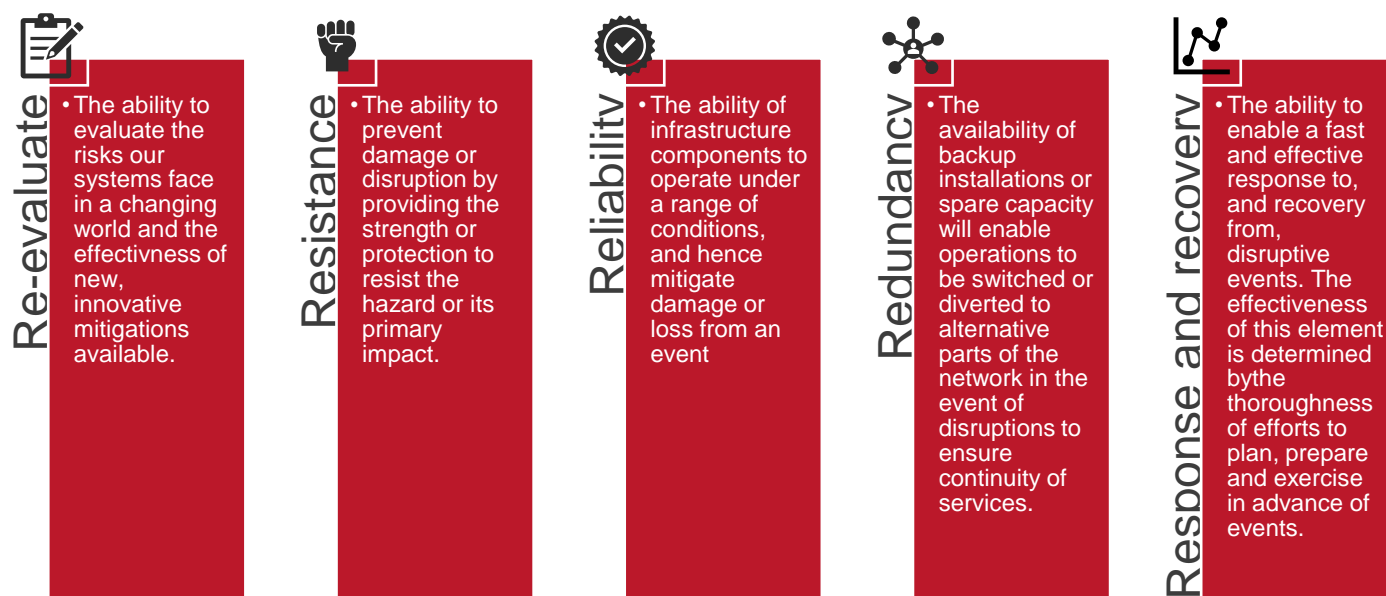
Resilience will be a focus area within the SAMPs and will set out how we intend to manage our assets in order to meet our objectives to provide a resilient service. In the SAMPs, we will bring together the work we have completed on shocks and stresses as part of our horizon scanning activities (see Section 1.4: Future risks, trends and uncertainty) to inform our asset management plans. It also links with and informs other steps in this framework.

Since our original Resilience Action Plan we have been using our 5Rs of resilience to help to guide our approach to resilience in practice. Our 5Rs of resilience, outlined in **Error! Reference source not found.**⁸ below, are based on the Cabinet Office's four principal components of resilience (4Rs). For each asset base, we determine how resilient we expect our assets to be against relevant shocks and stresses which is then detailed in the strategic asset management plan. These expectations are then reflected in technical standards and maintenance plans.

We added a fifth R, 'Re-evaluate' to include the ability of the organisation to continually evaluate the changing world in which it operates including the risks it faces and the new, innovative mitigations available. It also includes the ability of the organisation to re-evaluate their performance and learn from their past experiences to inform their future decisions. The activities associated with this are detailed in section 9: Monitor and evaluate.

¹ The IAM, Developing and maintaining a Strategic Asset Management Plan (SAMP), 2021

Figure 8 – Our 5Rs of resilience (adapted from the Cabinet Office's 4Rs)



In the majority of instances where a resilience intervention is used, the intervention will become a control to mitigate a risk. This therefore becomes an iterative process.

4. Identify

1. Identify

The first step of our resilience framework is led by our risk management process and involves horizon scanning and risk identification. If risks reach a certain threshold (as detailed in our risk appetite framework), they are confirmed as a need and progress to the assess, evaluate and investment planning processes.

4.1. Identify risks

We identify risks through our risk registers which are at three different levels, categorised into corporate, tactical and operational level risks. A coherent hierarchical structure of corporate, tactical and operational risks is essential for creating line of sight. This hierarchical structure empowers staff to manage risk within predetermined criteria associated with their level of working / authority.

Table 1 – Risk register

Risk Level		Risk Level Definition
1. Corporate	Enterprise wide	Strategic risks would impact multiple systems within the organisation or cause widespread disruption to customers that could not be mitigated by operational means, for example, a widespread power outage that would impact a large number of water and wastewater sites.
2. Tactical	Business unit and programme	Tactical risks would impact on a system or potential catchment.
3. Operational	Site and project	Operational risks would impact one site and can be mitigated by operational or asset means. Where applicable, local emergency and consequence management plans are prepared to mitigate these risks as a last line of defence.

The risks are captured on a single governance, risk and compliance tool.

Developing our shocks and stresses

We undertook a detailed screening process with business sector leads to create our final list of 16 shocks and 11 stresses, which are key to ensuring that we can continue to provide a robust service to our customers in the long term. These are set out in WSX38 – Annex A1, and captured at the appropriate risk level. We also have 16 principal risks - these are the most significant risks from the corporate risk register which the Board considers could have a material impact on the capability of the business to perform its functions. Many of these principal risks are those in our list of shocks and stresses.

We have a number of different risk identification techniques which are used across our risk management groups. These aim to identify relevant context information for risk, the source of uncertainty, the root cause of the risk and the potential sequence of events and range of outcomes. These are captured in our risk libraries and include:

- Hierarchy of corporate tactical and operational risk & hierarchy of risk controls- The risk hierarchy covers all known possible dimensions of variability or uncertainty.
- Horizon scanning, scenario analysis and stress testing- based on actual and predicted trends (see further information in section 4.1.2)

- Range of performance results by SDS outcomes and outputs- including trends
- Early warning indicators and trends- including reliability trends and asset condition.
- Emergency exercises
- Gated process check ins
- HAZOP
- Lessons learnt from project evaluations and operational evaluations.

Other drivers considered in our risk identification include:

- **Asset management - EDA Asset**
Utilises deterioration modelling to inform the need for asset replacement or refurbishment to identify and mitigate asset failure and ageing infrastructure (See WSX11 Annexes – Maintaining our services). The use of this tool has been evolving through AMP7 and we are using EDA Asset during business plan development to understand the quantum based on asset age and condition.
- **Planning team – In-AMP investment planners (BAU)**
Investment planners review the targets and levels of service against the existing position, including any new obligations or legislation changes. The investment planner also captures asset condition and performance data as part of Asset Maintenance Planning, see WSX11 Annexes – Maintaining our services. These activities occur within the AMP period and involve optimisation within established constraints and in line with overarching, agreed business plans. Our investment planners manage the balance of cost, risk and performance within the AMP.

Once a need is confirmed, it is captured in the EDA Tool and articulated using the relevant service measures (i.e. within the SMF) to represent the risks to Wessex Water, customers and the environment. Needs with legal obligations and regulatory commitments are identified as mandatory or 'must-do'.

4.1.1. Horizon scanning

We have horizon scanning in place to support the identification of emerging shocks and stresses, ensuring that we are always responding to and planning for the most informed and relevant list of challenges. To ensure we are resilient and fit for the future, we aim to anticipate likely changes and actively respond as they occur. Our existing horizon scanning considers emerging shocks and stresses from economic, social and environmental perspectives – considering both issues specific to the water sector and those beyond our influence. Our Public Value Committee reviews emerging risks and potential shocks & stresses.

We use a number of tools to help support our horizon scanning processes:

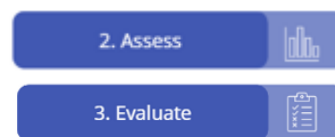
- **Identification of emerging trends:** One method is to identify emerging phenomena and the issues driving change or trends. We look at a range of sources as part of our horizon scanning, including the National Risk Register.
- **Scenario planning:** This method involves looking at more than one possible future, often considering very different outcomes and the resulting strategies that might be needed.
- **Visioning:** Visioning involves us defining an ideal future state for an organisation or wider society, based on common objectives. This approach informs our SDS.

The process of monitoring potential legislation changes, new performance commitments or outputs from long term plans (for example, WRMP, WINEP or DWMP) is integrated into the risk management process, with assigned risk owners in the GRC tool. These risk owners (or strategic leads) engage with regulators and respond to any changes, including need creation in EDA and investment case development where appropriate.

Horizon scanning and uncertainty: our LTDS

Planning for uncertainty is inherently difficult. We are exploring opportunities to address uncertainty in our decision-making, specifically through adaptive planning and scenario analysis in our LTDS (for more detail see Section 9). Scenario planning allows for the combining effects of shocks and stresses to be explored. Adaptive pathways are a sequence of possible actions over time, which can be implemented under changing conditions to prevent 'no or least regrets' decisions.

5. Assess & Evaluate



Once risks and investment needs have been identified, we assess and evaluate the risks. During assessment we undertake analysis of the nature and scope of the risk and how it may impact our organisation. We then compare and prioritise the risks to support decision making on the actions we should undertake.

We can assess risk qualitatively using approved probability impact scales or quantitatively using probability distributions and this enables us to measure overall risk exposure at various levels in the risk hierarchy and ultimately to our strategic outcomes. The GRC system holds information on risk assessment which includes: risk scoring, controls, effectiveness and any issues. We can take this information to identify trends in hazards, issues and control effectiveness to build a wider picture and identify systemic issues. The GRC tool holds:

- GRC Enterprise Risk Management: which uses approved Corporate and Tactical probability impact scales. Our risk methodologies enable us to assess and evaluate risk, based on likelihood and consequence. They are aligned with the risk appetite framework and associated escalation thresholds to help rank and prioritise risk.
- GRC Operational Risk Management: These operational risks will use the probability and impact assessment criteria and scoring in GRC. Key information and strategies are held in GRC such as the business specific information like DWSP and WARMS data.

<p>Drinking Water Safety Plans (DWSP)</p> <p>Our DWSP enable us to understand risk to water quality from source to tap and act as detailed site by site risk assessments. For these, we continually assess the risk at the catchment, treatment, distribution, and customer stage and score risk of hazards based on consequence and likelihood provide mitigation actions for each hazard/hazardous event. We use the data to prioritise investment and inform a rolling programme of capital maintenance and other interventions.</p> <p>Particular strategies that arise from our DWSP reviews include catchment management to mitigate rising nitrates and pesticides, cryptosporidium risk reduction, and strategic maintenance.</p>	<p>Wastewater Asset Risk Management system (WARMS)</p> <p>WARMS is the repository for operational risks in water recycling, bioresources and historically, sewerage. The hazardous event titles and hazards have been reviewed and updated to reflect the GRC risk library titles.</p> <p>Risk managers use WARMS to assess and evaluate risks as well as raising actions.</p>
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We are aligning our corporate, tactical and operational processes with other critical strategies such as information security.

The assessment of risk informs us of our risk exposure and whether it is:

- Within appetite threshold and therefore broadly acceptable
- Beyond tolerance threshold and therefore intolerable
- Between appetite and tolerance thresholds and is only tolerable if we can make an argument that the risk is As Low As Reasonably Practicable (ALARP).

This leads to a decision point to:

- Take the risk:

- This requires vigilance and monitoring of the effectiveness of the risk taking, or
- Mitigate the risk:
 - This requires the response to be planned then implemented or implemented upon a specified trigger point.

If the risk exposure is outside risk appetite, then we need to explore further controls or mitigation responses and develop options. When considering these options, we consider our 5Rs of resilience, as detailed in plan responses. In some instances, we need to plan the response to gather additional information so that we can assess and evaluate the risk again. This process loop may result in a scenario where we decide to mitigate the risk but upon gathering further information, we re-assess and decide to take the risk. In such instances, decisions are escalated as per our risk appetite framework.

6. Plan response

4. Plan response

Once a risk has been assessed and evaluated, an investment need is created. We then plan the response by identifying feasible options to address the root cause of the need. This involves identifying:

- Unconstrained options: Longlisting of all possible options.
- Constrained options: Coarse screening of options
- Feasible options: Fine screening of options to determine a preferred shortlist of interventions

When identifying and screening options, we use a mitigation hierarchy (see Figure 9 below) to systematically encourage the development of mitigations which (1) tolerate the risk, (2) improve operations, (3) collaborate with stakeholders and customers to address the root causes (4) optimise existing assets using new technologies or (5) build smarter solutions (TOCOB). It defines building new manufactured capital solutions as the ‘last resort’ to be considered and helps us to direct our interventions closer to the root causes of issues and identify the more sustainable, effective expenditure decisions.

Figure 9 – Our mitigation hierarchy, TOCOB: tolerate, operate, collaborate, optimise, and build smarter.

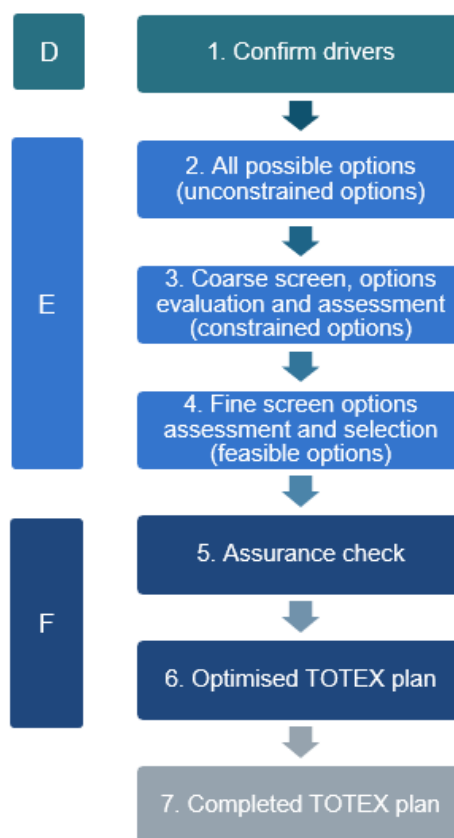
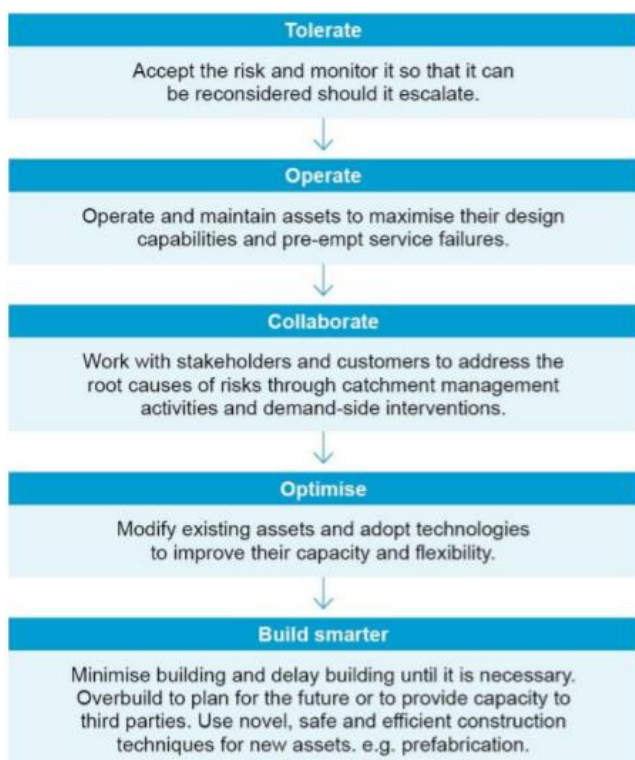


Figure 10 – Our approach to optioneering.

When using TOCOB, the proposed interventions are reviewed against the strategic asset management plan and the resilience expectations, specifically the 5Rs:

- Re-evaluate
- Redundancy
- Reliability
- Resistance
- Response and recovery

To inform the development of mitigations, we will assess proposed solutions against the 5Rs to identify which of the resilience components the mitigations possess. The objective is that our mitigations have a broad range of 5R resilience components and therefore, provide multiple lines of defence to the shock or stress and provide robust and comprehensive mitigation. In some instances, it is most appropriate to develop response and recovery plans only. Our approach to response and recovery as part of our business continuity and emergency planning is detailed in WSX38 - Annex A4-7.

Once a shortlist of interventions is identified, they are captured within the EDA portfolio optimisation tool (further detailed in WSX38 - Annex A4-5). We use EDA to capture the detail for our investment plan for PR24 and assess the impact of different service targets and constraints over the short, medium and long-term horizon. EDA allows us to apply constraints and scenarios to optimise our portfolio of interventions. This process is undertaken iteratively and allows us to compare options and timeframes for implementation to generate a preferred investment programme. We use the outputs of EDA to determine the optimal investment plan for our customers and other stakeholders. In EDA, investment needs are evaluated using the SMF. For each feasible option we detail:

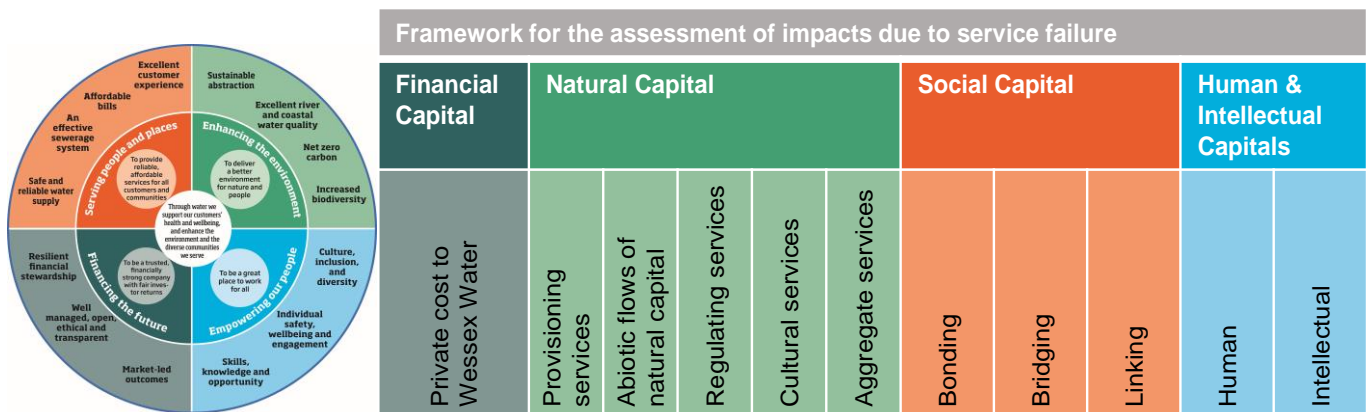
- **Costs:** Identifying the totex (including capital and operational expenditure) for each intervention for each year of the planning horizon. We utilise standardised cost databases and curves captured in EDA to inform the costing of each intervention. For further details on our cost estimating methodology, see WSX38 - Annex A5.
- **Benefits:** Understanding the benefit (or value) of the investment, based upon the change in risk over the planning horizon (i.e. the post-intervention value minus the pre-intervention value). As such, the annual frequency of failure and/or quantity for each service measure is adjusted to reflect the residual post-intervention risk position. For each option, we identify any further service measures affected by the intervention. In-depth or bespoke assessments are captured utilising our 'avoidable costs' service measure. To inform the SMF inputs, we have clearly defined data sources, methods and assign confidence levels (considered using information source, reliability and accuracy) for service risk, see WSX38 Annex – Annex A4

EDA then calculates the Benefit Cost Ratio (BCR) and Net Present Value (NPV) in accordance with UKWIR's 2010 CBA guidance (where the sector agreed to the use of the Spackman approach) and Ofwat's Price Review 24 (PR24) guidance. Our preferred plan is the plan with the best BCR, and our alternative plan is lowest whole life cost within performance target constraints.

The following two call out boxes, provide more specifics on two key aspects of our approach, namely, our multi-capitals service measure framework, and our unit benefit valuations. For further detail see Annex A4 in document WSX38 and the commentaries for data tables CW/CWW13-16.

Call out box 1: Our Multi-Capitals Service Measure Framework (SMF)

We use a risk and value decision-support approach (i.e. the Service Measure Framework) to enable objective comparisons of investment options across business areas, drawing on common valuation criteria to support investment decision making. This common currency is used to help us in quantifying risks to service and opportunities from investment, undertake expenditure planning, decision-making, asset operation and stakeholder conversations (including customers). It supports meaningful comparison and facilitation of prioritisation in expenditure selection. This approach aims to identify, measure and report on both financial and non-financial impacts and dependencies (often referred to as ‘sustainability accounting’) in monetary terms to enable holistic investment decision making. As such, our multi-capitals approach supports us to make more informed, sustainable investment decisions that provide the best balance of public value to our customers, society and the wider environment.



Call out box 2: Our unit benefit valuations

For each of the identified service measures (SMs), monetised valuations reflecting the impacts of service failures (or Wessex Water activities) bearing on the capitals were defined using financial, customer, social, environmental, human and intellectual valuations. Each unit of measure is valued against the value metrics they have a material impact on. Collectively these values act as the basis for common comparisons across diverse SMs. This allows Wessex Water to better represent risks and opportunities, link expenditure to service and understand the benefits of a series of interventions or programme in a more holistic manner. The SMs were typically valued using a mixture of sources, as outlined in the table below.

Valuation Type	Definition	Approach
Private Costs	'Private costs' which the business incurs in responding to failures of services	Developed through analysis and by consultation with members of staff from across Wessex Water various functions
Customers' valuations	Customers' Stated Preference values for changes in service	Derived from Wessex Waters Willingness to Pay evidence from 2022 Customer Valuation Research. We have undertaken a sensitivity test utilising Ofwat collaborative outcome delivery incentive rates research.
Social, human, Intellectual and environmental capital valuations	Social: Relationships between an organisation and communities, local government etc.	Consideration of social, human, environmental and intellectual values across the industry and broader literature/research at regional to global levels following good practice guidance, including: <ul style="list-style-type: none"> • Ofwat PR24 Methodology – including the WINEP Wider Environmental Outcomes Metrics • HM Treasury Green Book and supplementary guidance.
	Human: Includes trust, skills, well-being and safety of personnel.	
	Environmental: Ecosystem services that are relevant to Wessex Water's activities.	
	Intellectual: Includes routines, practises and structural resources	

Once we have reached a shortlist of interventions and a preferred plan, we can confirm that the investment need has been addressed by revisiting the assess and evaluate steps of our risk and resilience framework. This helps us to confirm that the risk has been mitigated to an appropriate level and supports us to maintain a holistic view on our risk management and investment case development.

In addition to our investment plans, we also maintain a suite of plans which set out our processes for managing the unexpected and providing a resilient service when assets need to be taken out of service. These plans are described in detail in Section 9: Integration of resilience into our PR24 submission and long term plans.

7. Implement responses

5. Implement responses



Once we have an agreed investment plan, we transition into the capital delivery and investment management phase, where we deliver our plan. This includes our process for how we carry out lifecycle activities on our assets. We have two streams of implementation:

Capital Project Delivery

Our capital project delivery consists of both planned and reactive activities. The capital project delivery process is gated to ensure that the solutions we implement meet our organisational objectives.

During the delivery of our investment programme, we have robust governance and assurance processes with established escalation levels, documentation requirements and named approval bodies, as outlined in section 11.3. This means that project and planning decisions made during business planning and within AMPs are supported, recorded and implemented, enabling the right decisions to be made at the right time.

The process allows for feedback to be provided at each stage to reflect lessons learnt and enable them to be communicated and implemented in subsequent projects where appropriate.

Efficiency of delivery has always been a key focus and is detailed further in WSX38 - Annex A5-1.3.

Operational and Maintenance Delivery

Our plans for operation and maintenance activities are based around Reliability Centred Maintenance principles. Our assets receive regular planned maintenance from our frontline operational teams. The maintenance activities range from regular operational checks and visual inspections through to intrusive tasks such as component replacement. These asset maintenance tasks and frequency are driven by an understanding of the consequence (or criticality) of the asset's failure in service and the optimal application of resource to mitigate against consequences of failure. The plans are regularly reviewed to reflect the latest information received from suppliers and updates of asset reliability to ensure they continue to support the delivery of our outcomes and detail the following:

- Our approach to reactive and proactive maintenance.
- Maintenance specifications and schedules.
- Asset inspection schedules.
- Guidance for front line teams on how assets should be operated in line with our business standards.

8. Monitor & evaluate

6. Monitor & evaluate



On completion of a project, we have a closedown process that gathers the appropriate information to operate and maintain our assets going forward as well as assessing the revised risk position in light of the completed intervention. At this point, we re-assess the risk and re-evaluate whether any further action is required other than monitoring.

Where we implement three of the five Rs of resilience, resistance, reliability or redundancy, we review the appropriateness of this in our Strategic Asset Management Plans to determine whether a wholesale change in the resilience of our asset base is required. Where this occurs, the revised resilience expectations will be updated in technical standards and new assets built to the stipulated level of resilience, wherever practicable.

We constantly review our performance to monitor our ability to achieve our performance objectives. Ongoing monitoring and review of solution performance falls under the risk management, asset planning and lifecycle processes. Outputs from these processes feed back into the investment management system through the investment approval process². The solution is reviewed and updated within EDA to reflect the outcome achieved in practice against the outcomes and objectives section of our framework.

We review our corporate and tactical risks twice a year and we are in the process of developing key risk indicators. The corporate risk register is updated annually and reviewed by the Company's risk management group and Audit and Risk Committee to ensure it is a true reflection of the circumstances of the company. We use GRC to monitor key data for status and to feed into DWSP and safety plan audits. Our assurance process is set out below.

We use stress testing to assess the impact of a number of compounding variables (uncertainties) and identify prevalent risks across various scenario combinations. We also review lessons learnt from post-project and operational evaluations. This feeds directly back into our Identify stage.

8.1.1. Asset performance

To understand the effectiveness of our assets and systems and emerging risks, we regularly review asset performance. We use a blend of lagging and leading indicators to monitor performance, and these span a variety of areas across the organisation:

- Performance commitments
- Asset risks
- Environmental performance
- Water quality performance
- Asset management system
- Capability improvement

As well as a blend of indicators, we also monitor performance at both the service level and the asset level.

We monitor the performance of our assets and operations through a series of monthly meetings with escalation to the Executive is appropriate.

² Gate 4: outcome review of the investment approval process - further detailed in chapter 8 Implement Response, and chapter 10 Corporate Resilience.

We are always seeking out opportunities to improve our asset management processes, including how we monitor performance. During AMP7, there has been a focus as an industry on developing our capabilities around monitoring asset health. This was explored through a recent study completed by UKWIR on [Future Asset Planning](#). We anticipate further development in this space during this AMP and next as an improved understanding of our future asset health across all asset classes will allow us to become more resilient as we will gain better understanding our risks.

9. Integration of resilience into PR24 and long-term plans

We have a number of activities and plans related to our PR24 business plan that support our work towards long-term resilience. Strategic planning frameworks include our Flood Risk Management Plans (FRMPs), River Basin Management Plans (RBMPs), WRMP and DWMP. Relevant activities within these plans contribute to our Water Industry National Environmental Planning (WINEP) programme. Our Long-Term Delivery Strategy (LTDS) brings these strategic planning frameworks and statutory environment programmes into one holistic framework, testing outcomes against future uncertainties, shocks and stresses, including climate change. See WSX 38 - Annex A3 for the full list of shocks and stresses that our long-term plans address. This process, outlined in Figure 11 below, aligns with the integrating resilience framework in Section 3.

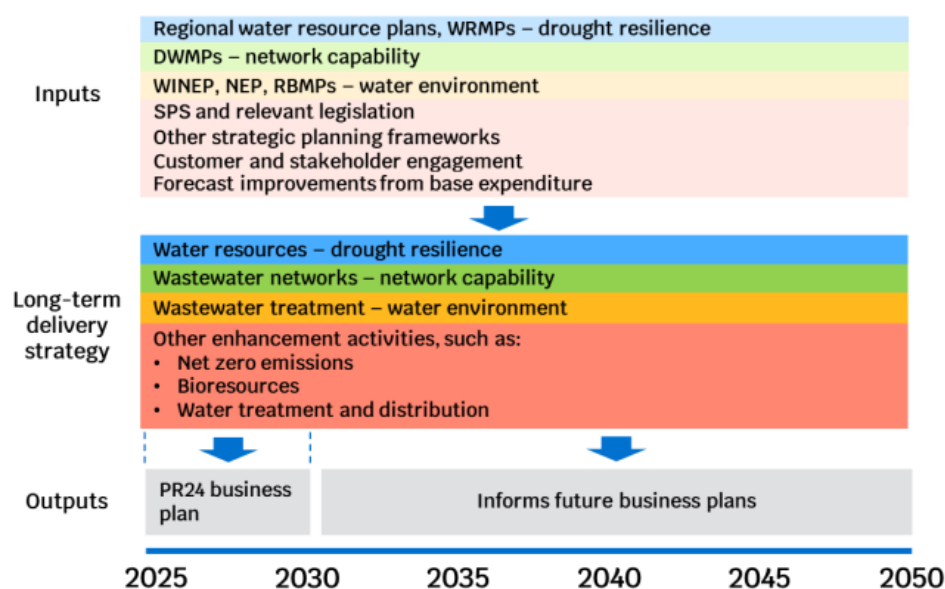


Figure 11 - Long-Term Delivery Strategy from Ofwat, 2022: PR24 and beyond: final guidance on long-term delivery strategies: https://www.ofwat.gov.uk/wp-content/uploads/2022/04/PR24-and-beyond-Final-guidance-on-long-term-delivery-strategies_Pr24.pdf.

9.1. Long-term delivery strategies and supporting plans

- **Long Term Delivery Strategy (LTDS)**

The LTDS (contained in WSX03) is our long-term adaptive plan; supporting us to deliver resilience in the long-term. It covers Wessex Water's planned activities in the next 25 years, requiring us to forecast our performance from base spend against Performance Commitments out to 2050. We then consider the enhancement expenditure required to meet these targets under a range of different scenarios. These include the common reference scenarios: climate change, increased demand, technology development, and abstraction reduction, and bespoke scenarios: loss of landbank, increased environmental regulation, and elevated nitrogen and pesticide levels in our groundwater.

From these scenarios, we highlight a number of adaptive pathways that branch off from a core pathway of 'must do', 'low/no regrets' investments to ensure we meet our 2050 ambitions. The first five years of our core pathway informs and aligns with our PR24 business plan, demonstrating that our AMP8 business plan investments are in

alignment with strategic planning frameworks (FRMP, RBMP, WRMP, DWMP) and statutory environmental requirements (WINEP).

While the LTDS sits across all elements of the risk and resilience framework, it is especially relevant for setting our objectives, identifying and evaluating our risks, and supporting investment decisions during the planning process by evidencing how targets may be impacted by future scenarios.

- **Flood Risk Management Plans (FRMPs)**

FRMPs are strategic plans that set out how to manage flood risk in nationally identified flood risk areas (FRAs). The second cycle of FRMPs is currently underway, identifying objectives and specific actions to manage and plan for significant flood risks between 2022 and 2027. We contribute to the [South West FRMP](#) for England.

The [Flood Risk Regulations 2009](#) require the Environment Agency and lead local flood authorities (LLFAs) to perform a statutory review of Flood Risk Management Plans (FRMPs) every 6 years. The current plans have a particular focus on how risk management authorities (RMAs) will work with stakeholders and communities to manage flood risk arising from rivers, the sea, surface water, groundwater, and reservoirs.

There is a close link between the FRMPs and RBMPs. Together, they provide an integrated approach to catchment planning for water, and work to achieve the objectives and measures in the plans that will bring benefits to human health and wellbeing. These will lead to economic prosperity and protect and improve the natural environment within our region.

- **River Basin Management Plans (RBMPs)** (Abstraction, groundwater, surface water and effluent discharge to water bodies)

River basin management plans provide a framework for protecting and enhancing the benefits provided by the water environment. They:

- set the environmental quality objectives for groundwater and surface waters (including estuaries and coastal waters) and summarise the programmes of measures needed to meet these objectives.
- set out how we will work with organisations, stakeholders, and communities to improve the water environment.

Defra and the Environment Agency are responsible for the overall production of RBMPs under [Regulation 33 of the Water Environment \(Water Framework Directive\) \(England and Wales\) Regulations 2017 \(WFD Regulations\)](#).

We contribute to the [South West RBMP](#) and the [Severn RBMP](#) for England, by ensuring that current and future activities, such as abstraction or the return of treated wastewater, support the achievement of these objectives and prevent deterioration in water bodies.

- **Water Resource Management Plans (WRMPs)** (Water Resources)

Our duty to prepare and maintain a WRMP is set out in [Section 37A-37D of the Water Industry Act 1991](#).

We are required to prepare and maintain a water resources plan on a five-yearly cycle. The plan is produced following guidance provided by the Environment Agency, and in accordance with direction from Defra. We also actively encourage other stakeholders to tell us what they think of our proposals. External guidance can be found here: [Water resources planning guideline](#).

- **Drainage & Wastewater Management Plans (DWMPs)**. (Wastewater networks and recycling centres)

These plans are currently in their first 5-year cycle and are being produced on a non-statutory basis for early 2023 in England and Wales. We are using the [framework set out by Water UK](#), along with [further guidance](#) to produce our DWMP including the following content:

- Strategic context
- Risk based screening
- Baseline risk and vulnerability assessment (resilience assessment and characterisation)
- Problem characterisation
- Options development and appraisal
- Programme appraisal

- **Water Industry National Environment Programme (WINEP)**

Our WINEP plans detail the programmes of work we must undertake to fulfil our obligations arising from environmental legislation and UK government policy. It covers measures both within our PR24 business plan, and those that are longer-term. These measures (which can be statutory or statutory-plus obligations, or non-statutory requirements), cover investigations, monitoring, options appraisals, or schemes to improve and protect the water environment. We work in partnership with the Environment Agency and Natural England to ensure that the WINEP delivers the best possible outcomes for the environment and for our customers.

WINEP actions come from other strategic plans, such as WRMPs, RBMPs and DWMPs. These plans are not all produced at the same time, which means the actions that emerge from them are not all available to go into the WINEP at one time. The WINEP is therefore an iterative process on a rolling timeline.

The [UK government's 25 year Environment Plan](#) sets the direction of travel for the WINEP. The [water industry strategic environmental requirements \(WISER\)](#) provides strategic guidance for water companies on the environment, resilience and flood risk for business planning purposes, which helps us to identify the environmental measures that we include in our business plans.

9.2. PR24 business plan

Through the planning process we assess the uncertainty of specific shocks and stresses and plan appropriate mitigations to incorporate into the business planning process. This uses information from our risk management framework and asset management framework as well as our long-term delivery strategies, as described in WSX03. EDA is used to determine our optimal solutions for AMP8 based on specified performance parameters which forms our business plan submission, with the same principles applied to AMP9 and beyond for the LTDS. Figure 12 below details the steps taken to derive the final business plan.

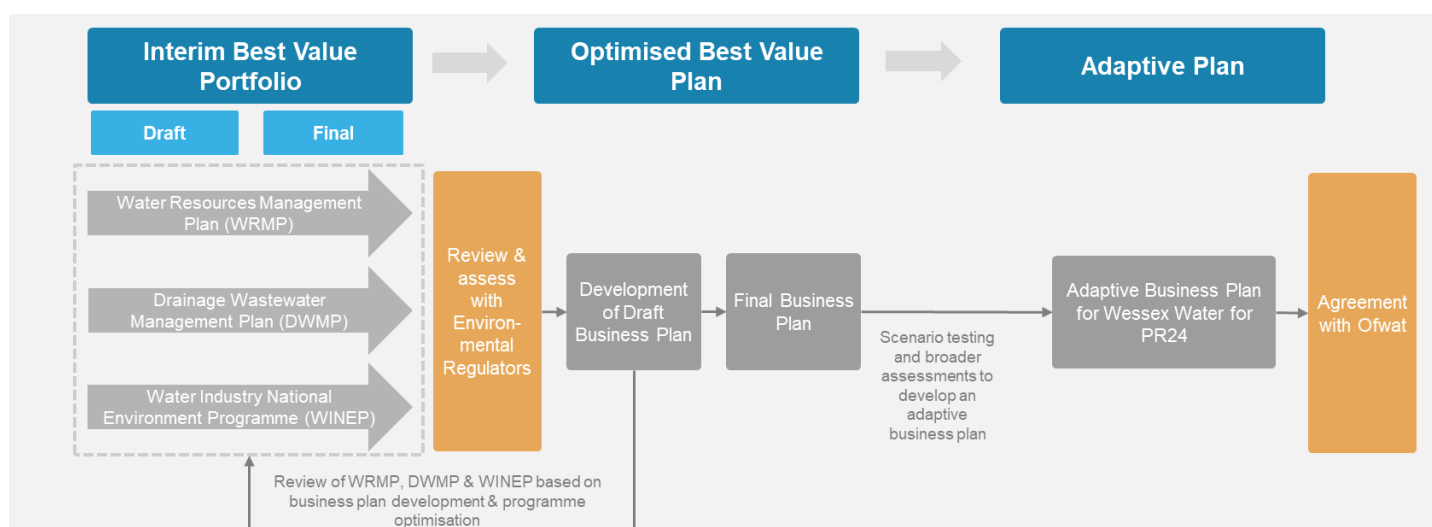


Figure 12 – Integrating resilience into PR24 planning

Having gone through the steps in the risk and resilience framework, the below items have been identified in our business plan as specific needs to improve resilience:

Table 2 – Business plan needs for resilience.

Hazard	Proposed investment	Cost (£m)	Link in business plan
Customer behaviours/ expectations	Implementation of smart monitoring on the sewerage network to detect blockages (main cause is sewer misuse e.g. wet wipes and fat, oil and grease) before they cause harm	45	See WSX16-5.3.2
Power failure	Installation of standby generation on Water recycling centres and sewage pumping stations to ensure the continuation of service in the event of a third-party power failure	23	See WSX16-5.2.2, 5.2.8 & 5.4
Political and macro industry change	Programme of change to meet the 2033 Government deadline for the end of 2G services whilst maintaining services	1	See WSX16-5.2.6
Supply chain failure	Expansion of the laboratory services to mitigate	3	See WSX10-7.4.2 & 7.5.1
Political and macro industry change	<ul style="list-style-type: none"> the increase in sample requirements as a result of changing legislation over-reliance on third-party suppliers 		

Whilst the above items have a specific resilience driver, resilience is embedded in our core processes such that multiple investment requirements have a secondary resilience benefit. For example, our enhancement proposals for growth mitigate demographic change and our maintenance plan mitigates asset failure and ageing infrastructure.

As per the resilience framework, we continue to work through each step in a cyclical way. At each price review, we plan our responses which results in an updated business plan proposal to mitigate uncertainties over the next five years.

10. Financial resilience

We ensure that our corporate structure is consistent with the guidelines and principles for board leadership, transparency and governance. As part of our focus on financial resilience, we have our long-term viability statement.

Our long-term viability statement uses scenarios analysis and stress testing to be able to assess the impact of a number of uncertainties. At present, our Board has agreed the current appropriate period to provide a viability statement is to 2030. We are developing operational plans post 2030 through the PR24 process, in the face of uncertain large-scale changes to our operating environment. When these operational plans are complete, we will then update our viability statement to incorporate these plans to extend to 2035. Our directors consider our principal risks, one of which is financial viability, following this 6-step risk process, and include consideration of the liquidity of the company and compliance with financial covenants in respect of gearing and interest cover.

When considering financial viability over a longer time period, Directors use the knowledge and information from our hierarchy of corporate, tactical and operational risks (both internal and external). On top of this, scenario analysis, the wider economic situation, regulatory environment, and the impact of any foreseeable risk was considered. This ensures that all operational, financial and regulatory risks and liabilities are fully considered. The assumptions used in stress testing for our viability statement are consistent with this wider risk assessment reported elsewhere in the Company's accounts.

11. Corporate resilience

We support our operational resilience by ensuring we have the right processes to enhance and assure our corporate resilience.

As set out in our [Resilience Action Plan 2020](#) and aligning with Ofwat's [Resilience in the round](#), we define corporate resilience as: the ability of an organisation's governance, accountability and assurance processes to help avoid, cope with and recover from disruption and to anticipate trends and variability in all aspects of risk to the delivery of services.

We support this by incorporating resilience principles into our decision making, having our integrated assurance framework to check our processes are followed and having a clear governance process for each of our supporting processes.

11.1. Assurance

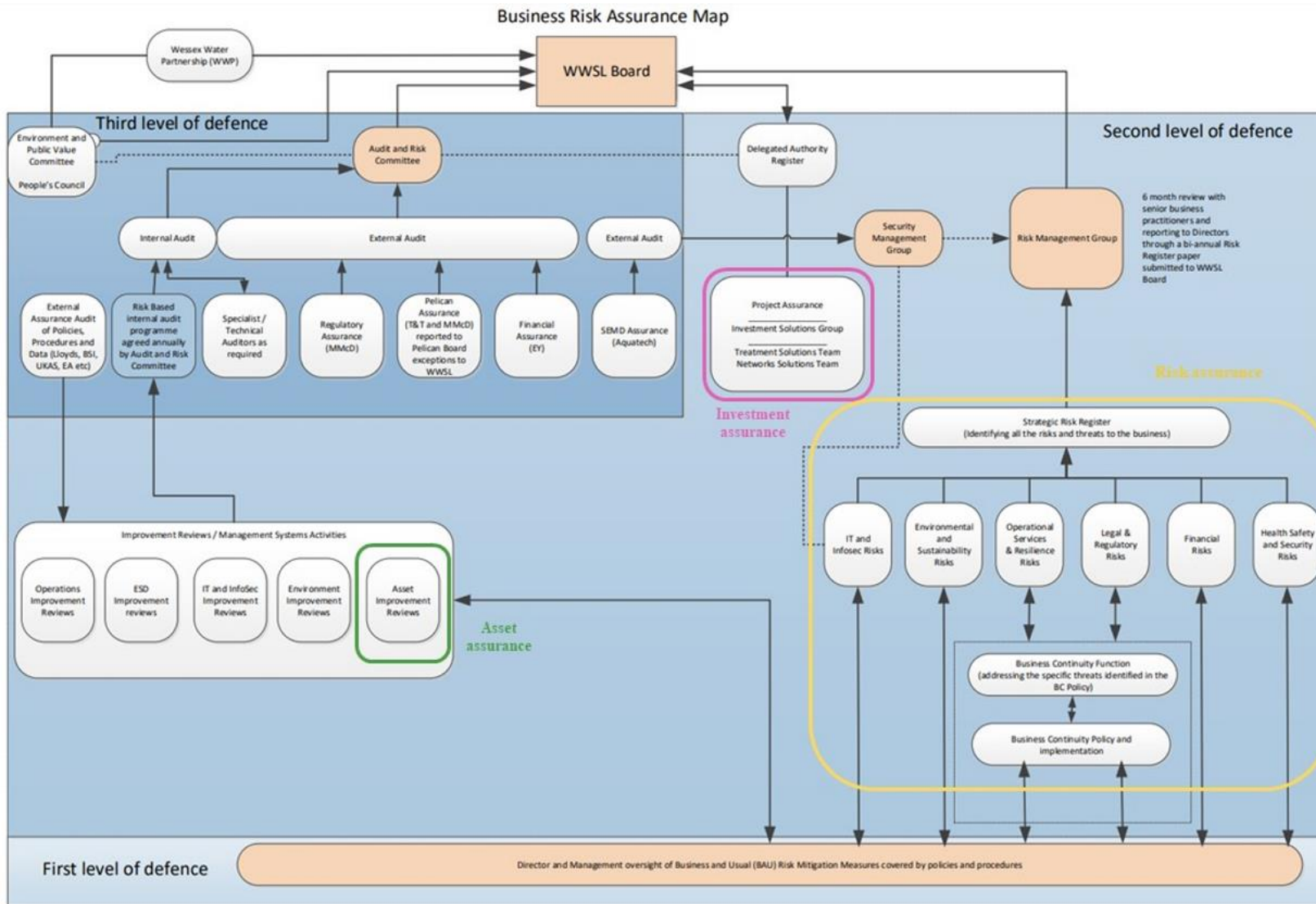
Our assurance framework structure covers areas with a formal certification and those without. The framework is set out in the business risk assurance map (see Figure 13 below) which shows all the structured systems in our risk and assurance processes. These systems provide a framework for the implementation of controls (policy/strategy/plans/procedures), and the assessment and review of performance / compliance.

The Board delegates authority to managers and assurers. These systems are managed in the relevant departments but, to help with their co-ordination/integration across the business, the Integrated Assurance Group meets quarterly to establish a common company approach in the following areas:

- External standards / certification.
- Internal audits / investigations.
- Controls / Management Reviews (governance).
- Documentation / communication.

The company has a fully independent Internal Audit Function that oversees all assurance activities. These activities are delegated from the Audit and Risk Committee and the authority given by a formal charter. The company's ISO accredited audit plan contains current investigations to examine the adequacy and effectiveness of controls and processes for each of the systems. These tactical and operational audits support the strategic Internal Audit programme managed by the company's Audit and Risk Committee.

Figure 13 – Business Risk Assurance Map (with our underlying resilience processes highlighted)



11.2. Governance: risk management

We have a clear hierarchical structure of governance for risk management across the business. A summary of our risk governance process can be seen in **Error! Reference source not found.**¹⁴ below.

Our Board reviews all strategic risks and other principal risks on a regular basis.

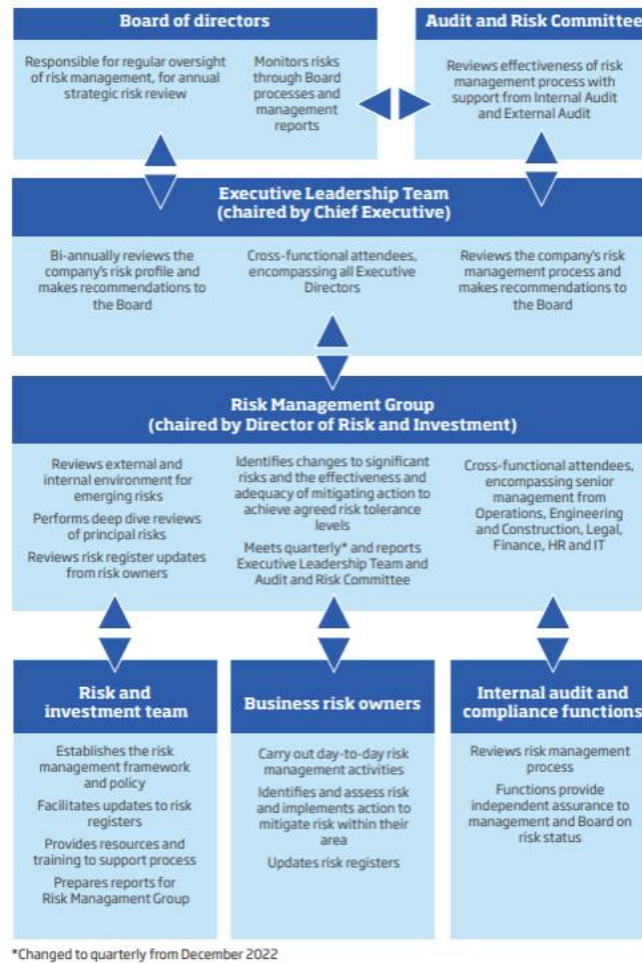
Identification and management of risk is delivered through a hierarchy of risk management reviews from operational colleagues, senior management and Executive Directors. The Board reviews and is ultimately responsible for risk. To assist it in discharging its responsibilities, the Audit and Risk Committee reviews the company's internal control systems and process for managing risk. Operational staff and senior management review, assess and record asset and operational risk each month.

The Risk Management Group (RMG) is responsible for the quality of corporate risks and the effectiveness of management of corporate, tactical and operational risks. To ensure effective communication, all corporate, tactical and operational risks are comprehensively classified. The perspective on risk covers all business functions and all relevant internal and external factors including health and safety and climate change related risks and more. The RMG is comprised of senior managers from across the business. The risks are assessed by subject matter experts and subject to independent challenge from our risk experts. Risks above our tolerance levels will have additional measures to manage and mitigate the risk exposure. The RMG meet every three months to review progress of meeting strategic objectives and effectiveness of risk management.

Every six months, the RMG submits the corporate risk register and summary report to the Executive Leadership Team (ELT) - our Executive Directors. The ELT scrutinises and challenges the risks included within the register, ensures that we have comprehensively classified and assessed our risks and have appropriate mitigation methods in place. Any significant emergent risks or material changes in existing risks are reported to the ELT and the Board as they arise.

The CEO submits a bi-annual risk review paper to the Board for its review. This paper details the risk review process and identifies the current principal risks to the business and the mitigation measures. It also records the status of emerging risks that have been identified as well as any proposed changes to risk appetite and tolerance for discussion at the Board. The Board reviews the Company's risk identification and management policy annually and reviews the principal risks bi-annually. It delegates its authority to the Audit and Risk Committee for the review and oversight of the effectiveness of the risk management process. To aid this process, the Audit and Risk Committee includes audits that review the status and mitigations of the principal risks when agreeing the annual Internal Audit programme.

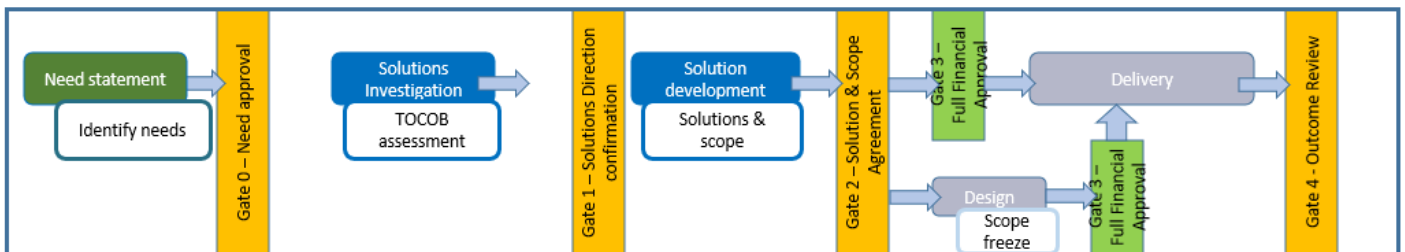
Figure 14 – Risk governance process.



11.3. Governance: investment management

For our investment decision-making framework, we have a robust governance and assurance process with established escalation levels, documentation requirements and named approval bodies. This means that project and planning decisions made during business planning and within AMPs are supported, enabling the right decisions to be made at the right time. Overarching responsibility for the implementation and governance of capital approvals sits with the Director of Risk and Investment. This is supported by a clear, gated approvals process, which is presented in Figure 15 below.

Figure 15 – Gated approvals process for investment planning



Projects with a capital value of over £5 million must be approved by the Wessex Water Services Ltd Board, and £2m to £5m by the Executive Leadership Team. Note that financial approvals for projects with simple, less technical schemes may pass multiple gates concurrently.

This gated approval process is followed for both PR24 business planning (up to Gate 2: solution & scope agreement), and in-AMP delivery (through to Gate 4: outcome review). Below, we describe the assurance process supporting our PR24 business planning activities, which have been outlined in Sections 6: Assess & Evaluate and 7: Plan Response. The process and approval flow for in-AMP delivery has been described in Section 8: Implement Responses.

PR24 Business Planning

PR24 business planning for AMP8 is assured through the following:

- **Challenge meetings with strategic planning leads**

In preparation for business plan submission in 2023, from July 2022 to February 2023, strategic planning leads undertook 3-4 rounds of challenge meetings with the PR24 steering group. This was accompanied by reviews considering financial outcomes, and the impact of the investment on performance commitments and outcome delivery incentives.

- **Audits on inputs to EDA**

Inputs to EDA have been reviewed as part of external PR24 assurance. The external review focused on:

1. How the service measures for each area have been assessed and quantified; and
2. How the programme has been optimised (if applicable).

The focus was on the process. The outputs from EDA and population of the data tables were covered by separate audits.

- **Board assurance statements**

In line with Ofwat's PR24 final methodology, we have provided a Board Assurance Statement, externally assured in five areas:

- Long-term delivery strategies
- Affordability
- Costs and outcomes
- Risk and return
- Customer engagement

11.4. Governance: asset management

The commitment of Board and Executive Leadership is key to the further development and embedding of our AMF. Their accountabilities include:

- Ensuring the operating model, organisational structure and culture is aligned to the achievement of organisational objectives.
- Establishing the direction and priorities for our asset management capability improvement plans; and
- Ensuring that asset management thinking, and practices are embedded into one common decision-making process used across different departments and functions.
- A commitment to continuous improvement of our AMF through our continuous improvement programme.

The overall accountability for our AMF sits with the Director of Risk & Investment. The Maintenance Strategy Manager has the overall responsibility for the review and update of the framework. Our AMF is accessible to all employees and maintained centrally. It will be reviewed and updated annually.

12. Continued improvement

We continue to re-evaluate our approach to improve the resilience of our business so that we can achieve our SDS outcomes and continue to provide the best value service to our customers. We recognise that there is still room to improve our resilience process and align to best practice in an industry that is continuing to evolve its approach to resilience.

We recognise that to improve resilience we need to continue to invest in asset health and continue to develop our approach to asset management including the update to our SAMPs.

We are continuing to monitor our progress through our performance measures, and we are in the process of developing new metrics to help monitor progress of key processes such as the risk appetite framework metrics.