Network Rail’s response to ORR’s Draft Determination: Southern Region

31 August 2023

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Executive summary

In our CP7 Strategic Business Plan (SBP) we set our plans for the Southern region over the next Control Period. We are grateful for ORR's review and critique of our Strategic Business Plan as set out in its overall 15 June 2023 draft determination on CP7.

We are determined to deliver a safer and consistently reliable railway for our passengers and freight users and to provide better value to customers and stakeholders. The challenge and recommendations made by ORR on the Southern and the wider Network Rail plan, have been considered fully and helped us iterate and improve our plan.

Set against a challenging economic environment, we have largely accommodated the recommendations made increasing investment in core renewals despite seeing further inflationary pressure impacting the plan. With inflation remaining a significant risk to the plan, we must make every pound go further to deliver our vision for CP7. We are excited about our new renewals delivery model, which we believe will be a true enabler, and our maintenance modernisation plans are progressing well. We continue to work on our wider efficiency plans and readiness for the new Control Period and look forward to continuing to proudly operate, maintain and renew the Southern region for all our users and stakeholders.

Southern region response to ORR's PR23 draft determination settlement document

1. Introduction & Key Changes

This document is the response to ORR's PR23 draft determination settlement document for the Southern region, issued as part of its overall 15 June 2023 draft determination on CP7.

Following the publication of ORR's draft determination, we have reviewed and considered ORR's draft proposals, decisions, and actions. This document sets out our response to these areas specifically in relation to Southern region. We have undertaken a targeted review of our CP7 Strategic Business Plan, as part of our iterative CP7 plan development process, and this update has also been reviewed and assured by subject matter experts. Recognising the limited time available to update, assure and consolidate CP7 plans, our approach has been necessarily targeted and high-level and there may be subsequent changes when it is consolidated at a national level.

The key changes we have made since submission of our Strategic Business Plan to ORR in February 2023 can be summarised as follows:

1. We have moved to the risk-adjusted (“committed”) plan. As a result, we have removed £336m contingent activities that were identified in our Strategic Business Plan to offset inflation challenges. Our plan has been updated to include more recent inflation assumptions (May 2023) from the Bank of England.

2. We have incorporated £191m of additional core renewals in response to the draft determination. This comprises £37m in Signalling, £32m in Structures and £122m in Earthworks. These actions will improve outcomes for critical assets and lessen the deterioration in the Composite Sustainability Index (CSI) over the Control Period.

3. To incorporate the additional renewals spend, we have had to include an overlay (unidentified savings) challenge of £162m (2.1%) in our plan. Whilst some of this may be addressed through funding reallocations following reviews being undertaken across the business, any residual shortfall will lead to the region having to make further prioritisation choices. Though we will try to mitigate this, there could be a corresponding impact, as yet unquantified, on planned outputs.

4. We have not included the Victoria roof renewal within the plan as we will deliver an acceptable outcome over the Control Period with different interventions.

5. We have accepted ORR’s proposed CP7 targets for Carbon Emissions (scope 1&2) reduction and also Biodiversity for Southern, but they may be affected by the 2.1% overlay challenge.

6. £232m of our capex input price allowance been converted to a regional risk fund. However, we expect that this will be required to fund our renewals investment which we are forecasting to increase by more than CPI.

7. We are actively working on the workbank transition between CP6 and CP7 and the potential impact on the CP7 outcomes.

As a result of these changes, spend on operations, maintenance, and renewals for CP7 is now 9% below that of CP6 in equivalent terms. Capex investment is 18% below the CP6 plan.

This plan will continue to deliver a safe and operable railway, but will see asset portfolio age increase, and will require greater investment in Control Period 8 (CP8) and Control Period 9 (CP9) – while recognising this is ultimately a choice for funders. Residual asset life will decrease by – 3.0%as measured by our amended composite sustainability index (CSI). Some of this loss of asset life may not be recoverable in subsequent Control Periods and will require early review of the deliverability challenges in CP8.

Our performance forecast bands remain the same but with potential changes to address the overlay and less risk funding in the plan, we have reduced confidence in achieving the higher end of the bands as there is less flexibility to reprioritise and respond to any emerging performance issues.

Areas that are being considered (but subject to further review) to address the 2.1% overlay challenge are those that have less of a direct impact on safety and performance, such as workforce accommodation, biodiversity etc., whilst we will try to mitigate the impact on outcomes. We will advise ORR in due course of any potential impact resulting from addressing the overlay challenge.

2. Safety

This section contains Southern region's response to ORR's findings in relation to safety, as set out in the Southern region settlement document and questions raised in subsequent meetings with ORR.

Renewals/Maintenance Balance/Operational Controls

ORR's draft determination set out that it expects Network Rail to demonstrate how it will manage the shift in risk profile which results from conducting fewer renewals and taking a more maintenance-based approach to management of the infrastructure.

Alongside all other regions, we have provided input to and support the approach to developing the bow tie risk assessment framework developed by Technical Authority. This framework will allow us to assess and monitor the change in risk profile in CP7. We have also used it to demonstrate the alignment between our maintenance and renewals plans in CP7. Please see the England & Wales overall response for more detail on the safety bow tie risk assessment.

As discussed in the overall England & Wales response, fully developing and populating the bow tie risk assessments at a national and regional level will take time. Therefore, we will continue to iterate and populate the safety bow tie risk assessment framework after our draft determination response, and this will be developed as part of our CP7 delivery plan.

More broadly, and as discussed in our overall England & Wales response, we have used the safety bow tie risk assessment to demonstrate the alignment between our maintenance and renewals plans in CP7. We have answered the 25 questions that the TA has developed which enable us to assess the level of alignment between our maintenance and renewals plans (including that the funding provisions for maintenance activities in CP7 are scaled appropriately) and identify any gaps. We will seek to address any identified gaps as part of the development of the delivery plan and into CP7.

The result of the assessment for Southern is as follows:

- Southern demonstrated comprehensive work in developing maintenance and renewals plans, together with a solid articulation of work in flight.

- A small number of key areas for further improvement were identified. We will address these as part of our delivery plan.

Residual life of our overall asset portfolio will reduce in CP7. However, individual asset classes will remain within tolerable levels. Track (plain-line), for example, will remain at 70% used life, and signalling with 10 years remaining life. Our plan focusses on refurbishment rather than full renewal to extend asset life.

In general, we plan full renewal where it is no longer economical to continue to operate infrastructure with other interventions. Not delivering capital work does not change the safety profile as previous interventions remain valid mitigations; however, they may be less efficient as more of them may be needed.

The routes have developed their maintenance plans based on the proposed renewals intervention plan which was developed in collaboration between asset strategy managers and route engineers to ensure alignment of priorities. During this development the maintenance modernisation workstream has also been designed and consulted and so takes account of future plans. Maintenance modernisation is now in the process of being implemented. It is built on the principles of eliminating work no longer required through Maintenance Scheduled Task (MST) reduction, improved planning and labour force flexibility. This will create greater capacity to deliver maintenance activities in a planned and timely manner.

We have used the Activity Based Planning (ABP) tool to plan our maintenance interventions. It accounts for reductions in MSTs and an increase in activity associated to offset reduced full renewals. The tool calculates the required headcount and has used productivity assumptions that align to the expected productivity gains associated with the maintenance modernisation initiatives relating to individual rostering and collaborative teams.

There is significant increase in maintenance intervention in the Drainage & Offtrack function. This was recognised in the modernising maintenance initiative and is subject to a separate review. The current plan to deliver the increased intervention is a combined approach of maintaining current Network Rail capability, supplemented by supply chain capability.

Electrification & Plant (E&P) asset risks

The draft determination raised several questions related to electrical safety. We have summarised our responses below.

Recognising broader funding priorities we are unable to renew as many E&P assets as we would choose to and have tolerated a low likelihood high impact risk of failure of assets which are beyond their original design life. This does not mean that they are life expired, as suggested in ORR’s settlement document for Southern, rather that we are extending life through smart asset management. The substantive risk is a performance one, from prolonged loss of power to a section of track in the event of two adjacent failures, rather than a safety risk.

We remain committed to our Electrical Safety programme and the roll out of Negative Short Circuit Devices (NSCDs) across the region. As reductions have been made to the national CP7 ESD fund we will not be able to complete NSCD roll out, the initial remote secure roll out (although trial will be completed) or other ESD funded schemes in CP7. We expect to be able to increase fitment of NSCDs, prioritising by usage and line of route, to 85% of planned traction buildings in CP7 from the 50% installed at the end of CP6, noting there will be no midpoint devices installed. We expect to deliver the remaining traction building devices, midpoint devices and the full roll out of remote securing in CP8, funding dependant.

The tragic incident at Godinton highlighted weather-related risks at High Voltage (HV) lineside buildings. There were three identified areas for improvement:

1. Monitoring of buildings with metallic and flat roofs
2. Ensuring that these buildings are clearly identified with unique reference numbers
3. Improving processes and PPE for entering lineside HV buildings

Unique reference numbers have been implemented for all lineside HV buildings and embedded in our fault response management systems. We have now installed remote humidity monitors in over 500 HV lineside buildings with metallic roofs (out of 950 similar) based on the worst condition/highest risk. We have an established and regularly updated list of lineside HV buildings which have water ingress and/or standing water (referred to as the wet list), and flash resistant PPE is mandatory at all HV sites.

Our CP7 plans include over £15m investment in lineside buildings renewals including c. £8m of lineside building roof renewals (c.120) – these are mostly flat metallic roofs. We are developing designs for full building renewal or refurbishment of the c. 900 HV metallic building in the region. Investment will be prioritised to provide more permanent solutions for this critical portfolio as these receive design approval.

More widely in respect of weather-related risks to lineside buildings we have, over the last 11 years, implemented comprehensive monitoring systems in over 850 key buildings. These remote monitoring systems provide real-time information and alarms on:

- Ambient temperature
- Internal temperature
- Electrical supply state of health
- Cooling systems health monitoring
- Humidity
- Water ingress
- Water condition monitoring (e.g., if welfare facilities are on site to check if conditions could give rise to legionella)

- Wind speed (being progressively added in)
- All of which provide real-time information on extreme weather events.

Our plan commits c.£2.5m towards further additional remote monitoring and controls in relation to the lineside building portfolio.
Our plans assume that the proposals set out in the Department for Environment Food & Rural Affairs consultation on proposed amendments to The Environmental Protection (Disposal of PCBs and other dangerous substances) are not implemented without a further national impact assessment, including any incremental funding that would be required.

We are reviewing the E&P maintenance regime using risk-based maintenance principles, known asset age, condition, manufacturers recommendations, local knowledge to produce work instructions to document a refined maintenance regime for our most significant asset categories. This will result in a more effective and efficient maintenance regime that targets maintenance intervention on asset need. We expect to complete drafting the work instructions by March 2024 with a view of starting implementation by June 2024. We recognise that this needs to be supported with a plan to ensure maintenance staff capability in implementing and carrying out the refined regime. In addition, we are reviewing asset condition data to work through how this can be better utilised to inform intervention requirements on assets where we currently have a paucity of information.

Earthwork Asset Risks
We have increased core asset renewals in Earthworks by 34% from our Strategic Business Plan, investing a further £122m over CP7. As our understanding of asset condition develops from further inspections and identification of developing risks, we will prioritise the appropriate intervention be it renewal, refurbishment, maintenance, or mitigation through remote condition monitoring.

We have also reviewed the balance of interventions across Drainage renewals, Drainage maintenance and Earthworks renewals. We have reduced Drainage renewals from 85km to 39km, but increased Drainage maintenance volumes by circa 20% over the Control Period. Noting that there are also Drainage works associated with planned earthwork renewals we believe that this will provide a better balance and greater impact across a larger proportion of the asset base.

We are committed to delivering the recommendations from the Mair & Slingo reports, including that route teams should deliver Drainage plans, and have incorporated these into our CP7 plans. The route Drainage maintenance teams are not part of the Maintenance Modernisation initiative. We are in the process of implementing the Drainage maintenance organisation structure and determining resources that will be available to match against them and we will bring in competent external resources to fill any gaps we find. As such, Maintenance Modernisation will not have an impact on resources for Drainage maintenance. An outline organisational structure has been shared with ORR through the Weather Risk Task Force forum. The next iteration of the organisational structure will be out for Industrial Relations (IR) consultation in Oct 2023.

We continue to work on updating our Drainage asset inventory and will complete this by the end of CP6. We are committed to updating the unknown condition/serviceability information as part of the ongoing inspection regime and will complete this by the end of year 3 of CP7. We have assumed a 10% to 20% increase in maintenance intervention in our Drainage resource plan.

Signalling Asset Risks

We have increased refurbishment intervention in preference to renewal at some level crossings to stay within the available funding envelope. This will deliver the same functional outputs from these level crossings, albeit with a shorter lifespan and the need for increased investment in subsequent Control Periods. We have taken a risk-based approach to prioritisation of funds for risk reduction at level crossings and identified an intervention mix of closures (9), installation of mini stop lights at 38 locations and installation of new pictogram signage. It is recognised that existing private crossing signage will need to be upgraded over the Control Period. This is a BAU activity and will be completed as part of a prioritised programme at the same time as with Level Crossing Manager asset inspections.

Since publication of the Strategic Business Plan, the national Optimised Train Track Operations (OTTO) programme has been reviewed and closed, although aspects of the original programme continue incrementally with R&D for the remainder of CP6.

The Technical Authority is developing a prototype speed management system in a simulated environment and plans to test the concept on the West of England Line (Wessex) in CP7. This trial will work with real infrastructure data and fit a single passenger unit with on-board equipment to test train positioning accuracy and live information exchange.

The aim is to manage permitted line speeds and changes to line speeds electronically and communicate them in real-time to other systems and users e.g., to train drivers through Connected Driver Advisory System (C-DAS).

The potential use case, business case and funding opportunities will be examined for continuing with development in CP7, but this is not currently included within our plan.

Workforce Safety

We plan to continue our CP6 approach to track worker safety into CP7, where we seek to remove the need for our workforce to access track in the first instance, and if not possible, to reduce risk in the case they need to.

- We are continuing our investment on infrastructure monitoring, remote condition monitoring, including equipment and online tools so that checks on how assets are performing can be carried out without the need for the workforce to go out on track. We are also investing in the use of drone technology for assets that do not have remote condition monitoring.
- In parallel, we are increasing the use of additional protection (and use of Relay Disconnect Devices when available) and reducing the need for colleagues to have to access the track by improved walking routes & access points. The NSCD programme also contributes to Workforce Safety

We will provide further information on track worker safety in our CP7 Delivery Plan

Decision making by track maintenance teams is currently supported by 4 weekly track recording. This will be enhanced with the introduction of Class 153 trainborne Switches & Crossing (S&C) inspection. The pilot phase on 20 junctions in Sussex/Wessex will start in CP6 following conclusion of Industrial Relations consultation. Work also continues to explore potential opportunities from Unattended (track) Geometry Measuring Systems (UGMS). We are engaging with the Wessex Siemens fleet as to how this data and information is used to supplement and enhance decision making based on the already available geometry information. We do not expect this to be in a mature format until at least mid CP7. The Digitised Lineside inspection solution is expected to be delivered in the last quarter of CP6 and forms a cornerstone of our CP7 offtrack inspection regime.

Workforce safety includes wellbeing and health, and we are continuing to work to reduce exposure to fumes and emissions. There are relatively few diesel trains on the Southern region network and most generators used are petrol. Wherever possible we seek to eliminate fumes by using battery-operated equipment as these not only reduce emissions but reduce manual handling injuries, noise pollution and disruption to lineside neighbours. Where it is not possible to use battery operated equipment, we will continue to focus on high-risk areas such as tunnels to undertake on site monitoring and increased assurance to ensure that the appropriate mitigations, such as respiratory protective equipment (RPE) and ventilation, are in use wherever possible and that the activities are kept to a minimum. The Technical Authority is in the final stages of issuing guidance on how to control welding fumes along with suitable local exhaust ventilation (LEV) to be used when required - tunnels being one such area.

In terms of asbestos risk, our high-risk sites are known and managed through the asset management teams. Asbestos details of all relevant assets will be within the Asbestos Risk Management System (ARMS) by the start of CP7. Our asbestos survey programme will continue in CP7 monitoring the presence and condition of asbestos and prioritising interventions when asbestos is disturbed. We will continue with rolling asbestos awareness, briefings and/or training to our employees depending on roles and responsibilities with regards to asbestos management, making sure new starters receive the relevant level of information.

The asbestos management programme is clearly set out. It is independent of the renewals workbank as the presence of asbestos doesn't drive a renewal, rather should asbestos be identified and need to be removed it would be dealt with in a targeted way rather than a full asset renewal.

Fatigue Management

In response to the change to the fatigue standard in 2023, Southern developed a Regional Fatigue Management plan which targets the elimination of 72-hour and 14-hour door-to-door working, as well as fatigue due to on-call. This has resulted in significant reduction in exceedances in these areas. Regional rostering principles have also been agreed to reduce where possible to 60 hours.

Our plans through CP7 include targeted recruitment and training to reduce the vacancy gap in Signalling and Electrical Control Room Operator (ECRO) staff and improve resilience to staff moving roles. Once colleagues are recruited and competent, this will increase flexibility to deliver the regional rostering principles.

The introduction of MyRoster will take place in December 2023 for Operations and in 2024 for, Managed Stations and Maintenance. It will allow rostered staff to update their hours worked in real time. This will allow the rostering team and line manager to act where appropriate. The provider, UKG, is an industry leader supporting organisations such as Apple, Balfour Beatty & Amazon.

Maintenance Modernisation has factored fatigue and fatigue management into team sizing. Alongside this the introduction of Roster Clerks will allow a more holistic view of fatigue to be made.

Market-Led

We will continue to take a market-led approach to the development of our CP7 plans. Continuing our work on market-led and whole industry planning will be key to reducing the current overlay in our plan, and there may be opportunities beyond this to support the delivery of our plan during CP7. Realising this opportunity will hinge on a whole industry approach to planning and delivery, as well as broader industry, government, and regulatory support.

For the SBP, when considering trade-offs we took a market-led approach to reflect the economic challenges and to prioritise investment in this plan. This prioritised spend on Operations, Maintenance and Renewals (OMR), beyond a minimum standard of safety, by actual, or potential net revenue. As such, investment is prioritised on the key routes into London, and critical junctions in the London area. We have continued this approach with the increased renewals in the ongoing development of our CP7 plans. Our continued market-led approach will help target any additional opportunities for increased investment should they become available over CP7.

3. Performance

We are committed to working with our Train and Freight operator colleagues to improve performance, as collaboration and joint improvement planning is key to unlocking the maximum opportunity. Through our regular performance forums, we are fully engaged with our operator colleagues. However, due to the one-year planning horizon of the train operator annual business plans, there is no certainty of any longer-term operator initiatives that could lend further confidence to reaching the top levels of our performance estimates. We will continue to work with operators as their funding and annual business plans become clearer during CP7.

We do not believe that ORR has justified its proposed regulatory baselines with sufficient evidence and analysis and nor has it set out the assumptions it has made on operator contributions or on external factors at the time of submission of this document (31st Aug).

With inherent uncertainty in performance forecasting and without a clear view of operator contributions to train performance, we do not think that performance can be accurately forecast for all CP7. We have written to ORR to set out our concerns with the draft determination approach, metrics, and baselines.

The suggested point targets in the draft determination are aspirational and not supported by past evidence.

- In the five years pre-COVID our combined lead Train Operating Companies (TOCs) delivered an average of 3.6% passenger cancellations. Only one year of this time period bettered 3.4%. GTR has never achieved better than 3.1% (including the COVID year).
- We have reviewed the last three years data for freight cancellations using the new metric, and this has averaged 2.7%

ORR's approach must incentivise appropriate behaviours, including how it uses metrics (such as the balance of On Time performance and revenue generating services, and the balance of On Time and Cancellations as a network management approach) and setting realistic baselines.
For example, whilst it might be possible to reduce cancellations to 2%, it would render the top end of our on-time performance bands unrealistic as the ability to purposefully cancel trains to recover a busy metro style railway would be restricted.

ORR has proposed an alternative approach to train performance target setting which would set point values for the first two years of CP7 and indicative trajectories for the final three years which are subject to a 'reset', codified in the Final Determination. Whilst this approach does not mitigate all the challenges and significant uncertainties remain, we recognise it as an improvement over the approach in the Draft Determination and we are working with ORR to provide the information required. Given the approach has only emerged in the last few weeks we have agreed with ORR that we will provide evidence to support credible passenger performance trajectories as an addendum to this document on 14 September.

We would also note that whilst we will always aim to protect train performance, with less risk funding and an overlay to offset, reallocation of funds to address specific performance issues becomes more challenging. Therefore, although our performance bands are unchanged, we have less confidence in achieving the top end.

It is important that we continue to work with operators to build robust train performance plans. Because the assumptions and plans will continue to evolve, flexibility is essential in CP7. This is wider than the Managing Change Policy, but it is likely that we will need to trigger managing change as operator and external assumptions impacting performance forecasts evolve.

4. Freight growth

Our Strategic Business Plan set out a clear commitment to deliver our freight growth target of 2.9%, which has been accepted in ORR's draft determination. Delivering our freight growth target requires a combination of making sufficient paths available to freight operators and that demand is there for these paths. The target for the Southern region recognises capacity constraints at Southcote and Latchmere Junctions where freight routes exit the Southern region. These constraints will not be removed during CP7. Our plans therefore focus on maximising utilisation of existing freight paths.

As set out in our Strategic Business Plan we will continue to manage our Structures portfolio condition to mitigate the risk of restrictions on use. We expect that this will allow us to continue to maintain dispensations for freight operators to operate services outside the declared capability of the network. The adjustments that we have made to the Structures workbank in response to the draft determination will help to mitigate this risk further.

5. Asset sustainability

The purpose of this section is to respond to ORR’s findings and draft decisions in relation to asset sustainability, as set out in the Southern Region settlement document.

We have reviewed ORR’s proposed updates to funding and activity in the draft determination. As set out in the overall Network Rail response, we agree that there should be more spend on core asset renewals and across England & Wales, we have increased our core asset renewals expenditure by £191m but have been unable to meet the £230m proposed by ORR.

We have worked closely with the Technical Authority over the past few months to review ORR's recommended increase in core asset renewals expenditure. Our plan is based on the latest asset information and includes the following areas of additional spend: £32m Structures (including £11m for Heavy Axle Weight which will be targeted at refurbishment of metallic structures across the portfolio rather than discrete renewals), £37m Signalling (correcting an underlying modelling error) and £122m Earthworks.

The additional Earthworks renewals will deliver a further 92 effective volume units of planned renewals and 23 effective volume units of emergency interventions to help improve the overall condition of the Earthwork assets. We continue to review our unit rate analysis and seek opportunities to deliver even greater impact with this additional investment.

Increased investment in the Structure's portfolio will improve the overall asset condition and mitigate the performance risk that short term traffic restrictions are required when defects are identified until holding repairs can be completed.

We recognise the risk associated with structures examination backlog and have put in place a recovery & improvement plan on which we are making good progress. As part of the improvement plan and to ensure that we maintain a sustainable compliant position, the team will be led and managed by a Programme Manager. Our recovery plan forecasts a 99% site compliance by the start of CP7 and report and evaluation compliance forecast at 95% by that time (April 2024).

We have not included additional funding for Operational Property as we do not believe re-incorporation of Victoria roof into the workbank offers value for money within the CP7 funding context. We are currently in discussion with the HM Inspector Assistant of Railways on Victoria roof (following a joint site visit on the 7th of June). Through this process we intend to demonstrate, with evidence, that the mitigations we have in place to monitor and carry out further holding/water ingress repairs are appropriate.

We have not included additional Track renewals as suggested by the draft determination. The volumes that were removed as part of the contingent renewals relate to planned strategic volumes in years 4 and 5. As such they were intended to manage the overall asset age profile and were not targeted at specific problem statements or identified safety risk. The outcome will be a small increase in Service Affecting Failures (SAFs) and a decrease in residual asset life as the average used life of plain-line track increases to nearly 70% by the end of CP7. Redressing this will require increased investment in subsequent Control Periods and will require early review of the deliverability challenges in CP8.

Following these amendments, we have modelled CSI on a revised basis (detail of changes in Network Rail submission) and this decreases from –2.8% to –3.0% on a like for like basis. We are working with the TA to understand the drivers for the changes.

As discussed in the overall Network Rail response to ORR's draft determination, we have made some changes to our plans to fund the additional core asset renewals activity. We have continued to protect safety and train performance whilst retaining 'right-sized' strategic priorities in our plan for the longer-term benefit of the network. Additionally, we do not want to be overly reliant on a small number of areas of our plan to deliver savings, and it is important to maintain as much flexibility as possible in our overall plan to respond to risk and uncertainty during CP7. Therefore, as set out in the introduction, this additional asset expenditure has been accommodated by a 2.1% overlay. Ultimately, this will be funded through a range of savings across our plan which on we are currently working to identify. Though we will try to mitigate this, there could be a corresponding impact, as yet unquantified, on planned outputs.

To meet the 2.1% overlay challenge, we are considering several actions that could be taken to address the gap. Areas under consideration for reduced investment (but subject to further review) are Biodiversity, Security and Crime and Workforce Accommodation. We will advise ORR in due course of any potential impact from addressing the overlay challenge.

Environment & Sustainable Development

The draft determination challenged the Southern region to review its carbon emissions (scope 1 & 2) reduction and biodiversity targets and consider alignment with other regions. Our risk adjusted plan targets were set on a risk basis taking account of uncertainties and the operationalisation of new measurement methodologies. We have reviewed our targets for carbon emissions (scope 1 & 2) reductions and net biodiversity gain, and as these uncertainties didn't materialise, we have therefore increased our targets to the stretch of -20% for carbon emissions (scope 1 & 2) reduction and 4% for biodiversity by the end of CP7 (aligned to ORR's draft determination & aligned to other regions). As we review options to reduce the overlay in our plan, we will assess whether this has any impacts on our outcomes.

We are still embedding the new biodiversity measure. While we are using the best methodology available, there is a margin of error that must be considered in monitoring year-on-year percentage changes. Qualitative assessment will likely be an important part of ORR's monitoring in this area to provide a balanced assessment throughout the Control Period, and we will work with ORR to agree the right approach to this, including the development of supporting for the evaluation of progress in this area.

6. Accessibility

We note ORR's comments in relation to accessibility in the settlement document and that the Southern region's plan lacked identification and details of how accessibility-related works will be delivered in CP7. Widespread physical improvements to accessibility are not possible within the funding envelope and as such accessibility improvements in CP7 will need to be targeted and local to provide maximum benefit within the funding available.

Within the Rail Network Enhancement Pipeline for the next control period there is an allocation to improve accessibility, through the Access for All fund. Train Operators have worked with Network

Rail to pull together submissions for this funding in CP7. DfT has not yet announced which stations will receive accessibility funding in CP7, of course we would expect some of these to be in Southern. We will also look to leverage in third-party funding where we can, associated with development works on or near railway land.

Aside from targeted items such as tactile fitment at platforms which will be completed within the Southern region prior to CP7, our focus on accessibility rests around the potential inclusion of lifts on any footbridge renewal schemes. In line with Network Rail policy changes, we now encompass the fitment of lifts as a consideration, but only on full footbridge renewals (not refurbishments to existing footbridges). Each footbridge renewal is subject to a comprehensive Diversity Impact Assessment (DIA) which includes reference and review of the current DfT guidance. Decisions on whether to include lifts in renewal are based against joint review of DIA findings and the current DfT guidance. As a minimum, any new footbridge will be installed with passive provision for lifts built-in in case policy or station use should alter in the future. In the case of changes to DfT guidance prior to, or in CP7, we would require additional funding to meet any increase in scope.

7. Efficiency

We note ORR's acceptance of our overall efficiency targets (10% for operating expenditure efficiency and 15% for capital expenditure efficiency) on the basis they are stretching but realistic. On the latest iteration of our CP7 regional plan this equates to £604m for Southern overall. This comprises £257m of operating expenditure efficiency and £347m of capital expenditure efficiency.

Since the publication of our Strategic Business Plan, we have continued to develop detailed efficiency plans with a particular focus on delivery of the year one savings. For operating expenditure, we are focussing on driving local ownership of efficiency targets and plans. As a principle, we want those best placed to generate ideas to realise savings to be responsible for the development of plans and delivery of targets. All the Southern region routes and functions have held efficiency workshops to generate a bottom-up view of CP7 efficiency opportunities. We are combining this bottom-up view with some bold regionally led initiatives to form our overall CP7 operating expenditure efficiency plans. Since the Strategic Business Plan, we have held two 'Efficiency Days' with the Southern region leadership team reviewing the development of the efficiency plans. These Efficiency Days have proved a useful way of driving further development of plans, sharing ideas, and improving robustness.

Our new 'Southern Renewals Enterprise' with supply-chain partners, which forms an innovative performance-based alliance to deliver Southern renewals, will underpin the delivery of our capital efficiencies in CP7. We have been working with the partners to ensure a joint, well-understood unit rate and efficiency submission which has been collaboratively developed. Stabilisation of the workbank and funding certainty post-draft determination will be a key enabler for the development of further efficiency plans (e.g., optimisation of access and efficient delivery across different asset types). During the mobilisation phase this year, the partners are developing efficiency initiatives, and have set-up a dedicated Access Task and Finish group to identify saving opportunities in this important area.

We are continuing to embrace the efficiencies forecast to be enabled in the region by central functions such Technical Authority, Route Services and Group Finance. We have held further conversations with all national functions to better understand their plans and make sure that we reflect their latest view of regional efficiency opportunity. Savings enabled by national functions are an important aspect of our CP7 efficiency plan. However, we recognise that in some areas there is a risk that whilst these plans present opportunities to improve productivity, realising a cash saving will be more challenging.

Generally, there is no material change to the overall shape of our CP7 efficiency plans. Progress since Strategic Business Plan instead has been more focussed improving the detail and accuracy of existing plans, for example, the phasing of savings and sharing of best practice across the region as well as making sure that plans for year 1 are deliverable.

8. Financial risk

Network Rail's Strategic Business Plan assumed £2bn of risk provisions in England & Wales based on £500m of central funding with £1.5bn held as contingent activity across region plans. The impact of recent higher inflation forecasts on our CP7 plans means that we have already had to absorb nationally £1.5bn of additional cost by moving to the risk-adjusted plan (i.e. removing £336m contingent activity from our Southern region plans). This leads us to start CP7 with lower risk funding compared to the Strategic Business Plan.

We accept ORR's proposal to move to our risk-adjusted plan, meaning that the £336m of pre-efficient contingent renewals expenditure in our Strategic Business Plan has now been moved to cash risk funding, noting that this is then required to address the impact of recent, higher inflation forecasts. Further information can be found in our overall England & Wales response.

We have, however, identified a proportion of our input price provisions to sit within risk funding to reflect that there is some uncertainty about whether the previously observed relationship between CPI inflation and our own costs will re-establish themselves after we move on from the high inflation environment that we are currently in.

As part of our Strategic Business Plan, we proposed holding £128m of headwinds as part of a total contingent spend of £463m. We have accepted ORR's proposal to reduce our headwinds funding by approximately half, consistent with the corporate Network Rail position. We are now only holding £62m for headwinds and £232m of risk (£294m in total).

We expect to use this £232m of risk to mitigate the impact of input prices on CP7 renewals. Based on historic analysis, we expect our CP7 renewals costs to increase by more than CPI each year, and it is this additional cost that the input price funding was originally designed to cover. As a result, if our CP7 renewals costs move broadly in line with our forecasts for inflation and input prices, the risk funding now identified will be required to fund this expenditure. Therefore, we would only have a negligible amount of risk funding remaining to address any other cost pressures that emerge during CP7.

We believe that the plan is currently deliverable. However, any material changes in future inflation, material Schedule 8 payments or other significant unplanned financial outlays will mean we need to review plans to further prioritise activity to live within the funding available for CP7. Changes to our CP7 plans would be taken through the managing change process.

We note that Schedule 4 & 8 costs are a significant driver of financial risk, and the level of our exposure will depend on ORR's decision on payment rates, which will be decided as part of the final determination.

As discussed in our overall response, we do not support ORR's decision to not fully implement the lower Network Rail Schedule 8 Payment Rates at the start of CP7. We believe the new proposal (average 45% reduction in CP7 rate compared to CP6) is not appropriate as it does not reflect the latest empirical evidence and economic best practice, resulting in train operators being overcompensated by delays caused by Network Rail. We are not clear on ORR's justification for this proposal nor on how ORR have accounted for the risks of defunding vital infrastructure works that would arise from the overpayment to train operators as a result of unrealistic benchmarks and unjustified payment rates. Therefore, we think that the full reduction (75%) should be applied from the start of CP7.

9. Stakeholder engagement

We note ORR's comments in relation to Southern region's stakeholder engagement on CP7 and recognise the continued importance of this as we refine our plans both over the remainder of CP6, and CP7 itself.

We have continued engagement with stakeholders – particularly TOCs over performance forecasts. As set out in the performance section TOCs are unable to take a view in the longer term beyond the immediate annual business planning process.

Now that we have greater certainty of the funding envelope and stability in the workbank we have continued to engage at a working level with TOCs over the detail of major renewals. TOCs are concerned by the reduced capital investment and want to better understand the potential impact on infrastructure performance. We are discussing our mitigations with them.

10.Other relevant information for our response

Income

We have reviewed our CP7 income forecast following ORR's draft determination. We have responded to ORR's challenge on Property income that we should aim to generate a further £100m of revenue across England & Wales. Our updated plan includes £15m more Property income than in our Strategic Business Plan, driven by a more ambitious Property sales target. We consider that this revised target is challenging but achievable, however, we will need to continue to work collaboratively with Network Rail Group Property to deliver it, leveraging in their expertise where appropriate.

Our draft determination response also includes updated forecasts of track access and stations income, reflecting the latest charging rates and traffic assumptions. Variable Usage Charge and Station Long Term Charge rates have increased since the Strategic Business Plan, resulting us forecasting more income through these revenue streams and less Fixed Track Access Charge income.

The table on the following page summarises all the changes to income in our plan since Strategic Business Plan.

Table 1: Changes to income since SBP

Income (£m, FY24 prices)	Strategic Business Plan	DD Response	Change
Passenger variable access charges (VUC, EAUC)	-307	-330	-23
Passenger FTAC	-1,805	-1,643	162
Freight and open access track access charges	-54	-57	-3
Stations and Depots: Station LTC, Stations Lease, QX and Depots	-1,142	-1,269	-126
Property and other income	-518	-532	-15
Schedule 4 & 8 (incl. ACS)	10	10	0
Total income (inc. Schedule 4 & 8)	**-3,817**	**-3,822**	-5

Operations

The graph below summarises the overall movement in our operations costs between CP6 and CP7. The movements are consistent with those presented in our SBP and have not changed as part of our response to the Draft Determination. We have updated for the latest view of CP6 and have not changed as part of our response to the Draft Determination.

It shows that pre-efficient our operations costs are increasing by £61m between CP6 and CP7. The increase reduces to £38m on a post-efficient basis.

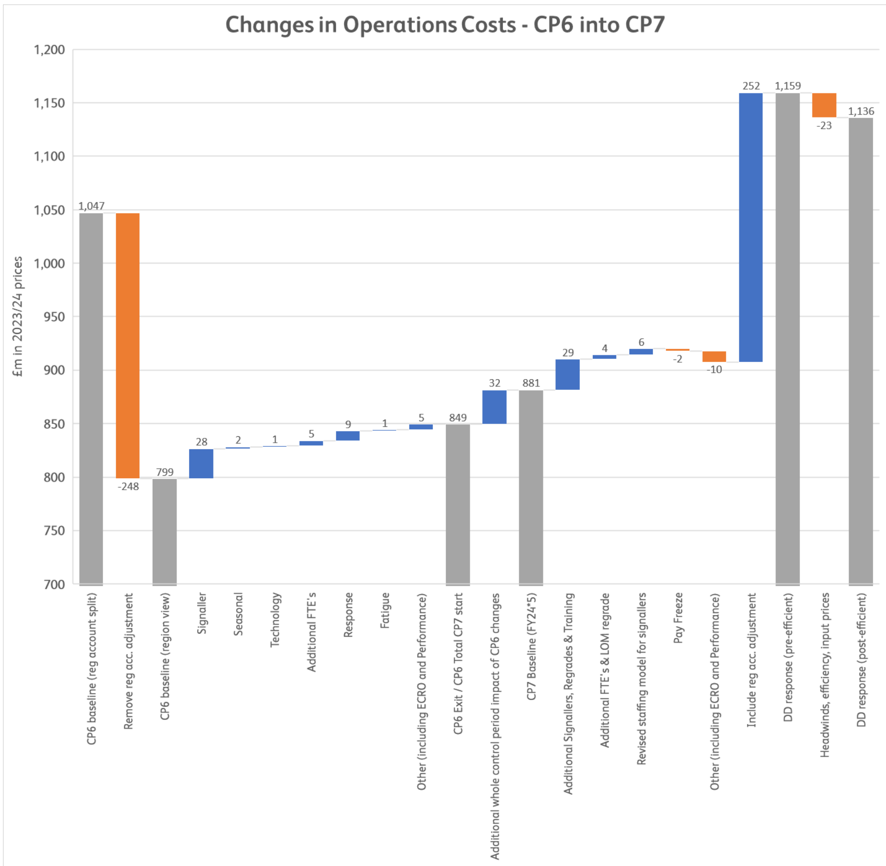

Figure 1: Changes in Operations Costs - CP6 into CP7

We have shown the pre-efficient increase in two separate categories, consistent with how we have developed our plan:

1) Investment in CP6 of £51m in signallers
2) Additional £32m over whole control period
3) Investment on CP6-exit of £39m in signallers and additional FTEs and grade changes

Signallers:

In CP6 we are seeking to eliminate the vacancy gap in all three routes – this has resulted in significant recruitment activities – 15-25 posts across the routes. By the end of CP6 Sussex and Wessex will be further ahead than Kent having started this activity sooner and with Kent being dependent on release of staff from Sussex to fill vacancies in higher graded roles.

In CP7 we will continue our efforts to make the signaller zero vacancy gap commitment sustainable. This means recruiting over the base establishment to match the anticipated attrition and in doing so be in a stronger position to respond to the discrepancy between signaller notice period and new signaller recruitment and training period. Although recent changes to signaller conditions have extended the period of notice, and also reasserted a 52-week retention rule to reduce churn, there will remain a lag between a signaller leaving and a competent and productive replacement being available. Our strategic response is to have consulted and to continue to recruit into ‘buffer’ establishment roles which should negate this lag. This buffer accounts for increased opex in signaller posts in CP7, as well as very minor and localised changes around workload. All rosters in the region are already fatigue compliant.

Signaller competency management:

Towards the end of CP6 we have consulted and introduced additional roles in each route whose purpose is to improve the quality and substantiation of signaller competency – a net increase of 9 roles across the region have been introduced in support of this change.

Annex A: Updated financials and outcomes

Southern

£m in 2023/24 prices	Direct costs			Allocated costs			Total costs		
	CP6 (RF3)	SBP	DD Response	CP6 (RF3)	SBP	DD Response	CP6 (RF3)	SBP	DD Response
Operations	1,098	1,127	1,136	31	0	0	1,129	1,127	1,136
Maintenance	2,473	2,492	2,470	88	116	111	2,560	2,608	2,581
Support	413	448	447	785	730	693	1,197	1,178	1,140
Industry costs and rates *	0	0	0	384	361	364	384	361	364
Electricity for traction (EC4T)	0	0	0	996	1,423	1,587	996	1,423	1,587
Total operating expenditure (excl. EC4T)	**3,983**	**4,066**	**4,053**	**1,287**	**1,207**	**1,168**	**5,271**	**5,273**	**5,221**
Renewals	4,343	3,698	3,636	145	127	112	4,488	3,825	3,749
Other capital expenditure	142	203	14	384	515	409	526	718	423
Total capital expenditure	4,485	3,901	3,650	529	642	522	5,014	4,543	4,172
ETCS enablers	0	0	0	0	294	294	0	294	294
Risk funding	0	0	0	0	0	127	0	0	127
Total Expenditure (excl. EC4T)	**8,468**	**7,967**	**7,704**	**1,816**	**2,142**	**2,110**	**10,284**	**10,109**	**9,814**
Input prices moved to risk funding			232			18			250

* Excluding BTP

£m in 2023/24 prices	Direct costs			Allocated costs			Total costs		
	CP6 (RF3)	SBP	DD Response	CP6 (RF3)	SBP	DD Response	CP6 (RF3)	SBP	DD Response
Passenger access charges (VUC, EAUC, FTAC)	-2,473	-2,112	-1,973	234	-84	-84	-2,239	-2,196	-2,057
Stations and Depots: Station LTC, Stations Lease, QX and Depots	-821	-1,142	-1,269	0	0	0	-821	-1,142	-1,269
Freight and open access track access charges	-54	-54	-57	0	0	0	-54	-54	-57
Electricity for Traction (EC4T)	0	0	0	-993	-1,386	-1,587	-993	-1,386	-1,587
Property and other income	-379	-518	-532	-36	-126	-84	-415	-644	-617
Schedule 4 access charge supplement	-470	-585	-250	-27	-146	-131	-497	-731	-381
Schedule 4 and 8	259	595	259	45	146	131	303	741	390
Network grant	0	0	0	-6,561	-6,083	-5,824	-6,561	-6,083	-5,824
Total Income	-3,939	-3,817	-3,822	-7,338	-7,678	-7,579	-11,277	-11,495	-11,401
Total Income (excl. EC4T)	**-3,939**	**-3,817**	**-3,822**	**-6,346**	**-6,292**	**-5,992**	**-10,284**	**-10,109**	**-9,814**

Annex B: Sign-off

Job Title	Name	Signature	Date
Region Managing Director	Ellie Burrows		16/8/22