SRN47 Resilience in the Round Technical Annex

2nd October 2023
Version 1.0

WATER for LIFE

from
Southern Water

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Executive summary

Southern Water is committed to driving improved resilience to ensure a safe and secure water supply and wastewater services for our customers and to protect the environment in which we operate. Strengthening our resilience enhances our planning, preparedness and response capabilities to the growing pressures and long-term challenges facing our business and sector.

The purpose of this Technical Annex is to provide an overview of the resilience improvements we have embedded with the business and our ways of working since delivering our AMP7 Resilience Action Plan. This has set the foundation for our approach to resilience, in line with Ofwat's ambitions for us to be Resilience in the Round. We have structured this Technical Annex to discuss our improved approach to resilience across the three pillars of Corporate, Financial and Operational resilience. The Annex should also be read in conjunction with the SRN48 Operational Resilience Technical Annex.

1.   Context and Key Challenges

We understand our performance challenges and their ability to impact our overall resilience. We have implemented a focused AMP7 Turnaround Plan to enhance our resilience and deliver our commitments.

We recognise we have not always met our customers' and regulators' expectations and we continue to work hard to ensure we get things right.[1] Many of the challenges we face are long term and require appropriate planning and investment.

Addressing these challenges starts with our AMP7 Turnaround Plan. Our Turnaround Plan summarises the key performance areas we are targeting to deliver significant improvements for our customers, the environment and our communities[2]. It is part of our wider efforts to enhance our corporate, financial and operational resilience and complements several other ongoing programmes which target improved asset health and performance. Our goals are ambitious but achievable. By 2030, we want to:

- deliver a reliable supply of high-quality water for our customers across our region;
- continue to address efficiently the challenges climate change presents;
- ensure healthy rivers and seas across our region and
- establish a trusted and easy customer service experience.

Our Turnaround Plan is empowered and supported by our colleagues across the business and is on track to deliver significant enhancements and milestones within AMP7.

1.1. Key challenges

Outside of our Turnaround Plan, we have identified six significant long-term challenges that we must address to improve our overall resilience:

Figure 1: Our resilience challenges

1. Population Growth and Demand Pressures   2. Climate Change   3. Drought   4. Ageing Assets   5. Cyber Security   6. Transition to Net Zero

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[1] Southern Water Annual Performance Report 2022-23
[2] Southern Water Turnaround plan 2023-25

1. Population Growth and Demand Pressures

Across the last 50 years, the UK population has increased by approximately 19.8% and as a result, we have continued to experience pressure on our services and resources[3]. Looking ahead, this pressure will increase our water resource challenges and demand on our wastewater systems and we know we will need to change the way we operate to remain resilient. We anticipate the following impacts:

2. Climate Change

Climate change presents a significant risk as the frequency and severity of extreme weather increases. Since 1950, global mean temperatures have risen by around 1°C and are projected to increase by 2 to 4°C by 2100. The increasing temperature will lead to sea level rise in our region and more frequent and extreme weather events, leading to storms and droughts. We are already experiencing this, as we saw in the 2018 'Beast from the East'. The resulting Freeze / Thaw event led to 7,700 of our customers losing supplies for up to four hours and 2,246 of our customers losing supplies for up to three days[4].

In 2022, our region experienced one of the driest years of the century and highest ever temperatures resulting in a drought that threatened damage to the precious habitats of the River Test and River Itchen. Due to our robust drought plan, combined with our prepared and effective Resilience Action Plan, none of our customers lost supply of water during the drought period. However, we know these risks are increasing and we expect to respond to more of the following challenges in the future:

- Increased temperatures and more extreme variation in temperature resulting in drought.
- Increased temperatures resulting in heat stress affecting the performance of our assets.
- Sea level rise resulting in Salinity, Subsidence and Coastal erosion can result in several impacts on our operations, including:
  - Intense rainfall or storminess resulting in flooding (pluvial or fluvial)
  - Less rainfall or longer dry periods resulting in drought.

3. Drought

At PR19, we called out 'the loss of available water during droughts' as the biggest challenge we face in water. As a drought develops, we can become constrained by water availability and distribution of demand. Some of our sources may be unable to produce their normal volumes of water whilst patterns of demand change in response to dry weather. The culmination of events results in an inability to meet our demand requirements causing supply interruptions and unplanned outages in the regions impacted[5].

4. Ageing Assets

Our infrastructure assets are ageing, and this poses a significant challenge to our operations.

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[3] Office for National Statistics
[4] Southern Water – Freeze Thaw Action Plan and response to Ofwat
[5] Southern Water Revised Draft Drought Plan August 2022

The design of our Victorian era system is no longer fit for purpose with most of our assets reaching the end of life. As a result, we need to constantly innovate to deliver at the performance level required to address our current and future challenges.

5. Cyber security

Our industry faces a complex challenge when faced with implementing cyber security. Our critical national infrastructure, legacy technology and evolving regulatory frameworks means that we need to balance investment priorities with the risks to cyber security. This is further exacerbated by the fact that cyber-attacks are becoming more frequent as legacy technologies reach end of life status.

6. Transition to Net Zero

Our transition to net zero is focused on reducing our emission to a level where they balance out any emissions we produce. Whilst this is an important step towards tackling climate change, it also presents several risks. Implementing new technologies and infrastructure can be challenging and could potentially result in inefficiencies within our operations. Enacting the changes required to reach our net zero targets will require careful planning to minimise disruption to our services and operations to avoid exacerbating existing pressures or creating new ones.

Further details on these long-term challenges are discussed in the Operational Resilience Technical Annex. Overcoming these challenges will require increased investment programmes in AMP8 and beyond. We recognise that this will bring additional delivery challenges, including:

Heightened demand on our supply chain. We will need to ensure careful co-ordination and collaboration to ensure sufficient capacity and capability. We must also work hard to drive best value. Our supply chain strategy will establish strong relationships and agreements with suppliers ahead of the next investment period. We will complete procurement of our delivery partners early in 2024.

Increased strategic workforce with specialist skills. We will face challenges in attracting and retaining key people, from field force to skilled environmental scientists, in a highly competitive region of the UK. We are committed to finding, retaining, and training the right people. Our strategic workforce planning will address capability gaps and ensure a skilled workforce is in place.

Enhanced programme planning and management capability. We have developed clear plans and priorities across the portfolio, aligning planning, delivery, and other business areas to ensure efficient execution and effective resource allocation. We are enhancing our programme management capability and capacity to track performance, implement the plans and oversee delivery.

Financing our plan. The financial resilience of the company is improving, supported by equity injections into the group from our shareholders, amounting to £1.65 billion in the current investment period. This provides a solid foundation for our operations and performance improvement through the Turnaround Plan and ensures that we can accelerate performance to meet the demands of our 2025–30 plan and beyond.

All four of these elements are reflected in the alternative delivery and financeability elements of our business plan.
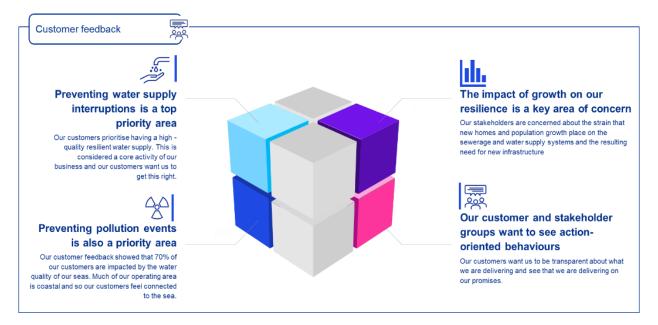
1.2. Listening and responding

We understand our key challenges and how they impact our resilience, and we know we need to act. We want to make sure that the investments we are making and the outcomes we deliver are meaningful for our customers, stakeholders and environment. To ensure this, we have engaged our customers through various communication channels to understand their priorities and appetite for investing in resilient outcomes.

To date we have engaged over 10,000 customers in the development of our plan, testing the level of resilience they expect to be delivered. We used informed customer panels that reach our different audiences and carried out bespoke research exercises on the various elements of the plan. We also made use of existing insight from our BAU work, previous strategic plans and various other data points to understand our customer priorities. Our customers are telling us the following:

Figure 2: Customer priorities

Our customers are telling us that they want to see service improvements, and better outcomes for the environment. We have listened and have made significant steps in three key areas as part of our resilience action plan to respond to these challenges:

1. **Investing in our people through training at all levels:** We have and continue to embed improved ways of working – focusing on horizon scanning and emergency planning to address current gaps in our capability and improve how we anticipate and respond to incidents.

2. **Digitising our assets to increase our network visibility and response:** We are investing in innovative technology and artificial intelligence to monitor and identify potential risks on our networks before they occur. Through our solutions, we are improving our ability to anticipate threats and mobilise preventative solutions.

3. **Building processes and governance mechanisms to challenge our own decisions and drive value for money**: We have built robust processes and governance mechanisms to validate our decision making and ensure that our investments are delivering targeted outcomes. We have

embedded robust governance structures which ensure the effective management of resilience risks across our business.

We will continue to engage with and listen to our customers to align our long-term plans and delivery with their priorities to provide reliable and resilient service.

2.   Delivering our AMP7 Resilience Action Plan

Since its publication in the PR19 final methodology, we have developed a broad understanding of Ofwat's concept of Resilience in the Round through research, experience, and engagement. We have taken several steps to ensure we are delivering enhanced resilience benefits to our business through our AMP7 Resilience Action Plan.

We adopted a best practice approach with our Resilience Action Plan knowing it would require whole organisational effort and commitment to embed. Our AMP7 programme of improvements have delivered new capability that is providing immediate positive impact for our customers, our ways of working and the environment. We will continue to build on these improvements as we further embed this work in the remainder of AMP7 and into AMP8.

At PR19, it was clear that we needed to make improvements in how we approached our corporate, financial and operational resilience. Throughout AMP7, we have made positive changes across our organisation to anchor resilience at the heart of everything we do.

In response to the Ofwat feedback, we developed our Resilience Action Plan which summarised our enhanced approach and planned actions throughout AMP7 to support and deliver an enhanced Corporate, Financial and Operational resilience framework and capability in a cohesive and integrated manner. Using the three resilience pillars we set out to develop a strong foundation that would facilitate and expand conventional thinking and boundaries of operation, to challenge and play wider, more impactful role in our ways of working.

Throughout AMP7, we have implemented several key elements including systemising how we manage resilience, ensuring clear line of site from risk identification to option analysis and decision making, and ensuring a lessons learnt process is embedded within the overall resilience process.

Figure 3: Key developments in our Resilience Action Plan

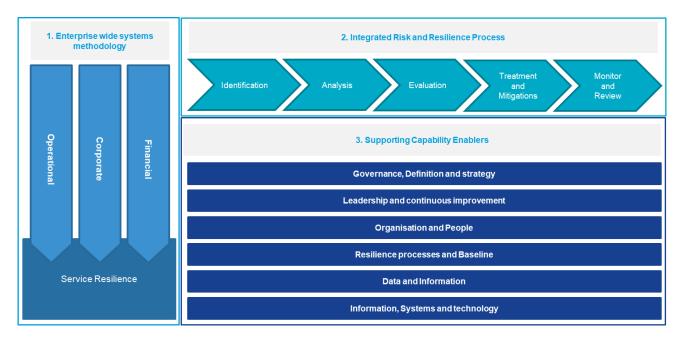| Ofwat initial assessment of our (PR19) plan	How we have addressed this
System – based resilience We need to systemise how we manage resilience	We have embedded our resilience framework and defined our practical approach to operational resilience
Line of sight We need to articulate line of site from risk identification through to option analysis and decision making	Our integrated risk and resilience process provides a clear process for managing our risks and is aligned with ISO31000
Maturity Assessment We need to provide a maturity assessment of our operational baseline	We complete annual maturity assessments of our water and wastewater operations
Governance We need to put in place effective governance to ensure our Resilience Action Plan is deliverable and integrated with BAU	We have embedded clear governance structures which have supported us in embedding our resilience approach and delivering our RAP actions
Lessons Learnt We need to ensure lessons learnt from past failures are incorporated in processes	Our lessons learnt process is integrated within our practical approach to operational resilience for continuous improvement

Systems based resilience

Over AMP7, we introduced our integrated resilience framework, informed by external research, and tailored for our specific company needs. It was designed to support us in enabling business continuity in the event of disruption and minimise the impact on our customers and wider environment. Our approach to Resilience in the Round ensures that our processes are consistent across all three pillars of resilience (operational, corporate, and financial) and that all existing interdependencies between pillars are considered when identifying and mitigating our risks. The framework is comprised of three components: *an enterprise-wide systems methodology, an integrated risk and resilience baseline process and supporting capability enablers.* Each component is further described below.

Figure 4: Our resilience framework

Enterprise-wide systems methodology: Our risks are categorised using our enterprise-wide Risk Taxonomy. This provides a systematic approach to classifying and organising the risks facing our business and core operations. The Risk Taxonomy provides our Executive with a standardised view of risks, to enable risk prioritization and the effective monitoring of our selected risk mitigation strategies to enhance our overall resilience, improve our performance to benefit our customers and reduce our impact on the environment in which we operate.

Integrated Risk and Resilience Process: Our approach to risk management is designed to support better decision-making and enhance our resilience through an improved understanding of risk. Our process is aligned with ISO31000 – Risk Management to ensure we are in line with best practice and are effectively monitoring and addressing our risks.

Supporting capability enablers: Our integrated risk and resilience process is supported by several capability enablers required for efficient and effective resilience management. Our maturity assessments described below are a key component to ensuring we have the right capabilities in place to support our approach to resilience.

 Line of Sight

Our integrated risk and resilience process guides our end-to-end operational resilience approach from risk identification, through to solution deployment providing a clear line of site. The process is supported by our Governance, Risk and Compliance (GRC) tool, Riskonnect, used to manage our enterprise - wide risks. In August 2022, we launched module 1 of our Riskonnect GRC tool – Enterprise Risk. Operational risks from our asset risk management system (ARM) which pose a material risk to our strategy and objectives are aggregated up into the Enterprise risk tool where they are monitored and managed.
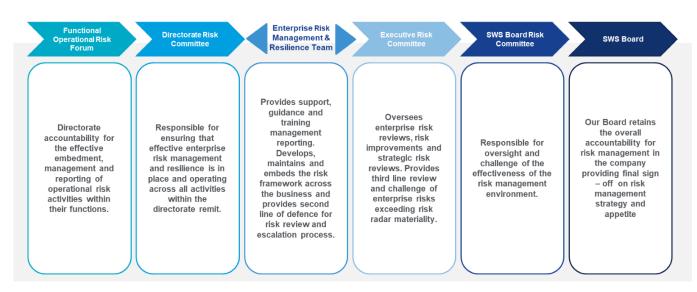
Maturity Assessment

We have delivered the core elements of our AMP7 Resilience Action Plan. We designed appropriate frameworks and processes to support our ways of working and our decision-making. For the remainder of AMP7 and into AMP8 we are continuing our work to embed and monitor our organisational capabilities and identify areas which require further development.

In AMP7, we completed a capability maturity assessment. Our most recent assessment completed in December 2022. We targeted a maturity score of 3.5 / 5 for 2022 which would indicate that we are progressing towards having 'Good' capability maturity to support our resilience strategy across the business. As of December 2022, we had outperformed our target achieving an overall capability score of 3.58/5. We will continue to measure and monitor our progress on an annual basis.

Governance

We have a clear risk and resilience governance structure that defines accountability and supports direction and control of risk and resilience management across our organisation.

Figure 5: Our risk and governance process[2]

Our board reviews our risk management framework, risk appetite and governance every two years to ensure robust identification, management, and reporting of our most impactful risks. Our enterprise risk profile is comprised of enterprise risks identified through bottom-up reviews, emerging risks, and our principal risks as disclosed in our annual report. For more detail on our governance arrangements see the corporate resilience section below.

Lessons Learnt

Our practical approach to increasing our resilience outlines our multi-step approach to addressing our current and future operational challenges. The approach is centred on understanding our challenges to identify solutions which either prevent or materially reduce their impact. Our lessons learnt workshops are now embedded within our ways of working practices to ensure we are extracting valuable lessons from previous failures.

Implementing these key recommendations has integrated and enhanced how we manage resilience in our ways of working across the business. As we move forward, we will continue to embed these to enhance our resilience to support the delivery of our commitments and promises.

3. Our Approach to Resilience in the Round

Our approach to Resilience in the Round is intended to ensure our corporate, financial and operational resilience by integrating and enhancing the management of our anticipation, preparedness, response and recoverability to stresses, shocks and uncertainty.

We developed our resilience framework to mirror Ofwat's three pillars of Corporate, Financial and Operational resilience, establishing a defined integrated structure and accountabilities that is embedded across the business. It is aligned with aligned with the high-level process steps in ISO31000 Risk Management Standard to enable an integrated approach with risk with specific resilience process steps to cater for the difference between risk and resilience.

3.1. Role of the Board – their role in supporting resilience

The role of the Board is to promote the long-term sustainability of our company by enhancing our ability to anticipate, prepare for, respond, and adapt to our changing operational environment to deliver on our responsibilities and commitments to our shareholders, customers, employees, and the communities in which we operate.

The Board has overall responsibility for risk management and resilience within the company and for creating and maintaining an effective risk and resilience culture that is committed to:

- reviewing, endorsing, and monitoring our approach to risk and resilience culture and conduct,
- mitigating our most material risks and
- forming a view on our risk and resilience culture and the extent to which it supports our ability to operate consistently within our risk appetite.

This approach allows the Board to challenge the Executive Leadership team to proactively identify, react to and capitalize on changes in the business environment and effectively mitigate those material risks that could lessen our resilience.

The Board established and reviewed our integrated risk and resiliency taxonomy. Our taxonomy aligns with Ofwat's three pillars of Corporate, Financial and Operational resilience and is critical to supporting our risk management and resilience assessment processes, as it:

- Ensures risk and resilience is integrated by adopting the same hierarchy.
- Provides a consistent structure for the whole enterprise to follow and aggregate or consider interconnecting risks.
- Provides teams the flexibility and knowledge to use specialist risk tools.
- Provides a risk and resilience perspective for the Board across key risk categories.
- Ensures the risk assessment is completed against all areas with no gaps present which would undermine the effectiveness of approach.

Figure 6: Integrated risk and resiliency taxonomy:

Corporate Risks							
Compliance Compliance with laws, regulations and Ethical Standards	**Climate Change** Risks associated with global climate change and the ability to supply safe drinking water	**Delivery** Failure to deliver Southern Water strategy (AMP7)	**IT** Effectiveness, availability, integrity and security of IT systems and data essential for Southern Water operations	**Resources** Dependency on and management of third parties to deliver the products / services for which they have been contracted to the required time, cost or quality	**Health & Safety** HSE&S hazards and regulations associated with Southern Water operations	**Corporate Affairs** Changes, intervention or a failure to influence change to the political or regulatory landscape and protect the brand	**People** Attraction, retention, and succession of the right people with the right skills in the right role

Operational Risks			Financial Risks
Water Investment, development and integrity of water operated and non-operated assets	**Wastewater** Investment, development and integrity of wastewater operated and non-operated assets	**Customers - Household, Developers & Retailers.** Failure to provide good quality customer service through the customer lifecycle	**Financial** Risks associated with exposure to financial markets, meeting financial obligations and accuracy of financial reporting

The Board defines our risk appetite, enabling the company, in both quantitative and qualitative terms, to judge the level of risk it is prepared to take in achieving its overall objectives and delivering on its commitments.

Our risk appetite is directly aligned to our principal risks. The risk appetite for each of these underpins our governance and reporting framework and is subject to regular review by the Board. The alignment of our principal risks with risk appetite allows for an informed analysis and discussion of our risk and resilience position and provides the Board with the insight to make key-decisions.

The Board ensures the oversight and monitoring of our risk culture, risk appetite and risk management activities through the Audit Committee.

3.2. Corporate resilience

We recognise that the strength of our corporate resilience is derived from our governance, accountability, compliance and assurance, and risk management frameworks, process, and procedures. It is supported by our ability to collaborate and coordinate our activities across our business and is an embedded part of our culture.

Year on year we continue to make progress and enhance the corporate resilience improvements we have embedded with the business and our ways of working since delivering our AMP7 Resilience Action Plan.

Our integrated risk and resilience taxonomy considers eight areas of the business in our corporate resilience pillar (**Figure 6**). The following outlines the processes and controls we have embedded in the business to support and enhance our corporate resilience.

Compliance

Our work in this area ensures we have effective risk and resilience governance structures in place to oversee our enterprise risk management, business continuity planning, horizon scanning, and controls and assurance processes to support our compliance with our governing laws, regulations and ethical standards and to ensure we maintain a collaborative, risk-aware culture throughout the company.

Effective risk and resilience governance structures:

To successfully embed risk management and resilience, the process is supported by a governance structure that defines roles and responsibilities at each level of the company.
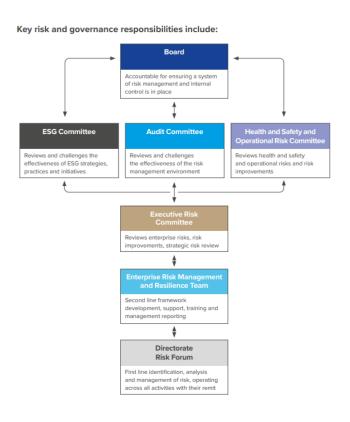
The Board has overall accountability for risk management and resilience but discharges this role through the Board Committees.

The Audit Committee oversees and advises on the management and mitigation of our enterprise and corporate risks and their impact on our overall resilience.

The Health and Safety and Operational Risk Committee oversees and advises on the management and mitigation of our operational risks and their impact on our response capability and operational resilience.

The ESG Committee provides greater oversight and consideration of the material environmental, social and governance matters relevant to the company's activities.

Figure 7: Risk and resilience governance structure

Key risk and governance responsibilities include:

Board
Accountable for ensuring a system of risk management and internal control is in place

ESG Committee
Reviews and challenges the effectiveness of ESG strategies, practices and initiatives

Audit Committee
Reviews and challenges the effectiveness of the risk management environment

Health and Safety and Operational Risk Committee
Reviews health and safety and operational risks and risk improvements

Executive Risk Committee
Reviews enterprise risks, risk improvements, strategic risk review

Enterprise Risk Management and Resilience Team
Second line framework development, support, training and management reporting

Directorate Risk Forum
First line identification, analysis and management of risk, operating across all activities with their remit

Enterprise Risk Management:

The purpose of our approach to risk management is to ensure we have a robust framework that provides a mechanism for discussion and effective escalation and mitigation of risks that will support better decision-making through an improved understanding of risk. Risk management is a core component of our governance and internal control framework, which provides the structure through which we conduct business and secure our future resilience.

Risk is inherent in our business, and we face a diverse range of risk and uncertainties that cannot be completely eliminated. Preparation, prevention, mitigation, and deterrence are essential ingredients for risk management and resilience. Our approach to risk management encompasses our broader mandate of resiliency management and is woven into our four operational Turnaround Plans and our long-term strategy development to help us navigate our dynamic operating environment.

Those risks that have the potential to have a material impact on our company and our ability to deliver on our strategic objectives and lessen our preparedness, response capability and resilience are our principal risks. Our risk and resilience governance model ensures that we can identify manage, monitor, and report on our principal risks to maintain a resilient business.

Our approach to risk management is designed to provide a clear and consistent framework for managing and reporting risks associated with our operations, to executive management and to the Board.

Our risk management framework is the totality of systems, structures, policies, processes, and people that identify, measure, monitor, report, and control or mitigate internal and external sources of risk and provide the effective oversight needed to enhance performance and integrate risk and resilience when making strategic decisions.

The framework seeks to improve our risk culture, promote better decision-making, and strengthen the integration of risk and resilience in the strategy process to support the best outcomes and opportunities for the company and our customers. Our risk management processes enhance our resilience through effective:

Risk identification and ownership: understand the risk environment, identify the specific risks we face and assess potential exposure.

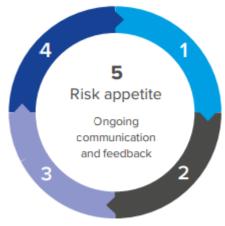**Risk assessment**: determine how best to manage identified risks to balance exposure.

Risk response: take action to manage the risks we do not want to be exposed to, ensuring our resources are effectively and efficiently prioritised and used.

Risk monitoring, reporting and escalation: report on a quarterly basis to the Executive Risk Committee, Audit Committee, and the Health and Safety and Operational Risk Committee and to the Board on a periodic basis on how significant risks are being managed, monitored, assured and the improvements that are being made.

Risk appetite and communication: use our analysis to support the Board's determination of risk appetite and to monitor and report against it.

Figure 8: Risk management framework

Across the company our approach to risk management and resilience is embedded within the business directorates and their business processes and provides a consistent basis for measuring risk to:
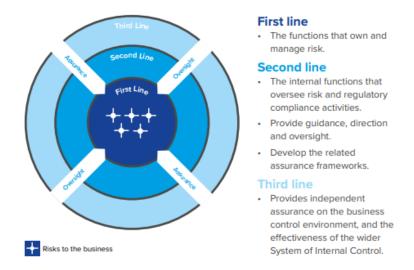
- establish a common understanding of risks on a like-for-like basis, taking into account potential impact and likelihood,
- escalate and report risks and their management to the appropriate levels of the company,
- inform prioritisation of specific risk management activities and resource allocation and
- assess the impact of risk on our resilience.

To enhance our resilience have adopted the 'three lines of defence' model in which risk ownership responsibilities are functionally independent from oversight and assurance:

- Primary responsibility for risk management lies with the business. The risk owner is the first line of defence. An important part of the role of all employees is to ensure they manage risks appropriately.
- The Risk Management function forms the second line of defence and provides independent and objective review and challenge, oversight, monitoring and reporting in relation to material risks.
- Independent External Assurance and the Internal Audit function act as the third line and provide independent assurance on the business control environment and the effectiveness of the wider system of internal control.

Figure 9: Three Lines of Defence model

First line
- The functions that own and manage risk.

Second line
- The internal functions that oversee risk and regulatory compliance activities.
- Provide guidance, direction and oversight.
- Develop the related assurance frameworks.

Third line
- Provides independent assurance on the business control environment, and the effectiveness of the wider System of Internal Control.

Comprehensive horizon scanning:

We undertake regular horizon-scanning exercises to identify and monitor emerging risks. We consider the impact of new, changing, or emerging risks that could affect our ability to achieve long-term objectives and our overall response capability and resilience. Our risk assessment process monitors available management information from a wide variety of internal and external business and environmental sources and analyses potential causes, impacts, likelihood, and the timeframe over which a risk could occur.

Effective business continuity planning:

Our business continuity plan supports a decentralised model based on distributed responsibility. This provides a defined structure and process framework with identified roles, responsibilities and accountabilities aligned to our three lines of defence along with a multi-disciplined approach to both mitigate the effects of an incident and / or emergency and ensure continuity of critical business activities and the protection of company assets and reputation. It is designed to supports incident response training and scenario testing/exercises. Our plan was successfully road-tested during the 2020 Covid pandemic and supported our continued service delivery and performance.

Legal, regulatory, controls and assurance processes:

Our quality compliance and assurance programme to provide insight from across the business to improve our delivery and performance. We are continually enhancing our ways of working to comply with our regulatory framework and ensure that all employees understand how our individual decisions and actions can have an impact on our performance and our reputation. We provide guidance to the company on what our regulators expect, as well as providing assurance to our regulators that their expectations are being met and support our business operations by sharing insight and advice that supports making the right decisions, promoting, and encouraging ethical business practice which aligns with our regulatory obligations, as well as providing the business with guidance on impending regulatory change and the impact this may have on the wider business.

Across AMP7, to embed our focus on regulatory compliance and support effective decision-making across the business we continue to ensure our ways of working follow our Compliance Principles and operate within our Modern Compliance Framework (Further information on this framework and process are outlined in the SRN11 Data and Assurance Chapter).

Collaborative organisational culture:

Our ways of working support an inclusive, dynamic risk-aware culture that puts customers and a naturally resilient environment at the heart of all that they do, delivered through the practices and values of all employees. (Further information on this framework and process are outlined in the SRN09 Deliverability Chapter and SRN56 Deliverability Technical Annex).

Climate change

Our approach to climate change considers our risks associated with global climate change and the ability to supply safe drinking water and their impact on our resilience. It includes our purposefully designed adaptation, transition and mitigation strategies. These are monitored by the ESG Committee responsible for the review of the risks related to our environment, social, and governance practices, commitments, policies, and strategies including:

- work on long-term climate resilience;
- reviewing our progress and performance on Net Zero Plan delivery;
- ensuring the effective operation and delivery of our annual Climate Change Action Plan;
- providing oversight on the adoption and implementation of climate related disclosure regulations.

(Further information on this framework and process are outlined in the SRN46 Net Zero Carbon Technical Annex).

Delivery

We deploy a strategic approach to our planning, direction and delivery that clearly and transparently outlines our company goals and objectives and our delivery strategies. Our plans are well communicated, easily accessible and recognised by all, both internally and externally. We recognise that we cannot succeed alone, our regulators and our network of delivery and service partners are an essential part of helping us to deliver a resilient water future for our customers.

(Further information on this framework and process are outlined in the SRN09 Deliverability Chapter and SRN56 Deliverability Technical Annex).

IT

We maintain a robust and integrated IT and operational technology environment that manages our customer-facing systems and provides our colleagues with the digital tools, equipment and support needed to do their jobs, deliver data analytics for business decision-making, and undertake project delivery. Our IT systems and networks are designed to manage the effectiveness, availability, integrity and security of IT systems and data essential for Southern Water operations and support the management of information governance, cyber security, and digital and operational technology infrastructure and service delivery.

(Further information on this framework and process are outlined in the SRN09 Deliverability Chapter and SRN56 Deliverability Technical Annex).

Resources

Our work in this area is designed to monitor our dependency on and management of third parties and resources in our supply chain to deliver the products / services for which they have been contracted to the required time, cost or quality. We regularly assess the reliance and impact of our energy, resource and skills supply chains on our operations with our aim to secure a reliable, diverse and competitive supply chains that deliver the best outcomes for our customers, operations and the environment in which we operate. In line with our business continuity planning work, we consider the flexibility and capacity of our supply chains in response to and recovery from shock events in our decision-making.

(Further information on this framework and process are outlined in the SRN09 Deliverability Chapter and SRN56 Deliverability Technical Annex).

Health & Safety

Our approach to health and safety across the company is overseen by the Health and Safety and Operational Risk Committee. The Committee is responsible for the oversight and assessment of the overall adequacy and effectiveness, of the health, safety and wellbeing policies, strategies; processes and controls; operational risk management; assessment of our operational response capability and compliance with relevant legal and regulatory requirements.

Our approach considers health, safety, environmental and security hazards and our compliance with the governing legislation and regulations and is a key part of our strategic Turnaround Plan. It provides effective oversight of our operational resilience work, driving improvements, and considering operational resilience when making strategic decisions including:

- reviewing the areas of significant corporate and individual health, safety, wellbeing, and the assessment of our operational risks and operational resilience to determine whether the Executive Leadership team is managing these effectively, including via the supply chain;
- reviewing the company's health, safety, security, and wellbeing performance;
- reviewing operational risk and risk management of information security, information governance, water, wastewater, and customer services;
- commissioning operational 'deep dive' assessments across the business to identify and assess operational processes, performance improvement needs and promote case studies on operational excellence;
- reviewing of the scope, and results, of any: health, safety, wellbeing, information security, information governance, water, wastewater, and customer operational risk audits; and
- considering the findings of internal and external investigations and executives' response.

Corporate Affairs

Our work in this area considers the risks and our resilience to changes, intervention or a failure to influence change to the political or regulatory landscape and protect our brand. It includes the management of all aspects of our corporate affairs including:

understanding, supporting, influencing and communicating relevant legislation and policy.

regular and clear communication with stakeholder groups and organisations on a local and national scale. collaboration through multi-agency participation with tangible outputs that improve the resilience to customers and the business.

(Further information on this framework and process are outlined in the SRN03 Customer Acceptability Chapter*).*

People

Our work in this area considers the attraction, retention, and succession of the right people with the right skills in the right role. We work to:

- provide a diverse and inclusive organisation that reflects our customers.
- provide a trusting, empowering and collaborative environment that enables performance.
- identify and plan to fulfil the requirements of our future workforce.
- manage our workforce continuity plans to identify skills gaps between their current and future workforce and ensure that these can be filled through training and development, succession planning and increasing diversity.

(*Further information on this framework and process are outlined in the* SRN09 Deliverability Chapter and SRN56 Deliverability Technical Annex).

3.3. Embedding improvement and enhancements

We are committed to the continued integration and enhancement of our approach to risk management and resilience to enhance the improvements we have embedded with the business and our ways of working since delivering our AMP7 Resilience Action Plan. This will see our risk management and resilience efforts focused on maturing our activities in several areas, including:

- Advancing a dynamic risk-aware culture throughout the company.
- Enhanced risk and resilience reporting to the Board, Board Committees and Executive Team.
- Continued training across the company to embed our business partnering model and to develop their enterprise risk profiles and support risk-based decision-making.
- Strengthening our analytical risk management capabilities through use of our Governance, Risk and Compliance (GRC) system to utilise enhanced risk management data and insights to facilitate risk-based decision-making and deliver business intelligence reporting.

The continuous improvements that we are making with our risk management approach are setting the company up for future success. As we further embed these improvements, we will be able to demonstrate to our customers and external stakeholders that the decisions we make are considered, well thought through, and demonstrate continued commitment to our values.

Beyond establishing a robust and reliable risk and resilience assessment framework, our Board and Executive Leadership Team lead in upholding the company's overriding public service mission and we engage directly with key stakeholders, to ensure we understand the real issues and priorities of others. As we reflect on our prior learnings and look to the future we seek to:

- challenge and seek remedy in areas of poor performance to address short-term issues. The focus of our work here has been in developing the AMP7 Turnaround Plan. The CEO, with the Executive team, has driven the creation of this plan, and it is strongly supported by the Board. We are already beginning to see the benefits of the focus provided by the plan.
- give relentless focus to developing our business plan for 2025–30 with underpinning projects and programmes to secure our long-term future and chart the way for the medium to longer term. It includes major and innovative investment proposals.

We also see it as core to the company's long-term future that as a Board we should continue to:

- work closely with our investors and give them the confidence to provide the investment needed to secure the long-term success and prosperity of the company;
- work with government and regulators to build confidence that we are on track to turn round our performance;
- create an environment in which our own people are led and motivated to deliver on our important mission. An environment in which they can work safely and securely in the knowledge of the importance of what they do. We maintain a robust focus on being a company whose performance turnaround is underpinned by values and ethics.

3.4. Financial resilience

Our approach to long-term financial resilience is underpinned by regular and detailed consideration of forecast cash flows, risks, liquidity, balancing risk and return, assessing uncertainties and their potential impact, understand our risks and evaluating operational scenarios from across the business.

Our financing plans support our business plan and the management of risks over the remainder of AMP7 and AMP8. Our capital structures are financially resilient, demonstrated by testing them across several different operating and macroeconomic scenarios. The primary financial risks we face are from interest rates, inflation, liquidity, credit ratings and the effective management of ODI's, PCD's and totex spend.

Financial Resilience Framework:

Our integrated Financial Resilience framework considers:

Long-term financial viability:
- Assessment of the long-term financial viability of the company, considering key long-term trends (or stresses) and predictive modelling scenarios.
- Acts as an extension of the strategic business planning process, which includes financial forecasting, robust risk and r24esilience management assessment, regular performance and budget reviews and scenario planning.
- Ensure that the company's operations are resilient, and finances are sustainable and robust to support the delivery of our plan.

Protected finances for the regulated business:
- Ring-fence finances of regulated activity to protect the interests of customers to provide enough flexibility to keep the core of the company operating in the event of a shock.

Long-term planning:

- 25-year expenditure plans linked to the strategic direction of the company are approved by the Board and regularly reviewed.
- Base operating and maintenance expenditure together with any additional enhancement expenditure to meet customer and regulatory requirements are identified.
- Integrated performance and planning.

Accessible financial reporting:
- Public reporting on our financial performance and viability of our strategic plan.
- Transparent performance reporting.

Robust financial monitoring:
- Credit rating reporting
- Undertaking and monitoring performance and trend analysis and scenario testing of long-term viability financing.
- Reported and discussed at Board level.

Risk management:
- Quarterly review of financial risk profile and mitigation strategies.
- Quarterly risk monitoring and reporting.
- Dynamic risk escalation processes.

Uncertainties:
- Regular horizon scanning for the review and identification of uncertainties.
- Performance monitoring with scenario planning and modelling updated regularly.
- Dynamic escalation processes.
- Response financial forecasting.

Assurance:

PwC acted as our external assurers of the PR24 financial data tables. They also provided technical assurance on the DPC elements of our plan. This work is supported by the Board Assurance Statements and PwC assurance letter both of which are included in the SRN11 Data and Assurance Chapter.

The Board met regularly to discuss the PR24 Business Plan and challenged the PR24 process in over 50 separate meetings. Engagement has either been as part of the full Board or with specific committees with delegated authority that allowed focus and scrutiny over specific aspects of the plan. The **Treasury Working Group,** a specific PR24 board sub-group included the Chair of the Audit Committee in its membership, and it was tasked to review the financial elements of PR24.

This review work included:
- assurance on the financeability of the plan,
- consideration of our financial ratios under relevant stress scenarios,
- maintaining the target credit rating,
- reviewing key uncertainties and their potential impact on the financeability of the plan,
- assurance that the company is financial resilient over the period of the plan and beyond.

Throughout the plan development the Board engaged in over 50 specific sessions with the wider SWS team to help shape and guide the formation of the plan. This included deep dive sessions on all key areas of the plan, culminating in approval of all aspects of the plan in September 2023. This is in addition to extensive engagement on the development of key statutory submissions including the WRMP, DWMP and WINEP. Our analysis is clear that our business plan is financeable, consistent with maintaining the target credit rating based on the notional and actual capital structures and provides sufficient headroom to a minimum investment grade credit rating under stress scenarios, taking account of mitigating actions as set out in the SRN10 Risk and Return chapter.

There are several areas where there is material uncertainty in the parts of the business plan. Many of these uncertainties relate to legal or policy decisions that are yet to be made at the point of business plan submission. Details on these uncertainties and further information on our Assurance framework and process are outlined in the SRN11 Data and Assurance Chapter.

Risk and Return:

Balancing the risk and return in our plan is essential for ensuring the incentives for investment are appropriate to the risk on the business and reasonable and the financial resilience of the company over the plan period and beyond.

We also consider the financeability, deliverability and challenges to the plan and their impact on the financial resilience of company. To assess these, we have undertaken considerable financial assessments and analysis including:

- an assessment of financial risk for the notional and actual geared companies, and a comparison of risk assumed in the Final Methodology. This forms a separate Risk Annex in our plan.
- a representation of mitigations, including collars (Regulatory Adjustment Mechanisms), to reduce financial risk.
- a review of the cost of capital and a representation for an inclusion of a risk adjustment to compensate for asymmetric risk.
- multiple scenario and stress testing analysis to reflect the key challenges and uncertainty mechanisms identified in the plan reflecting challenging and dynamic environment in which the plan has been produced.
- unmitigated and mitigated RoRE assessment, including risk analysis is based on the Monte-Carlo simulations that yield probability distributions of expected performance on each risk parameter, informed by the sector's standard deviation, and median
- requirement for and timing of equity injection
- analysis of RoRE across a range that reflects AMP7 actual performance to notional company RoRE ranges that have been refined to ensure they capture the changing risk landscape by incorporating the evolution of risk associated with:
  - o Larger and more complex enhancement programme driven by the statutory requirements and application of Price Control Deliverables (PCDs) to most of the enhancement spend which reduce the upside and increase the downside,
  - o Risks to the notional firm from projects delivered under Direct Procurement for Customers (DPC) and alternative delivery routes,
  - o Energy price increases surpassing inflation and associated high volatility, which is not reflected in the Real Price Effects (RPEs),
  - o Stretching performance targets, accompanied by the removal of most ODI caps, deadbands and collars, inherent asymmetry embedded in penalty-only ODIs, and not allowing exclusions related to the impact of severe weather events,

     o   Increase in the level of interest rates and high macroeconomic volatility affecting financing risk,

     o   Continued use of asymmetric, and the increased risk exposure due to larger revenue at risk.

As the relationship between different components of risk is complex, correlation analysis has been undertaken for ODIs as it cannot be assumed that the performance commitment risks are fully additive.

- cashflow analysis
- PAYG rates
- RCV run-off
- Calculation of key financial ratios
- Impact to customer bills.

We recognise that a balanced overall risk and return package is a necessary condition for the notional company to be able to finance its plan and attract both debt and equity capital at efficient rates and on continuous basis. Any disconnect between the likely revenue at risk and the level of allowed returns would negatively affect the sector's access to capital.

It is critical that we have access to the capital we need to deliver our commitments to customers and to ensure financial resilience, that is, the ability to avoid, cope with and recover from disruption. As Ofwat recognised in its consultation on strengthening ring-fencing conditions, financial resilience is requisite to deliver operational performance:

> *"Weakened financial resilience can lead to reduced levels of operational performance and erode a company's capacity to cope with financial pressures or shocks without compromising service to customers."*

We understand that if we are not financially resilient, it will make it harder to attract and retain capital and undermine our ability to achieve a successful turnaround at the pace that we want. It would dramatically reduce and delay improvements in service outcomes for customers. Our customer research shows that customers would far rather get the right level of service than small discounts on bills. Our SRN10 Risk and return Chapter outlines the risk mitigations we propose would allow our planned improvement in service outcomes to be delivered. It is in the long-term interest of customers that the overall risk and return package is balanced to support our financial resilience and to allow us to deliver enduring improvements in our service.

We have assessed our plan and can confirm that it can be financed. The financial resilience of the company is improving, supported by equity injections into the group funds managed by Macquarie Asset Management, amounting to £1.65 billion in the current investment period. The Board is satisfied that the company is financially resilient over the period of the price review and beyond under its business plan. Successful delivery of the operational turnaround plan to 2025 will be an important part in stabilising the credit ratings of the company and in building confidence with financial stakeholders.

Our plan for 2025 to 2030 will see a doubling of our current investment programme. We know delivering investment at this scale and pace will be a challenge. The demand of significant investment from our environmental regulators, and the support from customers to improve environmental performance, will improve operational resilience, but place pressure on financial resilience due to a large investment plan for AMP8 and associated rapid growth of the business. Financial resilience therefore requires active monitoring and evaluation in response to operational performance and the materialisation of any uncertainties.

(Further information on our assessment and analysis of financial resilience are detailed in the SRN10 Risk and Return Chapter).
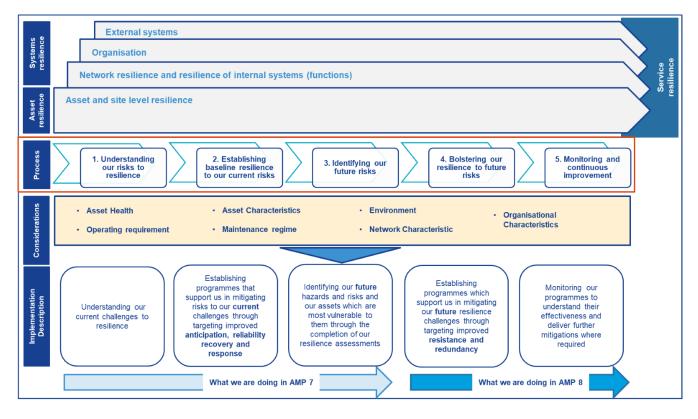.

3.5. Operational resilience

We have adopted a practical approach to solving our existing and potential future operational resilience challenges. Our approach is focused on delivering cost effective and quick win solutions to address the most pressing issues impacting our customers and the environment first. Some of these solutions include improving our anticipation capability to avoid incidents and ensure we are better prepared and bolstering our recovery and response capability for improved resilience to disruptions.

Our practical approach draws from the integrated resilience framework to define a cost – effective strategy to addressing our challenges whilst maximising the beneficial impact for our customers and wider environment. Our approach is our roadmap to ensuring we are compounding the benefits we are already delivering from our 'quick win' solutions whilst considering the impact of future pressures on our operations to identify sustainable solutions. We are maturing on our journey using our approach in **Figure 11**.

Figure 10: Our approach to operational resilience

A key enabler of our approach is ensuring we deliver **systems resilience** - recognising the interconnectedness of various stages involved in wastewater treatment and water supply process and how it can impact our operations. It is supporting us in understanding our challenges holistically for more effective decision making and interventions. We are utilising systems thinking and working more collaboratively to address our risks more efficiently.

Our approach to operational resilience is underpinned by a **5-step process** illustrated in **figure 10**. We have embedded Ofwat's guidance on the elements of operational resilience to be considered within our approach to deliver the breadth and depth of information required to inform our investment prioritisation and decision making. Our 5 – step process discussed in detail in the SRN48 Operational Resilience Technical Annex.