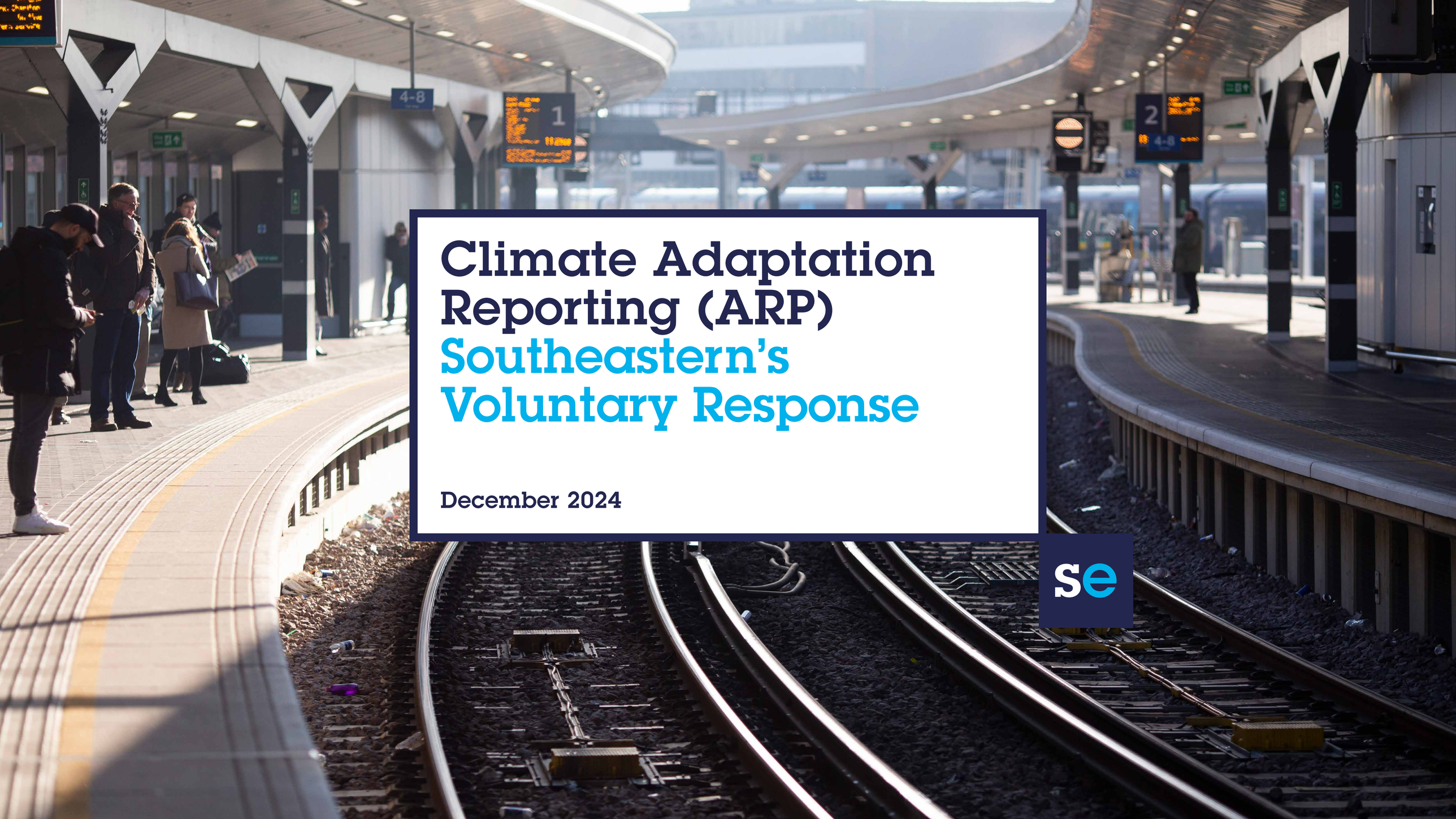


Climate Adaptation Reporting (ARP) Southeastern's Voluntary Response

December 2024

Contents

Introduction
Preparing for a resilient future

Preventing the worst impacts of climate change is one of the biggest challenges of our time. Across the railway, we're already feeling the effects of changing weather patterns. We need to prepare for more extreme weather in the future and find ways to minimize the impact on our people, the services we provide, and the communities we serve. At Southeastern Railway, our people are at the heart of everything we do, and their safety and wellbeing will always be our top priority.

Southeastern Railway plays a vital role in the UK's transport network. We operate services across Kent, Southeast London, and parts of East Sussex, connecting communities and supporting regional economies. This is our first voluntary report under the Fourth Round of Adaptation Reporting Power (ARP). While we are not required to participate, we recognize the importance of demonstrating our commitment to climate adaptation and resilience. By reporting voluntarily, we aim to contribute to industry-wide learning and align with best practices in preparing for climate risks.

In addition to the Adaptation Reporting Power (ARP) submission, we also report under the Climate Financial Disclosures framework. While both reports address climate-related risks, their focus and scope differ. The Climate Financial Disclosures framework emphasizes risks that may be financially material, ensuring transparency on how climate change might impact the company's financial performance and long-term strategy. The ARP report, however, provides a broader perspective, detailing the climate risks we are aware of that could potentially impact our operations. It delves into risks beyond financial materiality, offering a comprehensive view of how climate change might affect our ability to deliver safe, reliable, and sustainable services. By preparing both reports, we ensure that we meet financial reporting obligations while also demonstrating our commitment to understanding and addressing the full spectrum of climate risks to our operations.

The purpose of this report is to evaluate how climate change might impact Southeastern Railway's operations. We are at the beginning of our journey to better understand our weather and climate risks and opportunities. Our approach is evolving, and we aim to embed scenario analysis and climate considerations into our associated strategic planning and risk management processes. This will help us better understand how climate change may impact our business and allow us to build a more resilient railway for the future.

Our licence to operate is focused on a near-term horizon to 2027/28, which adds challenges when assessing long-term risks. However, we recognize that Southeastern is part of a train network designed to provide public transport well into the 21st century. As custodians of this network, we have a responsibility to prepare it for the challenges ahead, ensuring our railway system remains robust, adaptable, and able to serve our communities for generations to come.

Climate risk governance & oversight

Oversight and management of climate related issues are embedded in our governance structure. Our Sustainability Board, chaired by our Managing Director, reviews and agrees potential climate risks and opportunities. This Board takes a leadership role in guiding the business towards achieving net zero carbon and integrating carbon reduction and climate resilience across our operations.

We acknowledge that there is still more work to do to strengthen our governance processes and enhance cultural awareness of climate physical and transition risks and opportunities within our business.

The Sustainability Board plays a key role in:

- Reviewing and agreeing on potential climate risks and opportunities identified through internal assessments and workshops.
- Setting the strategic direction for climate & sustainability action.
- Monitoring progress towards sustainability goals and ensuring alignment with industry best practices and regulatory requirements.

While we acknowledge that there is still more work to do, progress has been made in several key areas:

- We are collaborating with Network Rail to develop our first **Weather Resilience and Climate Change Adaptation (WRACCA) Plan**, which aims to identify and address vulnerabilities across our operations. This Plan is to be guided by principles from **ISO 14090/91**, ensuring a robust and systematic approach to climate adaptation and risk management.
- Earlier this year, we partnered with the **University of Birmingham** to review our **Joint Performance Strategy (JPS)** against ISO 14090/91 standards. Whilst the JSP is not a climate adaptation plan, the review demonstrated that it provides a strong foundation for developing one. The JPS focuses on managing the performance of our trains, infrastructure, and operations to deliver reliable services. The review highlighted areas where climate resilience could be better integrated, which we are now considering as part of our work to strengthen our climate risk management.
- We are working with industry partners to align the climate scenarios (representative concentration pathways, or RCPs) used in adaptation planning. Specifically, in the preparation of this report we have used **RCP 6.0** and **RCP 8.5**, which reflect moderate and high-emission pathways, respectively.
- We are closely following the **Rail Safety and Standards Board (RSSB)** as they develop new guidance for train operating companies (TOCs) on creating their own WRACCA plans.

Areas for improvement

Enhance cultural awareness of climate risks and opportunities.

Strengthen governance processes.

Build internal capabilities and resources to manage adaptation more effectively.

Climate risk governance & oversight (continued)

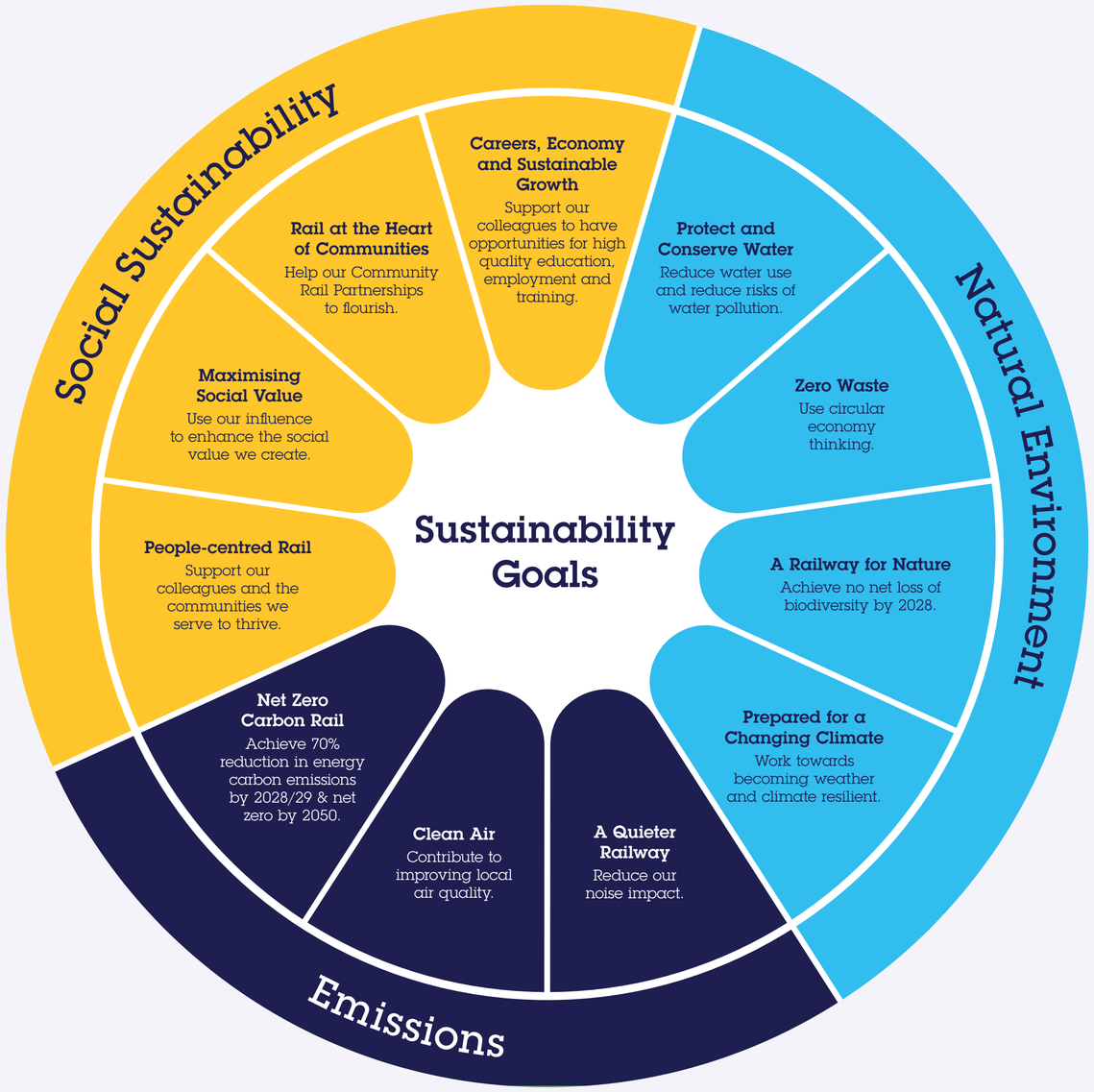
Southeastern's **Sustainability Strategy** is structured around 11 key goals, each of which supports our commitment to delivering a sustainable and resilient railway. One of these goals is specifically focused on **climate and weather resilience**, emphasizing the importance of preparing for and mitigating the impacts of extreme weather events and long-term climate change on our operations.

Addressing climate risks:
At Southeastern, we are committed to achieving net zero carbon emissions by 2050. To guide this journey, we have established validated science-based targets for both the near and long term, ensuring a structured and credible approach to addressing climate change.

Our key actions in managing climate risks include:

- **Measuring and reporting greenhouse gas emissions** in line with best practices and the Greenhouse Gas Corporate Protocol.
- **Identifying and implementing measures to support decarbonisation** across our operations where feasible.
- **Disclosing climate-related financial information** annually, providing transparency on how climate risks and opportunities might impact our business.
- **Collaborating with Network Rail**, who manage the rail infrastructure on which we operate, to enhance our ability to adapt to changing weather and climate change and strengthen resilience across the network.

These efforts will form the foundation of our Joint Weather and Climate Change Adaptation Plan with Network Rail which is currently in development.



Understanding risks & challenges

Southeastern is a train operating company providing critical public transport services across Kent, Southeast London, and parts of East Sussex. Our key functions include:

- Operating passenger rail services to connect communities, supporting regional economies.
- Maintaining the safety, reliability, and punctuality of services for passengers.
- Managing station facilities and ensuring the wellbeing of passengers and staff.

Our process for identifying climate risks and opportunities stems from our work under Climate Financial Disclosures, which requires us to examine threats and opportunities related to both physical and transition risks.

Physical climate change risks are the effects of weather and climate patterns on people, infrastructure, and nature. These risks are directly linked to the physical environment and are divided into two categories: **acute** and **chronic**.

> Acute risks: These are **short-term, extreme weather events** that occur suddenly and can impact rail operations or infrastructure.

> Chronic risks: These are **long-term, gradual changes** in climate that develop over time and can impact rail infrastructure and operations.

> **Transition risks:** transitioning to a lower-carbon economy may entail extensive policy, legal, technology, and market changes to address mitigation and adaptation requirements related to climate change. These transitions may vary in speed and may have financial (revenue or expenditure costs) or reputational risks to organisations.

We are committed to maintaining a long-term perspective on weather and climate risks, continually improving how we identify, manage, and report these risks across different frameworks. For the **Climate Financial Disclosures (CFD)** report, we adopt a distinct approach guided by financial materiality, focusing on both physical and transition risks.

Southeastern voluntarily published its first annual CFD report in 2023. This report outlined our overall climate risks and opportunities and highlighted the potentially material financial risks associated with climate change. While we are still early in our journey, our methodology for identifying and assessing risks continues to evolve as we refine our understanding and processes.

For the purposes of this ARP report, we focus exclusively on potential physical climate risks. Potential transition risks, which are addressed in our CFD report as part of our annual reporting, are not included here to avoid duplication and ensure clarity in reporting.

Understanding risks & challenges (continued)

To evaluate the potential physical risks and opportunities associated with climate change and assess their impact on our strategies and business plans, we first needed to understand the historical and current impacts of weather events and climate change on our operations. This analysis informed the selection of key variables for assessing future vulnerabilities based on UKCP18 climate projections.

We engaged with colleagues across multiple departments to identify the weather variables that have the greatest impact on their operations. These discussions included input from:

- Engineering
- Passenger Services
- Legal and Procurement
- Facilities
- Health & Safety
- Performance & Timetabling

Through these discussions, we identified the main weather variables affecting our operations, which include precipitation changes, mean temperature changes, wind speed, and extreme weather events. The impacts of weather events on our network are monitored using delay minutes, with historical and current data provided by the Performance Team. This analysis enabled us to understand the operational impacts of past and current weather events. The sub-variables identified closely align with those highlighted by Network Rail in their SE Weather Climate Report, ensuring consistency across the industry.

As a Train Operating Company Southeastern does not own or manage the rail infrastructure on which our trains operate, this is the responsibility of Network Rail. This means that the physical impacts of climate change on our operations have a slightly different narrative compared to infrastructure owners.

While Network Rail focuses on maintaining and adapting the physical infrastructure, such as tracks, stations, and embankments, our primary focus is on how these changes impact our ability to provide reliable services to passengers. For Southeastern, this includes addressing the operational challenges posed by extreme weather events, such as delays caused by track flooding or heat related speed restrictions and working closely with Network Rail to adapt to these risks collaboratively.

Types of data used in this assessment

This assessment considers both current and future climate change risks. To inform our analysis, we used the UKCP18 climate projections, which provide the most up-to-date and detailed climate data for the UK. Developed by the Met Office, UKCP18 helps predict how the climate is likely to change under various greenhouse gas emission scenarios. These projections include data on temperature, rainfall, and sea level rise, enabling us to model potential impacts on our operations. For consistency, we have used the baseline period of 1981-2000 to compare projected changes in various weather conditions.

The timelines we assessed risks against are:

Short term
Risks from the present up to 2028.

Medium term
Risks up to 2035.

Long term
Risks up to 2050, aligning with our decarbonisation strategy.

The UKCP18 projections indicate that the UK is likely to experience:

- Warmer winters, with fewer cold extremes.
- Hotter summers, with more frequent and intense heatwaves.
- Increased extreme rainfall events, leading to a higher risk of flooding.

To assess potential climate impacts, we used the RCP 6.0 and RCP 8.5 warming scenarios, which are part of the UKCP18 climate projections. These scenarios represent different pathways of greenhouse gas emissions and their effects on the climate, with RCP 6.0 assuming moderate emissions reductions and RCP 8.5 representing a high-emission, worst-case scenario. These scenarios have been aligned with industry agreements and with Network Rail's approach supporting consistent methodologies in evaluating climate risks across the rail sector.

Additionally, we considered the 90th percentile projections, which reflect more extreme climate outcomes and provide a more conservative view of potential impacts. RCPs (Representative Concentration Pathways) are greenhouse gas concentration trajectories used in climate modelling to project future climate conditions based on different levels of emissions and mitigation efforts.

> For the Southeast region, UKCP18 projects that under the RCP 6.0 pathway, there will be gradual increases in average temperatures, particularly in the summer months, with a rise in the frequency of extreme heat events. Additionally, this scenario suggests that the region will experience more intense rainfall during the winter months, with periods of drier summers leading to potential challenges related to water availability and land degradation.

> For the Southeast region, RCP 8.5 predicts increases in average temperatures, particularly in the summer, with more frequent and intense heatwaves. This Scenario also forecasts higher levels of extreme rainfall events in the winter, contributing to increased flood risks, along with drier summers.

These scenarios were chosen to provide a comprehensive understanding of potential risks across the short-, medium-, and long-term timelines outlined in our assessment.

As part of our ongoing climate risk assessment, we will continue to review climate data as required and incorporate updates to ensure that our understanding remains current. Additionally, we have reviewed Network Rail's Weather and Climate Change Resilience Report for the Southeast, which provides valuable insights into the region's specific climate risks and resilience strategies.

Addressing climate risks

As a Train Operating Company within a rail system managed by Network Rail, our ability to directly mitigate many physical climate risks is limited. However, we work closely with Network Rail to address key risks, including flooding, heat impacts, and extreme weather events. While these physical risks are central to our operations, they also bring indirect risks, such as reputational impacts when disruptions occur. This report provides a detailed exploration of our top overarching risks, breaking them down into specific sub-risks, their causes, and their consequences. Unlike our CFD, which focus on overarching climate risks, the ARP enables us to examine these risks in greater depth to better understand their implications.

This is our first time addressing these risks with this level of detail, and we recognize we are still at the early stages of our journey. In collaboration with Network Rail, as part of the development of our WRACCA plan, we aim to identify and implement actions to manage these risks effectively.

While we have a well-established understanding of the immediate impacts of weather events, more work is needed to evaluate the current and future likelihood of these risks affecting our key functions from a climate change perspective. This includes assigning qualitative or quantitative likelihoods, understanding cascading impacts and interdependencies with other organizations (e.g., Network Rail, HS1), and assessing the consequences of these risks on functional delivery.

Risk analysis and evaluation

We have identified four overarching physical risks, and 16 sub-risks. This structure allows for a comprehensive understanding of the specific challenges posed by physical climate impacts.

Overarching Risk 1: Precipitation change

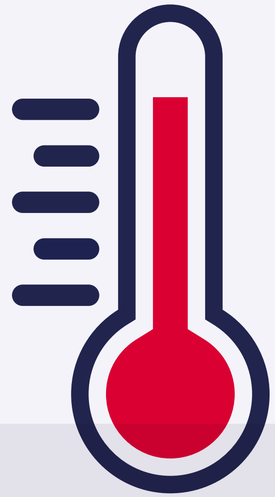
Climate change-driven precipitation changes, as projected by UKCP18 for the Southeast, may bring more intense and frequent rainfall and drier summers. These shifts could result in flooding, landslips, and strain on drainage systems, leading to service disruptions, higher maintenance costs, and reputational challenges.

Sub-risk name and type	Description	Potential Consequences	Interdependencies
Surface flooding (acute and chronic)	Surface flooding could pose a risk to our operations, with 27% of our stations identified as being at high risk.	• Service delays and cancellations • Safety risks • Reputational damage • Accessibility challenges	Addressing physical climate risks requires close collaboration with Network Rail to ensure that both proactive measures and responsive actions are in place. By working together, we can better manage the impacts of extreme weather events, minimize disruptions, and maintain safety and reliability across the network.
Poor adhesion (acute and chronic)	Poor adhesion occurs when precipitation, such as rain, or leaf fall during wet seasons, reduces the friction between train wheels and tracks.		
Groundwater flooding events (acute & chronic)	Groundwater flooding happens when heavy or prolonged rain causes water below the ground to rise to the surface.		
Landslips (acute & chronic)	Landslips often triggered by prolonged or intense rainfall that saturates the ground, causing soil and debris to move, threatening adjacent tracks and infrastructure.		
Vegetation management challenges (chronic)	Changes in precipitation patterns, such as prolonged wet periods and fluctuating seasonal rainfall, can lead to accelerated vegetation growth along rail corridors. Increased rainfall creates favourable conditions for vegetation growth, while alternating wet and dry periods can make vegetation harder to manage.		

Overarching Risk 2: Extreme weather

Extreme weather, including heavy rainfall, heatwaves, storms, and high wind speeds, is a key physical risk linked to climate change. These events are expected to become more intense and frequent due to changing weather patterns, such as rising temperatures and stronger winds. Disruptions from such events could result in passenger revenue loss due to delays and cancellations, along with reputational impacts from reduced customer confidence in service reliability.

Sub-risk name and type	Description	Potential Consequences	Interdependencies
High wind speeds (acute)	High winds, often associated with storms or extreme weather events, could pose significant risks to rail operations. Sudden and powerful gusts can cause debris, such as fallen trees or objects, to obstruct tracks, creating safety hazards and disrupting services. Additionally, high winds may affect station infrastructure, such as canopies and signage.	• Service delays and cancellations • Safety risks. • Reputational damage. • Accessibility challenges.	Addressing physical climate risks requires close collaboration with Network Rail to ensure that both proactive measures and responsive actions are in place. By working together, we can better manage the impacts of extreme weather events, minimize disruptions, and maintain safety and service reliability across the network.
Storms (acute)	Storms, characterized by a combination of heavy rain, strong winds, and sometimes lightning, present significant challenges for rail operations. The intensity and unpredictability of storms make them particularly disruptive, requiring immediate response and collaboration with Network Rail to manage impacts and restore service.		
Extreme low temperatures (acute)	Extreme low temperatures during winter can cause freezing conditions that affect tracks, points, and trains. These cold spells could make it harder to run services smoothly and safely, requiring extra care to keep systems operating. Close coordination with Network Rail is essential to manage the impacts effectively.		
Snow and ice (acute)	While snow and ice are rare in the regions we operate, they can still occur and have a significant impact on rail operations. These conditions require targeted responses to ensure safety and minimize disruptions, highlighting the need for preparedness even for infrequent events.		
Lightning strikes (acute)	Lightning strikes, though infrequent, can cause significant disruptions to rail operations. They can damage signalling and electrical systems, leading to delays. Lightning can also pose safety risks to passengers and staff in exposed areas.		



Overarching Risk 3: Increased temperatures

Increased temperatures could pose a significant risk to rail operations, with hotter days becoming more frequent and heatwaves more intense due to climate change. Higher temperatures can affect rail infrastructure, rolling stock, and colleague and passenger thermal comfort.

Sub-risk name and type	Description	Potential Consequences	Interdependencies
Heatwaves (acute)	Heatwaves, characterized by prolonged periods of extreme heat, are becoming more frequent and intense due to climate change.	• Service delays and cancellations. • Safety risks. • Reputational damage. • Thermal comfort challenges.	Addressing physical climate risks requires close collaboration with Network Rail to ensure that both proactive measures and responsive actions are in place. By working together, we can better manage the impacts of extreme weather events, minimize disruptions, and maintain safety and reliability across the network.
Higher average temperatures in the long term (chronic)	According to UKCP18 projections for the Southeast, average temperatures are expected to increase, with warmer winters and hotter summers becoming more common.		

Overarching Risk 4: Interdependencies – Systems Thinking

Train operations are deeply interconnected with infrastructure, other train operating companies, supply chains, and external systems. This interdependence means that risks, such as extreme weather, power outages, or public health emergencies, can cascade across the network, amplifying their impacts. Understanding and managing these interdependencies is critical for ensuring resilience and maintaining reliable operations.

Sub-risk name and type	Description	Potential Consequences	Interdependencies
Supply chain disruptions (acute & chronic)	Heatwaves, characterized by prolonged periods of extreme heat, are becoming more frequent and intense due to climate change.	• Service delays and cancellations • Safety risks. • Reputational damage. • Operational disruption. • Financial costs.	Supply chain disruptions rely on external partners and logistics networks. Extreme weather can impact these systems, requiring close collaboration with suppliers to ensure timely deliveries to maintain operations.
Power supply disruptions (acute)	According to UKCP18 projections for the Southeast, average temperatures are expected to increase, with warmer winters and hotter summers becoming more common.		Power supply disruptions depend on external energy providers and infrastructure. Extreme weather can strain these systems, requiring close collaboration with energy suppliers and Network Rail to ensure resilience and maintain continuity.
Waste management disruptions (acute)	Extreme weather events, such as heavy rainfall, storms, or heatwaves, can disrupt waste collection and disposal services at stations, depots, and onboard trains. Flooding or high winds may block access routes for waste removal vehicles, while heatwaves can accelerate waste degradation, creating hygiene challenges.		Waste management relies on external service providers and infrastructure, such as collection contractors and disposal facilities. Effective coordination with waste service providers and is essential to ensure continuity and resilience during such disruptions.
Increased risk of epidemics (acute)	Rising temperatures, as projected by UKCP18 for the Southeast of England, could create conditions that increase the risk of epidemics. Warmer and more humid environments may contribute to the spread of diseases, particularly those associated with poor air quality or vector-borne transmission.		Pandemic risk is largely outside the control of any individual train operating company. It requires coordinated action across the rail industry, public health authorities, and government agencies to effectively manage and mitigate its impacts on operations, workforce, and passenger safety.

Best practice case studies

Interdependency workshop

In 2024, we organized an interdependency workshop involving Southeastern, Network Rail, SWR, GTR, HS1, and RSSB to explore the complex interconnections within the rail industry and address shared climate risks. Climate change knows no boundaries, affecting entire value chains, business units, and functions. This is especially true in the rail sector, where operations depend on a vast and interconnected network of infrastructure, operators, government agencies, and suppliers.

The workshop provided a first step in identifying where interdependencies exist and uncovering opportunities for enhanced collaboration. It offered a forum to agree on shared mechanisms for addressing climate risks, fostering collaborative working. By encouraging collaboration and relationship-building across teams, the workshop laid the groundwork for potential future work, while also providing valuable insights for ARP reporting.

This initiative underscored the importance of collective action in building resilience and tackling the shared challenges posed by climate change in the rail industry.

Joint Performance Strategy review with University of Birmingham

In collaboration with the University of Birmingham, we conducted a review of Southeastern's Joint Performance Strategy (JPS) in the context of ISO 14090, the standard for climate change adaptation. While the JPS is not specifically an adaptation plan, this review focused on identifying actions that would strengthen climate change resilience within the business. The report provided a comparative review and gap analysis, outlining areas where Southeastern could enhance its resilience planning.

The review demonstrated that Southeastern's existing JPS offers a solid foundation for developing a high-quality climate change adaptation plan. The mechanisms already in place within the business, such as stakeholder engagement and collaboration, will be key to furthering climate change adaptation efforts.

The findings highlighted that Southeastern's existing JPS already lays a strong foundation for developing our first Weather and Climate Change Resilience Plan in partnership with Network Rail. The recommendations emphasized the importance of building on the systems and stakeholder engagement already in place, ensuring that climate change adaptation is effectively integrated into future planning.

Weather and climate change resilience conference

In 2023, Southeastern hosted a Weather and Climate Change Resilience Conference, bringing together approximately 144 colleagues from Southeastern and across the rail industry, including RSSB, Network Rail, and supply chain partners. The event featured expert insights from Professor Andrew Quinn of the University of Birmingham, alongside practical presentations from TfL addressing their challenges and solutions, and Amtrak sharing a unique perspective on weather and climate resilience from the U.S.

A highlight of the conference was a hands-on scenario analysis of a landslide incident, which provided attendees with practical tools and collaborative strategies for managing such events. This conference served as a platform for sharing knowledge, fostering collaboration, and enhancing industry-wide preparedness for weather and climate challenges.

This conference was likely the first of its kind hosted by a Train Operating Company, fostering awareness of weather and climate resilience across different service levels. It emphasized the importance of collaboration and knowledgesharing, setting a benchmark for proactive industry engagement on these critical challenges.

DfT Operator workshop

This year, we facilitated a knowledge workshop for environment and sustainability teams at Northern, TPE, and LNER, all part of the same owning group. The workshop aimed to support their understanding of scenario analysis requirements for climate change, particularly in the context of Climate Financial Disclosures. The session was designed to support alignment across each business's reporting, quipping teams with the necessary tools and insights for effective climate risk assessment and consistent reporting.

Best practice case studies (continued)

Climate change in our latest Joint Performance Strategy

This year, we worked closely with colleagues from the Joint Performance Team (JPT), who are responsible for monitoring and improving operational performance across our network. Together, we integrated a section into our performance report specifically addressing climate change impacts—an area not previously included. This addition is a crucial step in raising awareness of climate change within the organization and strategically embedding it across various departments. By aligning climate resilience with operational performance, we are ensuring that climate risks are considered in decision-making and performance management, helping to foster a more proactive and comprehensive approach to addressing climate change across all areas of the business.

Sustainability Lunch & Learns

Our Sustainability Lunch and Learns, which focus on climate change and broader sustainability topics, provide an opportunity for colleagues to engage with key environmental issues. This year, several sessions reiterated the causes and consequences of climate change, both locally and globally. Attended by various colleagues across the business, these sessions help raise awareness about climate change, foster discussions on sustainability, and promote a shared understanding of the challenges and actions required to address them within the company.

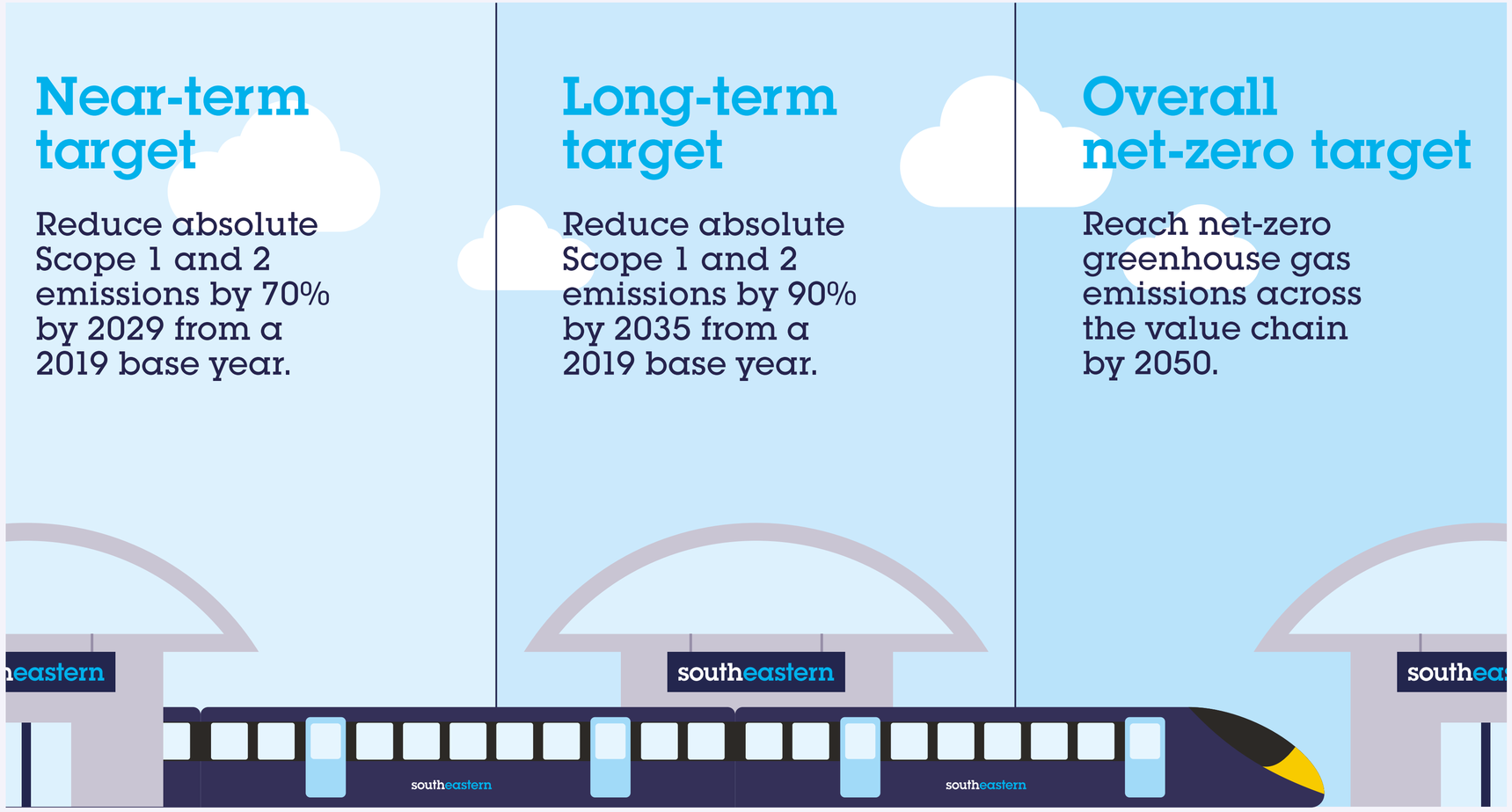
Climate resilience in train procurement

This year, we integrated climate resilience requirements into the specifications for new train procurement. By incorporating these criteria, we ensure that future rolling stock is better equipped to withstand climate-related impacts, such as extreme temperatures and extreme weather events, supporting our long-term sustainability and operational resilience goals.

Science based targets

Southeastern has committed to science-based targets through the **Science Based Targets initiative (SBTi)**, which aligns our emissions reduction goals with the latest climate science to limit global warming. These targets include both near-term and long-term objectives.

The SBTi is a global partnership that helps companies set emissions reduction targets in line with the Paris Agreement's goal of limiting global temperature rise to 1.5°C above pre-industrial levels. By adopting these targets, Southeastern is ensuring that our decarbonisation strategy is ambitious, measurable, and aligned with global climate efforts.



Summary

This report outlines the key potential physical climate risks facing Southeastern and our efforts to assess them. Moving forward, our next steps will involve working closely with Network Rail to establish clear actions for addressing climate risks as part of our joint development of a Weather and Climate Change Adaptation Plan. We will map existing actions across our organisations, identify any gaps, and continue to enhance our cultural maturity in adapting to climate change.

In addition, we will be reporting against the Climate Financial Disclosures framework, focusing on risks that have financial materiality for the business. As part of that we will also disclose our transition risks and opportunities.

Adopting a systems-thinking approach is essential as we recognize that we are custodians of a rail network that will likely remain a vital part of the transport infrastructure in the Southeast for years to come. Potential climate change impacts could affect not only our operations but also the broader rail network, requiring collaboration across system stakeholders to build resilience.

At Southeastern, we deeply care for the well-being of our passengers and colleagues. Climate change has the potential to pose significant risks to our ability to deliver services, and we recognize that adapting to these challenges is essential. By prioritizing resilience, we are committed to developing services to meet future needs even in the face of evolving climate-related risks.

We are on a journey of continuous learning and improvement. As we evolve our maturity and thinking in response to climate change, our climate risk management processes will similarly evolve.

One of the most important goals is to foster collaboration across our organization and support key business areas to understand potential climate change risks and develop responses. This is an iterative journey that will be reflective our developing knowledge and experience.